



# PTE Self Study

more than a group ...

**Websites:**

[www.ptestudy.net](http://www.ptestudy.net)

[www.farazpayment.com](http://www.farazpayment.com)

## RFIB - RW/FIB v8

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Real Exam Questions Included

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گروه پی تی ای سلف استادی، به عنوان اولین، بزرگترین و موفق ترین گروه پی تی ای در ایران و استرالیا، از سال 2017 (تاریخ 3 تیر 1396) فعالیت حرفه ای خود را در عرصه زبان و پی تی ای آغاز نمود و از موسسان اولیه این گروه میتوان فرزین غفارنژاد، فراز تاج فیروز و علیرضا پلویی را نام برد.

باعث افتخار است که تا به امروز هزاران نفر به واسطه این گروه بزرگ، تکنیک های قابل فهم و کاربردی، راهنمایی های حرفه ای و متریا لهای فوق العاده، توانسته اند از سد آزمون زبان عبور نموده و نمره مورد نیاز خود را جهت مقاصد تحصیلی، کاری، سرمایه گذاری و زندگی در استرالیا و دیگر کشورها اخذ نمایند. از ویژگی های بارز گروه حرفه ای **گروه پی تی ای سلف استادی** این است که تمامی تکنیک ها و متریا ل ها، که به **FM یا Faraz Method** معروف است، به صورت رایگان در کانال **@PTEMATERIAL** در تلگرام برای شما دوستان عزیز به اشتراک گذاشته شده است. تمرین های رایگان در این گروه توسط اساتید مورد تایید و حرفه ای هر روزه و در طول ایام هفته نیز برگزار می گردد. در پیچ گروه پی تی ای سلف استادی در اینستاگرام نیز با عنوان **Pte\_self\_study** می توانید هر هفته جمعه ها، به صورت رایگان و آنلاین در برنامه پرسش و پاسخ که توسط اساتید مورد تایید گروه برگزار می گردد شرکت نمایید .

سایت محبوب **www.ptestudy.net** یزرگترین سایت بین المللی متریا ل PTE نیز از زیر مجموعه عای این گروه بزرگ می باشد که افراد از سراسر دنیا در آن با کامل ترین متریا ل آزمون PTE در محیط شبیه سازی آزمون به تمرین می پردازند. کانال تمرین های روزانه در تلگرام به نام **@pteexercise** می باشد که اطلاع رسانی تمرین های روزانه و سپل انسرهای نمره 90 در این کانال قرار می گیرد. این تمرین ها به رایگان و هر روزه برای اعضای گروه توسط افراد مورد تایید گروه **PTE SELF STUDY** برگزار میگردد.

گروه بزرگ **@PTERQ** در تلگرام که بزرگترین گروه آپدیت متریا ل PTE میباشد و اعضای عزیز پس از امتحان تجربیات و سوال های امتحان خود را اعم از تکراری و غیر تکراری به اشتراک میگذارند که این امر خود به پویایی و کامل شدن متریا ل به صورت هر روزه کمک می نماید. امیدواریم شما هم برای تکمیل این مجموعه ارزشمند بعد از امتحان خود قدمی بردارید و تجربیات را به اشتراک بگذارید.

برنامه ریزی درسی، تعیین سطح، کلاس های پری پی تی ای، کلاس های پی تی ای به صورت حضوری و آنلاین، ورکشاپ های رفع اشکال و حل تمرین در ایران و استرالیا و مشاوره نیز بنا به نیاز متقاضیان موجود است. در صورت تمایل جهت اطلاعات بیشتر در خصوص کلاسها و برنامه های ویژه این گروه می توانید به آیدی **@pte\_a** در تلگرام نیز پیام دهید.

در زیر مجموعه کامل **PTE SELF STUDY** معرفی میگردند. به امید 90 های فراوان

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## توجه

### تغییرات صورت گرفته در این ورژن :

- جزوه به 3 بخش سوالات پرتکرار – سوالات ناقص – سوالات ماک تقسیم گردیده.
- تعدادی از سوالاتی که در لیست سوالات پرتکرار ازمون نبوده اند حذف گردید.
- تعدادی از سوالات ناقص ورژن قبل کامل گردید.
- حدود 200 سوال به ورژن قبل اضافه گردید.



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# Real Exam Questions

## 1. Indian Onion

With its capacity for bringing down governments and scarring political careers, the onion plays an **explosive** role in Indian politics. This week, reports of rising onion prices have made front-page news and absorbed the attention of the governing elite.

The most **vital** ingredient in Indian cooking, the **basic** element with which all dishes begin and, normally, the cheapest vegetable available, the pink onion is an essential item in the shopping basket of families of all classes. But in recent weeks, the onion has started to seem an unaffordable **luxury** for India's poor. Over the past few days, another sharp **surge** in prices has begun to unsettle the influential urban middle classes. The sudden spike in prices has been caused by large exports to neighboring countries and a shortage of **supply**. But the **increase** follows a trend of rising consumer prices across the board — from diesel fuel to cement, from milk to lentils.

## 2. Kashmir Whispers of Rediscovered Appeal

Two decades ago, Kashmiri houseboat-owners rubbed their hands every spring at the **prospect** of the annual **influx** of **tourists**. From May to October, the hyacinth-choked **waters** of Dal Lake saw flotillas of vividly painted shikaras carrying Indian **families**, boho westerners, young travelers and wide-eyed Japanese. Carpet-sellers **honed** their skills, as did purveyors of anything remotely embroidered while the houseboats initiated by the British Raj provided unusual accommodation. The economy boomed.

Then, in 1989, everything changed. Hindus and countless Kashmiri business people **bolted**, at least 35,000 people were killed in a decade, the lake stagnated and the houseboats rotted. Any foreigners **venturing** there **risked** their **lives** - proved in 1995 when five young Europeans were kidnapped and murdered.

### 3. Stress Knows Few Borders

Stress that tense feeling often connected to having too **much** to do, **too many bill** to pay and **not enough** time or money is a common emotion that knows **few borders**.

About three-fourths of people in the United States, Australia, Canada, France, Germany, Italy South Korea and the United Kingdom say they **experience** stress on a daily basis, according to a **polling**. Those anxious feelings are even more **intense** during the holidays.

Germans feel stress more **intensely** than those in other countries **polled**. People in the US **cited** financial pressure as the top worry. About half the people in Britain said they frequently or **sometimes** felt life was beyond their control, the highest level in the 10 countries surveyed.

### 4. Impressionism (1)

Movement in painting that **originated** in France in the 1860s and had enormous influence in European and North American painting in the late 19th century. The Impressionists wanted to **depict** real life, to paint straight from nature, and to capture the changing effects of light. The term was first used abusively to **describe** Claude Monet's painting Impression: Sunrise (1872). The other leading Impressionists included Paul Cezanne, Edgar Degas, Edouard Manet, Camille Pissarro, Pierre-Auguste Renoir, and Alfred Sisley, but only Monet remained devoted to Impressionist ideas throughout his career.

The core of the Impressionist group was formed in the early 1860s by Monet, Renoir, and Sisley, who met as students and enjoyed painting in the open air — one of the hallmarks of Impressionism. They met other members of the Impressionist circle through Paris café society. They never made up a formal group, but they organized eight group exhibitions between 1874 and 1886, at the first of which the name Impressionism was applied. Their styles were diverse, but all **experimented** with effects of light and movement created with distinct brushstrokes and **fragments** of color dabbed side-by-side on the canvas rather than mixed on the palette. By the 1880s the movement's central impulse had dispersed, and a number of new styles were emerging, later described as post-Impressionism.

British Impressionism had a major influence on the more **experimental** and **progressive** British painters in the late 19th and early 20th centuries. Many of the painters were affected in the circle of Walter Sickert, who spent much of his career in France and was an influential figure who **inspired** many younger artists. His friend and exact contemporary Philip Wilson Steer is generally regarded as the most outstanding British Impressionist.

## 5. Edible Insects

FANCY a locust for lunch? Probably not, if you live in the west, but elsewhere it's a different story. Edible insects — termites, stick insects, dragonflies, grasshoppers and giant water bugs — are on the menu for an **estimated** 80 per cent of the world's population.

More than 1000 species of insects are **served up** around the world. For example, “kungu cakes” —made from midges — are a **delicacy** in parts of Africa. Mexico is an insect-eating — or entomophagous — hotspot, where more than 200 insect species are **consumed**. **Demand** is so high that 40 species are now under **threat**, including white agave worms. These caterpillars of the tequila giant-skipper butterfly **fetch** around \$250 a kilogram.

Eating insects makes **nutritional** sense. Some contain more **protein** than meat or fish. The female gypsy moth, for instance, is about 80 per cent protein. Insects can be a good **source** of vitamins and **minerals** too: a type of caterpillar (Usta terpsichore) eaten in Angola is rich in iron, zinc and thiamine.

What do they taste like? Ants have a lemon **tang**, apparently, whereas giant water bugs taste of mint and fire ant pupae of watermelon. You have probably, **inadvertently**, already tasted some of these things, as insects are often **accidental** tourists in other types of food. The US Food and Drug Administration even issues guidelines for the number of insect parts **allowed** in certain foods. For example, it is **acceptable** for 225 grams of macaroni to contain **up to** 225 insect fragments.



## 6. Black Diamonds from Outer Space

An **exotic** type of diamond may have come to Earth from outer space, scientists say. Called carbonado or “black” diamonds, the **mysterious** stones are found in Brazil and the Central African Republic. They are **unusual** for being the color of charcoal and full of frothy bubbles. The diamonds, which can **weigh** in at more than 3,600 carats, can also have a face that looks like melted glass. Because of their **odd** appearance, the diamonds are **unsuitable** as gemstones. But they do have industrial applications and were used in the drill bits that helped dig the Panama Canal.

Now a team led by Stephen Haggerty of Florida International University in Miami has presented a new study **suggesting** that the odd stones were brought to Earth by an asteroid billions of years ago. The findings were published online in the journal *Astrophysical Journal Letters* on December 20.

The scientists exposed polished pieces of carbonado to extremely intense infrared light. The test revealed the presence of many hydrogen-carbon bonds, indicating that the diamonds **probably** formed in a hydrogen-rich environment—such as that found in space.

The diamonds also showed strong **similarities** to tiny Nano diamonds, which are frequently found in meteorites. “They’re not **identical**” Haggerty said, “but they’re very similar.” Astrophysicists, he added, have developed theories predicting that Nano diamonds form easily in the titanic stellar explosions called supernovas, which scatter **debris** through interstellar space. The deposits in the Central African Republic and Brazil, he said **probably** come from the impact of a diamond-rich asteroid billions of years ago, when South America and Africa were joined.

## 7. The Snake that Hears Sound through its Jaw

The horned desert viper’s ability to hunt at night has always puzzled biologists. Though it lies with its **head** buried in the sand, it can **strike** with great **precision** as soon as prey appears.

Now, Young and physicists Leo van Hemmen and Paul Friedel at the Technical University of Munich in Germany have **developed** a computer **model** of the snake's **auditory** system to explain how the snake "**hears**" its prey without really having the ears for it.

Although the vipers have **internal** ears that can hear **frequencies** between 200 and 1000 hertz, it is not the sound of the mouse scurrying about that they are detecting.

"The snakes don't have external **eardrums**," says van Hemmen. "So unless the mouse wears boots and starts stamping, the snake won't hear it."

## 8. Technology Education

The first section of the book covers new modes of assessment. In Chapter 1, Kimbell (Goldsmith College, London) responds to **criticisms** of design programs as **formalistic** and **conventional**, stating that a focus on risk-taking rather than hard work in design innovation is equally **problematic**. His research contains three parts that include **preliminary exploration** of design innovation qualities, investigation of resulting classroom practices, and development of evidence-based assessment. The assessment he describes is presented in the form of a structured worksheet, which includes a collaborative **element** and digital photographs, in story format. Such a device encourages stimulating ideas, but does not recognize students as design **innovators**. The assessment sheet includes holistic impressions as well as details about "having, growing, and proving" ideas.

**Colloquial** judgments are evident in terms such as "wow" and "yawn" and reward the quality and quantity of ideas with the term, "sparkiness", which fittingly is a pun as the model project was to design light bulb packaging. In addition, the assessment focuses on the process of optimizing or complexity control as well as proving ideas with **thoughtful** criticism and not just generation of novel ideas. The definitions for qualities such as "technical" and "aesthetic" **pertaining to** users, are too **narrow** and ill-defined. The author provides **examples** of the project, its features and **structures**, student's notes and judgments, and their **sketches** and photographs of finished light bulb packages, in the Appendix.

## 9. Personal Politics

The morality of the welfare state **depends** on contribution and responsibility. Since some people don't **contribute** and many are irresponsible, the choice of those who do contribute and are responsible is either to **tolerate** the free riders, refuse to pay for the **effects** of their irresponsibility or trust the state to **educate** them.

Hence the government campaigns **against** smoking, alcoholism, obesity and gas guzzling - the first two solidly in place, the other two ramping up. But the British state now goes further: it acts in favor of sexual and racial minorities. In the case of gay men and women this means progressively removing the legal disadvantages under which they have lived, and ensuring that society as a whole **observes** the new order.

## 10. Jean Piaget

Jean Piaget, the pioneering Swiss philosopher and psychologist, spent much of his professional life listening to children, watching children and **poring** over reports of researchers around the world who were doing the same. He found, to put it most **succinctly**, that children don't think like grownups. After thousands of interactions with young people often barely old enough to talk, Piaget began to **suspect** that behind their cute and seemingly illogical **utterances** were thought processes that had their own kind of order and their own special logic. Einstein called it a **discovery** "so simple that only a genius could have thought of it."

Piaget's insight **opened** a new window into the inner workings of the mind. By the end of a wide-ranging and remarkably **prolific** research career that spanned nearly 75 years--from his first scientific publication at age 10 to work still in progress when he died at 84--Piaget had developed several new fields of science.

Developmental psychology, cognitive theory and what came to be called genetic epistemology. Although not an educational reformer, he **championed** a way of thinking about children that provided the foundation for today's education-reform movements. It was a shift comparable to the displacement of stories of "noble savages" and "cannibals" by

modern anthropology. One might say that Piaget was the first to take children's thinking seriously.

## 11. Exploring the Deep Ocean Floor

The ocean floor is home to many unique **communities** of plants and animals. Most of these marine **ecosystems** are near the water surface, such as the Great Barrier Reef, a 2000-km-long coral **formation** off the northeastern coast of Australia. Coral reefs, like nearly all **complex** living communities, depend on solar energy for growth (photosynthesis). The sun's energy, however, **penetrates** at most only about 300 m below the surface of the water. The relatively shallow penetration of solar energy and the **sinking** of cold, sub polar water combine to make most of the **deep** ocean floor a **frigid** environment with few life forms. In 1977, scientists discovered hot springs at a depth of 2.5 km, on the Galapagos Rift (spreading ridge) off the coast of Ecuador. This exciting discovery was not really a **surprise**. Since the early 1970s, scientists had predicted that hot springs (geothermal vents) should be found at the active spreading centers along the mid-oceanic ridges, where magma, at temperatures over 1000 °C, **presumably** was being erupted to form new oceanic crust. More exciting, because it was totally **unexpected**, was the discovery of abundant and unusual sea life – giant tube worms, huge clams, and mussels — that **thrived** around the hot springs.

## 12. Hip and Back Pain-Remedy

Icing and anti-inflammatories will help **with** the pain and swelling. Vigorous massage **of** the knot **in** the muscle will help it **to** relax and ease the pain. Meanwhile, work **on** strengthening and stretching your hip, hamstring and lower-back muscles. **For** stretching, focus on the hamstring stretch, the hip and lower-back stretch, and the hamstring and back stretch. For strengthening, try side leg lifts.

## 13. Estee Lauder - A Biography

Leonard Lauder, chief executive of the company his mother founded, says she always thought she "was growing a nice little business." And that it is. A little business that **controls**

45% of the cosmetics market in U.S. department stores. A little business that sells in 118 countries and last year **grew** to be \$3.6 billion big in sales. The Lauder family's shares are worth more than \$6 billion.

But early on, there wasn't a **burgeoning** business, there weren't houses in New York, Palm Beach, Fla., or the south of France. It is said that at one **point** there was one person to answer the telephones who **changed** her voice to become the shipping or billing department as needed. You more or less know the Estee Lauder story **because** it's a chapter from the book of American business **folklore**. In short, Josephine Esther Mentzer, daughter of immigrants, lived above her father's hardware store in Corona, a section of Queens in New York City. She started her **enterprise** by **selling** skin creams **concocted** by her uncle, a chemist, in beauty shops, beach clubs and resorts.

No doubt the **potions** were good — Estee Lauder was a quality fanatic — but the saleslady was better. Much better. And she simply outworked everyone else in the cosmetics industry. She **stalked** the bosses of New York City department stores until she got some counter space at Saks Fifth Avenue in 1948. And once in that space, she utilized a personal selling approach that proved as **potent** as the promise of her skin **regimens** and perfumes.

## 14. Power Drinking in Iron Age Europe

By the Bronze Age drinking **vessels** were being made of sheet metal, primarily bronze or gold. However, the peak of feasting — and in particular, of the “political” type of feast — came in the late Hallstatt period (about 600 — 450 BC), soon after the foundation of the Greek **colony** of Massalia (Marseille) at the mouth of the Rhine. From that date on, the blood of the grape began to make its way north and east along major river systems together with imported metal and ceramic drinking vessels from the Greek world.

**Wine** was thus **added** to the list of mood-altering beverages — such as mead and ale available to establish social networks in Iron Age Europe. Attic pottery **fragments** found at hillforts such as Heuneburg in Germany and luxury goods such as the monumental 5th century Greek bronze krater (or wine mixing vessel) found at Vix in Burgundy supply archaeological evidence of this **interaction**. Organic **containers** such as leather or wooden wine barrels may also have travelled north into Europe but have not **survived**. It is unknown



what goods were **traded** in return, but they may have included salted meat, hides, timber, amber and slaves.

## 15. The Role of a Doctor

In the fast-changing world of modern healthcare, the job of a doctor is more and more like the job of chief executive. The people who run hospitals and physicians' practices don't just need to know **medicine**. They must also be **able** to **balance** budgets, **motivate** a large and **diverse** staff and **make** difficult marketing and **legal** decisions.

"The focus in medical school is to train good doctors, but part of being a good doctor is being a good manager." says Fawax Siddiqi, a neurosurgical resident at the London Health Sciences Centre in Canada. "It's having a core understanding of how to work within the **context** of an organization."

The desire to be a "good manager" is precisely the reason Dr Siddiqi. Who **aspires** one day to **run** a hospital? Decided to go back to school. This past autumn he **enrolled** in a health-sector MBA program at the Ivey School of Business at the University of Western Ontario.

## 16. The Market for Vegetarian Food

Mintel Consumer Intelligence **estimates** the 2002 market for vegetarian foods, those that directly replace meat or other animal products, to be \$1.5 billion. Note that this excludes traditional vegetarian foods such as produce, pasta, and rice. Mintel forecasts the market to nearly double by 2006 to \$2.8 billion, with the highest growth coming from soymilk, especially **refrigerated** brands.

The Food and Drug Administration's 1999 decision to allow manufacturers to include heart-healthy claims on foods that deliver at least 6.25 grams of soy protein per serving and are also low in **saturated** fat and cholesterol has **spurred** **tremendous** interest in soymilk and other soy foods. A representative of manufacturer Food Tech International (Veggie Patch brand) reported that from 1998 to 1999, the percentage of **consumers** willing to try soy products jumped from 32% to 67%. Beliefs about soy's **effectiveness** in reducing the symptoms of menopause also attracted new consumers. A 2000 survey conducted by the United Soybean Board showed that the number of people eating soy products once a week



or more was up to 27%. Forty-five percent of respondents had tried tofu, 41% had **sampled** veggie burgers, and 25% had experience with soymilk (Soy-foods USA e-mail newsletter). Mintel estimates 2001 sales of frozen and refrigerated meat **alternatives** in food stores at nearly \$300 million, with soymilk sales nearing \$250 million.

## 17. Does Space Travel Damage Eyesight?

Researchers already know that spending long periods of time in a **zero-gravity environment** — such as that inside the International Space Station (ISS) — results in loss of bone density and **damage** to the body's muscles. That's partly why stays aboard the ISS are **capped** at six months. And now, a number of NASA astronauts are reporting that their **degenerated** eye **vision faded** after **spending** time in space, with many needing glasses once they returned to Earth.

## 18. DNA Barcoding

DNA barcoding was invented by Paul Hebert of the University of Guelph, in Ontario, Canada, in 2003. His idea was to **generate** a unique identification tag for each species based on a short **stretch** of DNA. Separating species would then be a simple task of sequencing this tiny bit of DNA. Dr. Hebert proposed part of a gene called cytochrome c oxidase I (CO1) as suitable to the task. All animals have it. It seems to vary enough, but not too much, to act as a reliable marker. And it is easily **extracted**, because it is one of a handful of genes found outside the cell nucleus, in structures called mitochondria. Barcoding has taken off rapidly since Dr. Hebert invented it. When the idea was proposed, it was expected to be a **boon** to taxonomists trying to name the world's millions of species. It has, however, proved to have a far wider range of uses than the merely academic—most promisingly in the **realm** of public health.

One health-related project is the Mosquito Barcoding Initiative being run by Yvonne-Marie Linton of the Natural History Museum in London. This aims to barcode 80% of the world's mosquitoes within the next two years, to help control mosquito-borne diseases. Mosquitoes are **responsible** for half a billion malarial infections and 1m deaths every year. They also **transmit** devastating diseases such as yellow fever, West Nile fever and dengue. However,

efforts to control them are consistently **undermined** by the difficulty and expense of identifying mosquitoes—of which there are at least 3500 species, many of them hard to tell apart.

## 19. Empty Lecture Halls in the online Campus

Richard Morris, of the school of accounting at the University of NSW, which requires an **entrance** score in the top 5 per cent of students, says **attendance** has been a problem since the late 1990s.

“Sometimes in the lectures we’ve only got about one third of students **enrolled** attending,” he said.” It **definitely** is a problem. If you don’t turn up to class you’re missing out on the whole **richness** of the **experience**: you don’t think a whole lot, you don’t **engage** in debates with other students - or with your teachers.”

It is not all **gloom**, said Professor John Dearn, a Pro Vice-Chancellor at the University of Canberra, who said the internet was **transforming** the way students **access** and use information. “It is strange that despite all the evidence as to their ineffectiveness, **traditional** lectures seem to persist in our universities.”

## 20. Government Defends Foreign Student’s English Standards

Federal Education Minister Julie Bishop says she has seen no **evidence** that foreign students are graduating from Australian universities with **poor** English skills.

Research by Monash University academic Bob Birrell has found a third of foreign students are graduating without a **competent** level of English. But Ms. Bishop says Australian universities only enroll foreign students once they have achieved international standards of language **proficiency**. “This has been an extraordinary attack by Professor Birrell on our universities,” she said. **International** students must meet international **benchmarks** in English language in order to get a place at a university in Australia and they can’t get into university without reaching that international standard.”

University of Canberra vice chancellor Roger Dean also says international students are required to sit an English test before being **admitted** to nearly all Australian universities. "There are, of course, intercultural difficulties as well as language difficulties," he said. "There are, of course, also many Australian students who don't speak such **fantastically** good English either. "So we're trying to push the standard even higher than present but it's a very useful one already."

Ms. Bishop says Australia's university system has high **standards**. "I've seen no **evidence** to suggest that students are not able to complete their courses because they're failing in English yet they're being passed by the universities," she said. "I've not seen any evidence to **back that up**." "International education is one of our largest exports, it's our fourth largest export and it's in the **interest** of our universities to maintain very high standards because their **reputation** is at **stake**."

## 21. Stream Plants & Animals Waltzed in from the Rumbling

Plants & Animals are a Montreal-based indie rock **trio** that began playing together as kids. Touring **arduously** for about five years after their proper full-length debut in 2008, they pretty much made their records on the go until 2013. So the band's decision to be slow, deliberate, and thorough on their latest offering, *Waltzed in from the Rumbling*, represents a major change of pace. Finally sleeping in their in own beds while recording, the band assembled the album over the course of nine seasons. It's a return to their origins, but it also pushes **audaciously** forward.

The **aesthetic** varies wildly and wonderfully from track to track, each song having its own **hermetic** seal but somehow still melding **cohesively** as a body of work. Jangling guitars, drums leaning toward the off-kilter swing of J Dilla, found sounds, a hint of shoegaze, and **unorthodox** instrumentation come together to keep the ear constantly **engaged** with a feeling of constant evolution. They found an antique guiro next to a broken VCR and recorded both. They made an empty fridge sound like a timpani drum. They recorded gossip on a city bus. They brought in classical string flourishes. They sometimes left mistakes if they felt they were perfectly imperfect. It's truly DIY, but with a feel of big production value that makes the album soar.

Contemplative lyrics anchor the album through all the exploratory **wandering**. The words are delivered melodically, belying their potency, but listening beyond the pretty aesthetic reveals piercing observations and an undeniable translation of feeling. The simplicity of the penetrating refrain on the three-part mini **opus** “Je Voulais Te Dire” is a paragon of how the lyrics effortlessly cut through the instrumentation. Guitarist/ vocalist Warren Spicer sings “It’s only love, but you want it bad,” encompassing how we try to avoid and **downplay** our desire for love and affection, but ultimately search and long for it anyway.

## 22. University to Offer Arabic MBA Course

HERIOT-WATT University in Edinburgh has become the first in Europe to offer an MBA in Arabic. Arab students will be able to **sign up** to study at a **distance** for the business courses in their own language. The Edinburgh Business School **announced** the project at a **reception** in Cairo on Saturday. It is hoped the course will improve **links** between the university and the Arab business world. A university spokeswoman said: “The Arabic MBA will **raise** the profile of Heriot-Watt University and the Edinburgh Business School among businesses in the Arabic-speaking world and will create a strong **network** of graduates in the **region**.” The first **intake** of students is expected later this year. Professor Keith Lumsden, director of Edinburgh Business School, said: “Arabic is a **major** global language and the Arab world is a center for business and industrial development. We are proud to work with Arab International Education to meet the demands of the region.

## 23. Edison

Matthew Josephson does an excellent job of covering the life and works of Thomas Alva Edison. The author of the book covered every aspect of Thomas Edison’s life from the time his grandparents lived in the original Thirteen colonies to the point where he was born in Milan, Ohio and later up to the point where he died in 1931. Thomas Alva Edison was **both** a scientist and an inventor. When he was Born in 1847. Edison would see **tremendous** change take place in his lifetime. He was also to be responsible for making many of those changes occur. When Edison was born, society still thought of electricity as a **novelty**, a fad.

By the time he died, entire cities were lit by electricity. Much of the **credit** for that progress goes to Edison. In his lifetime, Edison **patented** 1093 inventions, earning him the nickname “The Wizard of Menlo Park.” The most famous of his inventions was an incandescent light bulb. Besides the light bulb, Edison **developed** the phonograph and the “kinetoscope,” a small box for viewing moving films.

He also **improved** upon the original design of the stock ticker, the telegraph, and Alexander Graham Bell’s telephone. He believed in hard work, sometimes working twenty hours a day. Edison was quoted as saying, “Genius is one percent inspiration and 99 percent perspiration.” In **tribute** to this important American, electric lights in the United States were **dimmed** for one minute on October 21, 1931, a few days after his death. ... (to **honor** the **memory** of Edison and the Centennial. )

## 24. Chomolungma

Called Chomolungma (“goddess mother of the world”) in Tibet and Sagarmatha (“goddess of the sky”) in Nepal, Mount Everest once went by the pedestrian name of Peak XV among Westerners. That was before **surveyors** established that it was the highest mountain on Earth, a fact that came as something of a **surprise** - Peak XV had seemed lost in the crowd of other formidable Himalayan peaks, many of which gave the **illusion** of greater height.

In 1852 the Great Trigonometrical Survey of India measured Everest’s elevation as 29,002 feet above sea level. This figure remained the officially **accepted** height for more than one hundred years. In 1955 it was adjusted by a mere 26 feet to 29,028 (8,848 m).

The mountain received its official name in 1865 in honor of Sir George Everest, the British Surveyor General from 1830-1843 who had mapped the Indian subcontinent. He had some **reservations** about having his name **bestowed** on the peak, arguing that the mountain should retain its local appellation, the standard policy of geographical societies. Before the Survey of India, a number of other mountains ranked **supreme** in the eyes of the world. In the seventeenth and eighteenth centuries, the Andean peak Chimborazo was considered the highest. At a relatively unremarkable 20,561 feet (6,310 m), it is in fact nowhere near the highest, **surpassed** by about thirty other Andean peaks and several dozen in the Himalayas. In 1809, the Himalayan peak Dhaulagiri (26,810 ft.; 8,172 m) was declared the



**ultimate**, only to be **shunted** aside in 1840 by Kanchenjunga (28,208 ft.; 8,598 m), which today ranks third. Everest's status has been unrivaled for the last century and a half, but not without a few threats.

## 25. Language

If after years of Spanish classes, some people still find it impossible to understand some native speakers, they should not worry. This does not **necessarily** mean the lessons were wasted. Millions of Spanish speakers use neither standard Latin American Spanish nor Castilian, which predominate in US schools. The confusion is partly political - the Spanish-speaking world is very **diverse**. Spanish is the language of 19 separate countries and Puerto Rico. This means that there is no one standard **dialect**.

The most common Spanish dialect taught in the US is standard Latin American. It is sometimes called "Highland" Spanish since it is generally spoken in the **mountainous** areas of Latin America. While each country retains its own **accents** and has some unique vocabulary, residents of countries such as Mexico, Colombia, Peru, and Bolivia generally speak Latin American Spanish, especially in urban centers. This dialect is noted for its **pronunciation** of each letter and its strong "r" sounds. This Spanish was spoken in Spain in the sixteenth and seventeenth centuries, and was brought to the Americas by the early colonists.

However, the Spanish of Madrid and of northern Spain, called Castilian, developed **characteristics** that never reached the New World. These include the pronunciation of "ci" and "ce" as "th." In Madrid, "gracias" (thank you) becomes "gratheas" (as opposed to "gras-see-as" in Latin America).

Another difference is the use of the word "vosotros" (you all, or you guys) as the informal form of "ustedes" in Spain. Castilian sounds to Latin Americans much like British English sounds to US residents.

## 26. Tall Building

The Eiffel Tower was the tallest building in the world when it was completed in 1889. It was built for the World's Fair to **demonstrate** that iron could be as strong as stone while being

infinitely lighter. And in fact the wrought-iron tower is twice as tall as the masonry Washington Monument and yet it weighs 70,000 tons less! It is repainted every seven years with 50 tons of dark brown paint.

Called “the father of the skyscraper,” the Home Insurance Building, **constructed** in Chicago in 1885 (and demolished in 1931), was 138 feet tall and 10 stories. It was the first building to effectively employ a supporting **skeleton** of steel beams and columns, allowing it to have many more windows than traditional masonry structures. But this new construction method made people worry that the building would fall down, leading the city to halt construction until they could **investigate** the structure’s safety.

In 1929, auto tycoon Walter Chrysler took part in an intense race with the Bank of Manhattan Trust Company to build the world’s tallest skyscraper. Just when it looked like the bank had captured the **coveted** title, workers at the Chrysler Building **jacked** a thin spire hidden inside the building through the top of the roof to win the contest (subsequently losing the title four months later to the Empire State Building). Chrysler also **decorated** his building to **mirror** his cars, with hubcaps, mudguards, and hood ornaments.

## 27. United Nation (1)

Founded after World War II by 51 “peace-loving states” combined to oppose future aggression, the United Nations now counts 192 member nations, **including** its newest members, Nauru, Kiribati, and Tonga in 1999, Tuvalu and Yugoslavia in 2000, Switzerland and East Timor in 2002, and Montenegro in 2006.

United Nations Day has been **observed** on October 24 since 1948 and celebrates the Objectives and accomplishments of the organization, which was established on October 24, 1945.

The UN **engages** in peacekeeping and humanitarian missions across the globe. Though some say its **influence** has declined in recent decades, the United Nations still plays a tremendous role in world politics. In 2001 the United Nations and Kofi Annan, then Secretary-General of the UN, won the Nobel Peace Prize “for their work for a better organized and more peaceful world.”



Since 1948 there have been 63 UN peacekeeping **operations**, 16 are currently under way. Thus far, close to 130 nations have contributed personnel at various times; 119 are currently providing peacekeepers. As of August 31, 2008, there were 16 peacekeeping operations underway with a total of 88,230 personnel. The small island nation of Fiji has taken part in virtually every UN peacekeeping operation, as has Canada.

## 28. C. S. Lewis

C. S. Lewis, or Jack Lewis, as he preferred to be called, was born in Belfast, Ireland (now Northern Ireland) on November 29, 1898. He was the second son of Albert Lewis, a lawyer, and Flora Hamilton Lewis. His older brother, Warren Hamilton Lewis, who was known as Warnie, had been born three years **earlier** in 1895.

Lewis's early childhood was relatively happy and carefree. In those days Northern Ireland was not yet **plagued** by bitter civil strife, and the Lewises were comfortably off. The family home, called Little Lea, was a large, gabled house with dark, narrow passages and an overgrown garden, which Warnie and Jack played in and **explored** together. There was also a library that was crammed with books - two of Jack's favorites were *Treasure Island* by Robert Louis Stevenson and *The Secret Garden* by Frances Hodgson Burnett.

This somewhat **idyllic** boyhood came to an end for Lewis when his mother became ill and died of cancer in 1908. **Barely** a month after her death the two boys were sent away from home to go to boarding school in England.

Lewis hated the school, with its strict rules and hard, **unsympathetic** headmaster, and he missed Belfast terribly. Fortunately for him, the school closed in 1910, and he was able to return to Ireland.

After a year, however, he was sent back to England to study. This time, the **experience** proved to be mostly positive. As a teenager, Lewis learned to love poetry, especially the works of Virgil and Homer. He also developed an interest in modern languages, mastering French, German, and Italian.

## 29. Space, Time, and Why Things Are As They Are

Surely, reality is what we think it is; reality is **revealed** to us by our experiences. To one **extent** or another, this view of reality is one many of us hold, if only **implicitly**. I certainly find myself **thinking** this way in day-to-day life; it's easy to be **seduced** by the face nature **reveals** directly to our senses. Yet, in the decades since first **encountering** Camus' test, I've learned that modern science **tells** a very different story. The overarching lesson that has emerged from scientific inquiry over the last century is that human experience is often a misleading guide to the true nature of reality.

## 30. “Mud Volcano” in Indonesia Caused by Gas Exploration

Gas drilling on the Indonesian island of Java has **triggered** a “mud volcano” that has killed 13 people and may **render** four square miles (ten square kilometers) of countryside **uninhabitable** for years.

In a report released on January 23, a team of British researchers says the deadly upwelling began when an **exploratory** gas well punched through a layer of rock 9,300 feet (2,800 meters) below the surface, allowing hot, high-pressure water to **escape**.

The water carried mud to the surface, where it has spread across a region 2.5 miles (4 kilometers) in **diameter** in the eight months since the eruption began.

The mud volcano is similar to a gusher or blowout, which occur in oil drilling when oil or gas squirt to the surface, the team says. This **upwelling**, however, spews out a volume of mud equivalent to a dozen Olympic swimming pools each day.

Although the eruption isn't as violent as a **conventional** volcano, more than a dozen people died when a natural gas pipeline **ruptured**.

The research team, who published their findings in the February issue of GSA Today, also estimate that the volcano, called Lusi, will leave more than 11,000 people permanently displaced.

## 31. Top Business Schools Woo Young Students to Foil Rivals

Top US business schools are recruiting younger, less experienced candidates in an effort to boost applications and head off competition for the best students from other graduate programs such as law and public policy.

In an attempt to **lure** new students, leading business schools - including Harvard, Stanford, the University of Chicago and Wharton - have moved away from the unofficial admissions **prerequisite** of four years work experience and **instead** have set their sights on recent college graduates and so-called “early career” **professionals** with only a couple years of work under their belt.

## 32. Stress Management

Stress is what you feel when you have to handle more than you are used to. When you are stressed, your body **responds** as through you are in danger. It makes **hormones** that speed up your heart, make you breathe faster, and give you a **burst** of energy. This is called the fight-or-flight stress **response**. Some stress is normal and even useful. Stress can help if you need to work hard or react quickly. For example, it can help you win a race or finish an **important** job on time. But if stress happens too often or lasts too long, it can have bad effects. It can be linked to headaches, an upset stomach, back pain, and trouble sleeping. It can weaken your immune system, making it harder fight off **disease**.

## 33. My Father’s Bookshelf

None of the books in my father’s dusty old bookcase were **forbidden**. Yet while I was growing up, I never saw anyone take one down. Most were **massive** tomes—a comprehensive history of civilization, matching volumes of the great works of western literature, numerous others I can no longer **recall**—that seemed almost **fused** to **shelves** that bowed slightly from decades of **steadfast** support. But way up on the highest shelf was a thin little text that, every **now and then**, would catch my eye because it seemed so out of place, like Gulliver among the Brobdingnagians. **In hindsight**, I’m not quite sure why I waited so long before taking a look.

## 34. Folklore and Flying

Folklore is a modern term for the **body** of **traditional** customs, **superstitions**, stories, dances, and songs that have been adopted and maintained within a given **community** by processes of repetition not reliant on the written **word**. Along with folk songs and folktales, this broad **category** of cultural forms embraces all kinds of legends, riddles, jokes, proverbs, games, charms, omens, spells, and rituals, especially those of pre-literate societies or social classes. Those forms of verbal expression that are handed on from one generation or locality to the next by word of mouth are said to **constitute** an oral **tradition**.

## 35. William Shakespeare

William Shakespeare was born in Stratford-upon-Avon, allegedly on April 23, 1564. Church records from Holy Trinity Church indicate that he was baptized there on April 26, 1564. Young William was born of John Shakespeare, a glover and leather merchant, and Marry Arden, a landed local heiress. William, according to the church register, was the third of eight children in the Shakespeare household –three of whom died in childhood. John Shakespeare had a remarkable run of success as a merchant, alderman, and high bailiff of Stratford, during William's early childhood. His fortunes declined, however, in the late 1570s.

For all his **fame** and **celebration**, William Shakespeare remains a **mysterious** figure with regards to personal history. There are just two primary **sources** for information on the Bard: his works, and various legal and **church** documents that have survived from Elizabethan times. Naturally, there are many **gaps** in this body of information, which tells us little about Shakespeare the man.

## 36. Beijing Language Institution

There were twenty-six freshmen **majoring** in English at Beijing Language Institute in the class of 1983, I was **assigned** to Group Two with another eleven boys and girls who had **come from** big cities in China. I was told that language study required smallness so that we would

get more attention from the skillful teachers. The better the school, the smaller, the smaller the class.

I realized that my classmates were already all **talking** in English, simple sentences **tossed** out to each other in their red-faced introductions and carefree chatting. Their intonations were curving and dramatic and their pronunciation refined and accurate. But as I **stretched** to catch the drips and drops of their humming dialogue, I couldn't **understand** it all, only that it was English. Those words now flying before me sounded a little familiar. I had read them and tried to speak them, but I had never **heard** them **spoken** back to me in such a speedy, fluent manner. My big plan of **beating** the city folks was **thawing** before my eyes.

## 37. Evaluating a Career Decision

It has been a year since I started writing my Graduate Journal column for Nature jobs, the past 12 months have been marked with fundamental changes and fundamental constants, both of which I'm glad to have experienced.

When I enrolled in my master's course at Oxford last year, I had come straight from medical school with the **decision** to leave clinical science for good. Thinking back, I realize that I didn't put very much **weight** on this decision at the time. But today, I more clearly understand the **consequences** of leaving my original profession. When I meet old friends who are now physicians and surgeons, I sense how our views on medical problems have **diverged**. They **scrutinize** the effects of disease and try to eliminate or **alleviate** them; I try to understand how they come about in the first place. I feel happier working on this side of the problem, although I do occasionally miss clinical work and seeing patients.

However, when I think about the rate at which my medical skills and knowledge have **dissipated**, the years spent reading weighty medical textbooks, the hours spent at the bedside, I sometimes wonder if these years were partly a **waste** of time now that I am pursuing a research career.

Nonetheless, I know the value of my medical education. It is easy to forget the importance of the biosciences when working with model organisms in basic research that seem to have nothing to do with a sick child or a suffering elderly person. Yet, I still have **vivid** memories



of the cruel kaleidoscope of severe diseases and of how they can **strike** a human being. I hope to retain these memories as a guide in my current occupation.

## 38. America's skies

By 2025, government experts say, America's skies will swarm with three times as **many** planes, and not just the kind of traffic flying today. There will be **thousands** of tiny **jets**, seating six or fewer, at airliner **altitudes**, competing for space with remotely operated drones that need help avoiding midair **collisions**, and with commercially operated rockets carrying **satellites** and tourists into space.

## 39. Job Hunting

When it comes to job-hunting, first **impressions** are critical. Remember, you are marketing a product - yourself - to a potential employer. The first thing the employer sees when greeting you is your **attire**; thus, you must make every effort to have the proper dress for the type of job you are seeking. Will dressing properly get you the job? Of course not, but it will give you a competitive edge and a **positive** first impression.

How should you dress? Dressing conservatively is always the safest route, but you should also try and do a little **investigating** of your **prospective** employer so that what you wear to the interview makes you look as though you **fit** in with the organization. If you overdress (which is rare but can happen) or under dress (the more likely scenario), the potential employer may feel that you don't care enough about the job.

## 40. Nature

Nature is no longer an alien **enigma**, but instead something immediately beautiful, an **exuberant opus** with space for us to join in. Bird melodies have always been called songs for a **reason**. As long as we have been listening, people have presumed there is music coming out of those scissoring beaks.

## 41. Joy through Pain

All approaches aim to increase blood flow to areas of tension and to release painful knots of muscle known as “trigger points”.

“Trigger points are tense areas **of** muscle that are almost constantly contracting,” says Kippen. “The contraction causes pain, which in turn causes contraction, so you have a vicious circle. This is what deep tissue massage aims to break.”

The way to do this, as I found out under Ogedengbe’s elbow, is to apply pressure **to** the point, stopping the blood flow, and then to release, which causes the brain to flood the affected area **with** blood, encouraging the muscle to relax. At the same time, says Kippen, you can fool the tensed muscle **into** relaxing by applying pressure to a complementary one nearby. “If you cause any muscle to contract, its opposite will expand. So you try to trick the body **into** relaxing the muscle that is in spasm.”

## 42. Paying for University Education

Financing of Australian higher education has undergone dramatic change since the early 1970s. Although the Australian Government provided regular funding for universities from the late 1950s, in 1974 it **assumed** full responsibility for funding higher education - **abolishing** tuition fees with the intention of making university **accessible** to all Australians who had the **ability** and who wished to participate in higher education.

Since the late 1980s there has been a move towards greater private contributions, particularly student fees. In 1989, the Australian Government introduced the Higher Education Contribution Scheme (HECS) which included a loans scheme to help students finance their **contributions**. This enabled universities to remain accessible to students by delaying their payments until they could afford to pay off their loans. In 2002, the Australian Government **introduced** a scheme similar to HECS for postgraduate students - the Postgraduate Education Loan Scheme (PELS).

Funding for higher education comes from various sources. This article examines the three main sources - Australian Government funding, student fees and charges, and HECS. While the proportion of total **revenue** raised through HECS is relatively small, HECS payments are a



significant component of students' university costs, with many students carrying a HECS debt for several years after leaving university. This article also focuses on characteristics of university students based on their HECS liability status, and the level of accumulated HECS debt.

## 43. Ikebana Flower Arrangement

Ikebana is the Japanese art of flower **arrangement**. It is more than simply putting flowers in a **container**. It is a **disciplined** art **form** in which the arrangement is a living thing where nature and **humanity** are brought together. Contrary to the idea of a particolored or multicolored arrangement of **blossoms**, ikebana often emphasizes other areas of the **plant**. It is **steeped** in the philosophy of developing a closeness with nature. Such as its stems and leaves, and puts emphasis on shape, line, and form. Though ikebana is an **expression** of creativity, certain rules govern its form. The artist's intention behind each is shown through a piece's color **combinations**, natural shapes, graceful lines, and the implied meaning of the arrangement.

As is true of all other arts, ikebana is creative expression within certain rules of construction. Its materials are living branches, leaves, grasses, and blossoms. Its heart is the beauty resulting from color combinations, natural shapes, graceful lines, and the meaning latent in the total form of the arrangement. Ikebana is, therefore, much more than mere **floral decoration**.

## 44. The Teen Brain

Your teenage daughter gets top marks in school, captains the debate team, and volunteers at a shelter for homeless people. But while driving the family car, she text messages her best friend and rear-ends another vehicle.

How can teens be so clever, accomplished, and responsible—and reckless **at the same time**? Easily, according to two physicians at Children's Hospital Boston and Harvard Medical School (HMS) who have been **exploring** the **unique** structure and chemistry of the adolescent brain. "The teenage brain is not just an adult brain with fewer miles on it," says Frances E. Jensen,

a professor of neurology. “It’s a paradoxical time of **development**. These are people with very sharp brains, but they’re not quite sure what to do with them.”

## 45. A Beard Full of Bunkum

In his **fascinating** book Carbon Detox, George Marshall argues that people are not persuaded by information. Our views are formed by the views of the people with whom we mix. Of the **narratives** that might penetrate these circles, we are more likely to listen to those which offer us some reward. A story which tells us that the world is cooking and that we’ll have to make sacrifices for the sake of future generations is less likely to be accepted than the more rewarding idea that climate change is a conspiracy hatched by scheming governments and venal scientists, and that strong, independent-minded people should unite to defend their freedoms.

He proposes that instead of arguing for sacrifice, **environmentalists** should show where the rewards might lie: that understanding what the science is saying and planning accordingly is the smart thing to do, which will protect your interests more effectively than flinging abuse at scientists. We should emphasize the old-fashioned virtues of uniting in the face of a crisis, of resourcefulness and community action. Projects like the transition towns network and proposals for a green new deal tell a story which people are more willing to hear.

## 46. Basic Instincts

In a sequence of bestsellers, including The Language Instinct and How the Mind Works, Pinker has argued that swathes of our mental, social and emotional lives may have **originated** as evolutionary adaptations, well suited to the lives our ancestors eked out on the Pleistocene savannah. Sometimes it seems as if nothing is **immune** from being explained this way. Road rage, adultery, marriage, altruism, our tendency to reward senior executives with corner offices on the top floor, and the small number of women who become mechanical engineers – all may have their **roots** in natural selection, Pinker claims. The controversial implications are obvious: that men and women might **differ** in their inborn abilities at performing certain tasks, for example, or that parenting may have **little** influence on personality.

## 47. Video-conference Technology

Never has the carbon footprint of multi-national corporations been under such intense scrutiny. Inter-city train journeys and long-haul flights to **conduct** face-to-face business meetings contribute significantly to greenhouse gases and the resulting **strain** on the environment.

The Anglo-US company Telins has introduced a new video-conferencing technology and partnered with the Carbon Neutral Company, enabling corporate outfits to become more environmentally responsible. The innovation allows simulated face-to-face meetings to be held across continents without the time **pressure** or environmental burden of international travel.

Previous designs have enabled video-conferencing on a point-to-point, dual-location basis. The firm's Virtualive technology, however, can bring people together from up to five separate locations anywhere in the world-with **unrivaled** transmission quality.

## 48. Letting Your Readers Know What You Mean

Learning to write well means discovering how to write plainly and clearly. Now that doesn't mean that plainness is the only good style, or that you should become a **slave** to **spare**, unadorned writing. Formality and ornateness have their place, and in **competent** hands complexity can carry us **on** a dizzying, breathtaking journey. But most students, most of the time, should **strive** to be sensibly simple, to develop a **baseline** style of short words, active verbs, and relatively simple sentences **conveying** clear actions or identities. It's faster, it makes arguments easier to follow, it increases the chances a busy **reader** will bother to pay attention, and it lets you **center**<sup>1</sup> more attention on your moments of rhetorical flourish, which I do not advise **abandoning** altogether.

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<sup>1</sup> در مقاله اصلی کلمه center آمده است، اما کلمه **focus** هم صحیح می باشد: Focus attention on sth

## 49. Has university really changed?

University science is now in real crisis - particularly the non-telegenic, non-ology bits of it such as chemistry. Since 1996, 28 universities have stopped offering chemistry degrees, according to the Royal Society of Chemistry.

The society **predicts** that as few as six departments could remain **open** by 2014. Most recently, Exeter University closed down its chemistry department, blaming it on “market forces”, and Bristol took in some of the refugees.

The closures have been blamed on a **fall** in student applications, but money is a **factor**: chemistry degrees are expensive to provide - compared with English, for example - and some scientists say that the way the government concentrates research **funding** on a small number of top departments, such as Bristol, exacerbates the problem.

## 50. Essays

Essays are used as an assessment tool to **evaluate** your ability to research a topic and construct an **argument**, as well as your understanding of subject content. This does not mean that essays are a “regurgitation” of everything your lecture has said **throughout** the course. Essays are your opportunity to explore in greater **depths** aspects of the course theories, issues, texts etc., and in some cases relate these aspects to a **particular** context. It is your opportunity to articulate your ideas, but in a **certain** way: using formal academic style.

## 51. Advertising

Drive down any highway, and you’ll see a **proliferation** of chain restaurants — most likely, if you travel long and far enough, you’ll see McDonald’s golden arches as well as signs for Burger King. Hardee’s and Wendy’s the “big four” of burgers. Despite its name, though, Burger King has fallen short of **claiming** the burger crown unable to surpass market leader McDonald’s number 1 sales status. Always the bridesmaid and never the bride, Burger King remains number 2.

Worse yet, Burger King has experienced a six-year 22 percent decline in customer traffic, with its overall quality rating dropping, while ratings for the other **contenders** have increased. The decline has been **attributed** to inconsistent product quality and poor customer service. Although the chain tends to throw advertising dollars at the problem, an understanding of Integrated Marketing Communication theory would suggest that internal management problems (nineteen CEOs in fifty years) need to be **rectified** before a unified, long-term strategy can be put in place.

The **importance** of consistency in brand image and messages, at all levels of communication, has become a basic **tenet** of IMC theory and practice. The person who takes the customer's order must communicate the same message as Burger King's famous tagline, "Have it your way." or the customer will just buzz up the highway to a chain restaurant that seems more consistent and, therefore, more **reliable**.

## 52. Just in Time

"Just-in-time" is a management philosophy and not a technique. It originally referred to the production of goods to meet customer **demand** exactly, in time, quality and quantity, **whether** the "customer" is the final purchaser of the product or another process **further** along the production line. It has now come to mean producing with **minimum** waste. "Waste" is taken in its most general sense and includes time and resources as well as materials.

## 53. Chinese Communist Party

The book advances five fundamental and, in my view, fundamentally correct propositions. First, for all its **manifest** achievements. The Chinese attempt to marry a communist party-state with the market is unsustainable. Hutton does not deny the economic achievements of the past three decades. But he stresses that the result has been "not free-market capitalism but Leninist corporatism". This is not a viable new model, but an ultimately dysfunctional hybrid.

The inevitable consequences **include** rampant corruption, an absence of globally competitive Chinese companies, **chronic** waste of resources, rampant environmental



degradation and soaring inequality. Above all, the monopoly over power of an ideologically bankrupt communist party is inconsistent with the pluralism of opinion, security of property and vibrant competition on which a dynamic economy depends. As a result, Chinese development remains parasitic on know-how and institutions developed elsewhere.

## 54. The Genetic Test for PD

While Florey researchers have also created a genetic test for PD (10% of PD cases are caused by genetic factors), this new test has a broader application by screening for many different types of PD and monitoring treatment, as well as measuring the effectiveness of drugs being developed to treat the disease.

Dr. Qiao-Xin Li and colleagues from The University of Melbourne and The Mental Health Research Institute of Victoria, along with Professor Malcolm Home from the Howard Florey Institute, found people with PD had low levels of the brain-secreted protein “alpha-synuclein” in their blood, while people without PD had high levels of the protein.

Professor Home said the test they developed measured alpha-synuclein levels in blood. “Currently there is no specific PD diagnostic test so doctors rely on their observations to make a diagnosis, which means some patients may not be prescribed the most suitable medication and around 15% of those diagnosed may actually be suffering from something else,” Professor Home said.

“Further studies are required to establish whether this test can distinguish between people who are responsive to treatment and those who are not,” he said. The researchers are now conducting a large-scale study to determine the effectiveness of the test, to discover whether it is applicable for all types of PD, and to find out if it can measure the rate of progression and severity of the disease.

## 55. Classic Music

Away from the rumble of Shanghai’s highways and the cacophony of the shopping districts, stroll down side streets filled with rows of tall brick houses. In the early evening or on a weekend morning, you’ll hear the sound of classical music drifting from a piano, played by a 10-year old or a grandmother in her seventies. Wander down another alley toward drab

high-rises and you'll hear Beethoven or Mozart flowing from a violin, or perhaps a cello, accordion or flute.

In China, classical music is booming as mightily as the 1812 overture, its fortissimo in Shanghai, is home to China's oldest orchestra, forte in Beijing and other lively cities, and on a crescendo in farther-flung areas. Commanding ¥100-200 (512.50425) per hour, private music teachers in Shanghai can readily earn more than five times the average per capita monthly income.

## 56. Banking

The first banks were probably the religious temples of the ancient world, and were probably established sometime during the third millennium B.C. Banks probably predated the invention of money. Deposits initially consisted of grain and later other goods including cattle, agricultural implements, and eventually precious metals such as gold, in the form of easy-to-carry compressed plates. Temples and palaces were the safest places to store gold as they were constantly attended and well built. As sacred places, temples presented an extra deterrent to would-be thieves.

## 57. Advertisement

Almost all public spaces nowadays have advertisements in sight, and all forms of media, from newspapers to the cinema to the Internet are filled with adverts. This all-pervasive presence reflects the value of advertising to us. Without it, businesses of all types and sizes would struggle to inform potential customers about the products or services they provide, and consumers would be unable to make informed assessments when looking for products to buy and services to use. Without advertising, the promotion of products and practices that contribute to our physical and psychological well-being — medicines to treat minor ailments, insurance schemes to protect us, clothes and cosmetics to make us look and feel better — would be infinitely more problematic than it is. And without advertisements and the aspirations represented in them, the world would be a far duller place.



## 58. Seatbelt

I, for example, am a cyclist and a motorist. I fasten my seatbelt when I drive and wear a helmet on my bike to reduce the risk of injury. I am convinced that these are prudent safety measures. I have persuaded many friends to wear helmets on the grounds that transplant surgeons call those without helmets “donors on wheels”. But a book on ‘Risk’ by my colleague John Adams has made me re-examine my **convictions**.

Adams has completely **undermined** my confidence in these apparently sensible precautions. What he has persuasively argued, particularly in relation to seatbelts, is that the evidence that they do what they are supposed to do is very suspect. This is **in spite of** numerous claims that seat belts save many thousands of lives every year. Between 1970 and 1978 countries in which the wearing of seat belts is **compulsory** had on average about five percent more road accident deaths than before the introduction of the law. In the United Kingdom road deaths decreased steadily from about seven thousand a year in 1972 to just over four thousand in 1989. There is no evidence in the trend for any effect of the seat belt law that was introduced in 1983; there’s actually evidence that the number of cyclists and pedestrians killed increased by about ten percent. That twice as many children were killed in road accidents in 1922 as now must not be taken as evidence that there is less risk when children play in the street today. It almost certainly reflects the care taken by parents in keeping children off the streets.

How are these figures, which are both **puzzling** and shocking to be explained? The answer seems to lie in our **perception** of risk and how we modify our behavior. An important concept that has been developed to account for people's' handling of risk is the “Thermostat Model”. An individual’s **propensity** to take risks is influenced by their own experience and that of others and this model assumes that the degree to which we take risks varies from one individual to another. The key feature in risk taking is the balancing of **perceptions** of the risk and the possible rewards, and this balance may be a reflection of an individual’s particular type of personality. In general, the more risks an individual takes the greater will be both the positive and negative **rewards**.

## 59. Smallpox

According to the literature, the history of **vaccination** can be traced back to as early as the 7th century when the monks in India tried to **immunize** themselves by drinking snake **venom**. The first vaccination was **inoculation** with human smallpox, a practice widely carried out in ancient India, Arabia, and China. This **method** of vaccination **consisted of** collecting pus from a patient suffering from mild form of smallpox virus infection and **inoculating** the sample to a healthy human, which later led to a minor infection.

This method was first introduced in England by a Greek named E. Timoni. However, this method had a risk of spreading smallpox in the community and even worsening the health **condition** of the person who received the inoculation.

While the use of human smallpox vaccine was **controversial**, E. Fenner came up with bovine smallpox vaccine in 1796: this new method also faced controversy, but continued to be **universalized**. Smallpox became a preventable disease by injecting pus extracted from a human infected with cowpox virus. Jenner named the substance “vaccine” after the Latin word “vacca” which means “cow,” and thus the process of giving vaccine became “vaccination”.

## 60. Sound Depressing

Sound depressing, even apocalyptic? Well, it could be the future. If government **forecasts** are right, about 20 years from now, two out of five households will be single **occupancy**. And there is evidence the situation is already **deteriorating**. According to a report. Social Isolation in America, published in the American Sociological Review in 2006, the average American today has only two close friends. Twenty-five per cent of those **surveyed** said they do not have anyone to talk with about important things.

And yet, while some are **declaring** a crisis in our ability to make friends, others are saying exactly the opposite. For example. MSN’s Anatomy of Friendship Report, published last November, suggests that the average Briton has 54 friends - a **spectacular** rise of 64 per cent since 2003.

## 61. Assessment in Design and Technology

Professor Richard Kimbell directed the DES funded Assessment of Performance Unit research project in Design and Technology. In 1990 he **founded** the Technology Education Research Unit (TERU) at Goldsmiths College, University of London, which is now **running** a wide range of funded research projects in design and technology and IT. He has published widely in the field, including reports **commissioned** by the Congress of the United States, UNESCO and NATO; he has written and presented television programs and regularly lectures internationally. His latest book *Assessing Technology: International Trends in Curriculum and Assessment* won the international technology education book of the year award from the Council for Technology Teacher Education at ITEA in 1999 in Minneapolis, USA.

Kay Stables is Reader in Design and Technology Education and former Head of the Design Department at Goldsmiths College, University of London. She **started** her career as a textiles teacher, moving to Goldsmiths as a **part** of the APU D&T research **team**. From 1990–1992 she was Project Director for the Key Stage 1 Technology SAT developments and **followed** this as Research Associate on the Understanding Technological Approaches project which built case studies of D&T work from children aged 5–16. Most recently she has conducted, with Richard Kimbell, an **evaluation** of the **impact** of a technology education **initiative** in South Africa and is currently researching into the use of handling collections in developing D&T **capability** and **literacy**.

## 62. Works of Hans Christian Andersen

Fans of biographical criticism have a luxurious source in the works of Hans Christian Andersen. Like Lewis Carroll (and, to a lesser extent, Kenneth Grahame), Andersen was near-pathologically uncomfortable in the company of adults. Of course all three had to work and **interact** with adults, but all three really **related** well to children and their simpler worlds. Andersen, for a time, ran a puppet theatre and was incredibly popular with children, and, of course, he wrote an impressive body of fairy tales which have been produced in thousands of editions since the 19th century. Most everyone has read or at least knows the titles of many of Andersen's works: "The Ugly Duckling," "The Emperor's New Clothes," "The

Nightingale,” “The Little Mermaid,” “The Match Girl,” and many others. Though, as with most folk and fairy tales, they **strike** adult re-readers much differently than they do young first-time readers.

Charming tales of ducks who feel **awkward** because they don’t fit in, only to exult in the discovery that they are majestic swans, gives child readers clearly-identifiable messages: don’t tease people because they’re different; don’t fret about your being different because some day you’ll discover what special **gifts** you have.

A closer, deeper look at many of Andersen’s tales (including “The Ugly Duckling,” which is not on our reading list), reveals a darker, harder, **more painful** thread. People are often cruel and unfeeling, love is torturous – in general, the things of the material world cause suffering. There is often a happy ending, but it’s not conventionally happy. Characters are rewarded, but only after they manage (often through death) to transcend the rigors of the mortal world.

## 63. How to Win Votes?

It is tempting to try to prove that good looks win votes, and many academics have tried. The **difficulty** is that beauty is in the eye of the **beholder**, and you cannot behold a politician’s face without a veil of extraneous prejudice getting in the way. Does George Bush possess a disarming grin, or a facetious **smirk**? It’s hard to find anyone who can look at the president without assessing him politically as well as **physically**.

## 64. Modern Lifestyle

One thing is certain. Most people do not get enough exercise in their **regular** routines. All of the advances of modern technology – from **electric** can openers to power steering – have made life easier, more comfortable and much less physically **demanding**. Yet our bodies need activity, especially if they are carrying around too **much** fat. Satisfying this need requires a definite plan, and a commitment.

## 65. Influential Music

Those were his halcyon days, when his music was heard constantly in Venice and his influence **blanketed** Europe. He spent much of his time on the road, **performing** and **overseeing** productions of his music. In Germany, Bach studied Vivaldi's scores, copied them for performance and **arranged** some for other instruments.

## 66. Popularizing Pennsylvania

The dramatic shift of **cultural** presentation between the Progressive era and the 1990s matches the chronology historian Michael Kammen has projected for the role of tradition in American culture. Since 1870, he has pointed out, the most significant role **involved** the deliberate Americanization of folk heritage through collected and presented narrative, speech, and song. Broadly speaking, what followed was an imperfect democratization in regions and occupations, and later pluralization in groupings of ethnicity, race, gender, age, sexuality, appearance, and class, to name some in the ever-growing list. Kammen also noted the influence of tourism on later uses of tradition, and Pennsylvania, with its whopping fifty-one separate tourist agencies, certainly attests to that trend in the state. Even more than attracting tourism, heritage-writing—indeed, a whole heritage industry—is being called on for purposes of “economic development,” to promote community pride and image. Judging from the meteoric increase in museums, magazines, and films on heritage during the 1980s and 1990s, and the leveling-off of American studies programs in universities, the production of American heritage knowledge comes increasingly from media and public agencies. If the 1980s reports on higher education are to be believed, the role for public agencies may be heightened by the diminishing cultural authority of the academy. At the same time, American cultural education by many public agencies in the 1990s is a frequent target of conservative criticism in an effort to scale back or re-devise governmental programs. One might now **forecast** a period in which American folk tradition is geared toward emotional community-building in order to deal with the role of individuals in a global mass culture, where electronic communication and constant mobility create a need for organizing belonging. That opens up the kinds of traditions—the kinds of communities and



organizations, identities and rituals—representing the American memory of the past, the American perception of the present, to a tremendously wide array of possibilities for a mobile and electronically communicating society. Muse-ums, books, films, and schools are scrambling to keep up. It used to be that Americans were preoccupied with the ways in which such institutions and the media reflected society's traditions. Now, and Shoemaker's building of the Pennsylvania mystique is a notable example, Americans have a view in which they see themselves as shaping traditions, or at least as defining what's important. Therefore, history is more than recorded; it is constructed. And folklore is more than collected; it is projected. In Pennsylvania, much of the mystique-building through folklore and history of the highland paradise seems to have worn off (and probably so has American romantic regionalism generally). Nevertheless, Shoemaker would be heartened to know that Pennsylvanians have retained their woods and their **rustic** traditions.

## 67. People who see doctors

People who visit health professionals tend to be older than the **general** population, because illness increases with age. However, the **proportion** of the population who visited complementary health **therapists** was highest between the ages 25 and 64 years. The lower rates for people aged 65 years and over **contrasted** with the rate of visits to other health professionals which increased steadily with increasing age. The reasons for this difference might include lower levels of **acceptance** of complementary therapies by older people. Alternatively, older people may have different treatment priorities than do younger people because their health on average is worse while their incomes are generally lower.

## 68. Arbitration

Arbitration is a method of conflict resolution which, with more or less **formalized mechanisms**, occurs in many political and legal spheres. There are two main **characteristics** to arbitration. The first is that it is a voluntary process under which two parties in conflict agree between themselves to be **bound** by the judgment of a third party which has no other **authority** over them; the judgment, however, is not legally binding. The second is that there is usually no clear body of **law** or set of rules that must apply; the arbitrator is free, **subject**



to any prior agreement with the conflicting parties, to decide on whatever basis of justice is deemed suitable. Arbitration has been used successfully, for example, to decide on disputed borders between Israel and Egypt, where local history was a major part of the arbitrator's decision.

## 69. Mass exodus

For a start, we need to change our concept of 'retirement', and we need to change mindsets arising from earlier government policy which, in the face of high unemployment levels, encouraged mature workers to take early retirement. Today, government encourages them to delay their retirement.

We now need to think of retirement as a phased process, where mature age workers gradually reduce their hours, and where they have considerable flexibility in how they combine their work and non-work time.

We also need to recognize the broader change that is occurring in how people work, learn, and live. Increasingly we are moving away from a linear relationship between education, training, work, and retirement, as people move in and out of jobs, careers, caregiving, study, and leisure. Employers of choice remove the barriers between the different segments of people's lives, by creating flexible conditions of work and a range of leave entitlements. They take an individualized approach to workforce planning and development so that the needs of employers and employees can be met simultaneously.

## 70. Agrarian parties

Agrarian parties are political parties chiefly representing the interests of peasants or, more broadly, the rural sector of society. The extent to which they are important, or whether they even exist, depends mainly on two factors.

One, obviously, is the size of an identifiable peasantry, or the size of the rural relative to the urban population. The other is a matter of social integration: for agrarian parties to be important, the representation of countryside or peasantry must not be integrated with the other major sections of society. Thus a country might possess a sizeable rural population, but have an economic system in which the interests of the voters were predominantly

related to their incomes, not to their occupations or location; and in such a country the political system would be unlikely to include an important agrarian party.

## 71. Colorful poison frogs

Colorful poison frogs in the Amazon owe their great **diversity** to ancestors that leapt into the region from the Andes Mountains several times during the last 10 million years, a new study from The University of Texas at Austin suggests. This is the first study to show that the Andes have been a **major source** of diversity for the Amazon basin, one of the largest **reservoirs** of biological diversity on Earth. The finding runs **counter** to the idea that Amazonian diversity is the result of **evolution** only within the **tropical** forest itself. "Basically, the Amazon basin is a 'melting pot' for South American frogs," says graduate student Juan Santos, lead author of the study. "Poison frogs there have come from multiple places of **origin**, notably the Andes Mountains, over many millions of years. We have shown that you cannot understand Amazonian biodiversity by looking only **in** the **basin**. Adjacent regions have played a major role."

## 72. Universe

It seems we live in a bizarre Universe. One of the greatest mysteries in the whole of science is the prospect that 75% of the Universe is made up from a mysterious **substance** known as 'Dark Energy', which causes an acceleration of the cosmic expansion. Since a further 21% of the Universe is made up from invisible 'Cold Dark Mater' that can only be **detected** through its gravitational effects, the ordinary atomic matter making up the rest is apparently only 4% of the total cosmic budget. These **discoveries** require a shift in our perception as great as that made after Copernicus's **revelation** that the Earth moves around the Sun. This lecture will start by reviewing the checkered history of Dark Energy, not only since Einstein's proposal for a similar entity in 1917, but by tracing the concept back to Newton's ideas. This lecture will **summarize** the current evidence for Dark Energy and future surveys in which UCL is heavily involved: the "Dark Energy Survey", the Hubble Space Telescope and the proposed Euclid space mission.

## 73. Global warming

You may well ask why science did not warn us of global warming sooner; I think that there are several reasons. We were from the 1970s until the end of the century **distracted by** the important global problem of stratospheric **ozone** depletion, which we knew was manageable. We threw all our efforts into it and succeeded but had little time to spend on climate change. Climate science was also neglected because twentieth-century science failed to **recognize** the true nature of Earth as a **responsive** self-regulating entity. Biologists were so carried away by Darwin's great vision that they failed to see that living things were tightly coupled to their material environment and that evolution concerns the whole Earth system with living organisms an **integral** part of it. Earth is not the Goldilocks planet of the solar system sitting at the right place for life. It was in this favourable state some two billion years ago but now our planet has to work hard, against ever increasing heat from the Sun, to keep itself **habitable**. We have chosen the worst of times to add to its difficulties.

## 74. Where does wind come from?

The world's atmosphere is forever on the move. Wind is air in motion. Sometimes air moves slowly, giving a **gentle** breeze. At other times it moves rapidly creating gales and hurricanes. Gentle or **fierce**, wind always starts in the same way. As the sun moves through the sky, it heats up some parts of the sea and land more than others.

The air above these **hot** spots is warmed, becomes lighter than the surrounding air, and begins to rise. Elsewhere, cool air sinks, because it's **heavier**. Winds blow because- air squeezed out by sinking, cold air is sucked in under rising, warm air. Winds will blow wherever there is a **difference** in air temperature and **pressure**, always flowing from high to low pressure. Some winds blow in one place, and have a local name — North America's chinook and France's mistral. Others are part of a huge circulation pattern that sends winds over the **entire** globe.

## 75. Sustainable job growth

'SUSTAINABLE JOB GROWTH' is a motto for many governments, especially in the aftermath of a recession. The problem of 'job quality' is less often addressed and may be seen as **hindering** job growth. The sentiment 'any job is better than no job' may resonate with governments as well as people, especially in the context of high unemployment. However, if the balance between improving the quality of **existing** jobs and creating new jobs becomes greatly imbalanced towards the latter, this could increase work stress among **current** and future workers, which in turn has health, economic and social costs. A recent British Academy Policy Centre Report on Stress at Work highlights these **concerns**, and describes the context, determinants and consequences of work-related stress in Britain.

## 76. Sun heats

During the day, the sun heats up both the ocean surface and the land. **Water** is a good absorber of the energy from the sun. The land absorbs much of the sun's energy as well. However, water heats up much more slowly than land and so the air above the land will be **warmer** compared to the air over the ocean. The warm air over the land will rise throughout the day, causing low pressure at the surface. Over the water, high surface pressure will form because of the colder air. To **compensate**, the air will sink over the ocean. The wind will blow from the higher pressure over the water to lower pressure over the land causing the sea breeze. The sea breeze strength will vary depending on the temperature **difference** between the land and the ocean.

## 77. New coastal residents

People move to a new region for many different reasons. The **motivation** for moving can come from a combination of what researchers sometimes call 'push and pull **factors**' - those that encourage people to leave a region, and those that attract people to a region. Some of the factors that motivate people to move **include** seeking a better climate, finding more affordable housing, looking for work or retiring from work, leaving the **congestion** of city living, wanting a more pleasant environment, and wanting to be near to family and friends.

In reality many complex **factors** and personal reasons may **interact** to motivate a person or family to move.

## 78. Cognitive psychologist

Steven Pinker, a cognitive psychologist best known for his book “The Language Instinct”, has called music “auditory cheesecake, an exquisite confection crafted to tickle the sensitive spots of at least six of our mental faculties.” If it **vanished** from our species, he said, “the rest of our lifestyle would be **virtually** unchanged.” Others have argued that, on the **contrary**, music, along with art and literature, is part of what makes people human; its absence would have a brutalizing effect. Philip Ball, a British science writer and an avid music enthusiast, comes down somewhere in the middle. He says that music is ingrained in our auditory, cognitive and motor functions. We have a music instinct as much as a language **instinct**, and could not rid ourselves of it if we tried.

## 79. Exams

It’s that time again: exams looming, essays or reports outstanding and you wonder where the year’s gone already. You start **wondering** how you going to cope with it all. Fear and **anxiety** are insidious things and they can take hold if you don’t do something about them. This amounts to a bad type of stress which is just what you don’t need, especially at this time of year. This is not to say that all anxiety is bad, however. A limited amount of anxiety can help you to be more motivated and more **purposeful**. It can help you to plan your work and to think more clearly and **logically** about it. In other words, it can help you to stay on top of things. So how can you limit your stress and stay in control? There are a number of practical things you can do, even at this late stage before the exams. Don’t give up hope, even if you start to feel —snowballed when you think of the all the work you have to do. First of all, it’s essential to get yourself organized. Sit down at your desk and make a start on writing down all the things you have to do to **prepare** for the exams. If you feel there’s too much to do, then work out priorities for your work. Outstanding assignments should take priority but make sure to leave time for revision of your lecture notes.



## 80. Poverty

Measuring poverty on a global scale **requires** establishing a uniform poverty level across extremely divergent economies, which can result in only rough comparisons. The World Bank has defined the international poverty line as U.S. \$1 and \$2 per day in 1993 Purchasing Power Parity (PPP), which adjusts for differences in the **prices** of goods and services between countries. The \$1 per day level is generally used for the **least developed** countries, primarily African; the \$2-per-day level is used for middle **income** economies such as those of East Asia and Latin America.

## 81. Sportswomen

Sportswomen's records are important and need to be preserved. And if the paper records don't **exist**, we need to get out and start interviewing people, not to put too fine a **point** on it, while we still have a **chance**. After all, if the records aren't kept in some form or another, then the stories are **lost** too.

## 82. Pupils skip school for holidays

Children who skip school are increasingly on family holidays, government figures revealed today. **Fewer** children played truant this spring term compared with the spring term last year. Children missed 3m unauthorised days of school last term, compared with 3.7m days of school in the same **period** last year.

But a **hardcore** group of truants - 6% of the school population - who account for more than three-quarters of all those on unauthorised absence, are more likely to be on a family holiday than they were in the same **period** last year. Some 1.2% of all absence was for family holidays not **agreed** by their school last term, compared with 0.9% for the same term last year. More than 60% of all absences were for illness, the same figure as last year.

## 83. Fiber segments

The trigger point causes the rest of the fiber segments to be **stretched** to capacity. It becomes a tight band. Normally the regular contracting and releasing of these little



segments circulates blood in the capillaries that supply them (the segments) with their nutrients. When they hold this **contraction**, blood flow is stopped to that area, there is not an oxygen supply, and waste products are not **pushed out**. The trigger point then sends out pain signals until the trigger point is put in a position of rest again.

## 84. Heart disease

If you have a **chronic** disease — such as heart disease, diabetes, asthma, or back or joint pain, exercise can have important health **benefits**. However, it's important to talk to your doctor before starting an exercise routine. He or she might have **advice** on what exercises are safe and any precautions you might need to take while exercising.

## 85. Darkness in the Northern

The increasing darkness in the Northern Hemisphere this time of year "indicates to the plant that **fall** is coming on. So it starts recouping materials from the **leaves** before they drop off." Evergreens protect their needle-like foliage from freezing with **waxy** coatings and natural "antifreezes." But broadleaf plants, like sugar maples, birches, and sumacs, have no such protections. As a result, they **shed** their leaves. But before they do, the plants first try to **salvage** important nutrients such as nitrogen and phosphorus.

## 86. Question

You have about 30 minutes to answer each question. You must take account of how many marks are **available** for each part when you answer it. Even if you think you can write more, don't spend 15 minutes **answering** a part worth only 5 marks. Leave space at the end of your answer and come back to it if you have **time** to **spare** later. And if you can't think of an answer to some part, leave a space and move on to the next part. Don't write about something else if you don't know the correct answer -- this is just a waste of your **valuable** time (and the examiner's).

## 87. Artists

In the U.S., artists in the mid-1950s began to create a **bridge** to Pop and a new style of art, strongly influenced by Dada and its emphasis on appropriation and everyday objects. Artists increasingly worked with **collage**, consumer products, and a healthy dose of irony. Jasper Johns re-imagined iconic imagery like the American flag; Robert Rauschenberg employed silk-screen printings and found objects; and Larry Rivers used images of mass-produced goods. These three are considered to be the **forerunners** of American Pop.

## 88. Participation in Education: Attending Preschool

Disadvantage in early childhood poses multiple risks to children's development. Factors such as low socioeconomic status, long-term unemployment of parents, and social isolation may have lasting **impacts** on a child's chance of reaching their full potential. Whilst not eliminating disadvantage, preschool education can help to **lessen** the effects of these risk factors and can provide children with a better start to school. However, some of these factors may also be **barriers** to preschool attendance for groups that would benefit most from preschool education.

In Australia, the early years of children's education is the responsibility of many government and non-government agencies and it occurs in a range of settings. Preschool is aimed at children around four years of age to **prepare** them for compulsory schooling from the age of six years. In most states and territories, children can start full-time schooling at five years of age, when they enrol in a kindergarten or preparatory year. In 2001, just over half of five year olds (57%) were at school with about a third (34%) attending preschool. While in some states and territories children can **commence** preschool before they turn four, participation rates for three year olds are much lower than four year olds (24% compared with 56% for four year olds in 2001). The preschool participation rate of four year olds in 2001 (56%) was similar to the rate in 1991 (58%).

## 89. 'High' Culture

Many people today think of culture in the way that it was thought of in Europe during the 18th and early 19th centuries. This **concept** of culture reflected inequalities within European societies and their colonies around the world. This understanding of culture equates culture with civilization and contrasts both with nature or non-civilization. According to this understanding of culture, some countries are more civilized than others, and some people are more cultured than others. Theorists like Matthew Arnold (1822-1888) believed that culture is simply that which is created by "the best that has been thought and said in the world" (p. 6).[5] Anything that doesn't **fit** into this category is labeled as chaos or anarchy. From this perspective, culture is closely tied to cultivation, which is the progressive refinement of human **behavior**.

In practice, culture referred to elite goods and activities such as haute cuisine, high fashion or haute couture, museum-caliber art and classical music. The word cultured referred to people who knew about and took part in these activities. For example, someone who used culture in this sense might **argue** that classical music is more refined than music by working-class people, such as jazz or the indigenous music traditions of aboriginal peoples.

## 90. Professor Phoenix

Phoenix is adamant that the new course will teach "solid **chemistry**", but he thinks that an attraction for students will be a teaching approach that **differs** significantly from his days as an undergraduate. This takes real-life issues as the starting point of lectures and modules, such as how drugs are made or the science behind green issues. Out of this study, he says, students will be exposed to exactly the same core **chemistry**, unchanged over decades, but they will be doing it in a way that is more **engaging** and more likely to lead to more fundamental learning.

## 91. Australia

Australia is a dynamic multi-cultural society, viewed by many as the world's most desirable place to live. Here Frank Welsh traces Australia's intriguing and varied history to **examine**

how this society **emerged**, from its ancient Aborigine tribes and earliest British convict **settlements** to today's modern nation- one that **retains** strong links with it's colonial past but is increasingly **independent** and diverse.

## 92. Jury

Serving on a jury is normally compulsory for individuals who are **qualified** for jury service. A jury is **intended** to be an impartial panel capable of reaching a verdict. **Procedures** and **requirements** may include a fluent understanding of the language and the opportunity to test jurors' neutrality or otherwise exclude jurors who are perceived as likely to be less than **neutral** or partial to one side.

## 93. Dairy Farms

A few summers ago I visited two dairy farms, Huls Farm and Gardar Farm, which despite being located thousands of miles apart were still remarkably similar in their strengths and vulnerabilities. Both were by far the largest, most prosperous, most technologically advanced farms in their **respective districts**. In particular, each was centered around a magnificent state-of-the-art barn for **sheltering** and milking cows. Those structures, both neatly **divided** into opposite-facing rows of cow stalls, dwarfed all other barns in the district. Both farms let their cows **graze** outdoors in lush pastures during the summer, produced their own hay to harvest in the late summer for feeding the cows through the winter, and **increased** their production of summer fodder and winter hay by irrigating their fields. The two farms were similar in area (a few square miles) and in barn size, Huls barn holding somewhat more cows than Gardar barn (200 vs. 165 cows, respectively). The owners of both farms were viewed as leaders of their **respective** societies. Both owners were deeply religious. Both farms were located in gorgeous natural settings that attract tourists from afar, with backdrops of high snow-capped mountains drained by streams teeming with fish, and sloping down to a famous river (below Huls Farm) or fjord (below Gardar Farm).

## 94. Sharks

Sharks killed four people and injured 58 others around the world in 2006, a comparatively dull year for dangerous encounters between the two species. Shark bite numbers **grew** steadily over the last century as humans reproduced exponentially and **spent** more time at the seashore. But the numbers have been **flat** over the past five years as overfishing **thinned** the shark population near shore and swimmers have **learned** about the risks of wading into certain areas, Burgess said.

## 95. Investment

One city will start to attract the **majority** of public and/ or private investment. This could be due to **natural** advantage or political decisions. This in turn will **stimulate** further investment due to the multiplier effect and **significant** rural to urban migration. The investment in this city will be at the **expense** of other cities.

## 96. Impressionism (2)

Impressionism was a nineteenth century art movement that began as a loose association of Paris-based artists who started publicly exhibiting their art in the 1860s. Characteristics of Impressionist painting include visible brush strokes, light colors, open composition, **emphasis** on light in its changing qualities (often accentuating the effects of the passage of time), ordinary subject matter, and unusual visual angles. The name of the movement is **derived** from Claude Monet's Impression, Sunrise (Impression, soleil levant). Critic Louis Leroy inadvertently coined the term in a satiric review published in Le Charivari.

Radicals in their time, early Impressionists broke the rules of academic painting. They began by giving colours, freely brushed, primacy over line, drawing **inspiration** from the work of painters such as Eugene Delacroix. They also took the **act** of painting out of the studio and into the world. Previously, not only still-lives and portraits, but also landscapes had been painted indoors, but the Impressionists found that they could **capture** the momentary and transient effects of sunlight by painting air (in plain air).

## 97. Impressionism (3)

Impressionism was an art movement of the 19th century, which began as a private association of Paris-based artists who exhibited publicly in 1874. It is characterized by a concern with depicting the visual impression of the moment, especially in terms of the shifting effect of light and color. The term impressionism originated from art critic Louis Leroy, who commented Monet's painting 'Impression: Soleil Levant'. Leroy said that it indeed was just an impression and that the work could not be considered finished. The impressionists adopted this term and decided to use it for their own **benefit**. Early Impressionist painters were **radicals** in their time, breaking many of the rules of picture making that had been set by earlier **generations**. Up until the Impressionists, history had been the accepted **source** of **subject** matter for paintings.

## 98. Dark Energy

The rest of the universe appears to be made of a mysterious, invisible **substance** called dark matter (25 percent) and a force that **repels** gravity known as dark energy (70 percent). Scientists have not yet **observed** dark matter directly. It doesn't interact with baryonic matter and it's completely invisible to light and other forms of electromagnetic radiation, making dark matter **impossible** to **detect** with current instruments. But scientists are confident it **exists** because of the gravitational effects it appears to have on galaxies and galaxy clusters.

## 99. Do you know what makes you happy?

Want to know what will make you happy? Then ask a total stranger — or so says a new study from Harvard University, which shows that another person's experience is often more **informative** than your own best guess.

The study, which appears in the current issue of Science, was led by Daniel Gilbert, professor of psychology at Harvard and author of the 2007 bestseller *Stumbling on Happiness*, along with Matthew Killingsworth and Rebecca Eyre, also of Harvard, and Timothy Wilson of the University of Virginia.



“If you want to know how much you will enjoy an experience, you are better off knowing how much someone else enjoyed it than knowing anything about the experience itself,” says Gilbert. “Rather than closing our eyes and **imagining** the future, we should examine the experience of those who have been there.

Previous research in psychology, neuroscience, and behavioral economics has shown that people have difficulty predicting what they will like and how much they will like it, which **leads** them to make a wide variety of poor decisions. **Interventions** aimed at **improving** the accuracy with which people **imagine** future **events** have been generally unsuccessful.

## 100. Relationship between fiction and life

The precise relationship between fiction and life has been debated extensively. **Most modern** critics agree that, whatever its apparent factual content or verisimilitude, fiction is finally to be regarded as a structured imitation of life and should not be confused with a literal **transcription** of life itself. While fiction is a work of the imagination rather than **reality**, it can also be based closely on real events, sometimes experienced by the author. In a work of fiction, the author is not the same **as** the narrator, the voice that tells the story. Authors maintain a distance from their characters. Sometimes that distance is obvious for instance, if a male writer tells a story from the point of view of a female character. Other times it is not so obvious, especially if we know something of the author’s life and there are clear connections between the story and the author’s life. The writer of fiction is free to choose his or her subject matter and is free to invent, select, and **arrange** fictional elements to **achieve** his or her purpose. The elements of fiction are the different components that make up a work of fiction. **All** literature explores a theme or significant truth expressed in various elements such as character, plot, setting, point of view, style, and tone that are essential and specific to each work of fiction. All of these elements bind a literary work into a consistent whole and give it unity. Understanding these elements can help the reader gain insight **about** life, human motives, and experience. Such insight is one of the principal **aims** of an effective work of fiction; when readers are **able** to perceive it, they develop a sense of literary judgment that is capable of enriching their lives. The following sections describe elements that should be considered in the **analysis** of fiction.

## 101. Allergies

Allergies are abnormal immune system reactions to things that are typically harmless to most people. When you're allergic to something, your immune system **mistakenly** believes that this substance is harmful to your body. Substances that cause allergic reactions such as certain foods, dust, plant pollen, or medicines are known as allergens. In an attempt to **protect** the body, the immune system produces the **antibodies** to that allergen. Those antibodies then cause certain cells in the body to **release** chemicals into the bloodstream, one of which is histamine. The histamine then **acts** on the eyes, nose, throat, lungs, skin, or gastrointestinal tract and causes the symptoms of the allergic reaction. Future exposure to that same allergen will trigger this **antibody** response again. This means that every time you come into contact with that allergen, you'll have some form of allergy symptoms.

## 102. Equitable and sustainable management

Equitable and sustainable management of water resources is a major global challenge. About one third of the world's population lives in countries with **moderate** to high water stress with **disproportionately** high impacts on the poor. With **current** projected human population growth, industrial development and the expansion of irrigated agriculture in the next two **decades**, water demand will rise to levels that will make the task of providing water for human **sustenance** more difficult.

Since its establishment, the United Nations Environment Program (UNEP) has worked to promote sustainable water resources management practices through **collaborative** approaches at the national, regional and global levels. After more than 30 years, water resources management continues to be a strong pillar of UNEP's work.

UNEP is actively participating in addressing water issues together with partner UN **agencies**, other organizations and donors. They facilitate and catalyse water resource assessments in various developing countries; implement projects that assist countries in developing integrated water resource management plans; create awareness of innovative alternative technologies; and assist the development, implementation and enforcement of water resource management policies, laws and regulations.

## 103. History of Railways

Roads of rails called Wagonways were being used in Germany as **early** as 1550. These **primitive** roads consisted of wooden rails over which horse-drawn wagons or carts moved with greater ease than over dirt roads. Wagonways were the beginnings of modern railroads.

**By** 1776, iron had replaced the wood in the rails and wheels on the carts. Wagonways evolved into Tramways and spread throughout Europe.

Horses, however, still provided all the pulling power. In 1789, Englishman William Jessup designed the first wagons with flanged wheels. The **flange** was a groove that allowed the wheels to better **grip** the rail, this was an important design that carried over to later locomotives.

## 104. Neurons

In animals, movement is coordinated by a cluster of neurons in the spinal cord called the central **pattern** generator (CPG). This produces signals that drive muscles to **contract** rhythmically in a way that produces running or walking, depending on the **pattern** of **pulses**. A simple signal from the brain instructs the CPG to switch between different **modes**, such as going from a standstill to walking.

## 105. Science based on observation

Scientists make observations, have assumptions and do **experiment**. After these have been done, they get their **results**. Then there are a lot of **data** from scientists. The scientists around the world have a **picture** of the world.

## 106. Final price

Once an organization has its product to sell, it must then **determine** the appropriate price to sell it at. The price is set by balancing many factors including supply-and-demand, cost, desired profit, competition, perceived value, and market behavior. Ultimately, the final price is determined by what the market is willing to **exchange** for the product. Pricing theory can

be quite complex because so many **factors** influence what the purchaser **decides** is a fair value.

## 107. Roman Arena

Many popular ideas about the Roman arena were formed in the nineteenth century from popular images and accounts. The influential artist Jean Léon Gérôme used genuine gladiatorial art and equipment from Pompeii as models for his paintings of ancient Rome and the arena, but he also invented freely in dramatizing his scenes. Movies from Quo Vadis to Gladiator have drawn on such works to **depict** a world of strangely armed gladiators, Christians nobly awaiting attack by lions, and "thumbs down" death-gestures by emperors and rabid crowds. Actual Roman images of the arena are quite different: crowds and emperors are rarely shown, we are not sure which direction the thumb actually pointed in the famous death gesture, and victims of attack by big cats were certainly neither dignified nor noble.

The Romans glorified the **bravery** shown in the arena, but **trivialized** the events and degraded the participants. Mosaic pictures of executions and combats, **graphically** violent to our eyes, were displayed in the public rooms and even dining rooms in the homes of wealthy Romans. How can the viewer today possibly understand such images? Until fairly recently, modern authors writing about the arena minimized its significance and **represented** the institutionalized violence as a sideline to Roman history. The **tendency** was also to view the events through our own eyes and to see them as pitiful or horrifying, although to most Romans **empathy** with victims of the arena was inconceivable. In the past few decades, however, scholars have started to analyze the complex motivations for deadly public entertainments and for contradictory views of gladiators as despised, yet beloved hero-slaves.

## 108. Copyright

No one in Parliament would know better than Peter Garrett what largesse copyright can **confer** so it may seem right that he should announce a **royalty** for artists, amounting to 5 per cent of all sales after the original one, which can go on giving to their families for as

much as 150 years. But that ignores the truth that copyright law is a **scandal**, recently **exacerbated** by the Free Trade Agreement with the US which required extension of copyright to 70 years after death.

Is it scandalous that really valuable copyrights end up in the ownership of corporations (although Agatha Christie's no-doubt worthy great-grandchildren are still **reaping** the benefits of West End success for her who dunnits and members of the Garrick Club enjoy the continuing fruits of A.A. Milne's Christopher Robin books)? No. The **scandal** is that been peasants politicians have attempted to appear cultured by creating private assets which depend on an act of Parliament for their existence and by giving away much more in value than any public benefit could **justify**. In doing so they have betrayed our trust.

## 109. Problem of communication

The writer- or, for that matter, the speaker conceives his thought 'whole', as a unity, but must express it in a line of words; the reader- or listener- must take this line of symbols and from it **reconstruct** the original wholeness of thought. There is **little** difficulty in conversation, because the listener receives innumerable cues from the physical expressions of the speaker; there is a dialogue, and the listener can **cut** in at any time. The advantage of group discussion is that people can overcome linear sequence of words by **conversing** on ideas from different directions; which makes for wholeness of thought. But the reader is confronted by line upon line of printed symbols, without benefits of physical **tone** and emphasis or the possibility of dialogue or discussion.

## 110. The invasion of non-indigenous plants

The invasion of non-indigenous plants is considered a primary threat to integrity and function of ecosystems. However, there is little quantitative or **experimental** evidence for ecosystem impacts of invasive species. Justifications for control are often based on potential, but not presently realized, recognized or quantified, negative impacts. Should lack of scientific certainty about impacts of non-indigenous species result in postponing measures to prevent degradation? Recently, management of purple loosestrife (*Lythrum salicaria*), has been criticized for lack of evidence demonstrating negative impacts of L.



salicaria, and management using biocontrol for lack of evidence documenting the failure of conventional control methods. Although little quantitative evidence on negative impacts on native wetland biota and wetland function was available at the onset of the control program in 1985, recent work has demonstrated that the invasion of purple loosestrife into North American freshwater wetlands alters **decomposition** rates and nutrient cycling, leads to reductions in wetland plant diversity, reduces pollination and seed output of the native *Lythrum alatum*, and reduces habitat **suitability** for specialized wetland bird species such as black terns, least bitterns, pied-billed grebes, and marsh wrens. Conventional methods (physical, mechanical or chemical), have continuously failed to **curb** the spread of purple loosestrife or to provide satisfactory control. Although a number of generalist insect and bird species utilize purple loosestrife, wetland habitat specialists are excluded by **encroachment** of *L. salicaria*. We conclude that negative ecosystem impacts of purple loosestrife in North America justify control of the species and that **detrimental** effects of purple loosestrife on wetland systems and biota and the potential benefits of control outweigh potential risks associated with the introduction of biocontrol agents. Long-term experiments and monitoring programs that are in place will evaluate the impact of these insects on purple loosestrife, on wetland plant succession and other wetland biota.

## 111. Bhutan

Bhutan is the last standing Buddhist Kingdom in the World and, until recently, has **preserved** much of their culture since the 17th century by avoiding globalization and staying isolated from the world. Internet, television, and western dress were banned from the country up until ten years ago. But over the past ten years globalization has begun to change in Bhutan, but things remain **perfectly** balanced. Bhutan is the only country in the world that has a 'GNH.' You may think GNH is just another **statistically** based term with no real-life application, but it refers to "Gross National Happiness." The process of measuring GNH began when Bhutan opened up to globalization. It measures people's quality of life, and makes sure that "material and spiritual development happen together." Bhutan has done an amazing job of finding this balance. Bhutan has continually been (ranked) as the happiest country in all of Asia, and the eighth Happiest Country in the world according to Business



Week. In 2007, Bhutan had the second fastest growing GDP in the world, at the same time as **maintaining** their environment and cultural identity. Bhutan is the only Buddhist Kingdom in the world; Mahayana Buddhism is the official religion of Bhutan. Over two thirds of the people are Buddhist, and Buddhism is supported by the government both politically and economically. The government gives **subsidies** to Buddhist monasteries, shrines, monks and other Buddhist programs.

## 112. Corn people

Descendants of the Maya living in Mexico still sometimes refer to themselves as 'the corn people'. The phrase is not intended as metaphor. Rather, it's mean to **acknowledge** their abiding dependence on this miraculous grass, the **staple** of their diet for almost 9000 years. [For an American like me, growing up linked to a very different food chain, yet one that is also rooted in corn, not to think of himself as a corn person suggests either a failure of imagination or a triumph of capitalism. Or perhaps a little of both. For the great edifice of variety and choice that is an American supermarket rests on a remarkably narrow biological foundation: corn. It's not merely the feed that the steers and the chickens and the pigs and the turkeys ate; it's not just the source of the flour and the oil and the leavenings, the glycerides and coloring in the processed foods; it's not just sweetening the soft drinks or lending a shine to the magazine cover over by the checkout.]

The supermarket itself-the wallboard and joint compound, the linoleum and fiberglass and adhesives out of which the building itself has been built-is in no small measure a **manifestation** of corn.

## 113. Alaska's Aleutian Islands

The few people who live in Alaska's Aleutian Islands have long been accustomed to **shipwrecks**. They have been part of local consciousness since a Japanese whaling **ship** ran **aground** near the western end of the 1,100-mile (1,800-km) volcanic **archipelago** in 1780, inadvertently naming what is now Rat Island when the ship's infestation **scurried ashore** and made itself at home. Since then, there have been at least 190 shipwrecks in the islands.

## 114. DOG

A DOG may be man's best friend. But man is not always a dog's. Over the centuries **selective** breeding has pulled at the canine body shape to produce what is often a grotesque distortion of the underlying wolf. Indeed, some of these distortions are, when found in people, regarded as **pathologies**.

Dog breeding does, though, offer a chance to those who would like to understand how body shape is controlled. The **ancestry** of pedigree pooches is well recorded, their generation time is short and their **litter** size reasonably large, so there is plenty of material to work with. **Moreover**, breeds are, by definition, inbred, and this simplifies genetic analysis. Those such as Elaine Ostrander, of America's National Human Genome Research Institute, who wish to identify the genetic basis of the features of particular pedigrees thus have an **ideal experimental** animal.

## 115. Major stressors

Research has suggested that major stressors in our lives are life **changes**, for example, moving house, marriage or relationship breakdown. Work-related factors, **including** unemployment and boredom, are also common **causes** of stress. Differences in personality may also **play** a part.

## 116. Labor market

Higher education qualifications provide a substantial **advantage** in the labor market. Higher education **graduates** are less likely to be **unemployed** and tend to have **higher** incomes than those without such qualifications. Having a highly educated **workforce** can also lead to increased productivity and innovation and make Australia more **competitive** in the global market.

## 117. Ministerial staffing system

The contemporary ministerial staffing system is large, active and partisan – far larger and further evolved than any Westminster equivalent. Ministers' demands for help to cope with

the pressures of an increasingly competitive and professionalized political environment have been key drivers of the staffing system's development. But there has not been commensurate growth in **arrangements** to support and control it. The **operating** framework for ministerial staff is **fragmented** and ad hoc.

## 118. Complementary therapies

Complementary therapies – such as those **practiced** by naturopaths, chiropractors and acupuncturists – have become increasingly popular in Australia over the last few **decades**. Interest initially coincided with **enthusiasm** for alternative lifestyles, while immigration and increased contact and trade with China have also had an **influence**. The status of complementary therapies is being re-visited in a number of areas: legal regulation; the stances of doctors' associations; their inclusion in medical education; and scientific research into their **efficacy**. With the exception of acupuncture, complementary therapies are not routinely funded through Medicare, so there is little administrative data regarding their use. However, the ABS has some data about the use of complementary therapies which can help inform discussion.

## 119. An eccentric mix of English, German and French

An eccentric mix of English, German and French has entered Japanese usage with grand abandon. A “kariya” woman is a career woman, and a “manshon” is an apartment. This increasing use of katakana, or unique Japanese versions of Western words, and the younger generation's more casual use of the Japanese language have prompted Prime Minister Junichiro Koizumi to worry that these new words may not be understood by a wider audience. **As a result**, a government panel is proposing to publish a manual on how to speak proper Japanese. Foreign words became katakana Japanese **because** no existing Japanese words could quite capture a specific meaning or feeling. When the word “cool” traveled east, all of its English connotations did not make the journey. A kuru person in Japan is someone who is calm and never gets upset. **On the other hand**, someone who is kakkooi is hip, or in translation, “cool.” **Similarly**, a hotto person is one who is easily excitable, perhaps passionate, but not necessarily a popular person or personality of the moment.

## 120. TV advertising

From a child's point of view, what is the purpose of TV advertising? Is advertising on TV done to give actors the opportunity to take a rest or **practice** their lines? Or is it done to make people buy things? Furthermore, is the main **difference** between programs and commercials that commercials are for real, whereas programs are not, or that programs are for kids and commercials for adults? As has been shown several times in the literature (e.g. Butter et al. 1981; Donohue, Henke, and Donohue 1980; Macklin 1983 and 1987; Robertson and Rossiter 1974; Stephens and Stutts 1982), some children are able to **distinguish** between programs and commercials and are **aware** of the intent of TV advertising, whereas others are not.

## 121. Country

What is a country, and how is a country **defined**? When people ask how many countries there are in the world, they **expect** a simple **answer**. After all, we've **explored** the **whole** planet, we have international travel, satellite navigation and plenty of global organizations like the United Nations, so we should really know how many countries there are! **However**, the answer to the question **varies** according to whom you ask. Most people say there are 192 countries, but others point out that there could be more like 260 of them. So why isn't there a **straightforward** answer? The problem **arises** because there isn't a universally agreed definition of 'country' and because, for political **reasons** some countries **find** it convenient to recognize or not recognize **other** countries. For example, Taiwan claims to be a country, but China states that Taiwan is just another part of China. The consequence is that the USA, that doesn't want to upset China, doesn't recognize Taiwan as a country. **Conversely** from the end of the Second World War, the Soviet Union annexed the countries of Estonia, Latvia and Lithuania but the USA continued to regard them as independent countries that were 'occupied' because it didn't really get on with the USSR. So, how do governments define what makes a country?

## 122. Living away from home

For many first-year students, the University may be their first **experience** living away from home for an **extended** period of time. It is a **definite break** from home. In my point of view this is the best thing that you can do. I know you have to  **fend** for yourself, cook and clean after yourself, basically look after yourself without your parents but the truth is – some time in your life you are going to have to part with lovely Mummy and Daddy. But they are only just a phone call away and it is really good to have some **quality time** without them. The first few weeks can be a **lonely** period. There may be **concerns** about forming friendship. When new students look around, it may seem that everyone else is self-confident and socially successful! The reality is that everyone is having the same **concerns**.

Increased personal freedom can feel both wonderful and **frightening**. Students can come and go as they choose with no one to “hassle” them. The strange environment with new kinds of procedures and new people can create the sense of being on an emotional roller coaster. This is normal and to be expected. You meet so many more people in the halls than if you stayed at home. The main points about living away from home are: **no parents**! You don’t have to tell them where you’re going, who you’re going with, what time you’ll be coming, why you’re going etc. etc.

You learn various **social** skills; you have to get along with your roommates. Living with them can present special, sometimes intense, problems. Negotiating respect of personal property, personal space, sleep, and relaxation needs, can be a complex task. The complexity increases when roommates are of different backgrounds with very different values. It is **unrealistic** to expect that roommates will be best friends. **Meaningful**, new relationships should not be expected to develop overnight. It took a great deal of time to develop intimacy in high school friendships; the same will be true of intimacy in university friendships.

You have a phone! So if you ever get homesick or miss you Mummy then she’s always at the **end** of a phone-line for you – and so are your friends.

**Sources** of things that you rely on.... **Facilitates** adjustments to new environments.



## 123. Space work

The space work for an astronaut can be inside or outside, inside they can monitor machines and the work is **carried** out alongside the craft. They also need to make sure the **Space Travel**. **Outside** the craft, they can see how the seeds react in the space. Some seeds company send seeds to them to **investigate** how seeds change their biological character. When **outside** the craft, they can set **up** experiments or clean **up** the space rubbish.

## 124. Radioactivity

So why is it a concern? It is **because** radioactivity is invisible and un-sensed, and for that reason is perceived as scary. **Nevertheless**, we understand quite well the radiation levels to which people can be **exposed** without harm, and those levels, are orders of **magnitude** above the typical background levels.

## 125. Scholar Award

In 2001 he received the SIUC Outstanding Scholar Award. In 2003 he received the Carski Award for Distinguished Undergraduate Teaching from the American Society for Microbiology. Mike's research is **focused** on bacteria that inhabit extreme environments, and for the past 12 years he has studied the microbiology of permanently ice-covered lakes in the McMurdo Dry Valleys, Antarctica. In addition to his research papers, he has edited a major **treatise** on phototrophic bacteria and served for over a decade as chief editor of the **journal** Archives of Microbiology. He currently serves on the editorial board of Environmental Microbiology. Mike's nonscientific **interests** include forestry, reading, and **caring** for his dogs and horses. He lives **beside** a peaceful and quiet lake with his wife, Nancy, five shelter dogs (Gaino, Snuffy, Pepto, Peanut, and Merry), and four horses (Springer, Feivel, Gwen, and Festus).

## 126. The allure of the book

The allure of the book has always been negative and **positive**, for the texts and pictures between the covers have helped many young readers to **discover** and grasp the world



around them in a pleasurable and meaningful way. But the allure has also enabled authors and publishers to prey upon young readers' dispositions and desires and to **sell** them a menu that turns out to be junk food. The texts and pictures titillate children or reinforce certain formulaic patterns of thinking that reduce the possibility for the child to develop his or her own creative and critical talents.

## 127. Corporate Culture

The article subjects the assumptions and prescriptions of the 'Corporate Culture' literature to critical scrutiny. The **body** of the article is devoted to teasing out the distinctive basis of its appeal **compared** with earlier management theory. It is seen to build upon earlier efforts (e.g. 'theory Y') to constitute a self-disciplining form of employee subjectivity by asserting that 'practical autonomy' is conditional upon the development of a strong corporate culture. The paper illuminates the dark side of this project by drawing **attention** to the subjugating and totalitarian implications of its excellence/ quality prescriptions. To this **end**, parallels are drawn with the philosophy of control favored by the Party in Orwell's Nineteen Eighty-Four. Specifically, the paper critiques the 'doublethink' contention that autonomy can be realized in monocultural conditions that systematically **constrain** opportunities to wrestle with competing values standpoints and their associated life projects.

## 128. Private schools

Private schools in the UK are redoubling their marketing efforts to foreigners. Almost a third of the 68,000 boarding pupils at such schools **already** come from overseas. But now, with many UK residents **unwilling** or unable to afford the fees – top boarding schools are edging towards £30,000 (\$49,759) a year – and a cultural **shift** away from boarding, many schools are looking abroad to survive. Sue Fieldman, press officer at The Good Schools Guide, says: "It's a whole new world out there. Ten years ago, English private schools were full of English pupils. Now you see foreigners in most schools. With the recession, there are gaps in desks and beds. If they can't fill them with English, they fill them with foreigners, especially Russians and Chinese." Overseas students now **account** for about £500m of fee income a year for boarding schools in the UK.

## 129. Environmentalists

Although environmentalists have been **warning** about this situation for decades, many other people are finally beginning to realize that if we don't act soon it will be too late. The good news is that more and more businesses and governments are beginning to **understand** that without a healthy environment the global economy and everything that depends on it will be seriously endangered. And they are beginning to take **positive** action.

## 130. Tree ring studies

A bonus of dendrochronology is that the width and substructure of each ring **reflect** the amount of rain and the **season** at which the rain fell during that particular year. Thus, tree ring studies also allow one to reconstruct **past** climate; e.g., a series of wide rings means a wet period, and a **series** of narrow rings means a **drought**.

## 131. Buy a house

Buying a **house** can seem like a daunting process —First you need to work out how much you can borrow. This is where our services will really help you. Make sure you have an accurate and detailed budget that takes into account all associated with purchasing a property, including stamp duty, council rates, and other fees. We can help you identify these extra costs. Ask us for our budget planner if you don't already have one. Interest rates move constantly, so you will need to allow room in your budget for interest rate increases and for other **unforeseen** events. All purchase funds are paid at settlement. In the **ordinary course of events**, settlement takes place, the purchase price is paid in full and the deposit bond simply lapses group certificates for the **past** two years.

## 132. New systematic nomenclature

The new systematic nomenclature was so **cumbersome** that many chemists preferred to **revert to** the older trivial names that were at least shorter. At least, that is the ostensible reason. Actually, tradition seems to carry more weight than **system** with some scientists.

## 133. Reasoning lies

One of the most eminent of psychologists, Clark Hull, **claimed** that the essence of reasoning lies in the putting together of two 'behavior segments' in some **novel** way, never actually performed before, so as to reach a goal. Two followers of Clark Hull, Howard and Tracey Kendler, **devised** a test for children that was explicitly based on Clark Hull's principles. The children were given the task of learning to **operate** a machine so as to get a toy. In order to succeed, they had to go through a two stage sequence.

## 134. Leadership

Leadership is all about being granted **permission** by others to lead their thinking. It is a bestowed moral authority that gives the right to organize and direct the efforts of others. But moral authority does not come from simply managing people effectively or communicating better or being able to motivate. It comes from many **sources**, including being authentic and genuine, having integrity, and showing a real and deep understanding of the business in question. All these **factors** build confidence.

Leaders lose moral authority for three reasons: they behave **unethically**; they become plagued by self-doubt and lose their conviction; or they are blinded by power, lose self-awareness and thus lose **connection** with those they lead as the context around them changes. Having said all this, it has to be assumed that if someone becomes a leader, at some point they understood the difference between right and wrong. It is up to them to **abide** by a moral code and up to us to ensure that the moment we suspect they do not, we fire them or vote them out.

## 135. Absence from work

Absence from work is a costly and **disruptive** problem for any organization. The cost of absenteeism in Australia has been put at 1.8 million hours per day or \$1400 million annually. In 2015, a study was **conducted** in the Prince William Hospital in Brisbane, Australia, where, prior to this time, few active steps **had** been taken to measure, understand or manage the **occurrence** of absenteeism.

## 136. Coastal hypothesis

The coastal hypothesis **suggests** an economy based on marine mammal hunting, saltwater fishing, shellfish gathering, and the use of watercraft. **Because** of the barrier of ice to the east, the Pacific ocean to the west, and populated areas to the north, may have been a greater **impetus** for people to move in a southerly direction.

## 137. Weightless environment

Living in a weightless **environment** for long periods of time can also result in bone mineral loss and **muscle** atrophy as well as dangerous exposure to the sun's radiation, and it is because of these health hazards that stays on the International Space Station are **restricted to six months**.

## 138. High-protein diet

In our studies, those people on a higher-protein **diet** lost the same **amount of** weight as those on a higher-carbohydrate diet. This is because the two diets **offered** an equal amount of fat. However, body composition (that is, the ratio of fat to muscle) **showed** greater improvement among those people on the higher-protein diet. When the **participants** in other studies were allowed to eat until they were no longer hungry, those on the higher-protein diet lost more weight than those on the higher carbohydrate diet, even after more than a year. The reduction in hunger and the beneficial effect on muscle provided by the higher-protein diet is mostly related to its protein content, while the enhanced fat-loss seems to be related to its lower amounts of carbohydrate. The diet is healthy because its protein comes from lean red meat fish, chicken and low-fat dairy products, all of which **provide** good nutrition. A high-protein diet in which the protein comes from protein powders and supplements is unlikely to be healthy, unless the **supplements** are fortified with vitamins and minerals.

## 139. Egg-eating snakes

Egg-eating snakes are a small group of snakes eat only eggs as part of their **diet**. Some eat only small eggs which are **easy** to eat, while some snakes eat bird's eggs, which they have to swallow **whole**, as the snake has no teeth. Instead, these snakes have **spines** that stick out from the backbone. The spines crack the egg **open** as it passes through the throat.

Once the egg is punctured, muscles in the snake's body work in waves to squeeze out the contents, which then move down into the stomach. The snake then forces the shell back into its mouth by bending its body into an 'S' shape. The shell is now drained and flattened into a compact shape. Egg eating snakes sometimes have to go for a long time without any food. So, they eat as many eggs as they can when they get them!

## 140. Good customer service

Promoting good customer service must start at the top. If management doesn't realize how important this **aspect** of their business is, they will be at an instant **disadvantage** in their industry. Good customer response **equate**s to loyal customers, which are the cornerstone of any successful business. No matter how much money you invest in your **marketing**, if you don't have the fundamental elements of your business right, its **wasted** money.

## 141. Twin

No two siblings are the same, not even **identical** twins. Parents often **puzzle** about why their children are so different from one another. They'll say, 'I brought them I up all the same.' They forget that what **determines** our behaviour isn't what happens to us but how we **interpret** what happens to us, and no two people ever see anything in exactly the same way.

## 142. Behaviourism

Another way to looking at personality is the behaviourist approach according to the behaviourists, the inner **facts** of the consciousness are not important. Instead they believed that our behaviours, and therefore our **personalities** are learned primarily through our



**experiences**. The theories of behaviourism arose through **experiments** largely on animals in which behaviours were learned through carefully controlled **stimuli**.

## 143. Genius

Genius, in the popular conception, is inextricably tied up with precocity doing something truly creative; we're inclined to think, requires the freshness and energy of youth. Orson Welles made his masterpiece Citizen Kane, at twenty-five. Herman Melville wrote a book a year **through** his **late** twenties, culminating at **age** thirty-two, with Moby-Dick. Mozart wrote his breakthrough Piano Concerto No.9 in E-Flat-Major at the age of twenty-one. In some creative forms, like lyric poetry, the **importance** of precocity had hardened into an iron law. How old was T.S. Eliot when he wrote The Love Song of Alfred Prufrock (I grow old... I grow old)? Twenty-three. Poet's peak young, the creativity researcher James Kaufman maintains, the author of flow agrees: "The most creative lyric verse is believed to be that written by the young." According to the Harvard psychologist Howard Gardner, a leading **authority** on creativity Lyric poetry is a **domain** where **talent** is discovered early, burns brightly, and then peters out at an early age.

## 144. Joseph Eagleburger

Joseph Eagleburger, a pioneer in industrial robotics, once marked, "I can't **define** a robot, but I know one when I see one." If you consider all the different **machines** people call robots, you can see that it's nearly impossible to come up with a **comprehensive** definition. Everybody has a different **idea** of what constitutes a robot.

## 145. A sewing Machine

A sewing machine is a machine used to stitch fabric and other materials together with thread. Sewing machines were invented during the first Industrial Revolution to decrease the amount of manual sewing work performed in clothing companies. Since the **invention** of the first working sewing machine, **generally** considered to **have** been work of Englishman Thomas Saint in 1770, the sewing machine has **greatly improved** the efficiency



and productivity of the clothing industry.

Home sewing machines are designed for one person to sew individual items while using a single stitch type. In a modern sewing machine the fabric easily **glides** in and out of the machine without the inconvenience of needles and thimbles and other such tools used in hand sewing, automating the process of stitching and saving time.

Industrial sewing machines, by contrast to **domestic machines**, are larger, faster, and more varied in their size, cost, appearance, and task.

## 146. Bronze vs. Silver

In an often -cited study about counterfactuals, Medvec, Madey, and Gilovich (1995) found that bronze medalists appeared happier than silver medalists in television coverage of the 1992 Summer Olympics. Medvec et al. **argued** that bronze medalists compared themselves to 4th place finishers, whereas silver medallists compared themselves to gold medallists. These counterfactuals were the most **salient** because they were either qualitatively different (gold vs. silver) or categorically different (medal vs. no medal) from what **actually** occurred. Drawing on archival data and experimental studies, we show that Olympic athletes (among others) are more likely to make counterfactual comparisons based on their **prior** expectations, consistent with decision affect theory. Silver medallists are more likely to be disappointed because their personal expectations are higher than **those** of bronze medallists. We provide a test between expectancy-base versus category-based processing and discuss circumstances that trigger each type of processing.

## 147. Choose your roommate

If you're choosing to use the random pairing or are **letting** the college choose your roommate for you, you'll probably have to fill out some kind of profile or questionnaire. These usually include things like: what time do you usually go to bed, where do you prefer to study, do you keep your space clean or are you more messy, etc. When you're answering these questions, be as honest as possible. If there's something you're dead set against (e.g., a roommate who smokes) you can mark that and you will not be paired with someone who fits that criteria.

Choosing a roommate can be kind of **stressful**. In some cases, it can feel like as big of a decision as actually choosing which school to attend. But don't worry, if you get to campus and live with your roommate for a few weeks and find out that your lifestyles are just too different, you can always move. I **swapped** roommates my first semester of college, and after I moved my college experience was much more positive. In fact, I lived with different people every year of college and it all worked out.

So have fun with it! Be open to meeting new people and trying new things. Sometimes the best roommates are the ones that are completely different than you because they cannot only **introduce** you to new cultural experiences, but they can also expand your ways of thinking and isn't that what college is all about?

## 148. Internet

The exponential growth of the internet was **heralded**, in the 1990s, as revolutionizing the production and **dissemination** of information. Some people saw the internet as a means of **democratizing** access to knowledge. For people **concerned** with African development, it seemed to offer the possibility of **leapfrogging** over the technology gap that separates Africa from advanced industrialized countries. However, the initial optimism about the internet's potential to provide an enormous and ever-expanding body of publicly available knowledge has had to come to terms with material and social obstacles.

## 149. Walt Disney World

Walt Disney World has become a pilgrimage site partly because of the luminosity of its cross-cultural and marketing and partly because it's **utopian** aspects appeal powerfully to real needs in the capitalist **society**. Disney's marketing is unique because it captured the symbolic essence of **childhood** but the company has gained access to all public shows, comic books, dolls, apparels, and **educational** film strips all point to the parks and each other.

## 150. Australia and New Zealand (1)

Australia and New Zealand have many common links. Both countries were recently settled by Europeans, are predominantly English speaking and in that sense, share a common culture **heritage**. Although in close proximity to one another, both countries are geographically isolated and have small populations by world **standards**. They have similar histories and enjoy close relations on many fronts.

In terms of population **characteristics**, Australia and New Zealand have much in common. Both countries have minority **indigenous** populations, and during the latter half of the 20th century have seen a steady stream of migrants from a variety of regions throughout the world. Both countries have **experienced** similar **declines** in fertility since the high levels recorded during the baby boom, and alongside this have enjoyed the benefits of continually **improving** life expectancy. One consequence of these trends is that both countries are **faced** with an **aging population**, and the **associated** challenge of providing appropriate care and support for this growing group within the community.

## 151. Legal deposit

Legal deposit existed in English law since 1662. It helps to ensure that the nation's published output (and thereby its **intellectual** record and future published heritage) is collected systematically, to **preserve** the material for the use of future generations and to make it available for **readers** within the designated legal deposit libraries. The Legal Deposit Libraries are the British Library, the National Library of Scotland, the National Library of Wales, the Bodleian Libraries, Oxford and the University Library, Cambridge.

The legal deposit system also has **benefits** for authors and publishers: Deposited publications are made available to users of the deposit libraries on their premises, are **preserved** for the benefit of future generations, and became part of the nation's heritage.

Publications are **recorded** in the online catalogs and **become** an essential **research** resource for generations to come.

## 152. Lysimachia (a Vegetable)

The genus Lysimachia includes about 150 species of herbaceous and **evergreen** perennials and **shrubs**, mainly growing in **damp** grassland and woodland or near water in subtropical regions. Leaf shapes may vary, but leaves are often hairy. The 5-petaled flowers can be shaped liked stars, saucers, or cups, and are most often white or yellow, and sometimes pink and purple.

Noteworthy characteristics: Larger species can be used in a **moist** border, **bog** garden, or on the edge of a pond, or for naturalizing in a wild or woodland setting. **Smaller**, low-growing species make good groundcovers.

## 153. Anesthesia

Before effective anesthetics, surgery was very crude and very painful. Before 1800, alcohol and opium had **little** success in easing pain during operations. Laughing gas was used in 1844 in dentistry in the USA, but failed to ease all pain and patients **remained** conscious. Ether (used from 1846) made patients totally unconscious and lasted a long time. However, it could make patients cough during operations and sick afterwards. It was highly flammable and was **transported** in heavy glass bottles. Chloroform (used from 1847) was very effective with few side effects. However, it was difficult to get the dose right and could kill some people **because of** the effect on their heart. An inhaler helped to regulate the dosage.

## 154. UBC expeditions to the Canadian Arctic

This summer, 41 UBC alumni and friends participated in expeditions to the Canadian Arctic and the legendary Northwest Passage. Presentations, conversations and learning accompanied their exploration of the great **outdoors** **aboard** the Russian-flagged. Akademik Ioffe, designed and built in Finland as a scientific research vessel in 1989. Her bridge was open to passengers virtually 24 hours a day. Experts on **board** presented on topics including climate change, wildlife, Inuit culture and history, and early European explorers. UBC professor Michael Byers presented on the issue of Arctic sovereignty, a **growing** cause of

debate as ice melts, new shipping routes open, and natural resources **become** accessible. Recommended pre-trip reading was late UBC alumnus Pierre Berton's book, *The Arctic Grail*.

## 155. The United Nations (2)

The United Nations is an international organization founded in 1945. Due to its unique international character, and the powers vested in its founding Charter, the organization can take **action** on a wide range of issues and provide a forum for its 193 Member States to **express** their views, through the General Assembly, the Security Council, the Economic and Social Council and other bodies and committees. The work of the United Nations reaches every **corner** of the globe. Although best known for peacekeeping, peacebuilding, conflict **prevention**, and humanitarian assistance, there are many other ways the United Nations and its system (specialized agencies, funds, and programs) affect our lives and make the world a better place.

## 156. Volcano's eruption

Volcanoes blast more than 100 million tons of carbon dioxide into the atmosphere every year but the gas is usually **harmless**. When a volcano erupts, carbon dioxide spreads out into the atmosphere and isn't **concentrated** in one **spot**. But sometimes the gas gets trapped **underground** under enormous pressure. If it escapes to the surface in a dense **cloud**, it can push out oxygen-rich air and become deadly.

Huge clouds of carbon dioxide were released from California's volcanic Mammoth Mountain in 1984, **killing** thousands of trees. The U.S. Forest Service declared the area off-limits to campers and keeps a close eye on gas levels there to this day.

## 157. Japan learned knowledge from China

Japan and China At times, a broad stream of knowledge flowed from China to Japan. At other times, this transfer was **halted** from one side or the other, and Japan **developed** on its own. But whether in isolation or not, Japan was always itself. Everything that **arrived** from China was **adapted** to suit Japanese tastes and needs.



## 158. QLD School

David Lynch is professor and head of education at Charles Darwin University. **Prior** to this he was sub dean in the Faculty of Education and Creative Arts at Central Queensland University and foundation head of the University's Noosa **campus**. David's career in education began as a primary school teacher in Queensland in the early 1980's and **progressed** to four principal **positions**. David's research interests predominate in teacher education with particular interest in building teacher **capability** to meet a changed world.

## 159. Classroom Setting

UMN's ALCs feature large **circular** tables that seat nine students and can accommodate laptop computers for **collaborative** work. Typically, students bring their own computers to class and use the building's ubiquitous wireless capability. The classrooms are designed to **facilitate** hands-on activities and problems that require students to interact with each other to reach a solution. Students can display their work on large LCD screens mounted around the room to promote small- and large-group discussion. Each table is allotted three gooseneck microphones so that students can make themselves heard without shouting during group discussions. Additionally, students can press a button on their table console to light a **signal** lamp to indicate when they need help or wish to **speak**. To facilitate brainstorming and group reporting, the room is also lined with erasable marker-boards.

(circular, engagement, signal, entire, lecture)

## 160. sales representative

Sales jobs allow for a great deal of discretionary time and effort on the part of the sales representatives - especially when compared with managerial, manufacturing, and service jobs. Most sales representatives work independently and outside the immediate presence of their sales managers. Therefore, some form of goals needs to be in place **as motive and guide** their performance. Sales personnel are not the only professionals with performance goals or quotas. Health care professionals operating in clinics have daily, weekly, and monthly goals in terms of patient visits. Service personnel are assigned a number of service



calls they **must perform** during a set time period. Production workers in manufacturing have output goals. So, why are achieving sales goals or quotas such a big deal? The answer to this question can be found by examining how a firm's other departments are affected by how well the company's salespeople achieve their performance goals. The success of the business **hinges on** the successful sales of its products and services. Consider all the planning, the financial, production and marketing efforts that go in to **producing what** the sales force sells. Everyone depends on the sales force to sell the company's products and services and they eagerly anticipate knowing things are going.

## 161. The Texas Cosmology Center

The Texas Cosmology Center will be a way for the university's departments of Astronomy and Physics to **collaborate** on research that concerns them both.

"This center will bring the two departments together in an area where they **overlap**--in the physics of the very early universe," said Dr. Neal Evans, Astronomy Department chair.

Astronomical observations have **revealed** the presence of dark matter and dark energy, discoveries that challenge our knowledge of fundamental physics. And today's leading theories in physics involve energies so high that no Earth-bound particle accelerator can test them. They need the universe as their laboratory.

Dr. Steven Weinberg, Nobel laureate and professor of physics at the university, called the Center's **advent** "a very exciting development" for that department.

## 162. Ancient Egyptians music

Music was as important to the ancient Egyptians as it is in our modern society. Although it is thought that music played a **role** throughout the history of Egypt, those that **study** the Egyptian writings have discovered that music **seemed** to become more important in what is called the 'pharaonic' **period** of their history. This was the **time** when the Egyptian dynasties of the pharaohs were **established** (around 3100 BCE) and music was **found in** many parts of every day Egyptian life.

## 163. Security footage

The introduction of security footage in courtrooms as evidence is increasingly common. With the number of closed-circuit television (CCTV) cameras rising, the likelihood of images deemed relevant for criminal proceedings being recorded also increases.

However, while CCTV footage may arguably have assisted in achieving **convictions** in some high-profile cases, can it assist in the overall reduction of violence against women?

A well-known example in Australia of CCTV helping solve a crime is the footage pulled from a shop on Sydney Road the night Jill Meagher was raped and murdered by Adrian Bayley. This footage was mentioned in his sentencing in 2013.

In the same year, Simon Gittany was found **guilty** of the murder of his partner Lisa Harnum. CCTV footage – taken from his own security cameras – was again **interpreted** as key evidence.

Beyond the courtroom, news media reports of crime are saturated with the use of CCTV footage. In both contexts, it is often seen to be **decisive** – an authoritative and objective witness that can tell us “what really happened”.

While used in a range of offences, its inclusion in instances of extreme (and public) violence against women can mean certain images receive significant and sustained media **attention**, and may remain online indefinitely.

The strength of CCTV in our public consciousness is such that questions of privacy are often dismissed as inconsequential. CCTV installed in the homes of family violence victims has even been considered.

## 164. The UW course descriptions

The UW course descriptions are **updated** regularly during the academic year. All announcements in the General Catalog and Course Catalog are subject to change without **notice** and do not constitute an **agreement** between the University of Washington and the student. Students should assume the responsibility of **consulting** the appropriate academic unit or adviser for more current or specific information.

## 165. An Act

The Nature Conservation Amendment Act of 1996 enables the Minister of Environment and Tourism to register a conservancy if it has a **representative** committee, a legal constitution, which provides for the sustainable **management** and utilization of game in the conservancy, the ability to manage the funds, an approved method for the **equitable** distribution of benefits to members of the community and defined **boundaries**.

## 166. Laurence Stephen

Laurence Stephen Lowry (1 November 1887 — 23 February 1976) was an English artist. Many of his drawings and paintings depict Pendlebury, Lancashire, where he lived and worked for more than 40 years, and also Salford and its surrounding areas. Lowry is famous for painting scenes of life in the **Industrial** districts of North West England in the mid-20th century. He developed a distinctive style of painting and is best known for his urban landscapes peopled with human figures often referred to as "**matchstick** men". He painted mysterious unpopulated landscapes, brooding **portraits** and the unpublished "marionette" works, which were only found after his death.

## 167. Studying law

It is important to **emphasize** the need for hard work as essential part of studying law, because far too many students are tempted to think that they can succeed by relying on what they imagine to be their natural ability, without bothering to add the expenditure of effort. To take an analogy, some people prefer the more or less instant **gratification** which comes from watching a television adaption of a classic novel to the rather more **laborious** process of reading the novel itself. Those who **prefer** watching television to reading the book are less likely to study law successfully, unless they rapidly acquire a **taste** for text-based materials.

## 168. Classic

One of the most important things to remember is that “classic” does not necessarily translate to “favorite” or “bestselling”. Literature is instead considered classic when it has stood the test of time; and it stands the test of time when the artistic quality it expresses be it an **expression** of life, truth, beauty, or anything about the universal human condition continues to be relevant, and continues to inspire emotional responses, no matter the period in which the work was written.

Indeed, classic literature is considered as such **regardless** of book sales or public popularity. That said, classic literature usually merits lasting recognition from critics and other people in a position to **influence** such decisions and has a universal appeal. And, while effective use of language as well as technical excellence is a must, not everything that is well-written or is characterized by technical achievement or critical acclaim will automatically be considered a classic. Conversely, works that have not been **acknowledged** or received positively by the writer’s contemporaries or critics can still be considered as classics.

## 169. Growing customer power

Organizations need to integrate their sales activities more both internally and with customers' needs according to a new book co-authored by an academic at the University of East Anglia. The book **addresses** how sales can help organizations to become more customer oriented and considers how they are responding to challenges such as increasing competition, more **demanding** customers and a more complex selling environment. Many organizations are facing escalating costs and a growth in customer power, **which** makes it necessary to allocate resources more strategically. The sales function can provide critical customer and market knowledge to help inform both innovation and marketing.

However, the authors say that within the industry **there** is still uncertainty about the shape a future sales team should take, how it should be managed, and how it **fits** into their organization's business model.

## 170. The Gallery's Conservation Department

The National Portrait Gallery's Conservation Department performs one of the Gallery's **core** functions, the long-term preservation of all Collection items, to make them **accessible** now and in future.

The Collection **dates** from the 8th century to the present day, and **consists** of portraits in a variety of media, so the Gallery employs Conservators with **expertise** in a range of disciplines, including Framing, Painting, Paper, Sculpture and Photography.

## 171. An Expert Teacher

The **casual** observer does not necessarily recognize the **skill** in how a teacher, for instance, responds to a thoughtful question from a normally quiet student and how that may be very different from the 'standard response' to a commonly inquisitive or **talkative** student. Expert teachers are aware of what they are doing; they monitor and adjust their teaching behaviors to bring out the **best** in their students.

## 172. Mayan Civilization

The Classic era of Mayan **civilization** came to an end around 900 AD. Why this happened is unclear; the cities were probably over-farming the land, so that a **period** of drought led to famine. Recent geological **research** supports this, as there appears to have been a 200-year drought around this time.

## 173. transportation

Before the 20th century the horse provided day to day transportation in the United States. Trains were used only for long-distance transportation.

Today the car is the most popular **means** of transportation in all of the United States. It has completely **replaced** the horse as a means of everyday transportation. Americans use their car for **nearly** 90 percent of all personal **trip**.



Most Americans are able to **buy** cars. The average price of a **recently** made car was, \$ 2500 in 1950, \$2740 in 1960 and up to \$4750 **in** 1975. During this period American car manufacturers set about **improving** their products and work efficiency.

As a result, the yearly income of the **average** family increased from 1950 to 1975 **faster** than the price of cars. For this reason **purchasing** a new car takes a smaller **part** of a family's total earnings today.

In 1951 **proportionally** it took 8.1 months of an average family's **income** to buy a new car. In 1962 a new car **cost** 8.3 of a family's annual earnings. By 1975 it only took 4.75 **months** income. In addition, the 1975 cars were technically **superior** to models from previous years. The **influence** of the automobile extends throughout the economy **as** the car is so important to Americans. Americans spend more money to **keep** their cars running than on any other item.

## 174. SARS

Scientists around the world are racing to learn how to rapidly diagnose, treat and stop the spread of a new, deadly disease. SARS--Severe Acute Respiratory Syndrome--was **detected** for the first time in February 2003 in Hanoi, **and** since then has infected more than 1,600 people in 15 countries, killing 63. At this **point**, there are more questions than answers surrounding the disease.

Symptoms start **with** a fever over 100. 4 degrees F, chills, headache or body **aches**. Within a week, the patient has a dry cough, which might **progress** to shortness of breath. In 10% to 20% of cases, patients require **mechanical** ventilation to breathe. About 3.5% die from the disease. Symptoms **generally** begin in two to seven days, but some reports suggest it **might** take as long as 10 days. Scientists are close to **developing** a lab test to diagnose SARS. In the meantime, it is diagnosed by its symptoms. There is no evidence **that** antibiotics or anti-viral medicines help, **so** doctors can offer only supportive care. Patients with SARS are kept in isolation to reduce the risk of **transmission**. Scientists aren't sure yet, but some researchers think it's a **newly** discovered coronavirus, the family of viruses that cause some common colds.



Most cases appear to have been passed **through** droplets expelled when infected patients cough or sneeze. Family members of infected people and medical workers who care for them have been most likely to contract the illness. But recent developments in Hong Kong suggest that the **disease** might spread through air, or that the virus might **linger** for two to three hours on doorknobs or other **surfaces**. Health experts say it is unlikely, though, that sharing an elevator briefly with an infected person would be enough to pass the virus.

## 175. Who won the World Cup 1994

Who won the World Cup 1994 football game? What happened at the United Nations? How did the critics like the new play? **Just when** an event takes place, newspapers are on the streets **to give** the details. Wherever anything happens in the world, reports are on the spot to **gather** the news.

Newspapers have one basic **purpose**, to get the news as quickly as possible from its source, from those who make it to those who want to **know** it. Radio, telegraph, television, and **other** inventions brought competition for newspapers. So did the development of magazines and other means of communication. **However**, this competition merely spurred the newspapers on. They quickly made use of the newer and faster means of communication to improve the **speed** and thus the efficiency of their own operations. Today more newspapers are **printed** and read than ever before. Competition also led newspapers to branch out to many other fields. Besides keeping readers **informed** of the latest news, today's newspapers **educate** and influence readers about politics and other important and serious matters. Newspapers influence readers' economic choices **through** advertising. Most newspapers depend on advertising for their very **existence**. Newspapers are sold at a price that **fails** to cover even a small fraction of the cost of production. The main **source** of income for most newspapers is commercial advertising. The **success** in selling advertising depends on a newspaper's value to advertisers. This **is measured** in terms of circulation. How many people read the newspaper? Circulation depends **much** on the work of the circulation department and on the services or entertainment **offered** in a newspaper's pages. But for the most part, circulation depends on a newspaper's value to readers as a source of information **about** the community, city, country, state, nation, and world—and even outer space.

## 176. Poor Reading Habits

For many people today, reading is no longer relaxation. To keep up their work they must read letters, reports, trade publications, interoffice communications, not to mention newspapers and magazine: a never-ending flood of words. In **getting** a job or advancing in one, the ability to read and comprehend **quickly** can mean the difference between success and failure. Yet the unfortunate fact is that most of us are **poor** readers. Most of us develop poor reading **habits** at an early age, and never get over them. The main deficiency **lies** in the actual stuff of language itself-words. Taken individually, words have little meaning until they are strung to gather into phrase, sentences and paragraphs. **Unfortunately**, however, the untrained reader does not read groups of words. He laboriously reads one word at a time, often regressing to **reward** words or passages, Regression, the tendency to look back over **what** you have just read, is a common bad habit in reading. Another habit which **slows** down the speed of reading is vocalization — sounding each word either orally or mentally as **one** reads.

To overcome these bad habits, some reading clinics use a device called an **accelerator**, which moves a bar (or curtain) down the page at a predetermined speed. The bar is set at a slightly faster rate **than** the reader finds comfortable, in order to stretch him. The accelerator forces the reader to read fast, making word-by-word reading, regression and subvocalization, practically impossible. At first **comprehension** is sacrificed for speed. But when you learn to read ideas and concepts, you will not only read faster, **but** your comprehension will improve. Many people have found **their** reading skill drastically improved after some training. **Take** Charlce Au, a business manager, for instance, his reading rate was a reasonably good 172words a minute **before** the training, now it is an excellent 1,378 words a minute. He is delighted that how he can **get through** a lot more reading material in a short period of time.

## 177. What's a herbal?

A herbal is a book of plants, describing their appearance, their properties and how they may be used for preparing ointments and medicines. The medical use of plants is **recorded** on

fragments of papyrus and clay tablets from ancient Egypt, Samaria and China that date back 5,000 years but document traditions far older still. Over 700 herbal remedies were detailed in the Papyrus Ebers, an Egyptian text written in 1500 BC.

Around 65 BC, a Greek physician called Dioscorides wrote a herbal that was **translated** into Latin and Arabic. Known as 'De materia medica', it became the most influential work on medicinal plants in both Christian and Islamic worlds until the late 17th century. An illustrated manuscript copy of the text made in Constantinople (modern-day Istanbul) **survives** from the sixth century.

The first printed herbals date from the dawn of European printing in the 1480s. They provided valuable information for apothecaries, whose job it was to make the pills and potions **prescribed** by physicians.

## 178. Progressive Enhancement

Progressive enhancement is a design practice based on the idea that instead **of designing** for the least capable browser, or mangling our code to make a site look the same in every browser, we should provide a core set of functionality and information to all users, and **then progressively** enhance the appearance and behavior of the site for users of more capable browsers. It's very productive development practice. **Instead of spending** hours working out how to add drop shadows to the borders of an element in every browser, we simply use the standards-based approach for browsers that support it and don't even attempt to implement it in browsers that don't. After all, the users of older and less capable browsers won't know what they are missing. **The biggest challenge** to progressive enhancement is the belief among developers and clients that websites should look the same in every browser. As a developer, you can simplify your life and dedicate your time to more interesting challenges if you let go of this outdated notion and embrace progressive enhancement.

## 179. What Coffee Does to Your Health

Coffee can be considered one of nature's greatest gifts. It gives mental and emotional **clarity** without harmful side effects, (like alcohol or tobacco), and it contains a wealth of nutrients. Yet, when most people drink coffee, they are not thinking that the beverage is **improving**

their health. In fact, some may even feel a little guilty, **since** they believe coffee isn't good for you at all.

Well, here's the truth of the matter. Coffee, like anything else, can cause problems if too much is **consumed**. In the short-term, too much coffee will cause insomnia, nausea and hypertension. In the long-term, too much coffee will cause stomach problems, teeth staining, and high cholesterol.

As for the benefits, moderate consumption of coffee, (which means 1 to 4 cups a day), supplies your body with a wealth of antioxidants. These substances are **responsible** for eliminating free radicals. They are the chemical byproducts produced any time your body does something. A small number of them can help serve as a buffer against negative elements, but if they aren't kept in check, they can cause health problems. Antioxidants **ensure** that this doesn't happen.

The psychological effects of caffeine cannot be **ignored** either. Not only does caffeine make you more **alert**, but it can actually affect your mood. If you were feeling **depressed** or overwhelmed, a nice cup of coffee could change your perspective. The stack of work that seemed **impossible** before isn't even a problem now.

**In addition**, caffeine helps stimulate creativity as it speeds up the body's functioning. That's why coffee is often **associated** with writers and other intellectual professions. Other drugs **tend** to make people dumber. Consider what happens when people get high off of crack or when they get drunk off of alcohol. They won't be functional at all. But with coffee, an individual gets a creative boost while still helping their bodies.

In conclusion, don't feel bad when you're brewing your morning cup of coffee. **Unlike** a can of soda or a shot of alcohol, coffee will make you feel wonderful while keeping you healthy. Just remember, you do have to consume the beverage **in moderation**.

## 180. Brain Actions

Researchers in Europe and the US wanted to find out exactly what happens to our brain when we find ourselves stunned with fright in the hope of better understanding how fear **interplays** with human anxiety disorders.

For the first time, they **traced** and linked three parts of the brain **responsible** for freezing behaviors: the amygdala, ventrolateral periaqueductal grey region and magnocellular nucleus. Mice are excellent lab animals where it comes to anxiety and fear experiments. When a mouse is scared, its defensive behaviors range from freezing, attacking, risk **assessment** or fleeing the scene. How a mouse acts depends on variables such as access to escape routes or the level of threat faced.

So Andreas Lüthi at the Friedrich Miescher Institute for Biomedical Research in Switzerland and colleagues from Europe and the US observed brain activity in mice placed in frightening situations to **trace** the brain circuits **responsible** for freezing behaviors.

In particular, the researchers wanted to learn more about a part of the brain called the ventrolateral periaqueductal grey region, which was believed to **play** some part in a mouse's instinct to freeze or flee.

## 181. Most students bored at schools

A majority of U.S. high school students say they get bored in class every day, and more than one out of five has considered **dropping out**, according to a survey released on Wednesday. The survey of 81,000 students in 26 states found two-thirds of high school students **complain** of boredom, usually because the subject matter was **irrelevant** or their teachers didn't seem to care about them.

## 182. Benefits of drinking coffee

Coffee is enjoyed by millions of people every day and the 'coffee experience' has become a staple of our modern life and **culture**. While the current body of research related to the effects of coffee **consumption** on human health has been contradictory, a study in the June issue of Comprehensive Reviews in Food Science and Food Safety, which is published by the Institute of Food Technologists (IFT), found that the potential **benefits** of moderate coffee drinking outweigh the risks in adult consumers for the majority of major health **outcomes** considered.



## 183. Saving Money

Friedman showed that, while people do save more when they earn more, it is **only** to spend later\_ Those in work save **against** a time of sickness, unemployment or old age - but because the sick, unemployed and elderly **spend** their savings, overall **consumption** does not fall as people get richer.

## 184. The Physical Universe

Stars and the material between them are almost always found in gigantic **stellar** systems called galaxies. Our own galaxy, the Milky Way System; happens to be one of the two largest systems in the Local Group of two dozen or so galaxies\_ The other is the Andromeda galaxy; it **stretches** more than one hundred thousand light- years from one end to the other, and it is **located** about two million light-years distant from us.

## 185. The UN Library

The Dag Hammarskjold Library at United Nations Headquarters in New York is a library designated to facilitate the work of the United Nations and focuses mainly on the needs of the UN Secretariat and diplomatic missions. Anyone with a valid United Nations Headquarters grounds **pass**, including specialized agencies, accredited media and NGO staff, is able to visit the library. Due to **security** constraints in place at the United Nations Headquarters complex, the library is not open to the general **public**.

## 186. How Many Hours Do You Sleep A Day?

The amount of sleep you need depends on many **factors**, especially your age. Newborns sleep between 16 and 18 hours a day and preschool children should sleep between 10 and 12 hours. Older children and teens need at least nine hours to be well rested. For most adults, seven to eight hours a night appears to be the best amount of sleep. However, for some people, "enough sleep" may be as few as five hours or as many as 10 hours of sleep.

As you get older, your sleeping **patterns** change\_ Older adults tend to sleep more lightly and awaken more frequently in the night than younger adults. This can have many causes



including medical conditions and medications used to treat them. But there's no evidence that older adults need less sleep than younger adults.

Getting enough sleep is **important** to your health because it boosts your **immune** system, which makes your body better able to fight disease. Sleep is necessary for your nervous system to work properly. Too little sleep makes you drowsy and unable to concentrate. It also impairs memory and physical performance.

So how many hours of sleep are enough for you? Experts say that if you feel drowsy during the day — even during boring activities — you are not getting enough sleep. Also, quality of sleep is just as **important** as quantity. People whose sleep is frequently interrupted or cut short are not getting quality sleep.

If you experience frequent daytime sleepiness, even after increasing the amount of quality sleep you get, talk to your doctor. He or she may be able to **identify** the cause of sleep problems and offer advice on how to get a better night's sleep.

## 187. The Civil Society

For too long we have held preconceived notions of 'the' market and 'the' state that were seemingly independent of local societies and cultures\_ The debate about civil society ultimately is about how culture, market and state **relate to** each other. Concern about civil society, however, is not only relevant to central and eastern Europe and the developing world. It is very much of **interest to** the European Union as well. The Civil Dialogue initiated by the Commission in the 1990s was a first attempt by the EU to give the institutions of society-and not only governments and businesses-a voice at the policy-making tables in Brussels. The EU, like other international institutions, has a long way to go in trying to **accommodate** the frequently divergent interests of non-governmental organizations and citizen groups. There is increasing **recognition** that international and national governments have to open up to civil society institutions.

## 188. Minds

Let us then suppose the mind to be, as we say, white paper, **void** of all characters, without any ideas:- How comes it to be **furnished**? Whence comes it by that vast store which the

busy and **boundless** fancy of man has painted on it with an almost endless variety? Whence has it all the materials of reason and knowledge? To this I answer, in one word, from **experience**.

## 189. Mathematical Sophistication

Rudman looks at how a poor understanding of Maths has led historians to false conclusions about the Mathematical **sophistication** of early societies. Rudman's final observation-that ancient Greece enjoys **unrivalled** progress in the subject **while** failing to teach it at school-leads to a **radical** punchline; Mathematics could be better learnt after we **leave** school.

## 190. Causes of Unemployment

One cause of unemployment may be downswings in the trade cycle, ie. periods of recession. Another explanation of wide-scale unemployment refers to structural employment. **Structural** unemployment arises from longer-term changes in the economy, affecting **specific** industries, regions and occupations. Structural unemployment often explains regional unemployment. Some regions of the UK such as Central Scotland, and the North-West have higher rates of unemployment because the **traditional** heavy industries which **located** there have gone into decline as they are **replaced** by cheaper imports from abroad. The new high-tech industries based on new technologies tend to be based in the South-East and along particular growth corridors.

## 191. Good Customer Services

Good customer service relates to the service you and your employees provide before, during and after a purchase. For example, it's how you **interact** with your customer. Improving your customer service skills can lead to greater customer satisfaction and a more enjoyable experience for them.

No matter the size of your business good customer service needs be at the heart of your business model if you wish to be successful. It is important to provide good customer service; to all types of customers, including **potential**, new and existing customers. Although

it can take extra resources, time and money, good customer service leads to customer satisfaction which can generate positive **word-of-mouth** for your business, keep your customers happy and encourage them to purchase from your business again. Good customer service can help your business grow and prosper.

## 192. The Story of English

At the beginning of the twenty-first century, the relationship between standard and nonstandard language is, evidently, still an uncertain one. We are at a **transitional** point between two eras. We seem to be leaving an era when the rules of Standard English, as selected and defined by prescriptive grammarians, totally conditioned our sense of **acceptable** usage, so that all other usages and varieties were considered to be inferior or corrupt, and excluded from serious consideration. And we seem to be approaching an era when nonstandard usages and varieties, previously denigrated or ignored, are achieving a new presence and respectability within society, reminiscent of that found in Middle English, when dialed variation in literature was widespread and uncontentious. But we are not there yet. The rise of Standard English has resulted in a confrontation between the standard and nonstandard dimensions of the language which has lasted for over 200 years, and this has had traumatic **consequences** which will take some years to eliminate. Once people have been given an inferiority complex about the way they speak or write, they find it difficult to shake off.

## 193. Music and Identity

Music is an important part of our lives. We connect and interact with it daily and use it as a way of projecting our self-identities to the people around us. The music we enjoy — whether it's country or classical, rock n' roll or rap — **reflects** who we are. But where did music, at its core, first come from? It's a puzzling question that may not have a definitive answer. One **leading** researcher, however, has proposed that the key to understanding the origin of music is nestled snugly in the loving bond between mother and child. In a lecture at the University of Melbourne, Richard Parncutt, an Australian-born professor of systematic

musicology, endorsed the idea that music originally spawned from 'motherese' — the playful voices mothers **adopt** when speaking to **infants** and toddlers.

As the theory goes, increased human brain sizes caused by evolutionary changes occurring between one and 2,000,000 years ago resulted in earlier births, more fragile infants and a **critical** need for stronger relationships between mothers and their newborn babies.

According to Parncutt, who is based at the University of Graz in Austria, 'motherese' arose as a way to strengthen this maternal bond and to help **ensure** an infant's survival.

## 194. The private Library

Omniscience may be a foible of men, but it is not so of books. Knowledge, as Johnson said, is of two **kinds**, you may know a thing yourself, and you may know where to find it. Now the amount which you may actually know yourself must, at its best, be limited, but what you may know of the **sources** of information may, with proper training, become almost boundless. And here come the **value** and use of reference books--the working of one book in connexion with another—and applying your own **intelligence** to both. By this means we get as near to that omniscient volume which tells everything as ever we shall get, and although the single volume or work which tells everything does not exist, there is a vast number of reference books in existence, a knowledge and proper use of which is essential to every intelligent person. Necessary as I believe reference books to be, they can easily be made to be **contributory** to idleness, and too mechanical a use should not be made of them. Very admirable reference books come to us from America, where great industry is shown, and funds for publishing them never seem to be short. The French, too, are excellent at reference books, but the inferior way in which they are printed makes them tiresome to refer to.

## 195. MBA

Deciding to go to business school is perhaps the simplest part of what can be a complicated process. With nearly 600 accredited MBA programs on **offer** around the world, the choice of where to study can be overwhelming. Here we explain how to **choose** the right school and course for you and unravel the application and funding process. "Probably the **majority** of

people applying to business school are at a point in their careers where they know they **want** to shake things up, but they don't know exactly what they want to do with their professional lives," says Stacy Blackman, an MBA admissions consultant based in Los Angeles. "If that's the case with you, look at other **criteria**: culture, teaching method, location, and then pick a place that's a good fit for you with a strong general management program. Super-defined career goals don't have to be a part of this process."

## 196. How Darwin thought

Charles Darwin knew intuitively that tropical forests were places of **tremendous** intricacy and energy. He and his cohort of scientific naturalists were **awed** by the beauty of the Neotropics, where they collected tens of thousands of **species** new to science. But they couldn't have guessed at the complete contents of the rain forest, and they had no idea of its **value** to humankind.

## 197. Copyright

The presentation will cover copyright's position as one of the intellectual property rights and how it **differs** from other intellectual property rights. It will give **an overview** of what copyright protects as well as what may be done with copyright protected works without permission under permitted acts (sometimes or so-called exceptions). It is by manipulating the restricted acts through licensing arrangements that rights owners **establish** and exploit commercial markets. In contrast to commercial markets, the growth of open source and open content licensing models has **challenged** established business models. The presentation gives a brief commentary on two of the more **prominent** open licensing frameworks: the GNU Creative Commons licences.

## 198. A Sustainable Transportation System

A sustainable transportation system is one in which people's needs and desires for access to jobs, commerce, recreation, culture and home are accommodated using a minimum of resources. Applying **principles** of **sustainability** to transportation will reduce pollution



generated by gasoline-powered engines, noise, traffic congestion, land devaluation, urban sprawl, economic segregation, and injury to drivers, pedestrians and cyclists. In addition, the costs of commuting, shipping, housing and goods will be **reduced**.

Ultimately in a sustainable San Francisco, almost all trips to and **within** the City will be on public transit, foot or bicycle — as will a good part of trips to the larger Bay Region. Walking through streets designed for pedestrians and bicycles will be more pleasant than walking through those designed for the automobile. Street-front retail and commercial establishments will prosper from the large **volume** of foot traffic drawn to an environment enhanced by trees, appropriately designed "street furniture," (street lights, bicycle racks, benches, and the like) and other people. Rents and property costs will be lowered as land for off-street parking is no **longer** required or needed.

## 199. Pidgins

Pidgins are languages that are born after contact between at least two languages. As **many** pidgins developed during the period of empire and international trade, one of the language 'parents' was frequently a European language such as French or English, and the other language parent was the language of the people with whom the Europeans were **trading** or whom they were colonizing. Usually one of the languages provided the majority of **vocabulary** items and the other provided the grammatical structure. When pidgins become learned as a mother tongue, they become **known** as creoles. I am not going to discuss pidgins and creoles and contact languages as such in this book in **any depth**.

## 200. Reliable Information

Having tracked down research that is **relevant** to your **area** of interest the next task is to actually make sense of that research. This section is intended to show you how to be critical of the research you **are reviewing** and how to check that the **evidence** is credible and represented appropriately. Unfortunately this means discussing the ways in which research findings may be misrepresented.



## 201. conservancy committee

To qualify as a conservancy, a committee must define the conservancy's boundary elect a representative conservancy committee, negotiate a legal constitution, prove the committee's ability to manage funds, and produce an acceptable plan for equitable distribution of wildlife-related benefits. Once approved, registered conservancies acquire the rights to a sustainable wildlife quota, set by the ministry.

## 202. Bats in Ecosystem

Of the more than 1,000 bat species worldwide, 22 are native to North America. And while there are no pollinator bats in our area, gardeners should champion those that do live here, because they're insectivorous. These bats consume moths, beetles and mosquitoes, and can eat up to 500 mosquito-sized insects per hour. They also protect gardens and crops from such pests as cucumber beetles, cutworms and leafhoppers.

## 203. Settlement in Cities

Over the last ten thousand years there seem to have been two separate and conflicting building sentiments throughout the history of towns and cities one is the desire to start again, for a variety of reasons: an earthquake or a tidal wave may have demolished the settlement, or fire destroyed it, or the new city marks a new political beginning. The other can be likened to the effect of a magnet: established settlements attract people, who tend to come whether or not there is any planning for their arrival. The clash between these two sentiments is evident in every established city unless its development has been almost completely accidental or is lost in history. Incidentally, many settlements have been planned from the beginning but, for a variety of reasons, no settlement followed the plan. A good example is Currowan, on the Clyde River in New South Wales, which was surveyed in the second half of the 19th century, in expectation that people would come to establish agriculture and a small port. But no one came. Most country towns in New South Wales started with an original survey, whose grid lines are still there today in the pattern of the original streets.

## 204. Paris

Paris is very old—there has been a settlement there for at least 6000 years and its shape has been determined in part by the River Seine, and in part by the edicts of France's rulers. But the great boulevards we admire today are relatively new, and were constructed to prevent any more barricades **being created** by the rebellious population; that work was carried out in the middle 19th century. The earlier Paris had been **in part** a maze of narrow streets and alleyways. But you can imagine that the work was not only highly expensive, but caused great distress among the half a million or so residents whose houses were **simply** razed, and whose neighborhoods disappeared. What is done cannot usually be undone, especially when buildings are torn **down**.

## 205. Trust Your Gut

What is the significance of instinct in business? Does a reliable gut feeling separate winners from losers? And is it the most valuable emotional tool any entrepreneur can possess? My observations of successful company owners lead me to believe that a highly analytical attitude can be a drawback. At critical junctures in commercial life, risk-taking is more an **act** of faith than a carefully balanced choice. Frequently, such moments require **decisiveness** and absolute conviction above all else. There is simply no time to wait for all the facts, or room for doubt. A computer program cannot tell you how to invent and launch a new **product**. That journey involves too many unknowns, too much luck — and too much sheer intuition, rather than the infallible **logic** that machines deliver so well. As Chekhov said: "An artist's flair is sometimes worth a scientist's brains" —entrepreneurs need right-brain thinking. When I have been considering whether to buy a company and what price to offer, I have been **blinded** too often by reams of due diligence from the accountants and lawyers. Usually it pays to stand back from such mountains of grey data and weigh up the really important issues — and decide how you feel about the opportunity.

## 206. Evolutionary Changes

In *The Origin of Species*, Darwin provided abundant evidence that life on Earth has evolved over time, and he proposed natural selection as the primary mechanism for that change. He observed that individuals **differ** in their inherited traits and that selection acts on such differences, leading to **evolutionary** change. Although Darwin realised that variation in heritable traits is a prerequisite for **evolution**, he did not know precisely how organisms pass **heritable traits** to their offspring. Just a few years after Darwin published *The Origin of Species*, Gregor Mendel wrote a groundbreaking paper on inheritance in pea plants. **In** that paper, Mendel proposed a model of inheritance in which organisms transmit discrete heritable units (now called genes) to their offspring. Although Darwin did not know about genes, Mendel's paper set the stage **for** understanding the genetic differences on which evolution is based.

## 207. The Global Textile Industry

The environmental impact of the global textile industry is hard to overstate. One-third of the water used worldwide is spent fashioning fabrics. For every ton of cloth **produced**, 200 tons of water is polluted with chemicals and heavy metals. An estimated 1 trillion kilowatt-hours of electricity powers the factories that card and comb, spin and weave, and cut and stitch materials into everything from T-shirts to towels, **leaving** behind mountains of solid waste and a massive carbon footprint.

"Where the industry is today is not really sustainable for the long term," says Shreyaskar Chaudhary, chief executive of Pratibha Syntex, a textile manufacturer based outside Indore, India.

With something of an "if you build it, they will come" attitude, Mr. Chaudhary has steered Pratibha **toward** the leading edge of eco-friendly textile production. Under his direction, Pratibha began making clothes with organic cotton in 1999. Initially, the company couldn't find enough organic farms growing cotton in central India to **supply** its factories. To meet production demands, Chaudhary's team had to convince conventional cotton farmers to change **their** growing methods. Pratibha provided seeds, cultivation instruction, and a

guarantee of fair-trade prices for **their** crops. Today, Pratibha has a network of 28,000 organic cotton growers across the central states of Madhya Pradesh, Maharashtra, and Orissa.

## 208. The Evolution of Culture

People modify cultural ideas in their minds, and sometimes they pass on the modified versions. Inevitably, there are unintentional modifications as well, partly because of straightforward error, and partly because inexplicit ideas are hard to **convey** accurately: there is no way to download them directly from one brain to another like computer programs. Even native speakers of a language will not give identical definitions of every word. So it can be only rarely, if **ever**, that two people hold precisely the same cultural idea in their minds. That is why, when the founder of a political or philosophical movement or a religion dies, or **even before**, schisms typically happen. The movement's most devoted followers are often shocked to **discover** that they disagree about what its doctrines —really are.

## 209. Great Engineers

Great engineers have a passion to improve life; a burning conviction that they can make life better for everyone. Engineers need to have a talent for invention and innovation, but what **drives** them is the conviction that they can find a better way to do things; a cheaper and more efficient solution to the problems of human existence on this planet of **limited** resources that we call Earth.

Many of us **spend** a lot of time complaining about the difficulties and problems of life. It is easy to find fault with things that make daily life arduous. For an engineer, these difficulties can be opportunities. How can this be made to work better? How can that process be made more efficient? How can **components** be made more cheaply, more accurately and more fit-for-purpose? Great engineers are convinced that everything can be **improved**. Instead of complaining, they think of ways to make things better.

## 210. Typewriter Monkeys

This illustration often used is the one that the monkey and the typewriters\_ OK, we have a monkey sitting at a **typewriter** and the claim here is basically if you leave chance in time long enough you will get life. Don't worry about it, yes, its strange, yes it's wonderful, but leaves enough matter 600 million years on earth and you will have life. So, the monkey sitting at the typewriter: the chances are eventually he produces the complete works of Shakespeare but he doesn't manage to do it in 600 million years\_ So what I decide to do is to run the numbers\_ I instead of saying typing the complete work of Shakespeare. I just run the numbers for how long would it take a monkey typing one key **striker** a second. To type "to be or not to be that is the question", right? On average how long is it gonna take my monkey friend one **keystroke** a second. Don't know how you think it would be\_ Maybe you could have a guess. Would it be less or more than 600 million years, which is the period life on earth isn't supposed to have **emerge** within and when I run the numbers "to be or not to be is the question" takes 12.6 trillion trillion trillion year to type just that **phrase** and a DNA **string** that something of that complexity emerges by chance undirected within 600 million years? Again, it's mathematically possible but it's so incredible unlikely that it would have that it tilts me in favor of the Christian story in which God creating life, simply a question of saying let that be and there was.

## 211. Latin America Declares Independence

In the southern cone especially, from Venezuela to Argentina, the region is rising to overthrow the legacy of external domination of the past centuries and the cruel and destructive social forms that they have helped to establish. The **mechanisms** of imperial control — violence and economic warfare, hardly a distant memory in Latin America — are losing their effectiveness, a sign of the shift toward independence. Washington is now compelled to tolerate governments that in the past would have drawn intervention or reprisal. Throughout the region a vibrant **array** of popular movements provide the basis for a meaningful democracy. The indigenous populations, as if in a rediscovery of their pre-Columbian legacy, are much more active and influential, particularly in Bolivia and Ecuador.



These developments are in part the result of a phenomenon that has been observed for some years in Latin America: As the elected governments become more formally democratic, citizens **expressed** an increasing disillusionment with democratic institutions. They have sought to construct democratic systems based on popular participation rather than elite and foreign **domination**.

## 212. Special Effects

If you see a movie, or a TV advertisement, that involves a fluid behaving in an unusual way, it was probably made using technology based on the work of a Monash researcher. Professor Joseph Monaghan who pioneered an influential **method** for interpreting the behavior of liquids that underlies most special effects involving water has been **honored** with election to the Australian Academy of Sciences. Professor Monaghan, one of only 17 members elected in 2011, was recognized for developing the **method** of Smoothed Particle Hydrodynamics (SPH) which has applications in the fields of astrophysics, engineering and physiology, as well as movie special effects. His research started in 1977 when he tried to use computer simulation to describe the formation of stars and stellar systems. The algorithms available at the time were **incapable** of describing the complicated systems that evolve out of chaotic clouds of gas in the galaxy. Professor Monaghan, and his colleague Bob Gingold, took the novel and effective approach of replacing the fluid or gas in the simulation with large numbers of particles with properties that **mimicked** those of the fluid. SPH has become a central tool in astrophysics, where it is currently used to simulate the evolution of the universe after the Big Bang, the formation of stars, and the processes of planet building.

## 213. DNA

The recipe for making any creature is written in its DNA. So last November, when geneticists published the near-complete DNA sequence of the long-extinct woolly mammoth, there was much speculation about whether we could bring this behemoth back to life. Creating a living, breathing creature from a genome sequence that exists only in a computer's memory is not possible right now. But someone someday is sure to try it, **predicts** Stephan Schuster,



a **molecular** biologist at Pennsylvania State University, University Park, and a **driving** force behind the mammoth genome project.

## 214. USW Grad life

UWS graduates Racha Abboud and Anna Ford, whose story first appeared in GradLife in December 2009, have **successfully** risen through the ranks to be **appointed** Associates at leading western Sydney law firm, Coleman Greig Lawyers. The promotion marks the **culmination** of many years of hard work for these legal **eagles** who are the first to rise to this **level** from the firm's Cadet Lawyer program with UWS.

## 215. Intelligence of Animals

Comparing the intelligence of animals of different species is difficult, how do you compare a dolphin and a horse? Psychologists have a technique for looking at intelligence that **does** not require the cooperation of the animal involved. The relative size of an individual's brain is a reasonable indication of intelligence. Comparing **across** species is not as simple an elephant will have a larger brain than a human simple because it is a large beast. **Instead** we use the Cephalization index, which compare the size of an animal's brain to the size of its body. Based on the Cephalization index, the brightest animals on the planet are humans, **followed** by great apes, porpoises and elephants. As a general **rule**, animals that hunt for a living (like canines) are smarter than strict vegetarians (you don't need much intelligence to outsmart a leaf of lettuce). Animals that live in social groups are always smarter and have large EQ's than solitary animals.

## 216. Women Empowerment

With the increase in women's **participation** in the labor force, many mothers have less time **available** to undertake domestic activities. At the same time, there has been increasing **recognition** that the father's role and **relationship** with a child is important. A father can have many **roles** in the family, ranging from income provider to teacher, carer, playmate and

role model. Therefore, balancing paid work and family responsibilities can be an important issue for both fathers and mothers in families.

## 217. Music and the Story

Most important of all is the fact that for each new ballet-pantomime created at the Paris Opera during the July Monarchy, a new score was produced. The reason for this is simple: these ballet-pantomimes told stories—elaborate ones—and music was considered an indispensable tool in getting them across to the audience. **Therefore**, music had to be newly created to fit each story. Music tailor-made for each new ballet-pantomime, however, was only one weapon in the Opera's explanatory arsenal. **Another** was the ballet-pantomime libretto, a printed booklet of fifteen to forty pages in length, which was sold in the Opera's lobby (like the opera libretto), and which laid out the plot in painstaking detail, scene by scene. Critics also took it upon themselves to recount the plots (of both ballet-pantomimes and operas) in their **reviews** of premieres. So did the publishers of souvenir albums, which also featured pictures of famous **performers** and of scenes from favorite ballet-pantomimes and operas.

## 218. Reading Comprehension

Reading is an active process, not a **passive** one. We always read within a **specific** context, and this affects what we notice and what seems to matter. We always have a purpose in reading a text, and this will shape how we **approach** it. Our purpose and background knowledge will also **determine** the strategies we use to read the text.

## 219. Dictatorship

Dictatorship is not a modern concept. Two thousand years ago, during the period of the Roman Republic, exceptional powers were sometimes given by the Senate to **individual** dictators such as Sulla and Julius Caesar. The **intention** was that the dictatorship would be temporary and that it would make it **possible** to take swift and effective action to deal with an emergency. There is some **disagreement** as to how the term should be applied today.

Should it be used in its original form to describe the temporary exercise of emergency powers? Or can it now be **applied** in a much broader sense — as common usage suggests?

## 220. How Bees Make Honey

Bees need two different kinds of food. One is honey made from nectar, which actually is a fluid that is collected in the heart of the flowers to **encourage** pollination by insects and other animals. Secondly, come from pollen, it is fine powdery substance in yellow, consisting of microscopic grains **discharged** from the male part of a flower or from a male cone\_ It contains a male gamete that can fertilize the female ovule, which is **transferred** by wind, insects or other animals.

Let us go with the honeybee from her flower to the hive and see what happens. Most bees gather only pollen or nectar\_ As she sucks the nectar from the flower, it is **stored** in her special honey stomach ready to be transferred to the honey- making bees in the live.

## 221. Energy from the Wind

Wind is air moving around. Some winds can move as fast **as** a racing car, over 100 miles an **hour**\_ Winds can travel around the world. Wind **can** make you feel cold because you lose heat from your body **faster** when it is windy. Weather forecasters need to **know** the speed and direction of the wind\_ The strength of wind is measured using the Beaufort scale from wind force when there is no wind, to wind force 12 which can damage houses and buildings and is called hurricane force.

## 222. The History of Clothing

About 10,000 years ago, people learned how to make cloth. Wool, cotton, flax, or hemp was first spun into a thin thread, using a spindle. The thread was then woven into a fabric. The earliest weaving machines **probably** consisted of little more than a pair of sticks that held a set of parallel threads, called the wrap, while the cross-thread, called the weft, was inserted. Later machines called looms had roads that separated the threads to allow the weft to be inserted more **easily**. A piece of wood, called the shuttle, holding a spool of thread, was

passed between the separated threads. The basic **principles** of spinning and weaving have stayed the same until the present day, though during the industrial revolution of the 18th century many ways were found of **automating** the processes. With new machines such as the spinning mule, many threads could be spun at the same time, and, with the help of devices like the flying shuttle, broad pieces of cloth could be woven at great speed.

## 223. Gene Regulation

Recently, research into embryonic development has given us an even better insight into how major structural changes might occur in a given population of organisms. We now understand that there are two major types of genes: developmental and "housekeeping" genes. Developmental genes are those that are expressed during embryonic development, and their proteins **control** the symmetry, skeletal development, organ placement, and overall form of the developing animal. **In** contrast, "housekeeping" genes are expressed during the animal's daily life to generate proteins which keep the cells, tissues, and organs in the body functioning properly. **As** you might suspect, mutations in developmental genes can have radical consequences for body form and function, whereas mutations in "housekeeping" genes tend to **affect** the health and reproductive success of the post-embryonic animal.

## 224. Engaging Learners

Seminars are not designed to be mini-lectures. Their educational **role** is to provide an opportunity for you to discuss interesting and/or difficult aspects of the course. This is founded on the **assumption** that it is only by actively trying to use the knowledge that you have acquired from lectures and texts that you can achieve an adequate understanding of the subject. If you do not understand a point it is highly **unlikely** that you will be the only person in the group in that position; you will invariably be undertaking a **service** for the entire group if you come to the seminar equipped with questions on matters which you feel you did not fully understand.

## 225. The way of Revising

Timing is important for revision. Have you noticed that during the school day you get times when you just don't care any longer? I don't mean the lessons you don't like, but the ones you find usually find OK, but on some occasions you just can't be bothered with it. You **may** have other **things** on your mind, be tired, restless, or looking forward to what comes next. Whatever the reason, that particular lesson doesn't get 100 percent **effort** from you. The same is true of revision. Your mental and physical **attitude** are **important**. If you try to revise when you are tired or totally occupied with something else, your revision will be inefficient and just about worthless. If you approach it feeling fresh, alert and happy, it will be so much easier and you will learn more, faster. However, if you make no plans and just slip in a little bit of revision when you feel like it, you probably won't do much revision! You need a revision timetable so you don't keep **putting** it off.

## 226. Distance Learning

Distance learning can be highly beneficial to a large variety of people from young students wanting to expand their horizons to adults looking for more job security. With programs that allow learners of all ages to take courses for fun, personal advancement and degrees, distance learning can **meet** the **needs** of a diverse population. Perhaps one of the most notable and often talked about **advantages** of distance learning is the flexibility. The majority of programs allow students to learn when and where it's convenient for them. For **those** who are struggling to balance their distance learning goals with working a full-time job and taking care of a family, this kind of flexibility can allow many people to pursue education who would not otherwise be able to do so. **Since** there are no on-campus courses to attend, students can learn from their own homes, at work on their lunch breaks and from virtually anywhere with internet access. For some, it can even be a big source of savings on the fuel costs and time required to commute to classes.



## 227. Learning how to Code

Developing computational thinking helps students to better understand the world around them. Many of us happily drive a car without **understanding** what goes on under the bonnet. So is it necessary for children to **learn** how to program computers? After all, some experts say coding is one of the human skills that will become obsolete as artificial intelligence grows. Nevertheless, governments believe coding is an essential skill. Since 2014, the principles of computer programming **have featured** on England's curriculum for children from the age of five or six, when they start primary school. While not all children will become programmers, Mark Martin, a computing teacher at Sydenham High School, London, argues that they should learn to understand what **makes** computers work and try to solve problems as a computer might.

## 228. Calendar Reform

Since the last papal reform, several **proposals** have been **offered** to make the Western calendar more useful or **regular**. Very few reforms, such as the rather different decimal French Republican and Soviet calendars, had gained official **acceptance**, but each was put out of use shortly after its introduction. After World War II the newly-formed United Nations continued efforts of its predecessor, the League of Nations, to establish the proposed World Calendar but **postponed** the issue after a veto from the US government.

## 229. The Petrified Forest National Park

The Petrified Forest is home to some of the most impressive fossils ever found and more are being discovered each year as continuing erosion is **exposing** new evidence. Fossils found here show the Forest was once a tropical region, **filled** with towering trees and extraordinary creatures. More than 150 different species of fossilized plants have been discovered by paleontologists and evidence **indicating** ancient native people who inhabited this region about 10,000 years ago have been **confirmed** by archeologists.



## 230. The Secrets of Alchemy

To learn the speech of alchemy, an early form of chemistry in which people attempted to turn metals into gold, it helps to think back to a time when there was no science: no atomic number or weight, no periodic chart, no list of elements. To the **alchemists** the universe was not made of leptons, bosons, gluons, and quarks. Instead it was made of substances, and one substance-say, walnut oil-could be just as **pure** as another-say, silver-even though modern **chemistry** would say one is heterogeneous and the other homogeneous. Without knowledge of atomic structures-how would it be **possible** to tell elements from compounds?

## 231. Interior Design

Interior design is a professionally conducted, practice-based process of planning and realization of interior spaces and the elements within. Interior design is **concerned** with the function and operation of the space, its safety and efficiency, its aesthetics and its sustainability. The work of an interior designer draws upon many other **disciplines**, such as environmental psychology, architecture, product design and , aesthetics, in relation to a wide range of building spaces including hotels, corporate and public spaces, schools, hospitals, private residences, shopping malls, restaurants, theaters and airport terminals.

## 232. Larger Dwellings, Smaller Households

The stock of Australia's dwellings is **evolving**, with current homes having more bedrooms on average than homes ten years ago. At the same time, households are getting smaller on average with decreasing **proportions** of couple families with children and **increasing** couple only and lone person households. This article **examines** the changes in household size and number of bedrooms from 1994-95 to 2003-04.

## 233. The Criminal Law

The narrative of law and order is located fundamentally at the **level** of individual guilt and responsibility. Criminal acts are seen as individual issues of personal responsibility and

**culpability**, to which the state responds by way of policing, **prosecution**, adjudication and punishment.

This is but one **level** at which crime and criminal justice can be analyzed. The problem is that so often analysis ends there, at the level of individual action, **characterized** in terms of responsibility, guilt, evil.

In few other areas of social life does individualism have this hold? To take but one **instance**, it would be absurd to restrict analysis of obesity, to individual greed. It should similarly be widely seen as absurd to restrict analysis of criminal justice issues to the culpability of individuals.

## 234. The origin of Psychology

Psychology as a subject of study has largely developed in the West, since the late nineteenth century. During this period there has been an emphasis on scientific thinking. Because of this emphasis, there have been many scientific studies in psychology which **explore** different aspects of human nature. These include studies into how biology (physical factors) influence human experience, how people use their **senses** (touch, taste, smell, sight and hearing) to get to know the world, how people develop, why people behave in certain ways, how memory works, how people develop language, how people **understand** and think about the world, what motivates people, why people have emotions and how personality develops. These scientific **investigations** all contribute to an understanding of human nature.

## 235. Climate

Climate is the word we use for **weather** over a long **period** of time. The desert has a dry climate, because there is very little **rain**. The UK has a 'temperate climate' which means winters are, overall, **mild** and summers, generally, don't get too **hot**.

## 236. Neuron Systems

We now know through the work of neuroscientists that the human brain is wired to mimic other people, and this mimicry involves actual involuntary, physiological **experience** in the

observer. Human beings **tend to imitate** actions that they see. Physiologically, our brains include mirror neurons, which **react** to actions that are seen as if we are doing the action ourselves. It is largely an unconscious and automatic experience. When we hear people speak, observe their vocal **nuances**, watch their posture, gestures, and facial expressions, etc., neural networks in our brains are stimulated by the "shared representations," generating feelings within us that **reflect** the **experience** of those we are observing.

## 237. The Opportunity Cost

Opportunity cost incorporates the **notion** of scarcity: No matter what we do, there is always a trade-off. We must trade off one thing for another because resources are limited and can be used in different ways. **By acquiring something**, we use up resources that could have been used to acquire something else. The **notion** of opportunity cost allows us to measure this trade-off. The opportunity cost of something is what you sacrifice to get it. Most decisions **involve** several alternatives. For example, if you spend an hour studying for an economics exam, you have one less hour to pursue other activities. To determine the opportunity cost of an activity, we look at what you consider the best of these "other" activities. For example, suppose the **alternatives** to studying economics are studying for a history exam or working in a job that pays \$10 per hour. If you consider studying for history a **better** use of your time than working, then the opportunity cost of studying economics is the 4 extra points you could have received on a history exam if you studied history instead of economics. Alternatively, if working is the best alternative, the opportunity cost of studying economics is the \$10 you could have earned instead.

## 238. The Resultant Force

The overall result of two or **more** forces acting on an object is called the resultant force. The resultant of two forces is a single force, which has the same effect as the two forces combined. If two forces pull an object in **opposite** directions, the size of the resultant can be found by subtracting one force from the **other**. If the forces are **equal**, they **balance** each other.

## 239. Consumer Preferences

Differential rates of price change can also shape consumption patterns. To **satisfy** their needs and wants, consumers sometimes choose to **substitute** spending on a particular product or service with spending on an alternative product or service in response to a **relative** price movement of the items. All other factors being equal, consumption expenditure volumes would be expected to rise more strongly on spending options subject to lower rates of price inflation.

## 240. The Method of Difference

The logic of the scientific method was set out by John Stuart Mill in 1843, and was named the method of difference. A simple example of what he meant by this is to take two glasses of water which are **identical** in every respect. Introduce a few drops of ink into one of these glasses. The water changes colour! According to Mill's method of difference it is safe to assume that the change in the colour of the water is due to the **introduction** of a new factor - the independent variable - in this case, the ink.

## 241. Violence

Exposure to gun violence makes adolescents twice as **likely** to perpetrate **serious** violence in the next two years, according to a University of Michigan **researcher/study**. Researchers found there is a **substantial** cause and effect **relationship** between exposure and perpetration of violence. Jeffrey B. Bingenheimer, a doctoral student in health behavior and health education, analyzed five years of data from adolescents living in 78 neighborhoods in Chicago. Bingenheimer is lead author on a paper in this week's journal Science.

## 242. Psychological Theories

Attempts to apply psychological theories to education can falter on the translation of the theory into educational practice. Often, this translation is not clear. **Therefore**, when a program does not succeed, it is not clear whether the lack of success was due to the inadequacy of the theory or the inadequacy of the implementation of the theory. A **set** of

basic principles for translating a theory into practice can help clarify just what an educational implementation should (and should not) look like. This article presents 12 principles for translating a triarchic theory of successful intelligence into educational practice.

## 243. The Texas Cosmology Center

A new interdisciplinary center for the study of the frontiers of the universe, from the tiniest subatomic particle to the largest chain of galaxies, has been formed at The University of Texas at Austin. The Texas Cosmology Center will be a way for the university's departments of Astronomy and Physics to **collaborate** on research that concerns them both. "This center will bring the two departments together in an area where they **overlap** --in the physics of the very early universe," said Dr. Neal Evans, Astronomy Department chair. Astronomical observations have **revealed** the presence of dark matter and dark energy, **discoveries** that challenge our knowledge of fundamental physics. And today's leading theories in physics **involve** energies so high that no Earth-bound particle accelerator can test them. They need the universe as their **laboratory** \_ Dr. Steven Weinberg, Nobel laureate and professor of physics at the university, called the Centre's **advent** "a very exciting development" for that department.

## 244. The Foreign Policy

The foreign policy of a state, it is often argued, begins and ends with the border. No doubt an exaggeration, this aphorism nevertheless has an **element** of truth. A state's relation with its neighbors, at least in the **formative** years, is greatly **influenced** by its frontier policy, especially when there are no **settled** borders. Empire builders in the past sought to extend imperial frontiers for a variety of reasons; subjugation of kings and princes to gain their **allegiance** (as well as handsome tributes for the coffers of the state), and, security of the 'core' of the empire from external attacks by establishing a string of buffer states in areas **adjoining** the frontiers. The history of British empire in India was no different. It is important to note in this connection that the concept of international boundaries (between two



sovereign states), demarcated and **delineated**, was yet to emerge in India under Mughal rule.

## 245. The Film and Commerce

Film is where art meets commerce. **As** Orson Welles said: "A painter just needs a brush and the writer just needs a pen, but the producer needs an army." And an army needs money. A producer is just like an entrepreneur, we **raise** money to make films. First we need to find an original idea or a book or a play and purchase the rights, then we need money to develop that idea often a reasonably small sum. **Besides**, to commission a writer for the screenplay isn't something you would want to gamble your own money on, so you find a partner. We are lucky here in the UK, as we have Film4, BBC Films and the UK Film Council, all of **these** are good places to develop an idea. Producing in Britain is very different to producing in America or **even** Europe because the economic dynamic is different.

## 246. The Tokyo's SKYTREE Mural

Team Lab's digital mural at the entrance to Tokyo's Skytree, one of the world's monster skyscrapers, is 40 meters long and immensely detailed. But **however** massive this form of digital art becomes — and it's a form subject to rampant inflation — Inoko's theories about seeing are based on more modest and often pre-digital sources. An early devotee of comic books and cartoons (no surprises there), then computer games, he recognized when he started to look at traditional Japanese art that all those forms had something **in** common: something about the way they captured space. In his discipline of physics, Inoko had been taught that photographic lenses, **along with** the conventions of western art, were the logical way of transforming three dimensions into two, conveying the real world on to a flat surface. **But** Japanese traditions employed "a different spatial logic", as he said in an interview last year with j-collabo.org, that is "uniquely Japanese".



## 247. Life Expectancy

Life expectancy at birth is one of the most widely used and internationally recognized indicators of population health. It focuses on the length of life **rather** than its quality, and provides a useful summary of the general health of the population. While an indicator describing how long Australians live that simultaneously takes into account quality of life would be a desirable summary measure of progress in the area, currently no such measure exists and this is why life expectancy at birth is used as the Main Progress Indicator here. During the decade 1999 to 2009, life expectancy at birth improved for both sexes.

A girl born in 2009 could expect to reach 83.9 years of age, **while** a boy could expect to live to 79.3 years. Over the decade, boys' life expectancy increased **slightly** more than girls' (3.1 compared with 2.1 years). This saw the gap between the sexes' life expectancy decrease by one year to 4.6 years.

In the longer term, increases in life expectancy also occurred over most of the 20th century. Unfortunately life expectancy isn't shared across the whole population though, being lower in Tasmania and the Northern Territory, and for Aboriginal and Torres Strait Islander peoples.

## 248. Nutrition

Since nutrition scientists are constantly making new discoveries, we need to revise our **recommendations** for healthy eating from time to time. However, nutrition is an art as well as a **science**. It's an art because it requires creativity to develop a healthy eating plan for people who differ in their food preferences, beliefs and culture, let alone in their nutritional needs according to their genes and life stage. As we discover more about how our genes and our environment **interact**, it's becoming increasingly difficult to provide a single set of dietary recommendations that will be **suitable** for everyone.

## 249. Book Reviews

Books and articles highlighting intractable debt, poverty and development abound in both the academic and popular literature. This addition to the debate is both timely and

interesting **as** it subsumes the economic debate to the broader social, political, environmental and institutional context of debt in developing countries. Debt-for-Development Exchanges: History and New Applications is **intended** for a wide audience including: academics from a range of disciplines (including accounting and finance); non-Government organizations (NGOs); civil society groups; and, both debtor and creditor governments and public sector organization. Professor Ross Buckley, author and editor, has **developed** an international profile in the area of debt relief and this book is the outcome of an Australian Research Council (ARC) Discovery grant to explore debt-for development mechanisms that relieve debt, improve development outcomes **from** aid, are practically and politically attractive to creditors and **contribute** to regional security.

## 250. Individualism

It is commonly said by anthropologists that the primitive man is **less** individual than civilized man. This is an **element** of truth. Simpler societies call for, and provide opportunities for, a far **smaller** diversity of **individual** skills and occupations than the more complex and **advanced** societies, and as a result those who live in those societies are **less** individual. In this sense, individualism is a necessary product of modern advanced society, and runs through all its activities.

**It is commonly said by anthropologists** that the primitive man is **less** individual than civilized man. This contains an **element** of truth. Simpler societies are more **uniform**, in the sense that they call for, and provide opportunities for, a far **smaller** diversity of **individual** skills and occupations than the most complex and **advanced** societies. Increasing individualization in this sense is a necessary product of modern advanced society and runs through all its activities from top to bottom.

## 251. The Psychology of Voting

It would be reassuring to think that the electorate choose who to vote for based on the candidates' track records and future policy promises. **In** truth, many of us are swayed simply by the way that politicians look. Consider a 2009 study that asked Swiss students to look at multiple pairs of unfamiliar French political candidates and in each case to select the one

who looked most competent. Most of the time, the candidate selected by students **as** looking the most competent was also the one who'd had real life electoral success, the implication being that voters too had been swayed by the candidates' appearance (there's little evidence that appearance and competence actually **correlate**). Unsurprisingly, being attractive also helps win votes, especially in war time (in peace time, looking trustworthy is more of an advantage). Other research has shown that we're more likely to vote for male and female candidates with deeper voices.

## 252. Life on Europa

Scientists preparing for NASA's proposed Jupiter Icy Moons Orbiter believe that Jupiter's moons Europa may be a corrosive mixture of acid and peroxide. Thus, it may not be the **ideal** place for life to exist as was thought possibly to be the case. **Virtually** all the information we have about Europa comes from the spacecraft Galileo, which completed its mission to study Jupiter and its moons close up before NASA dramatically crashed it into Jupiter in 2003. **Although** the general perception of Europa is of a frozen crust of water ice harboring a salty subterranean ocean kilometers below, researchers studying the most **recent** measurements say light reflected from the moon's icy surface bears the spectral fingerprints of hydrogen peroxide and strong acids. **However** they accept that it could just be a thin surface dusting and might not come from the ocean below.

## 253. low-priced labor

With an abundance of low-priced **inexpensive** labor relative to the United States, it is no surprise that China, India and other developing countries specialize in the production of labor-intensive products. For similar reasons, the United States will specialize in the production of goods that are human- and physical-capital intensive because of the relative abundance of a highly-educated labor force and technically sophisticated **advanced** equipment in the United States.

This division of global production should yield higher global output of both types of goods than would be the case if each country attempted to produce both of these goods itself. For example, the United States would produce more expensive labor-intensive goods because

of its more expensive labor and the developing countries would produce more expensive human and physical capital-intensive goods because of their relative scarcity of these inputs. This logic implies that the United States is unlikely to be a significant global competitor in the production green technologies that are not relatively intensive in human and physical capital.

Nevertheless, during the early stages of the development of a new technology, the United States has a comparative advantage in the production of the products enabled by this innovation. However, once these technologies become well-understood and production processes are designed that can make use of less-skilled labor, production will migrate to countries with less expensive labor.

## 254. Ageing world

We live in an ageing world. While this has been recognized for some time in developed countries, it is only recently that this phenomenon has been fully acknowledged. Global communication is "shrinking" the world, and global ageing is "maturing" it. The increasing presence of older persons in the world is making people of all ages more aware that we live in a diverse and multigenerational society. It is no longer possible to ignore ageing, regardless of whether one views it positively or negatively.

Demographers note (**observe**) that if current trends in ageing continue as **anticipated**, a demographic revolution, wherein the proportions of the young and the old will undergo a historic crossover, will be felt in just three generations. This portrait of change in the world's population parallels the magnitude of the industrial revolution - traditionally considered the most significant social and economic breakthrough in the history of humankind since the Neolithic period. It marked the beginning of a sustained movement towards modern economic growth in much the same way that globalization is today marking an unprecedented and sustained movement toward a "global culture". The demographic revolution, it is envisaged, will be at least as powerful.

While the future effects are not known, a likely scenario is one where both the challenges as well as the opportunities will emerge from a vessel into which exploration and research, dialogue and debate are poured. Challenges arise as social and economic structures try to

adjust to the simultaneous phenomenon of diminishing young cohorts with rising older ones, and opportunities present themselves in the sheer number of older individuals and the vast resources societies stand to gain from their contribution.

## 255. Symbiosis (1)

Symbiosis is a general term for **interspecific** interactions in which two species live together in a long-term, **intimate** association. In everyday life, we sometimes use the term symbiosis to mean a relationship that **benefits** both parties. However, in ecologist-speak, symbiosis is a broader concept and can include close, lasting relationships with a variety of positive or negative effects on the participants.

## 256. Symbiosis (2)

Symbiosis is a biological **relationship** in which two species live in **close** proximity to each other and interact regularly in such a way as to benefit one or **both** of the **organisms**. When both partners benefit, this **variety** of symbiosis is known as mutualism.

Metaphor.....neither

## 257. Bar code scanners

Many different types of bar code scanning machines exist, but they all work on the same fundamental principles. They all use the **intensity** of light reflected from a series of black and white stripes to tell a computer what code it is **seeing**. White stripes reflect light very well, while black stripes reflect hardly any light at all. The bar code scanner shines light **sequentially** across a bar code, simultaneously detecting and recording the pattern of reflected and non-reflected light. The scanner then **translates** this pattern into an electrical signal that the computer can understand. All scanners must include computer software to interpret the bar code once it's been entered. This simple principle has transformed the way we are able to **manipulate** data and the way in which many businesses handle recordkeeping.



## 258. English

English is the world's language. Such **dominance** has its downside, of course. There are now about 6,800 languages left in the world, compared with perhaps **twice** that number back at the dawn of agriculture. Thanks in **part** to the rise of über-languages, most importantly English, the remaining languages are now dying at the **rate** of about one a fortnight.

## 259. In the online campus

Remember when universities were **bursting** at the seams with students sitting in the aisles, balancing books on their knees? No more, it seems. E-learning is as likely to stand for empty lecture theatres as for the internet **revolution**, which has greatly increased the **volume** and range of course materials available online in the past five years." The **temptation** now is to simply think, 'Everything will be online so I don't need to go to class'," said Dr Kerri-Lee Krause, of the Centre for the Study of Higher Education at the University of Melbourne. The nation's universities are in the process of opening the doors for the new **academic** year and, while classes are generally well **attended** for the early weeks, it often does not last." There is concern at the university level about student **attendance** dropping and why students are not coming to lectures," Dr Krause said. But lecturers' pride - and **fierce** competition among universities for students - mean few are willing to **acknowledge** publicly how poorly attended many classes are.

## 260. Primates

With their punk hairstyles and bright colors, marmosets and tamarins are among the most attractive primates on earth. These fast-moving, lightweight animals live in the rainforests of South America. Their small size **makes** it easy for them to dart about the trees, catching insects and small animals such as lizards, frogs, and snails. Marmosets have another unusual food **source** —they use their chisel-like incisor teeth to dig into tree bark and lap up the gummy sap that seeps out, leaving telltale, oval-shaped **holes** in the **branches** when they have finished. But as vast tracts of rainforest are cleared for plantations of cattle ranches marmosets and tamarins are in serious **danger** of extinction.



## 261. Sun

When our skin is directly **exposed** to the sun, our bodies make vitamin D, a vital tool that helps with calcium **absorption** and building strong bones. Some of it comes from diet, but a good portion also comes from the sun. And according to the Mayo Clinic, as little as 10 minutes of sun **exposure** can provide us with our daily dose. According to the vitamin D council, "your body can produce 10,000 to 25,000 IU of vitamin D in just a little under the time it takes for your skin to **turn** pink.

## 262. History of Antibiotics

Although for centuries preparations derived from living **matter** were applied to **wounds** to destroy **infection**, the fact that a microorganism is **capable** of destroying one of another species was not **established** until the latter half of the 19th cent. When Pasteur noted the antagonistic effect of other bacteria on the anthrax organism and pointed out that this action might be put to **therapeutic** use.

## 263. plate

In geologic terms, a plate is a large, rigid slab of solid rock. The word tectonics comes from the Greek **root** "to build." Putting these two words together, we get the term plate tectonics, which **refers** to how the Earth's surface is built of plates. The theory of plate tectonics **states** that the Earth's outermost layer is **fragmented** into a dozen or more large and small plates that are moving **relative** to one another as they ride atop hotter, more mobile material.

## 264. Protestors

Protestors see globalization in a different light than the Treasury Secretary of the United States. The differences in **views** are so great that one wonders, are the protestors and the policy makers talking about the same **phenomenon**? Are the visions of those in **power** clouded by special and particular **interests**? What is this phenomenon of globalization that has been subject, at the same time, to such vilification and such praise? Fundamentally, it is

the closer integration of the countries and the peoples of the world which has been brought about by the enormous reduction in the costs of transportation and communication, and the breaking down of the Artificial barriers to the flow of goods, services, capital, knowledge, and, (to a lesser extent), people across borders.

## 265. SpaceX

SpaceX's Falcon 9 rocket lifted off from Cape Canaveral, Florida, on Friday at 1845 GMT (1445 EDT), reaching orbit 9 minutes later. The rocket lofted an uncrewed mockup of SpaceX's Dragon capsule, which is designed to one day carry both crew and cargo to orbit. "This has been a good day for SpaceX and a promising development for the US human space flight program," said Robyn Ringuette of SpaceX in a webcast of the launch. In a teleconference with the media on Thursday, SpaceX's CEO, Paypal co-founder Elon Musk, said he would consider the flight 100 per cent successful if it reached orbit. "Even if we prove out just that the first stage functions correctly, I'd still say that's a good day for a test," he said. "It's a great day if both stages work correctly." SpaceX hopes to win a NASA contract to launch astronauts to the International Space Station using the Falcon 9. US government space shuttles, which currently make these trips, are scheduled to retire for safety reasons at the end of 2010.

## 266. Patterns

Number and form are the essence of our world: from the patterns of the stars to the pulses of the market, from the beats of our hearts to catching a ball or tying our shoelaces. Drawing on science, literature, history and philosophy, and introducing geniuses from Alcibiades, the enfant terrible of Athens, to Gauss, the Mozart of numbers, this inspiring book makes the mysteries of maths accessible and its rich patterns brilliantly clear.

## 267. Biological systems

Since biological systems with signs of **complex** engineering are unlikely to have arisen from accidents or coincidences, their **organization** must come from natural selection, and hence should have **functions** useful for survival and reproduction in the environments in which humans evolved.

## 268. Experience of crime

Crime is an integral part of everyday life. It is prominent **feature** in the news and is a popular subject for fictional portrayal. Most students commencing legal studies will have some experience of crime, whether directly, as a victim of crime or indirectly through exposure to media coverage. This means that most offences **covered** on the syllabus, such as murder, theft and rape will be familiar terms. This tends to give students the impression that they know more about criminal law than they do about other subjects on the syllabus. This can be a real disadvantage in **terms** of the academic study of criminal law because it tends to lead students to rely on preconceived **notions** of the nature and scope of the offences and to reach instinctive, but often legally inaccurate, conclusions. It is absolutely **essential** to success in criminal law that you put aside any prior knowledge of the offences and focus on the principles of law derived from statutes and cases. **By doing this**, you will soon appreciate just how much difference there is between everyday conceptions of crime and its actuality.

## 269. A new wrinkle cure

BARRIE FINNIN, a professor at Monash University's college of pharmacy in Melbourne, and PhD student Anita Schneider, **recently** tested a new wrinkle cure. Twice daily, 20 male and female volunteers applied a liquid containing Myoxinol, a patented **extract** of okra (*Hibiscus esculentus*) seed, to one side of their **faces**. On the other side they applied a similar **liquid** without Myoxinol. Every week for a month their wrinkles were tested by self-assessment, photography and the size of depressions made in silicon moulds. The results were impressive. After a month the **depth** and number of wrinkles on the Myoxinol-treated side were reduced by approximately 27 per cent.

But Finnin's research, commissioned by a cosmetics company, is unlikely to be published in a scientific **journal**. It's hard to even find studies that show the active ingredients in cosmetics penetrate the skin, let alone more comprehensive research on their effects. Even when **rigorous** studies are commissioned, companies usually control whether the work is published in the traditional scientific literature.

## 270. English language

English has been changing throughout its lifetime and it's still changing today. For most of us, these changes are fine as long as they're well and truly in the past. Paradoxically, we can be **curious** about word origins and the stories behind the structures we find in our language, but we experience a queasy distaste for any change that might be happening right under our noses. There are even language critics who are **convinced** that English is dying, or if not dying at least being progressively **crippled** through long years of mistreatment.

## 271. Pre-Raphaelitism

Pre-Raphaelitism was Britain's most significant and influential 19th-century art movement. Founded in 1848, it **centered** on a group of three young artists: William Holman Hunt, Dante Gabriel Rossetti and John Everett Millais. These artists sought to revive English art by radically turning away from the old studio **tradition** and bringing painting into direct **contact** with nature. With an eye for absolute **accuracy**, every detail was now to have intense realist as well as **symbolic** meaning.

## 272. fresh water

Everybody needs fresh water. **Without** water people, animals & plants cannot live. Although a few plants and animals can make do with saltwater, all humans need a constant supply of fresh water to stay **fit** & healthy. Of the total supply of water on the Earth, only about 3% of it is fresh, & most of that is stored as ice & snow at the poles, or is so **deep** under the surface of the Earth that we cannot get to it. Despite so much of the water being out of reach, we still have a million cubic miles of it that we **can** use. That's about 4,300,000 cubic

kilometers of freshwater to share out between most of the plants, animals & people on the planet!

## 273. Dance

Dance has played an important role in many musicals. In some **cases** dance numbers are included as an excuse to add to the color and spectacle of the show, but dance is more **effective** when it forms an integral part of the plot. An early example is Richard Rodgers On Your Toes (1936) in which the story about classical ballet meeting the world of jazz enabled dance to be introduced in a way that **enhances**, rather than interrupts the drama.

## 274. leaders

In search of lessons to **apply** in our own careers, we often try to emulate what effective leaders do. Roger Martin says this focus is misplaced, because **moves** that work in one context may make little sense in another. A more productive, though more difficult, **approach** is to look at how such leaders think. After extensive interviews with more than 50 of them, the author discovered that most are **integrative** thinkers – that is, they can hold in their heads two opposing ideas at once and then come up with a new idea that contains elements of **each** but is superior to both.

## 275. the new machines

Throughout the 18th century, mathematicians, scientists and philosophers researched, discussed, and published their investigations into how the world worked, while engineers and inventors developed new and successful machines and processes. The latest theories inspired greater invention, and more technology encouraged theoretical scientists to make further discoveries in medicine, biology, mechanics, physics, and chemistry. By 1800, the new machines **had** brought revolutionary changes to the workplace, transportation and communications, and eventually to the home. Some of these inventions simply made it easier to produce things on a large scale such as textile machines and foundries, **which** produced large quantities of cloth and metal objects quickly and cheaply. But some

inventions **brought** completely new possibilities such as the first batteries, steamboats, and locomotives. It would take decades for some of these inventions to make a big impact on the world. **Yet** their creation, and the sheer amount of imagination and risk-taking involved, marked the beginning of a modern, global, technologically based economy of the kind that we live in today.

## 276. Disciplines of politics

This course provides students with an in-depth understanding of the exciting disciplines of politics and international relations and commerce. Students will learn about the **workings** of political institutions in countries around the world and explore the complex field of relations between nations. Topics in governance, public policy, public administration, national security, border control and commerce ensure that students receive a **broad** and current education in the range of issues which are covered under the label of politics and international relations and commerce.

Bachelor of Commerce students **specialize** in one of the following areas Accounting, Banking & Financial Services, Business Administration, Economics, Financial Planning, Human Resource Management, Information Systems, International Business, Marketing Management, Public Sector Management, or Tourism Management.

In addition to acquiring specialist knowledge and competencies in Politics and International Relations and Commerce, students will graduate with a range of generic skills such as critical thinking, enhanced communication abilities, problem solving and **strong** capacities to work with others. They will also develop ethically based and socially **responsible** attitudes and behaviors.

Students will undertake four compulsory units and two majors, one in political and international relations and the other in governance and policy. They will also choose an elective major from a wide choice of options **including** political communication, international studies, international business and national security studies.



## 277. Retirement Savings

Men and women are making different choices about their retirement savings, which could lead to very different investment outcomes, according to Dr Claire Matthews, Director of Financial Planning at Massey University's Center for Banking Studies. Speaking at the 2012 newzealand finance colloquium, held at Massey University's Albany campus last week.

Dr Matthews said demographic characteristics had a substantial impact on the choices people made about KiwiSaver funds and retirement savings more generally.

When it came to fund selection, she found there were significant differences based on gender. Men are more likely to **invest** in aggressive and growth funds, while women are more likely to choose **conservative** funds.

"Males are risk takers, **whether** it's in their choice of car or their investment fund," she says.

"But when it comes to long-term savings, risk taking can **actually** be an advantage."

Dr Matthews also found that men are more likely than women to have prior savings when joining Kiwisaver. Just over half of male respondents said they had savings already, while only 38% of women did. "These figures reflect and confirm, quite disappointingly, the difference between males and females and the level of interest they take in financial planning." Dr Matthews says "it's important for all new Zealanders to be better educated about their personal finances, but this is particularly so for women." Other demographic factors, including age, ethnicity, education, and

income, can also influence the choices **being** made about retirement savings. Dr Matthews found that those with bachelor and higher degrees, and those in households with a pre-tax income of 100000 \$ or more, were more likely to choose aggressive and growth funds.

**On the other hand**, both the youngest and oldest age groups were more likely to be invested in conservative funds. **While** this might be appropriate for the life-cycle stage of older investors, it might not be so appropriate for younger, longer-term investors.

## 278. sounds of iceberg

Twenty years ago, not so long before B-15 broke off from Antarctica, "we didn't even know that icebergs made noise", says Haru Matsumoto, an ocean engineer at NOAA who has

studied these sounds. But in the past **few** years, scientists have started to learn to distinguish the eerie, haunting sounds of iceberg life—ice cracking, icebergs grinding against each other, an iceberg grounding on the seafloor—and measure the extent to **which** those sounds contribute to the noise of the ocean. While they're just now learning to listen, the sounds of ice could help them understand the behavior and breakup of icebergs and ice shelves as the poles warm **up**.

## 279. Chaucer's Tales

Chaucer's Tales quickly **spread** throughout England in the early fifteenth century. Scholars feel The Canterbury Tales **reached** their instant and continued success because of their accurate and oftentimes **vivid** portrayal of human nature, unchanged through 600 years since Chaucer's time.

## 280. Information

One of the characteristics of 'good' information identified earlier was that it should be 'balanced'. In an ideal world, 'objective' or 'balanced' information would present all the evidence for and against, and leave you to **weigh** this **up** and draw **conclusions**. In the real world, however, we recognize that all information presents a position of interest, although this may not necessarily be intentional. Objectivity may therefore be an unachievable **ideal**. This means that the onus is on you as the reader and user of the information to develop a **critical** awareness of the positions represented in what you read, and to take **account** of this when you interpret the information. In some cases, authors may explicitly express a particular viewpoint – this is perfectly valid as long as they are open about the perspective they represent. Hidden bias, whether or not it is **deliberate**, can be misleading.

## 281. Alpine Newt

The Alpine Newt is native to much of central, continental Europe and **occurs** up the coasts of northeast France through to Holland but it does not **appear** to have been native to the British Isles. As its name **suggests** it can be found in mountain habitats up to 2,500 meters in

altitude but it can also be abundant in lowlands, and it will use a **variety** of water-bodies including both shallow and deep ponds and slow flowing streams (Griffiths, 1995).

## 282. Claude Monet

The **closing** decades of an artist's life do not generally make the biographer's heart beat faster, but Claude Monet is one of a **handful** of painters who bucks the pattern of an irrelevant old age. While it's true that by the time he was 73 he had **accumulated** all the usual dragging baggage.

## 283. The University of Maryland

The University of Maryland boasts 78 academic programs **ranked** in the top 25 nationally and 29 academic programs in the top 10 according to U.S. News and World report. By drawing top-notch faculty, attracting the brightest students and **investing** in the quality of our academic programs, we are a force to reckon with on a national **basis**.

## 284. Academic writing

Academic writing is an expression of logic that is the product of thinking. This **means** that the writing that you produce is a reflection of your intellectual abilities. It **puts** into words your knowledge and your conceptual understanding and shows evidence of your ability to think critically.

## 285. Details of the sounds

Language comes so naturally to us that it is easy to forget what a strange and miraculous gift it is. All over the world members of our **species** fashion their breath into hisses and hums and squeaks and pops and listen to others do the **same**. We do this, of course, not only because we like the sounds but because details of the sounds contain information about the **intentions** of the person making them. We humans are fitted with a means of **sharing** our ideas, in all their unfathomable vastness. When we listen to speech, we can be led to think

thoughts that have never been thought before and that never would have occurred to us on our own.

## 286. Supply and demand

The supply of a thing, in the phrase "supply and demand," is the amount that will be offered for sale at each of a series of prices; the demand is the amount that will be bought at each of a series of prices. The principle that value depends on supply and demand means that in the case of nearly every commodity, more will be bought if the price is lowered, less will be bought if the price is raised. Therefore sellers, if they wish to induce buyers to take more of a commodity than they are already doing, must reduce its price; if they raise its price, they will sell less. If there is a general falling off in demand — due, say, to trade depression — sellers will either have to reduce prices or put less on the market; they will not be able to sell the same amount at the same price. Similarly with supply. At a certain price a certain amount will be offered for sale, at a higher price more will be offered, at a lower price less. If consumers want more, they must offer a higher price; if they want less, they will probably be able to force prices down. That is the first result of a change in demand or supply.

## 287. An exhibit

An exhibit that brings together for the first time landscapes painted by French impressionist Pierre-Auguste Renoir comes to the national Gallery of Canada this June. The gallery in Ottawa worked with the National Gallery of London and the Philadelphia Museum of Art to pull together the collection of 60 Renoir paintings from 45 public and private collections.

## 288. The American cabinet

The American cabinet, unlike the British, has no connection with the legislature, and this lack of coordination between executive and legislature is one of the distinctive features of American federal government. It came as a reaction against George III's very intimate relations with the House of Commons. The Constitution guarded against executive control through "place-men" by disqualifying federal officials.

## 289. Potential in our minds

In the process of studying these techniques, I learned something **remarkable**: that there's far more potential in our **minds** than we often give them credit for. I'm not just talking about the fact that it's possible to memorize lots of **information** using memory techniques. I'm talking about a lesson that is more **general**, and in a way much bigger: that it's possible, with training and hard work, to teach oneself to do something that might seem really **difficult**.

## 290. The illustration of plants and animals

From the earliest civilizations, plants and animals have been portrayed as a means of understanding and recording their potential uses, such as their economic and healing properties. From the first **illustrated catalogue** of medicinal plants, De Materia Medica by Dioscorides, in the first century, through to the late fourteenth century, the illustration of plants and animals changed very little. Woodcuts in instructional manuals and herbals were often repeatedly copied over the centuries, resulting in a loss of definition and accuracy so that they became little more than stylized decoration. With the growing **popularity** of copperplate engravings, the traditional use of woodcuts declined and the representation of plants and animals became more **accurate**. Then, with the emergence of **artists** such as Albrecht Dürer and Leonardo Da Vinci, naturalists such as Otto Brunfels, Leonhard Fuchs in botany and Conrad Gesner and Ulisse Aldrovandi in zoology, nature began to be **depicted** in a more realistic style. Individual living plants or animals were observed directly and their likeness **rendered** onto paper or vellum.

## 291. The Great Barrier Reef

One of Australia's most remarkable natural gifts, the Great Barrier Reef is blessed with the breathtaking beauty of the world's largest coral reef. The reef contains an **abundance** of marine life and comprises of over 3000 individual reef systems and coral cays and literally hundreds of **picturesque** tropical islands with some of the world's most beautiful sun-soaked, golden beaches. Because of its natural beauty, the Great Barrier Reef has become



one of the world's most **sought** after tourist destinations. A visitor to the Great Barrier Reef can enjoy many **experiences** including snorkeling, scuba diving, aircraft or helicopter tours, bare boats (self-sail), glass-bottomed boat viewing, semi-submersibles and educational trips, cruise ship tours, whale watching and swimming with dolphins.

## 292. Education for Indigenous Australians

Education is generally considered to be a key factor in improving outcomes for Indigenous Australians, with many studies showing that improved **health** and socioeconomic status are directly **linked** to educational participation and achievement.

There is a range of issues **affecting** participation in education for Indigenous Australians, including **access** to educational institutions, financial constraints, and community expectations.

## 293. Plagiarism

How is plagiarism detected? It is usually easy for lecturers to identify plagiarism within students work. The University also actively investigates plagiarism in students assessed work **through** electronic detection software called Turnitin. This software **compares** students work against text on the Internet, in journal articles and within previously **submitted** work (from LSBU and other institutions) and highlights any matches it **finds**.

## 294. Chemistry in physiology

Chemistry is an extremely important topic in physiology. Most physiological processes occur as the **result** of chemical changes that occur within the body. These changes include the influx/efflux of ions across a neuron's membrane, causing a **signal** to pass from one end to the other. Other examples include the **storage** of oxygen in the blood by a protein as it **passes** through the lungs for usage throughout the body.



## 295. Brains of robots

Snails are not traditionally known for quick thinking, but new research shows they can make complex decisions using just two brain cells in **findings** that could help engineers design more efficient robots. Scientists at the University of Sussex attached electrodes to the **heads** of freshwater snails as they searched for lettuce. They found that just one cell was used by the mollusk to tell if it was **hungry** or not, while another let it know when food was present. Food-searching is an example of goal-directed behavior, during which an animal must integrate information about both its external environment and internal state while using as little energy as possible. Lead researcher Professor George Kemenes, said: “This will eventually help us design the “brains” of robots based on the principle of using the fewest possible components necessary to perform complex tasks. “What goes on in our brains when we make complex behavioral decisions and carry them out is poorly understood. “Our study reveals for the first time how just two neurons can create a mechanism in an animal’s brain which drives and optimizes complex decision-making tasks.

## 296. The economic depression

As the economic depression deepened in the early 30s, and as farmers had less and less money to spend in their town, banks began to fail at **alarming** rates. During the 20s, there was an average of 70 banks failing each year nationally. After the crash during the first 10 months of 1930, 744 banks failed – 10 times as many. In all, 9,000 banks failed during the **decade** of the 30s. It’s estimated that 4,000 banks **failed** during the one year of 1933. By 1933, depositors saw \$140 billion **disappear** through bank failures.

## 297. Crime prevention

Crime prevention has a long history in Australia, and in other parts of the world. In all societies, people have tried to **protect** themselves and those close to them from assaults and other abuses. Every time someone locks the door to their house or their car, they practice **a form of** prevention. Most parents want their children to learn to be law abiding and not spend extended periods of their lives in prison. In this country, at least, most

succeed. Only a small minority of young people become recidivist offenders. In a functioning society, crime prevention is part of everyday life. While prevention can be all-pervasive at the grassroots, it is oddly neglected in mass media and political discourses. When politicians, talkback radio hosts and newspaper editorialists pontificate about crime and possible remedies, it is comparatively rare for them to mention prevention. Overwhelmingly, emphasis is on policing, sentencing and other 'law and order' responses.

## 298. Learning from experience

Learning is a process by which behavior or knowledge changes as a result of experience. Learning from experience plays a major role in enabling us to do many things that we clearly were not born to do, from the simplest tasks, such as flipping a light switch, to the more complex, such as playing a musical instrument. To many people, the term "learning" signifies the activities that students do reading, listening, and taking tests in order to acquire new information. This process, which is known as cognitive learning, is just one type of learning, however. Another way that we learn is by associative learning, which is the focus of this module. You probably associate certain holidays with specific sights, sounds, and smells, or foods with specific flavors and textures. We are not the only species with this skill even the simplest animals such as the earthworm can learn by association.

## 299. The study of objects

The study of objects constitutes a relatively new field of academic enquiry, commonly referred to as material culture studies. Students of material culture seek to understand societies, both past and present, through careful study and observation of the physical or material objects generated by those societies. The source material for study is exceptionally wide, including not just human-made artefacts but also natural objects and even preserved body parts (as you saw in the film 'Encountering a body').

Some specialists in the field of material culture have made bold claims for its pre-eminence. In certain disciplines, it reigns supreme. It plays a critical role in archaeology, for example, especially in circumstances where written evidence is either patchy or non-existent. In such cases, objects are all scholars have to rely on in forming an understanding of ancient

peoples. Even where written documents survive, the physical remains of literate cultures often help to provide new and interesting insights into how people once lived and thought, **as in the case** of medieval and post-medieval archaeology. In analyzing the physical remains of societies, both past and present, historians, archaeologists, anthropologists and others have been careful to remind us that objects mean different things to **different** people.

## 300. Work-ready international students

Work-ready international students are providing greater options for local employers who are having difficulties **finding** local staff due to **high** employment rates and ongoing labor shortages.

International students in accounting and information technology take part in a year-long program **consisting** of classroom work and practical experience, which provides them with **valuable** skills, industry contacts and a working **knowledge** of Australian workplaces.

## 301. Sociology

Sociology is, in very basic terms, the study of human societies. In this respect, It is usually **classed** as one of the social sciences (along with **subjects** like psychology) and was **established** as a subject in the late 18th century (through the work of people like the French writer Auguste Comte). However, the subject has only really gained **acceptance** as an academic subject in the 20th century through the work of writers such as Emile Durkheim, Max Weber and Talcott Parsons (names that will be visited throughout this course). One name that you may have heard of - Karl Marx (the founder of modern Communism) - has probably done more to stimulate people's interest in the subject than anyone else, even though he lived and wrote (1818-1884) in a period before sociology became fully established as an academic discipline. Sociology, therefore, has a reasonably long history of development, (150-200 years) **although** in Britain it has only been in the last 30-40 years that sociology as an examined subject in the education system has achieved a level of importance equivalent to, or above, most of the other subjects it is possible to study.

## 302. The fall of smallpox

The fall of smallpox began with the realization that **survivors** of the disease were immune for the rest of their lives. This led to the practice of variolation - a process of exposing a healthy person to infected material from a person with smallpox in the hopes of producing a mild disease that **provided** immunity from further infection. The first written account of variolation describes a Buddhist nun practicing around 1022 to 1063 AD. By the 1700's, this method of variolation was **common** practice in China, India, and Turkey. In the late 1700's European physicians used this and other methods of variolation, but reported "devastating" results in some cases. Overall, 2% to 3% of people who were variolated died of smallpox, but this practice decreased the total number of smallpox **fatalities** by 10-fold.

## 303. Most Respected Companies

Look at the recent —Most Respected Companies survey by the Financial Times. Who are the most respected companies and business leaders at the **current** time? Rather predictably, they are Jack Welch and General Electric, and Bill Gates, and Microsoft **both** have achieved their world class status through playing nice. Welch is still remembered for the brutal downsizing he led his business **through** and for the environmental pollution incidents and prosecutions. Microsoft has had one of the **highest** profile cases of bullying market dominance of recent times - and Gates has been able to **achieve** the financial status where he can choose to give lots of money away by being ruthless in business.

## 304. Yellowstone National Park

After an absence of more than 50 years, the gray wolf (*Canis lupus*) once again runs beneath the night skies of Yellowstone National Park. At 3:45 pm on March 21st 1995, the first of three groups of gray wolves (also known as the timber wolf) were released from **fenced** acclimation pens at Crystal Creek within Yellowstone National Park. The wolf release plan, **involved** in an environmental impact statement (EIS) in 1992-1994, is to restore wolves to Yellowstone and central Idaho by establishing experimental populations of gray wolves in both areas. The goal for Yellowstone is to establish 10 packs wolves reproducing in the area

for three **consecutive** years by the year 2002. Restoring wolves to Yellowstone is in keeping with national park goals to perpetuate all native species and their natural interactions with their environment. As with other park wildlife programs, management emphasizes **minimizing** human impact on natural animal population dynamics. Yellowstone National Park is a wilderness and wildlife refuge in the United States.

## 305. maternal employment rates

Affordable early year's education and childcare potentially enables parents, particularly mothers, to be in paid employment. International studies **have found** that countries with greater enrolment rates in publicly funded or provided childcare also have higher maternal employment rates, although untangling causal relationships is complex. From the point of view of the household, additional income, especially for the less well-off, is itself associated with better outcomes for children, as child poverty **has been shown** to be a key independent determinant of children's outcomes. From the point of view of the public purse, as mothers **enter** employment they are likely to claim fewer benefits and to generate extra revenues **through** income tax.

## 306. Study anywhere

You can study anywhere. Obviously, some places are **better** than others. Libraries, study lounges or private rooms are best. Above all, the places you choose to study should not be **distracting**. Distractions can **build** up, and the first thing you know, you're out of time and out of **luck**. Make choosing a good physical environment a **part** of your study **habits**.

## 307. the moon and the sun

In these distant times the sun was seen to make its daily **journey** across the sky. At night the moon appeared. Every new night the moon waxed or waned a little and on a few nights it did not appear at all. At night the great dome of the heavens was dotted with tiny specks of light. They **became** known as the stars. It was thought that every star in the heavens had its



own purpose and that the **secrets** of the universe could be discovered by making a study of them.

It was well known that there were wandering stars, they appeared in different nightly positions against their neighbors and they became known as planets. It took centuries, in fact it took millennia, for man to **determine** the true nature of these wandering stars and to evolve a model of the world to accommodate them and to **predict** their positions in the sky.

## 308. Photography and Glamour

Daniel Harris, a scholar of consumption and style, has observed that until photography finally **supplanted** illustration as the "primary means of advertising clothing" in the 1950s, glamour **inherited** less in the face of the drawing, which was by necessity schematic and generalized, than in the sketch's attitude, posture, and gestures, especially in the strangely dainty positions of the hands. Glamour once resided so emphatically in the stance of the model that the faces in the illustrations cannot really be said to have **expressions** at all, but angles or tilts. The chin raised upwards in a haughty look; the eyes lowered in an attitude of introspection; the head cocked at an inquisitive or coquettish angle; or the profile presented in sharp outline, emanating power the severity like an emperor's bust **embossed** on a Roman coin.

## 309. Students income

Students are increasingly finding it necessary to obtain employment in order to subsidize their income during their time in higher education. The **extra** income helps to pay for necessities, to maintain a social life and to buy clothes, and holding a part-time job helps students to **gain** skills for life after university or college. Using a part-time job to cut down on borrowing is a sound investment, as it reduces the **debt** that will be waiting to be paid off after graduation. How many hours students are currently working each week during term-time is not really certain. Some institutions advise that students should not work more than ten hours a week, and there are others that set a higher recommend **limit** of fifteen hours a week. There is no doubt that some students **exceed** even fifteen hours a week.



## 310. Australian fiction

In the literary world, it was an accepted assumption that the 1970s was a time of unprecedented growth in homegrown Australian fiction. And everybody was reading and talking about books by young Australian women.

But it was not until **recently** that a researcher was able to measure just how many novels were published in that decade, and she found that there **had been** a decline in novels by Australian writers overall, but confirmed an increase in women's novels.

It this sort of research- testing ideas about literacy history- that is **becoming** possible with the spread of "Digital Humanities".

The **intersection** of Humanities and digital technologies is opening up opportunities in the fields of literature, linguistics, history and language that were not possible without computational methods and digitized resources to **bring** information together in an accessible way.

Transcription software is being developed for tuning scans of books and documents into text, as the field of digital humanities really **takes** off.

## 311. The first motion pictures

The first **motion** pictures were filmed in the 1980s, when film production companies started producing **commercial** movies. Before that, films used to have one-minute duration. Fortunately, filmmakers figured out how to produce **prolonged** films using **several** shots. Later, when other innovations such as rotating camera were introduced, the overall performance of cinematographers changed forever.

When rain drop cools, it will freeze, turns into ice **drops/particles**, on flat surface, creating an **ice** storm. It can be so heavy, and shut down the entire city (or a previous ice storm has shut down an **entire** city)

**Icy cold** rainfall

## 312. Treat students

In reality, however, the **causes** of truancy and **non-attendance** are diverse and multi-faceted. There are as many causes of non-attendance as there are non-attenders. Each child has his/her own **unique** story, and whilst there may often be certain identifiable factors in common, each non-attending child demands and **deserves** an individual response, tailored to meet his/her individual needs. This applies **equally** to the 14-year-old who fails to attend school because a parent is terminally ill, the overweight 11-year-old who fails to attend because he is **embarrassed** about changing for PE in front of peers, the 15-year-old who is 'bored' by lessons, and to the seven-year-old who is teased in the playground because she does not wear the latest designer-label clothes.

## 313. spotted owls

Our analysis of the genetic structure of northern spotted owls across most of the range of the subspecies allowed us to test for genetic discontinuities and identify landscape features that influence the subspecies' genetic structure. Although no **distinct** genetic breaks were found in northern spotted owls, **several** landscape features were important in structuring genetic variation. Dry, low elevation valleys and the high elevation Cascade and Olympic Mountains restricted gene flow, while the lower Oregon Coast Range **facilitated** gene flow, acting as a "genetic corridor." The Columbia River did not act as a barrier, **suggesting** owls readily fly over this large river. Thus, even in taxa such as northern spotted owls with potential for long-distance dispersal, landscape features can have an important impact on gene flow and genetic structure.

## 314. Australia and New Zealand (2)

Twelve hundred miles east of Australia **lie** the islands of New Zealand. Long before they were **discovered** by Europeans, a Polynesian race of warriors, the Maoris, had sailed across the Pacific from the northeast and established a civilization **notable** for the brilliance of its art and the strength of its military **system**. When Captain Cook visited these islands towards

the end of the 18th century, he **estimated** that the population numbered about a hundred thousand.

## 315. Medical examination

The most common **reason** for carrying out a detailed medical examination of a dead person – a post-mortem or autopsy – is when it is necessary to **establish** the cause of death. In some circumstances, a doctor may be allowed to perform a post-mortem in pursuit of medical **knowledge**. The examination is usually performed by a pathologist, and **involves** dissection of the body, and tests done on blood, tissues and internal organs, but sometimes it is performed by a doctor.

## 316. Bad habits

What are your bad habits? I think everyone has bad habits. Not **everyone** agrees on what bad habits are. Some **smokers** don't think smoking is a bad habit. Young people don't think listening to loud music on the **train** is a bad habit. In Japan, slurping your noodles is a sign that you enjoy your **food**, but making a noise while eating in **England** is not good. Have you ever tried to break your bad habits? I have quit **smoking** and have stopped leaving things laying around the **house**. I wish other people would stop their bad habits.

## 317. Aliens

There are **aliens** out there, somewhere. I strongly believe this. Not sure what they look like, though. I really **doubt** they are green, like they are in science **fiction** movies. I also don't think they look like us. But I'm sure they exist. I just don't think we'll ever see any or find any. They live too far **away**. If you think about it **logically**, there has to be aliens out there. All a **planet** needs is to be warm and have water and life will exist. There are billions and billions of planets in the **universe**, so there are probably millions and millions that have life. Alien life. It's also likely that some of the aliens are much more intelligent than we are. I wonder what we'd do if really intelligent aliens visited Earth. What would we ask them?

## 318. History books

What history books tell us about the past is not everything that happened, but what historians **have selected**. They cannot put in everything: choices **have** to be made. Choices must similarly be made about which aspects of the past should be formally taught to the next generation in the shape of school history lessons. So, **for** example, when a national school curriculum for England and Wales was first discussed at the end of 1980s, the history curriculum was the subject of considerable public and media **interest**. Politicians argued about it; people wrote letters to the press about it; the Prime Minister of the time, Margaret Thatcher, **intervened** in the debate. Let us think first about the question of content. There were two main camps on this issue — those who thought the history of Britain should take **pride** of **place**, and those who favored what was referred to as 'world history'.

## 319. Double Trees

Clones of an Eastern cottonwood (*Populus deltoides*) in the Bronx and other city spots grew to double the biomass of clones **planted** outside small towns upstate or on Long Island, says Jillian Gregg, now of the Environmental Protection Agency's western-ecology division in Corvallis, Ore.

The growth gap comes from ozone damage, she and her New York colleagues report. Ozone chemists have known that **concentrations** may spike skyscraper high in city air, but during a full 24 hours, rural trees actually get a higher cumulative ozone exposure from urban pollution that **blows** in and lingers. A series of new experiments now shows that this hang-around ozone is the **overwhelming** factor in tree growth, the researchers say in the July 10 *Nature*.

"This study has profound importance in showing us most vividly that rural areas **pay** the price for [urban] pollution," says Stephen P. Long of the University of Illinois at Urbana-Champaign. "This work should be a wake-up call," he adds.

## 320. The mummy

The last tourists may have been leaving the Valley of the Kings on the West Bank in Luxor but the area in front of the tomb of Tutankhamun remained far from deserted. Instead of the **tranquility** that usually descends on the area in the evening it was a hive of activity. TV crews trailed masses of equipment, journalists milled and photographers held their cameras at the ready. The reason? For the first time since Howard Carter **discovered** the tomb in 1922 the mummy of Tutankhamun was being prepared for public display.

Inside the subterranean burial chamber Egypt's archaeology supremo Zahi Hawass, accompanied by four Egyptologists, two restorers and three workmen, were slowly lifting the mummy from the golden sarcophagus where it has been rested -- mostly undisturbed -- for more than 3,000 years. The body was then placed on a wooden stretcher and **transported** to its new home, a high- tech, climate-controlled plexi-glass showcase located in the outer chamber of the tomb where, covered in linen, with only the face and feet exposed, it now greets visitors.

## 321. SISU

Upholding the motto of “Integrity, Vision and Academic Excellence”, Shanghai International Studies University (SISU) is an internationally recognized, **prestigious** academic institution distinctive for its multidisciplinary and multicultural nature, committed to preparing innovative professionals and future global leaders for a wide range of international expertise to address the critical challenges of our times.

Drawing on our strengths in multi-language programs and multi-disciplinary resources, while responding to national and regional strategies, we operate more than 70 research institutes and centers serving as academic think tanks to provide advisory services on language policies, diplomatic strategies and global public **opinion** of China. These academic entities have contributed landmark research and are also dedicated to promoting the development of social sciences in China.

We have now **established** partnerships with more than 400 universities and institutions from 60 countries and regions, and have **maintained** close connection with international organizations, including the United Nations and the European Union.

## 322. Discrimination against women

Discrimination against women has been **alleged** in hiring practices for many occupations, but it is extremely difficult to demonstrate sex-biased hiring. A change in the way symphony orchestras recruit musicians provides an unusual way to test for sex-biased hiring. To overcome possible biases in hiring, most orchestras **revised** their audition policies in the 1970s and 1980s. A major change involved the use of blind' auditions with a screen' to **conceal** the identity of the candidate from the jury. Female musicians in the top five symphony orchestras in the United States were less than 5% of all players in 1970 but are 25% today. We ask whether women were **more likely** to be advanced and hired with the use of blind' auditions. Using data from actual auditions in an individual fixed-effects framework, we find that the screen **increases** by 50% the probability a woman **will be advanced** out of certain preliminary rounds. The screen also enhances, by several fold, the likelihood a female contestant will be the winner in the final round. Using data on orchestra personnel, the switch to blind' auditions can explain between 30% and 55% of the increase in the proportion female among new hires and between 25% and 46% of the increase in the percentage female in the orchestras since 1970

## 323. Cuteness

Cuteness in offspring is a potent protective mechanism that ensures survival for otherwise completely **dependent** infants. Previous research has linked cuteness to early ethological ideas of a "kindchenschema" (infant schema) where infant facial **features** serve as "innate releasing mechanisms" for **instinctual** caregiving behaviors. We propose extending the concept of cuteness beyond visual features to include positive infant sounds and smells. Evidence from behavioral and neuroimaging studies links this extended concept of cuteness to simple "instinctual" behaviors and to care giving protection and complex emotions. We review how cuteness supports key parental capacities by **igniting** fast privileged neural



activity followed by slower processing in large brain networks also involved in play, empathy, and perhaps even higher-order moral emotions.

## 324. Light pollution

The widespread use of artificial light in modern societies means that light pollution is an increasingly common feature of the environments humans inhabit. This type of pollution is **exceptionally** high in coastal regions of tropic and temperate zones, as these are areas of high rates of human population growth and settlement. Light pollution is a threat for many species that inhabit these locations, particularly those whose ecology or behavior depends, **in some way**, on natural cycles of light and dark. Artificial light is known to have detrimental effects on the ecology of sea turtles, particularly at the hatchling stage when they emerge from nests on natal beaches and head towards the sea. Under natural conditions, turtles hatch predominantly at night (although some early morning and late afternoon emergences occur) and show an innate and well-directed orientation to the water, **relying** mostly on light cues that attract them toward the brighter horizon above the sea surface. Artificial lighting on beaches is strongly attractive to hatchlings and can cause them to **move away from** the sea and **interfere** with their ability to orient in a constant direction. Ultimately, this disorientation due to light pollution can lead to death of hatchlings from exhaustion, dehydration and predation.

## 325. A crime

A crime is generally a **deliberate** act that results in harm, physical or otherwise, toward one or more people, in a manner **prohibited** by law. The determination of which acts are to be considered criminal has varied **historically** and continues to do so among cultures and nations. When a crime is committed, a process of **discovery**, trial by judge or jury, **conviction**, and punishment occurs. Just as what is considered criminal varies between jurisdictions, so does the punishment, but elements of **restitution** and deterrence are common.

## 326. Kathryn Mewes

Kathryn Mewes does not meet Bohemian, hippy parents in her line of work. Typically one, or both, of the parents she sees work in the City of London.

“Professionals seek professionals,” she says. Originally a nanny, Mewes is now a parenting consultant, advising couples privately on changing their child’s behavior, **as well as** doing corporate seminars for working parents.

Her clients find they are unprepared for the chaos and unpredictability that having a child can entail. “Parents are getting older, they have been in control their **whole lives** and been successful. Suddenly a baby turns up and life turns on its head.”

Nicknamed the “Three-Day Nanny” **because of** her pledge to fix behavioral problems in children under the age of 12 within three days, she is filming a new Channel 4 television series demonstrating her techniques. The **role** of the parenting consultant – distinct from that of a nanny – has developed, she says, as people are used to buying in expertise, such as personal trainers or, in her case, parenting advice.

## 327. Sleep patterns

Children have **sound** sleep patterns. They can **successfully** sleep for 8-9 hours and get up at a fixed time. But teenagers don’t. Their need of early start to schools or other schedules can **influence** their sleep patterns. Despite these factors, they actually need longer sleep time.

## 328. Architectural Museum

The Edo-Tokyo Tatemono En is an open-air architectural museum but could be better thought of as a park. Thirty buildings from the 19th and early 20th centuries from **all** around Tokyo were restored and relocated to the space, where they can be explored by future generations to come. The buildings are a collection of houses and businesses, shops, and bathhouses, **all** of which would have been present on a typical middle-class street from Edoera to Showa-era Tokyo. The west section is **residential**, with traditional thatched roof bungalows of the 19th century. Meiji-era houses are also on view, constructed in a more Western style after Japan opened its borders in 1868. The Musashino Sabo Cafe occupies

the **ground** floor of one such house, where visitors can enjoy a cup of tea. Grand residences like that of Korekiyo Takahashi, an early 20th century politician assassinated over his controversial policies, demonstrate how the upper class lived during that time period. The east section is primarily businesses from the 1920s and '30s, preserved with their wares on display. Visitors are free to wander through a kitchenware shop, a florists, an umbrella store, a bar, a soy sauce shop, a tailor's, a cosmetics shop, and an inn complete with an operational noodle shop.

### 329. **caffeine**

To **understand** how a coffee nap might work, we need to look at how the body **processes** caffeine. When you drink a coffee, the caffeine stays in the stomach for a while before moving to the small intestine. It is from here that caffeine is **absorbed** and distributed throughout the body. This process, from drinking to absorption, takes 45 minutes. Although caffeine is broken down in the liver, half of it remains in the blood for 4-5 hours after drinking a moderate amount (equivalent to two large cups of brewed coffee). It **takes** more time to eliminate greater amounts of caffeine from the body.

### 330. **herbicides**

Chemicals used to control weeds in crops such as corn and soybeans may sometimes run off farm land and enter surface water bodies such as lakes and streams. If a surface water body that is used as a **drinking** water supply receives excess amounts of these herbicides, then the municipal water treatment plant must **filter** them out in order for the water to be safe to drink. This added filtration process can be expensive. Farmers can help control excess herbicides in runoff by choosing chemicals that bind with **soil** more readily, are less toxic, or degrade more quickly. Additionally, selecting the best tillage practice can help minimize herbicide **pollution**.

## 331. heroes

For a long time, people have been **fascinated** with heroes who've somehow survived great danger and brutal hardship. Back in 800 B.C.E., the Greek poet Homer composed "The Odyssey," one of the great adventure tales of all time, in which his protagonist Odysseus survives **shipwrecks**, encounters with myriad monsters and a wily sorcerer before finally returning to his family. While some of Odysseus' adventures were **fanciful**, it now turns out that he may well have been a real person. In 2010, **archeologists** announced they had uncovered a palace in ancient Ithaca that fit Homer's description of the place where his hero lived.

## 332. absence

Because of the instructional methods, expected class participation and the nature of the courses vary, no fixed number of absences is applicable to all **situations**. Each **instructor** is responsible for making clear to the class at the beginning of the **semester** his or her policies and procedures in regard to class **attendance** and the reasons for them.

## 333. holiday in Japan

The new year is the most important holiday in Japan, and is a symbol of renewal. In December, various Bonenkai or "forget-the-year **parties** are held to bid farewell to the problems and **concerns** of the past year and **prepare** for a new beginning. Misunderstandings and grudges are forgiven and houses are scrubbed. At midnight on Dec. 31, Buddhist temples strike their gongs 108 times, in a effort to **expel** 108 types of human weakness. New year's day itself is a day of joy and no work is to be done. Children receive otoshidamas, small gifts with money inside. Sending New year's cards to arrive on January 1 is a popular **tradition**.

## 334. haute couture

To be called a "haute couture" house, a business must belong to the Syndical Chamber of Haute Couture in Paris, which is **regulated** by the French Department of Industry. Members

must employ 15 or more people and present their collections twice a year. Each **presentation** must include at least 35 separate outfits for day and evening wear.

### 335. Julius Caesar

The soothsayer's warning to Julius Caesar, "Beware the Ides of March", has forever imbued that date with a sense of **foreboding**. But in Roman times the **expression** "Ides of March" did not necessarily evoke a dark mood – it was simply the standard way of saying "March 15." Surely such a fanciful expression must signify something more than merely another day of the year? Not so. Even in Shakespeare's time, sixteen centuries later, **audiences** attending his play "Julius Caesar" wouldn't have blinked twice hearing the date called the Ides.

### 336. "Open Door" policy

An "Open Door" policy provides for maintenance in a certain territory of equal commercial and industrial rights for the nationals of all countries. As a **specific** policy, it was first advanced by the United States, but it was **rooted** in the typical most-favored-nation clause of the treaties concluded with China after the Opium War (1839-42). Although the Open Door is generally associated with China, it also received recognition at the Berlin Conference of 1885, which declared that no power could **levy** preferential duties in the Congo basin.

### 337. poor people

To understand how many inhabitants of a country are poor, it is not enough to know a country's per capita **income**. The number of poor people in a country and the **average** quality of life depend on how equally or unequally income is **distributed** across the population. In Brazil and Hungary, for **example**, per capita income levels are quite comparable, but the **incidence** of poverty in Brazil is much higher.

### 338. the average stock price

Average (DJIA) reports the average stock price of 30 large, publicly traded US companies. It tends to **reflect** the state of the stock market as a whole. Though its name would **lead** you to



believe the DJIA is made up of only **industrial** companies, the DJIA in fact contains stocks across many “industries,” not all of which are industrial. The business **represented** includes finance, food, technology, retail, heavy equipment, oil, chemical, pharmaceutical, consumer goods, and entertainment.

### 339. Kiwi

A Massey ecologist has teamed up with a leading wildlife photographer to produce the definitive book on New Zealand’s national bird, the kiwi. *Kiwi: A Natural History* **was written** by Dr Isabel Castro and **features** photographs by Rod Morris. Dr Castro **has been working** with kiwi **since** 1999, with a focus on their behaviour. “I’ve specifically been looking at the sense of smell that kiwi uses when foraging, **but also** in their interactions with their environment and other kiwi,” she says. “They really are a very unique bird. They are a collection of odd characteristics – some of them coming from dinosaurs – that have been patched together in a strange way.” She says the book is aimed at a **general** audience “and compiles all of the literature that has already been written about kiwi, it is a great reference tool”.

The book covers all aspects of kiwi, from their evolution, prehistory and closest relatives to their feeding and breeding behaviour and current conservation issues, making this the perfect **introduction** for anyone with an interest in these fascinating birds. There are five recognised species of kiwi, distributed unevenly in locations throughout New Zealand and ranging from the most widespread, the North Island brown kiwi, to the most endangered, the rowi. The book is the second title in a new **series** on New Zealand’s wildlife, targeted at a family readership. Since acquiring her PhD at Massey, Dr Castro has closely studied New Zealand’s native birds, with particular focus on hihi, saddlebacks and kiwi. Among other published works, she is co-author of *A Guide to the Birds of the Galápagos Islands*.

### 340. charity

Americans approached a record level of generosity last year. Of the \$260.28bn given to charity in 2005, 76.5 percent of it came from individual **donors**. These people gave across the range of non-profit bodies, from museums to hospitals to religious **organizations**, with a



heavy **emphasis** on disaster relief after the Asian tsunami and US hurricanes. In total, Americans gave away 2.2 per cent of their household income in 2005, slightly above the 40-year **average** of 2.1 per cent.

## 341. Human body

Taking us through a typical day, from the **arousal** of the senses in the morning to the reverie of sleep and dreams, Ackerman **reveals** the human form as we've never seen it: busy, cunning, and **miraculous**. Advances in genetics and medical imaging have **allowed** us to peer more deeply inside ourselves than ever before, and one of the most amazing recent discoveries is that we are intensely rhythmic creatures. The human body is like a clock – actually an entire shop of clocks – **measuring** out the seconds, minutes, days, and seasons of life.

## 342. Athens Games

While the preparations for the Athens games were **marred** by construction delays and an epic race to complete **venues** before the opening ceremonies, the game's return to their historic home ended as a surprising success. Participation **records** were once again broken, with 201 nations and 10,625 athletes taking part in 301 different events. Nearly as **compelling** as the competitions were the historic sites **used** for the games.

## 343. Neo-Latin

Those of you who've never heard the term neo-Latin, may be forgiven for thinking it's a new South American dance craze. If you're **puzzled** when I tell you it has something to do with the language of Romans, take heart, over the years many classes who have **confessed** they are not really sure what it is either. Some have confessed that they are so-called 'Late-Latin', written at the end of the Roman Empire. Others have supposed it must have something to do with the middle ages. Or perhaps it's that pseudo-Latin which my five and seven-year-old boys seem to have **gleaned** from the Harry Potter books, useful for spells and curses that they zip one another with makeshift paper ash ones. No, in fact, neo-Latin is more or less

the same as the Latin that was written in the **ancient** world, classical Latin. So, what's so new about it?

## 344. Event management

Event management is particularly challenging from an operational viewpoint. In many cases, events are staged on sites where everything has been set up over a 24-hour period, with all elements carefully **synchronized**. In contrast, many events are years in the planning: large convention bids are often won five years before the event is held. For the very **competitive** bidding process, budgets need to be developed and prices quoted, requiring a good understanding of market, economic and political trends, as well as consumer choices. This long-term view is the basis of strategic management, which is covered in Part 1, and focuses on the event concept, feasibility of the event, legal compliance and financial management. Marketing is a critical **success** factor and other important topic of this first section, many events (sporting, cultural and arts) involving long- term sponsorship **arrangements** with key industry players. Relationship building is particularly **challenging** since there are so many stakeholders involved in events, including government agencies at many levels. Part 1 will look at all these aspects, including strategic risk, before moving on to the second part where operational planning and implementation will be covered in detail.

## 345. microbes

On the journey, we learn about the teamwork required to rot human teeth, the microbe superheroes who feed on radioactive **waste**, suicide genes, the origins of diseases and antibiotic **resistance**, and the numerous respects in which microbes **benefit** human life – from manufacturing food and medicine, to mining gold, finding oil, cleaning up the mess we make, and generally **rendering** the Earth habitable.

## 346. Helping people

There are many different ways to help other people. Perhaps the most common of these involves giving others **practical** help. In our society, there are many individuals who

spontaneously help others in this way. Additionally, there are others who belong to organizations which have been set up to provide help to specific groups, such as the elderly, the disabled, and those with serious physical or **mental** health problems. Most importantly, there are many **occupations**, such as nursing, occupational therapy and social work, which involve professionals who are trained to provide or organize practical help for others.

**While** helping other people in a practical way, many volunteer and professional helpers also make use of some counselling. These skills can be very useful in enabling people to feel better as described in this book and our book, Counselling Skills in Everyday Life. However, it needs to be **recognized** that just being able to make use of some counselling skills does not qualify a person as

## 347. Skyscraper

The desire to build big is nothing new. Big buildings have been used to show off power and wealth; to honor leaders or religious beliefs; to stretch the limits of what's possible; and even as simple **competition** among owners, families, architects, and builders. Some of the most **drastic/dramatic** buildings of the past include the pyramids in Egypt, the skinny towers stretching towards the sky in Italian hill towns, and the gothic cathedrals of France. While these types of buildings may look very different from each other, they all have one thing in **common**. They were built with masonry or stone walls supporting most of the weight (so-called load-bearing walls), including that of the floors, the people, and everything the rooms contained. Because of this, the height of these buildings was limited by how massive and heavy they had to be at the base.

Two **developments** in the 19th century paved the way for a whole new type of building: the skyscraper. The first was the development of a safe elevator. Primitive elevators of various designs had been used for centuries, and starting in the mid-19th century, steam-operated elevators were used to move materials in factories, mines, and warehouses. But these elevators were not **considered** safe for people; if the cable broke, they would plummet to the bottom of the elevator shaft. Then in 1853, an American inventor named Elisha Graves Otis developed a safety device that kept elevators from falling if a cable should break. This new development had an enormous impact on public confidence. And later in the century,

the switch to an electric motor made the elevator a practical solution to the problem of getting up and down tall buildings.

## 348. Breton language

It is difficult to tell precisely when the Breton language was born. As early as the VIth century the new country was **established** and known as "Lesser Britain", but for many centuries its language **remained** close to the one of Great Britain - very close even to the dialect spoken in the South West. The VIIIth century is the milestone where Breton, Cornish and Welsh are **considered** as different languages.

## 349. Managing performance

Managing performance is about getting people into action so that they achieve planned and agreed results. It focuses on what has to be done, how it should be done and what **is** to be achieved. But it is equally concerned with **developing** people - helping them to learn - and providing them with the support they need to do well, now and in the future. The framework for performance management is provided by the performance agreement, **which** is the outcome of performance planning. The agreement provides the basis for managing performance throughout the year and for **guiding** improvement and development activities. It is used as a reference point when reviewing performance and the achievement of improvement and development plans.

## 350. feature of business(1)

One distinguishing feature of business is its economic character which can be summarized as the conduct of buyers and **seller** and employers and employees. A second distinguishing feature of business is that it typically takes place in organizations which is a hierarchical system of functionally defined positions designed to **achieve** some goal or set of goals. Because business involves economic relations and transactions that take place in markets and also in **organizations**, it raises ethical issues for which the ethics of everyday life has not prepared us. Decisions making occurs on several distinct levels: the level of the individual,

the organization, and the business system. The level of the individual represents **situations** that confront them in the workplace and require them to make a decision about their own well-being.

## 351. feature of business(2)

One distinguishing feature of business is its economic character. In the world of business, we interact with each other not as family members, friends, or neighbors, but as **buyers** and **sellers**, employers and employees, and the like. Trading, for example, is often accompanied by **hard** bargaining, in which both sides conceal their full hand and perhaps engage in some bluffing. And a skilled salesperson is **well versed** in the art of arousing a customer's attention (sometimes by a bit of puffery) to **clinch** the sale. Still, there is an "ethics of trading" that prohibits the use of false or deceptive claims and tricks such as "bait-and-switch" advertising.

## 352. organisms

Some of the most basic organisms are smarter than we thought. Rather than moving about randomly, amoebas and plankton employ sophisticated **strategies** to look for food and might travel in a way that optimizes their foraging. Biophysicists have long tried to explain how creatures of all sizes search for food. However, single-celled organisms such as bacteria seem to move in no particular direction in their search. To investigate, Liang Li and Edward Cox at Princeton University studied the movements of amoebas (*Dictyostelium*) in a Petri dish, recording the paths travelled by 12 amoebas, including every turn and movement straight ahead, for 8 to 10 hours per amoeba. Immediately after an amoeba turned right, it was twice as likely to turn left as right again, and vice versa, they told a meeting of the American Physical Society meeting in Denver, Colorado, last week. This suggests that the cells have a **rudimentary** memory, being able to remember the last direction they had just turned in, says Robert Austin, a biophysicist at Princeton who was not involved in the study.



## 353. Concrete jungle

Spending too much time in the concrete jungle is bad for city **dwellers'** health and could have potentially catastrophic **consequences** for the environment, conservation biologist Richard Fuller will argue during a seminar at the University of Canberra **today**. Dr Fuller, lecturer in biodiversity and conservation at the University of Queensland and CSIRO, will explore the fact that although there's evidence that the well-being of humans increases with **exposure** to our surrounding biodiversity, the **opportunities** for people to experience nature are declining rapidly in the modern world.

## 354. conservancies

To qualify, communities applying had to define the conservancy's boundary, elect a **representative** conservancy committee, negotiate a legal constitution, prove the committee's ability to **manage** funds, and produce an acceptable plan for **equitable** distribution of wildlife-related benefits (Long 2004:33). Once approved, registered conservancies acquire the **rights** to a sustainable wildlife quota set by the ministry. The animals can either be sold to trophy hunting companies or hunted and consumed by the community. As legal entities, conservancies can also enter into contracts with private-sector tourism operators.

## 355. financial crisis

Since the beginning of the financial crisis, there have been two principal **explanations** for why so many banks made such disastrous decisions. The first is structural. Regulators did not regulate. Institutions failed to function as they should. Rules and guidelines were either **inadequate** or ignored. The second explanation is that Wall Street was incompetent, that the traders and investors didn't know enough, that they made extravagant bets without **understanding** the consequences.



## 356. What is music?

What is music? In one sense, this is an easy **question**. Even the least musical among us can recognize pieces of music when we hear them and name a few canonical **examples**. We know there are different kinds of music and, even if our **knowledge** of music is restricted, we know which kinds we like and which kinds we do not.

## 357. Talking

Talking is not just an activity of the vocal chords, it is a way of connecting with ourselves and **others** that creates a culture of health and **wellbeing**. Specifically, speaking with healthcare **practitioners** about health worries, and more generally opening up to create more and stronger social **ties**, can have many positive benefits.

## 358. Humans began farming

When humans began farming some 12,000 years ago, they altered the future of our **species** forever. Our ancestors were ecological **pioneers**, discovering and cultivating the most **valuable** crops, sealing them up to feed entire communities and transforming wild crops so fundamentally that they became dependent on humans for their survival. Farming, in the words of National Geographic's Genographic Project, "sowed the seeds for the modern **age**."

## 359. flower and pollination

According to a research conducted by Cambridge University, flowers can their own ways to attract insects to help them pollinate. Flowers will release an **irresistible** smell. A scientist and her **colleagues** did an experiment in which they use fake flowers to attract bees and insects.

## 360. Electricity

It would be very hard to imagine life without electricity. Most of the appliances and machines that are used in homes, offices and factories are powered by electricity and this equipment **Helps to improve** (helps to improve, helps improving, help improved, help improve) people's overall quality of life. For that reason, the wider provision of electricity supplies is a critical factor in reducing global poverty **Levels** (ranks, stages, degrees, levels). To meet the needs of users around the world, the global consumption of coal has risen more quickly **Since** (since, in, at, for) 2000 than any other fuel. For countries that do not have their own supply of natural energy resources, coal has become an essential **Means** (factor, means, course, aspect) of producing power, on a global scale, coal is currently used to fire power stations and produces 40% of global electricity. This **Figure** (figure, sum, volume, total) is very likely to increase, and predictions are that by 2030 coal will fuel 44% of the world's electricity.

## 361. Longevity

People are living longer and this longevity is good news for sales teams. It results in a much more **Precise** (usual, precise, right, honest) customer base for them to work from. Why we are living longer is not the issue for anyone **Involved** (mixed, concerned, involved, linked) in drawing up plans to market a product. What they focus on is the fact that there are now more age groups to target, which means that a sales pitch can be re-worked a number of times to more exactly fit each one. For example, **Rather than** (while, by, even when, rather than) referring simply to 'adults', there are now 'starting adults', 'young adults' and 'established adults'. **Similarly** (even, while, similarly, really), markets no longer talk about 'children', but tend to refer to a fuller range of categories that includes 'kids', 'tweens', 'pre-teens' and 'teenagers', we now have a very diverse population in terms of age, and that can only be a **Bonus** (favor, bonus, promise, desire) for business.

## 362. Language Extinct

At the moment, there are between six and seven thousand languages in the world. According to linguists, fifty percent of these are in danger **of becoming** (to become, became, of becoming, have become) extinct. The speed of language loss has accelerated over the past few decades because businesses that need to communicate with a range of people from other cultures **Prefer** (select, prefer, fancy, must) to employ more widely used languages, such as English, Chinese, or Spanish. This attitude is understandable, but it means that many local languages are dying out before anyone **Has had** (would have, has had, have, having had) the opportunity to study them. According to linguists, some of these languages could reveal a great **Deal** (size, deal, load, capacity) of useful information about language learning and cognitive development. In addition, a local language that has been built on the local culture contains words and phrases that express that culture; lose the language and you arguably may lose the culture, too. And finally, historians will **Argue** (speak, argue, explore, tell) that a language contains evidence of a region's history and should, for that reason alone, be preserved.

## 363. Keith Haring

Keith Haring began as an underground artist, literally. His first famous projects were pieces of stylized graffiti **Drawn** (drawers, drew, draws, drawn) in New York subway stations. Haring travelled from station to station, drawing with chalk and chatting with commuters about his work. These doodles helped him develop his classic style and he grew so **Prolific**, doing up to 40 drawings a day, that it was not long before fame and a measure of fortune followed.

Soon, galleries and collectors from the art establishment wanted to buy full-sized pieces by Haring. The paintings skyrocketed in price but this did not sit well with Haring's philosophy. He believed that art, or **At least** (in part, at least, by contrast, actually) his art, was for everyone. Soon, Haring opened a store which he called the Pop Shop, which he hoped would attract a broad range of people. While somewhat controversial among street artists,

some of **Whom** accused Haring of 'selling out', the Pop Shop changed the way people thought about the relationship between art and business.

## 364. Honorary Degree

Victoria University of Wellington has conferred an honorary degree on a distinguished astrophysicist in a recent graduation ceremony. Professor Warrick Couch **Received** (was receiving, received, had received, is received) the honorary degree of Doctor of Science for his remarkable contribution to our knowledge of galaxies and dark energy. Professor Couch is a distinguished astrophysicist who has **Played** a crucial role in the discovery that the Universe is expanding at an accelerating rate, a finding which led to the lead scientists being awarded a Nobel Prize in Physics in 2011, which he attended in recognition of his contribution.

In his research, Professor Couch uses large ground-based and spaced-based telescopes to observe galaxy clusters, **which** are the largest Structures in the Universe. He is also involved in a number of national and international committees overseeing the management of these telescopes. **In addition to** his own research activities. Professor Couch has worked to support young researchers and provide public comment on astronomy internationally.

## 365. Botswana

Although Botswana is rich in diamonds, it has high unemployment and stratified socioeconomic classes. In 1999, the nation **Suffered** its first budget deficit in 16 years **Because** of a slump in the international diamond market. Yet Botswana **Remains** one of the wealthiest and most stable countries on the African **continent**.

## 366. Wind Circulation

Wind is formed by the circulation of air. The sun heats up some parts of the sea and the land. The air among the **hot** spots warms up and rises. The cold air drops because it is **heavy**. Some wind circulates within a small area. Others blow in the **entire** globe.

## 367. Remote Working

Technology and flexible work **practices** have had a significant impact on today's busy companies. In terms of productivity, it seems the **focus** has shifted from managing employees in the workplace to monitoring their total **output** no matter where they choose to work. Whether this trend will continue depends to some **extent** on how well it works for everyone concerned.

## 368. Elephants Sounds

Elephants have a very **complex** communication system, which helps them maintain their close **family** bonds. When they are near each other, they use verbal and visual signals to express a wide **variety** of emotions. As they move further **apart**, they use less common rumbling **sounds** that can be heard over two kilometers away.

## 369. Renewable Energy

People are naturally concerned about the polluting **effects** of energy sources such as oil or coal. Wind farms are the **answer**. With their enormous rotating blades, these huge **machines** are becoming more commonplace in certain **regions** of the world. Yet for some people, they are an unwelcome **feature** of the landscape.

## 370. Data Collection

Professional astronomers, **unlike** their amateur counterparts, have no particular interest in the aesthetic quality of their photographs. What **matters** to them is the contribution their images can **make** to research, and to the **collection** of data scientists in their field **use** for research purposes.

## 371. Graduation Gifts

The practice of giving graduation gifts seems to be alive and well, despite **hard** economic times. A recent study in the US has shown that while families may not have as much to

spend, they are being more **creative** in the gifts they bestow. Lavish celebrations and large lump **sums** seem to have gone by the wayside in favour of smaller, more thoughtful gifts.

## 372. National Portrait Gallery

The majority of early pictures in the National Portrait Gallery's **care** are by unknown artists, with fundamental questions, such as when, where and why they were painted still remaining to be answered. Through the application of scientific methods, a new project has the **potential** to unlock evidence that will allow researchers to determine answers to these questions. They will use a **combination** of cutting-edge scientific techniques, such as X-ray and infra-red reflectography. in order to reveal new **information** about individual paintings.

## 373. Gunpowder

Gunpowder, also referred to as 'black powder', was the only **known** chemical explosive until the mid-nineteenth century. It **contains** 1 potassium nitrate, or 'saltpeter', which is an oxidiser, and a combination of charcoal and Sulphur serves as fuel. There is **academic** consensus that gunpowder was initially invented in China as early as the ninth century. This **led** to its use in fireworks and in gunpowder weapons.

## 374. Marion Dorset

Marion Dorset (1872-1935) was an influential American biochemist. He began working as a **researcher** for the U.S. Department of Agriculture in 1894, and worked his way up to become chief of the biochemical **division** in 1904. He made important discoveries in bacterial toxins and animal diseases, and he conducted pioneering work in the **inspection** of meat products. He co-discovered the virus that causes hog cholera and subsequently developed a to prevent it.

## 375. Study Creative Writing

This exciting new M.A. in Creative Writing is designed for graduates who wish to examine and expand their work. Through workshops, seminars, and **individual** tutorials, students will



discover new writing strategies and refine their writing. The course offers students the practical expertise needed for researching and structuring texts, and understanding traditions and genres, as well as the critical and creative proficiencies necessary to develop a career in creative writing or in a related field.

## 376. Tsunami Facts

As we know from tsunamis, when water is moving at 50 or 60 kilometers an hour it becomes deadly. Even if a wave only comes up to the knees, the force can knock a person down. Water flows around some obstacles, while slamming into large objects, such as walls, which stand in its way. It also gathers debris, like rocks and trees, as it flows, causing even more destruction when it crashes into buildings.

## 377. Erosion and Deposition by Wind

Wind-blown grains of sand from dunes may carry far inland, covering fields and diverting streams. More seriously, drifting sands can bury whole buildings and transform fertile land into desert. However, dunes can be made more stable by the artificial planting of marram grass, a plant so robust that it can find nourishment even in sand. The grass spreads over the surface of the dune, protecting it against wind, while its roots bind the sand together.

## 378. Employee Benefits

Employers often offer employees perks in addition to cash wages, for example, membership of a health insurance or company pension scheme. If they do, they must ensure that they are fair in providing these benefits in order to avoid discrimination. For instance, if an employer includes an entitlement to low-interest loans in male, but not female, employees' contracts, the female employees could take the employer to court on the basis of unequal treatment.

## 379. Thomas de Quincey quote

Thomas De Quincey once said that there is no such thing as forgetting - a rather frightening **thought**. If we could remember everything all the time, not to **mention** those things we feel **ashamed** or guilty about, life would be unbearable. Naturally, we remember shocking and dramatic events better than any **others**. The things we most often forget are names, numbers, dates, **information** learned by cramming for exams, and things we don't understand.

## 380. The Purpose of Advertising

The main **aim** of advertising is to sell **products** by getting them known and, here, brash, sensational ideas may often serve the **purpose**. But by no means is all advertising aimed at promoting a new product or even a product at all. One of the most famous posters of the 20th century **shows** Lord Kitchener early in the 1914-18 war pointing a finger, perhaps accusingly, at the entire male military-age population of Britain.

## 381. Intellectual Life

Universities are, of course, the primary centers of intellectual life in modern society. Therefore, they are a **key** center of criticism: criticism of society and of the dominant **trends** in it, especially its politics, by sections of both the **staff** and the student bodies. This critical **role** of the university, as the place where ideas are born and where support for criticism is **found** among students, who form the mass base for many protest movements, has been true for a long time and in many countries.

## 382. Trade and Globalization

During the 19th century, the enormous expansion of world production and trade was **financed** mainly by gold. Even the **notes** issued by the banks were fully convertible to gold on demand, and this was the basis of their acceptance. However, production and trade were expanding at a faster **rate** than new **supplies** of gold were being discovered. If trade

was to continue growing at this rate, some commodity other than gold also had to be used as a **means** means of exchange.

## 383. Aesop's Fables

Today we **associate** Aesop's fables with childhood, and the Victorians are largely **responsible** for that. There were at least seven separate **translations** or retellings in the 19th century, all targeted at children. Rewritten as parables, they were seen as an effective way of communicating Victorian morality. Yet, in antiquity, Aesop wasn't read by children: **despite** the talking animals and the sometimes childlike atmosphere of the tales, the setting was perceived at the time as being political.

## 384. Intelligent people

Very intelligent people often make the **mistake** of assuming that other people's minds work in the same way as theirs do. Economists, for example, create mathematically-based models on the **notion** that people act rationally as far as their own economic **interests** are concerned. You don't have to look much further than family and friends to see how off the **mark** this idea is. The problem with a lot of such scientifically-based theories is that they are not friendly to facts that don't **fit** the case.

## 385. Industrial Revolution

With today's incredible **rate** of technological change a lot of age-old human skills may be getting left behind or **dying** out. It's not just that if you buy a laptop today it's obsolete within **less** than a year and the rest of the world has moved on; it's more that, as workers get more expensive and equipment gets cheaper, companies are spending more on machines rather than people. Fewer people, therefore, are being **trained** in necessary skills.

## 386. The Olympic Games

You may think that the World Cup, like the Olympic Games, only occurs once every four years. It is the **final** final rounds that take **place** place every four years, but the competition

as a whole is an ongoing **event** event, since the qualifying rounds take place over the preceding three years. The final phase of the tournament now involves thirty-two teams competing over a four-week **period** period in a previously nominated **host** host nation. It has become the most widely-viewed sporting event in the world.

## 387. New Ideas

Ideas as well as people can take **center** stage at the right time and the right place. If new ideas are to have a wide-ranging **effect**, they had better occur at the right time - usually when old theories are worn out or have reached a dead **end**. Then they make people think along new lines and in ways that may **lead** in unexpected directions. These ideas needn't be new in themselves. They can be older, half-forgotten ideas brought back to life, or new combinations of **familiar** ones presented in a new light.

## 388. Making Good Decisions

Most of us believe that when we are making decisions about money we are being clear-headed and sensible, and assume that any rational person would **behave** in the same way and make the same decisions. But our **choices** are always based on the private logic of our own **financial** mind-set, our deep beliefs about money and what it's for, and no two people are the same. Even when two people come to the same **conclusion**, they have probably used quite different logical paths.

## 389. Duel of honour

A "duel of honour" was a way of settling disputes between gentlemen over some injury or insult. The **fight** had to be arranged privately because dueling was never **legal**, but it became common in the 17th century. A social code governed the duel of honour and, as long as the rules were **kept** to, the survivor could usually escape without being punished by the law. Duels were fought with either pistols or swords, but pistols became the more usual **weapon** after swords went out of fashion at the end of the 18th century.

## 390. Research Methods

Using questionnaires to gather information from people is a well-used quantitative research method. It is considered to be an easy **option**, but in reality it is actually very difficult to design a good questionnaire. Question type, clarity of language, length of questionnaire and layout are just some of the many **factors**, which all need to be carefully considered when designing the questionnaire. Another issue, which **requires** some deliberation, is how to ensure a high response **rate**.

## 391. Study Psychology

Psychology is a suitable course of study for those **interested** in all aspects of human thought and behavior. It can be **defined** as the scientific study of how humans function on a biological, social and mental level. There are a range of influential approaches to the subject, which are **applied** to such areas as child development, health, education and sports.

## 392. Animal Migration

It Migration could be described as the well-defined journey animals make to a familiar **destination** at specific seasons or times of the year. All species that migrate do so for a common **purpose**, in order to survive. Migration allows them to spend their life in more than one area and thus **avoid** problems that can occur in one habitat, such as lack of food, shelter or exposure to harsh weather.

## 393. Multinational Companies

Multinational companies are often criticised for a number of reasons, but we cannot deny their **positive** impact. Employment opportunities are generated for locals in the overseas country. When multinational companies set up manufacturing plants, there is often an increased **availability** of products for local consumers, which profits the local economy. Training is also sometimes provided in the use of technology; moreover, the experience and knowledge that the employees **gain** strengthens their skills and overall employability.

## 394. Science of Astronomy

There are two basic branches of the science of astronomy: observational and theoretical. Observational astronomy, as the name suggests, is concerned with observing the **skies** and then analyzing the observations, using the **principles** of physics. Theoretical astronomy focuses more on developing computer or analytical models to **describe** astronomical phenomena. The two **fields** complement each other, with observational astronomers attempting to **confirm** theoretical results, and theoreticians aiming to explain what has been observed.

## 395. Béhanzin, King of Dahomey

Behanzin ruled the West African **kingdom** of Dahomey at the end of the nineteenth century, a time when Europeans were doing their utmost to colonise Africa. Behanzin put up extremely **powerful** resistance. He did this with the **aid** of an army, including five thousand female warriors. He is often called King Shark, a name suggesting **strength** and wisdom. Famed for being a **poet** as well as a warrior, he wrote some of the most beautiful songs ever produced in Dahomey.

## 396. Study habits

An investigation into the study habits of undergraduates was carried out by a **team** of researchers at a number of different universities. In all the universities **participating** in the study, it was found that there were the **same** significant differences between the habits of arts and science students. Not surprisingly perhaps, arts students read more **widely**, while science students tended to concentrate on a few **core** texts.

## 397. Dolphins

Dolphins are marine mammals found all over the world. There are many **different** species. They are well-known as intelligent creatures and seem to **communicate** with one another in sophisticated ways. Dolphins are **sociable** animals in that they live in groups. These



can **range** in size from five to several hundred. They often hunt in groups and work together to **capture** the fish or squid they like to eat.

## 398. 1994 Northridge earthquake

After the violent earthquake that shook Los Angeles in 1994, earthquake scientists had good news to report: The damage and death toll could have been much worse. More than 60 people died in this earthquake. By comparison, an earthquake of similar **intensity** that shook America in 1998 claimed 25,000 victims. Injuries and deaths were **relatively** less in Los Angeles because the quake occurred at 4:31 a.m. On a holiday, when traffic was light on the city's highway. In addition, **changes** made to the construction codes in Los Angeles during the last 20 years have strengthened the city's buildings and highways, making them more **resistant** to quakes.

## 399. The Importance of Steel in Today's Construction

In the past, making structures quake-resistant meant firm yet **flexible** materials, such as steel and wood that bend without breaking. Later, people tried to lift a building off its foundation, and insert rubber and steel between the building and its foundation to **reduce** the impact of ground vibrations. The most **recent** designs give buildings brains as well as concrete and steel supports, called smart buildings, the structures respond like living organisms to an earthquake's vibrations. When ground shakes and the building tips forward, the computer would **force** the building to shift in the opposite direction. The new designs should offer even greater **security** to cities where earthquakes often take place.

## 400. El Nino

El Nino usually lasts for about 18 months. The 1982-83 El Nino brought the most **destructive** weather in modern history. Its effect was worldwide and it left more than 2,000 people dead and caused over eight billion pounds **worth** of damage. The 1990 El Nino will **strike**, but they are still not **completely** sure what leads to it or what affects how strong it will be.

## 401. The Smell of Democracy

In the southern cone especially, from Venezuela to Argentina, the region is rising to overthrow the legacy of external domination of the past centuries and the cruel and destructive social forms that they have helped to establish. The **Mechanisms** of imperial control \_ violence and economic warfare, hardly a distant memory in Latin America \_ are losing their effectiveness, a sign of the shift toward independence. Washington is now compelled to tolerate governments that in the past would have drawn intervention or reprisal. Throughout the region a vibrant **Array** of popular movements provides the basis for a meaningful democracy. The indigenous populations, as if in a rediscovery of their pre-Columbian legacy, are much more active and influential, particularly in Bolivia and Ecuador. These developments are in part the result of a phenomenon that has been observed for some years in Latin America: As the elected governments become more formally democratic, citizens **Express** an increasing disillusionment with democratic institutions. They have sought to construct democratic systems based on popular participation rather than elite and foreign **Domination**.

## 402. Ernest Shackleton

Ernest Shackleton was a British explorer of the South Pole who is best remembered for leading his crew to safety after the failed expedition of the Endurance (1914–16). Shackleton had been a junior officer on Robert Falcon Scott's discovery **expedition** (1902–03), and his travels with the Nimrod (1907–09) had taken him closer to the South Pole than anyone before. After Roald Amundsen reached the Pole in 1911, Shackleton and a crew of 28 men set out in his ship Endurance in 1914, in the **hope** of being the first to cross the polar continent. The ship was frozen in ice, then crushed, and Shackleton and his men set out in lifeboats after nearly a year and a half on the ice. Shackleton, known as "The Boss," took five men and sailed 800 miles in an open boat from Elephant Island to the island of South Georgia, then went back and **saved** the rest of his crew, all of whom survived. Almost two years after starting out, they reached safety in South America in September 1916. In spite of his heroics, Shackleton had a hard time back in England with finances and alcohol. He

eventually managed to get financing for another voyage to Antarctica in 1921, but he had a fatal heart attack at South Georgia Island and never made it.

## 403. Neutrinos

In June 1998, an international team of Japanese and US physicists unveiled strong evidence that elusive subatomic particles known as neutrinos have mass. These findings run counter to the standard model of particle physics—the basic theory about the structure of matter which holds that these electrically neutral, weakly interacting particles have no mass. The discovery means that existing theoretical models of matter must now be revised to include neutrinos with mass. Neutrinos occur in three states: electron, muon, and tau, with the names signifying what is produced when a neutrino collides with another particle. Observers do not see the neutrinos themselves, but can detect the creation of electrons and muons from faint flashes of light following a particle collision. The physicists used the giant Super-Kamiokande—the world's biggest neutrino detector buried deep underground in Mozumi, Japan. In the experiment, conducted in a 50,000-ton tank of purified water, neutrinos created when cosmic rays bombard Earth's upper atmosphere were counted relative to the number expected to penetrate the cavern. The experimenters found that the number of electron-neutrinos detected was relatively constant with theorized totals, while the number of muon-neutrinos was significantly lower. This indicated that they were disappearing into another state, or "flavor," such as an undetected tau-neutrino, or possibly another type.

## 404. The introduction of Australian legal system

This text delivers a thorough and balanced introduction to the Australian Legal System. It provides a clear grounding in the western and indigenous legal traditions, as well as the history of Australian law and legal institutions. There is a special emphasis on legal method which forms the basis of legal understanding. In particular, the text analyses and explains legal method—the following and distinguishing of precedent, statutory interpretation and the identification of ratio, which prepares students for their legal study. Numerous quality exercises prepare the way for legal thinking in students, for example, "Part 3: Legal Method" contains many examples and exercises to encourage understanding.

## 405. Event management

Event management is particularly challenging from an operational viewpoint. In many cases, events are staged on sites where everything has been set up over a 24-hour period, with all elements carefully **synchronised**. In contrast, many events are years in the planning: large convention bids are often won five years before the event is held. For the very **competitive** bidding process, budgets need to be developed and prices quoted, requiring a good understanding of market, economic and political trends, as well as consumer choices. This long-term view is the basis of strategic management, which is covered in Part 1, and focuses on the event concept, feasibility of the event, legal compliance and financial management. Marketing is a critical **success** factor and other important topic of this first section, many events (sporting, cultural and arts) involving long-term sponsorship **arrangements** with key industry players. Relationship building is particularly **challenging** since there are so many stakeholders involved in events, including government agencies at many levels. Part 1 will look at all these aspects, including strategic risk, before moving on to the second part where operational planning and implementation will be covered in detail.

## 406. Bamboo

Bamboo is a favoured plant among architects and designers because of its incredible strength and durability. One Colombian architect **refers** to it as nature's steel, but in many respects it is even better than steel: it is lighter and more flexible, and these **qualities** make it the ideal building material in areas that suffer earthquakes and severe weather patterns. Construction workers in places such as Hong Kong rely on bamboo scaffolding whatever the **height** of the tower block they may be working on: over a billion people around the world live in a home that is made of bamboo; and China **has cultivated** the plant for thousands of years. The only drawback to this remarkable product is the cost of transporting it. So for those **who** live in cooler regions of the world, the enormous advantages of this natural building material are less accessible.

## 407. The plant species book

Experts have waited a considerable amount of time for this much-needed book. Now we have a new and very thorough survey of wetland plant species. The content is extensive and totally up-to-date and as reference **material**, it represents extremely good value. In addition to the editors, there are 35 well-chosen contributors who have put in a tremendous amount of work to **assist** the reader with maps and indexes and colorful photographs. The plant descriptions are straightforward, yet scholarly, and flicking through the pages, **you can sense** the writers' passion for the subject. Each of the eight sections has an overview, **highlighting** current concerns and future conservation plans. Despite a few gaps and the occasional unsatisfactory illustration, this handbook will remind botanists and specialists of the importance of protecting the country's plant life. **every** person interested in the topic, whether student or hardened expert will find it indispensable.

## 408. Fingerprints

Fingerprints can **prove** that a suspect was actually at the scene of a crime. As long as a human entered a crime scene, there will be traces of DNA. DNA can help the police to **identify** an individual to crack a case. An institute in London can help **reserve** DNA and be used to match with the **samples** taken from the crime scenes.

## 409. The New Moral Code

Thus the environmental policy does not contribute to the profitability in any real sense at all. In practice it is companies that are well organized and efficient, or that are already comfortably profitable, that have **time** to **establish** and police environmental policies. However, if profitable companies are the ones most likely to **establish** "environmental best practice" this is confusing cause with effect. It is not that environmental best practice causes profitability, but that being profitable allows for **concern** for the environment.



## 410. Working Women

With the increase in women's **participation** in the labor force, many mothers have less time available to undertake domestic activities. At the same time, there has been increasing recognition that the father's role and **relationship** with a child is important. A father can have many **roles** in the family, ranging from income provider to teacher, career, playmate and role model. Therefore, balancing paid work and family responsibilities can be an important issue for both fathers and mothers in families.

## 411. Essay Writing

Essays are used as an assessment tool to evaluate, your ability to research a topic and construct an **argument**, as well as your understanding of subject content. This does not mean that essays are a "regurgitation" of everything your lecture has said throughout the course. Essays are your opportunity to explore in greater **depths** aspects of the course theories, issues, texts etc., and in some cases relate these aspects to a **particular** context. It is your opportunity to articulate your ideas, but in a **certain** way: using formal academic style.

## 412. The Agricultural Revolution

When humans began farming some 12,000 years ago, they altered the future of our **species** forever. Our ancestors were ecological **pioneers**, discovering and cultivating the most valuable crops, sealing them up to feed entire communities and transforming wild crops so fundamentally that they became dependent on humans for their survival. Farming, in the words of National Geographic's Genographic Project, "sowed the seeds for the modern **age**."

## 413. Why it's so good to talk

Talking is not just an activity of the vocal cords, it is a way of connecting with ourselves and **others** that creates a culture of health and **well-being**. Specifically, speaking with healthcare



**practitioners** about health worries, and more generally opening up to create more and stronger social **ties** can have many positive benefits.

## 414. A Financial Crisis

Since the beginning of the financial crisis, there have been two principal **explanations** for why so many banks made such disastrous decisions. The first is structural. Regulators did not regulate. Institutions failed to function as they should. Rules and guidelines were either **inadequate** or ignored. The second explanation is that Wall Street was **incompetent**, that the traders and investors didn't know enough, that they made extravagant bets without **understanding** the consequences.

## 415. Wildlife Management

To qualify, communities applying had to define the conservancy's boundary, elect a **representative** conservancy committee, negotiate a legal constitution, prove the committee's ability to **manage** funds, and produce an acceptable plan for **equitable** distribution of wildlife-related benefits (Long 2004:33). Once approved, registered conservancies acquire the **rights** to a sustainable wildlife quota set by the ministry. The animals can either be sold to trophy hunting companies or hunted and consumed by the community. As legal entities, conservancies can also enter into contracts with private-sector tourism operators.

## 416. Get out more

Spending too much time in the concrete jungle is bad for city **dwellers'** health and could have potentially catastrophic **consequences** for the environment, conservation biologist Richard Fuller will argue during a seminar at the University of Canberra **today**. Dr. Fuller, lecturer in biodiversity and conservation at the University of Queensland and CSIRO, will explore the fact that although there's evidence that the well-being of humans increases with **exposure** to our surrounding biodiversity, the **opportunities** for people to experience nature are declining rapidly in the modern world.

## 417. Sigmund Freud

That Sigmund Freud became a major intellectual presence in twentieth-century culture is not in doubt. **Nor** is it that at all time there was both fervent enthusiasms over and bitter hostility to his ideas and influence. But the exact means **by which** Freud became, despite his hostility, a master of intellectual life, on a par, already in the 1920s, with Karl Marx, Albert Einstein, Marie Curie and Bertrand Russell, has not been sufficiently explored. Strikingly, Freud emerged as a twentieth-century icon without the endorsement and support **of** an institution or a press (in contrast to Einstein, Curie and Russell). Where are we to look for the **details** of this story of an emergent – and new – figure of immense cultural authority? One of the principal aims of this book is to show how this happened in one local, parochial yet privileged, site – Cambridge, then as now a university town stranded in the English Fens with a relatively **small/fluctuating** population.

## 418. Trees and climate change

Trees, as ever, are or should be at the heart of all **DISCUSSION** on climate change. The changes in carbon dioxide, in temperature, and in patterns of rainfall will each affect them in many ways - and each **parameter** INTERACTS with all the others, so between them these three main **VARIABLES** present a bewildering range of possibilities.

## 419. Generating Good Ideas

First, new ideas are the **wheels** of progress. Without them, stagnation reigns. Whether you're a designer dreaming of another world, an **engineer** working on a new kind of structure, an **executive** charged with developing a fresh business concept, an advertiser seeking a breakthrough way to sell your product, a fifth-grade teacher trying to plan a memorable school **assembly** program, or a volunteer looking for a new way to sell the same old raffle tickets, your ability to **generate** good ideas is critical to your success.

## 420. Traffic jams

for the first time Japanese researchers have **conducted** a real-life experiment that shows how some traffic jams appear for no **apparent** reason they placed 22 vehicles on a single track and asked the drivers to cruise round at a constant speed of 30 kilometers an hour at first traffic moves smoothly but soon the distance between cars started to **vary** and vehicles **clumped** together at one point on the track but the jams spread backwards around the track like a shock wave at a rate of about 20 kilometers an hour real-life jams move backwards at about the same speed.

## 421. Who Survived the Impossible

For a long time, people have been **FASCINATED** with heroes who've somehow survived great danger and brutal hardship. Back in 800 B.C.E., the Greek poet Homer composed "The Odyssey," one of the great adventure tales of all time, in which his protagonist Odysseus survives **SHIPWRECKS**, encounters with myriad monsters and a wily sorcerer before finally returning to his family. While some of Odysseus' adventures were **FANCIFUL**, it now turns out that he may well have been a real person. In 2010, **ARCHAEOLOGISTS** announced they had uncovered a palace in ancient Ithaca that fit Homer's description of the place where his hero lived.

## 422. Freud in Cambridge

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happened in one local, parochial **yet** privileged, site – Cambridge, then as now a university town **stranded** in the English Fens with a relatively small (fluctuating) population.

## 423. Storytelling and Film

The universality of story Feature films are narratives—they tell stories. Even films based on **true** events will fictionalize them in order to produce drama, to telescope time, to avoid being filled up with too many **minor** characters, or simply to be more entertaining. Even in the current welter of special-effect movies, feature films are usually summarized by their plots—in their first ‘treatment’ (or outline of the script idea), in the advance publicity, in the TV guide, in reviews, and in conversations. Films may differ from other **kinds** of narrative—literary fiction or television drama, for instance—in the medium used and the representational conventions. They do, however, **share** with literary fiction and television drama the basic structure and functions of narrative.

## 424. Co-evolution and Pollination

Bees and flowers have **evolved** together for millions of years. It is a mutual relationship where the bee is provided with food (nectar or pollen) and the stationary plant gets to **disperse** its pollen (sperm cells) to other plants of the same species. For the plant this is much more **efficient** than using wind to disperse its pollen. Consequently, over millions of years plants have developed flowers with increasingly specialised features to attract visiting bees who, in turn, would distribute pollen grains and optimise the plant’s reproductive capabilities. Simultaneously, bees underwent physiological, behavioural and structural **adaptations** to take advantage of the nutritional benefits offered by flowering plants. This is an example of a **co-evolutionary** relationship.

## 425. The Biography of a City

The Roman people had at first been inclined to regard the French revolution with either indifference or **derision**. But as the months went by and the **emigres** who remained in the city were less and less **hopeful** of an early return home, the mood of the romans became

increasingly **antagonistic** towards the assassins of Paris. The nationalization of church property in France, the confiscation of papal territories, the **dwindling** of contributions and the **paucity** of tourists and pilgrims all contributed to an exacerbation of this antagonism.

## 426. London's National Gallery

London's National portrait Gallery is currently celebrating the fifty-year **career** of the photographer Sandra Louisiana. The twenty-one portraits on display depict key **figures** in literature, film and fashion from the early 1960s. Subsequent to the **acquisition** of forty portraits by Louisiana, the display at the National Portrait Gallery highlights shots taken between 1960 and 1964, many of which feature in Louisiana book Public faces private places (2008).

## 427. The health of the people

Under-nutrition and related diseases kill between 15 and 18 million people a year, the **majority** are children. At least 500 million are chronically hungry. The tragic paradox of massive suffering **amid** global plenty traces in part to widespread poverty, which denies access to food **even** where it piles high in village market

## 428. Chimpanzee Communication

Chimpanzee postures, gestures, and facial expressions communicate many messages and "**emotions**" within a group. When "**greeting**" a dominant individual after an absence or in response to an aggressive gesture, nervous "**subordinates**" may approach with submissive signal, crouching, presenting the rump, hold the hand out accompanied by pant-grunts or squeaks. In response, the dominant individual is likely to make gestures of "**reassurance**", such as touching, kissing, or embracing the subordinate.

## 429. Electrons

The electrons that orbit closest to the nucleus are strongly **attracted**. They are called bound electrons. The electrons that are farther away from the pull of nucleus can be **forced out** of

their orbits. These are called free electrons. Free electrons can move from one atom to another. This movement is known as electron flow.

Electricity is the movement or flow of electrons from one atom to to another. A condition of **imbalance** is necessary to have a movement of electrons. In a normal atom, the positively charged nucleus balances the negatively charged electrons. This holds them in orbit. If an atom loses electrons, it becomes positive in charge. It attracts more electrons in order to get its balance.

A conductor is any material that allows a good electron flow and conducts electricity. A good conductor must be made of atoms that give off free electrons easily. Also, the atoms must be **close** enough to each other so that the free electron orbits overlap. Ignition systems use cooper and aluminium wires to conduct electricity. They allow good electron flow.

## 430. Recommended Books

This book **unlocks** the secrets of maths - **revealing** it to be our lost, native language, as much a part of us as the words we use every day. Number and form are the **essence** of our world: from the **patterns** of the stars to the pulses of the market, from the beats of our hearts to catching a ball or **tying** our shoelaces. Drawing on science, literature, history and philosophy, this book makes the rich patterns of maths brilliantly clear.

## 431. Life in the UK

Life in the UK 2012 provides a unique overview of well-being in the UK today. The report is the first snapshot of **life** in the UK to be delivered by the Measuring National Well-being programme and will be **updated** and published annually. Well-being is discussed in terms of the economy, people and the environment. Information such as the unemployment rate or **number** of crimes against the person are presented alongside data on people's thoughts and feelings, for example, satisfaction with our jobs or **leisure** time and fear of crime. Together, a richer picture on 'how society is doing' is provided.



## 432. Sharks have personalities

Down the road, the study authors write, a better understanding of shark's **personalities** may help scientists learn more about what drives their choice of things like prey and **habitat**. Some sharks are shy, and some are outgoing some are **adventurous**, and some prefer to stick close to what they know, information that could prove useful in making sense of larger species-wide behaviour patterns.

## 433. Brave New World

A good way to make sure that people police themselves is to get them to **believe** essentially the same stories about what the world is and why the way it is good, **true** and beautiful. The world needs to be **described**, needs to be justified by arguments about nature, philosophical principle, history or the gods. People will find their **place** in such a world. They will learn **what** hopes they might reasonably **hold** for themselves.

## 434. Tackling Truancy

In reality the causes of truancy and **non-attendance** are diverse and multi-faceted. There are as many **causes** of non-attendance as there are non-attenders. Each child has his or her own **unique** story, and whilst there may often be certain identifiable factors in common, each non-attending child demands and **deserves** an individual response, tailored to meet his or her individual needs. This applies **equally** to the 14-year-old who fails to attend school because a parent is terminally ill, the overweight 11-year-old who fails to attend because he is **embarrassed** about changing for PE in front of peers, the 15-year-old who is "bored" by lessons, and to the seven-year-old who is teased in the playground because she does not wear the latest designer-label clothes.

## 435. The workforce plan

The purpose of the workforce plan is to enable a business to achieve its overall objective by successfully putting its corporate strategies into action. So it is these whole business objective and strategies that are the **starting point** for assessing the number and type of

staff of workers that will be needed in the future. Where growth is the objective, the business **may be planning** to increase sales by targeting new markets for launching new products. The workforce plan will need to set out **how** the people required to make this happen will be recruited, retained, developed, or relocated if cost minimization is the goal, and if workforce efficiency is one of the strategies, plans will need to be in place to **boost** productivity, cut wages bills or delays the organizational structure.

## 436. English rules the world of languages

With about one and a half billion non-native speakers, English has become the world's own language. Such **dominance** has its downside, of course. There are now about 6800 languages left in the world, compared with perhaps **twice** that number back at the dawn of agriculture. Thanks in **part** to the rise of uber-languages, most importantly English, the remaining languages are now dying at the **rate** of about one a fortnight.

## 437. Globalization and financial institutions

Economic **dimension** of globalization involves the international financial institutions i.e. the IMF & WB. Stabilization and adjustment are sponsored by the two respectively and are rooted in the ideology of free market. At the other end of the spectrum, protesters see globalization in a very different light than the treasury secretary of the United States, or the finance or trade ministers of most of the advanced industrial countries. The difference in **views** is so great that one wonders, are the protesters and the policy makers talking about the same **phenomenon**? Are they looking at the same data? Are the visions of those in **power** are so clouded by special and particular **interests**?

## 438. History as commemoration

History is selective. What history books tell us about the past is not everything that happened, but what historians have **selected**. They cannot put in everything: choices have to be made. Choices must similarly be made about which aspects of the past should be formally taught to the next generation in the shape of school history lessons. So, **for**

**example**, when a national school curriculum for England and Wales was first discussed at the end of the 1980s, the history curriculum was the subject of considerable public and media **interest**. Politicians argued about it; people wrote letters to the press about it; the Prime Minister of the time, Margaret Thatcher, **intervened** in the debate. Let us think first about the question of content. There were two main camps on this issue—those who thought the history of Britain should take **pride** of place, and those who favoured what was **referred** to as "world history".

## 439. Space X (different version)

The agreement commits NASA to offer space X help with deep space navigation and communications, design of the spacecraft's **trajectory** and help with developing the landing system. The space X mission will use a version of the Dragon spacecraft that currently flies to the International Space Station under space X's resupply **contracts** with NASA. As part of work to develop a version of the capsule that can carry astronauts, space X has developed and **tested** motors that allow the craft to make a safe landing on earth in the event of an emergency during take-off. Space X would adapt that system to allow the craft to touch down on Mars. The craft would be **launched** on its journey by space X's new Falcon Heavy rocket, a heavy-lift version of its existing Falcon 9, which it expects require spacecraft to be launched from earth's surface faster than orbital flights such as missions to the space station, they depend on heavy rockets, usually three standard rockets strapped together.

## 440. The discovery of the universe

From the time of the very earliest civilizations man has wondered about the world he lives in, about how it was created and about how it will end. In these distant times the sun was seen to make its daily **journey** across the sky. At night the moon appeared. Every new night the moon waxed or waned a little and on a few nights it did not appear at all. At night the great dome of the heavens was dotted with tiny specks of light. They **became** known as the stars. It was thought that every star in the heavens had its own purpose and that the **secrets** of the universe could be discovered by making a study of them. It was well known that there were wandering stars, they appeared in different nightly positions against their

neighbours and they became known as planets. It took centuries, in fact it took millennia, for man to **determine** the true nature of these wandering stars and to evolve a model of the world to accommodate them and to **predict** their positions in the sky.

## 441. Sociable animals

Dolphins, whales and porpoises are all social animals, but some species are more sociable than others. This **depends on** the environment because a species adapts the lifestyle most suitable this. Among dolphins, forming groups makes it easier for them to **find** food, reproduce and **gain** knowledge. They are safer, too, because dolphins can communicate danger when there are threats around.

## 442. Musical theatre

One of the most popular forms of the theatre is the musical. Combining drama, dance, and music, the musical has been around for over a century, and in that time has kept pace with changing **tastes** and social conditions, as well as **advances** in theatre technology. Many modern musicals are known for their spectacular **sets**, lighting and other effects.

## 443. Integrated ticketing

Well in 2004 we integrated ticketing in South East Queensland, so we **introduced** a paper ticket that allowed you to travel across all the three **modes** in South East Queensland, so bus, train and **ferry** and the second stage of integrated ticketing is the introduction of a Smart Card, and the Smart Card will enable people to **store** value so to put value on the card, and then to use the card for **travelling** around the **system**.

## 444. Studying finance

While accounting focuses on the day-to-day management of financial **reports** and records across the business world, finance uses this same information to project future growth and to **analyse** expenditure in order to strategize company finances. By studying this major you get to have a better insight on the market, with the right **knowledge** and skills acquired you

should be able then when you graduate to advise others in making strong investments. This major will help you gain responsibility of predicting and **analysing** the potential for profit and growth, assessing monetary resources, utilizing accounting statistics and reports, and also looking externally for future funding options.

## 445. Careless human exploitation

At the height of summer the Antarctic, tourist ships move gently around the coast. Even 30 years ago such sights would have been unthinkable, but today people are willing to pay large sums of money to see the last real wilderness in the world. In the Arctic, careless human exploitation **in the past** has damaged the fragile ecosystem. Today concerned governments are trying to find ways to develop the region **while** caring for the very special natural environment.

**Because** the Antarctic is less accessible than the Arctic, it is still largely undamaged by humans, although holes in the ozone layer above the Antarctic **have already been** discovered. Many people believe that one way to preserve the area is to make the whole region into a world park, with every form of exploitation internationally **banned**.

## 446. Film as social practice

The University of story feature films are narratives--they tell stories. Even films based on true events will fictionalize them in order to **produce** drama, to telescope time, to avoid being filled up with too many minor characters, or simply to be more entertaining. Even in the current welter of special-effect, movies, feature films are usually **summarized** by their plots-in their first 'treatment' (or outline of the script idea), in the advance publicity, in the TV guide, in reviews, and in conversations. Films may **differ** from other kinds of narrative-literary fiction or television drama, for instance- in the medium used and the representational conventions. They do, **however**, share with literary fiction and television drama the basic structure and functions of narrative.



## 447. Culture, media, and language

Traditionally, mass-communications research has conceptualized the process of communication in terms of a circulation circuit or loop. This **model** has been criticized for its linearity, for its concentration on the level of message exchange and for the absence of a structured conception of the different moments as a complex structure of relations. But it is also possible ( and **useful**) to think of this process in terms of a structure produced and sustained through the articulation of linked **but** distinctive moments- production, circulation, distribution, reproduction. This would be to think of the **process** as a 'complex structure in dominance', sustained through the articulation of connected practices, each of which, however retains its distinctiveness and has its own **specific** modality, its own forms and conditions of existence.

## 448. End to cattle curbs

Good sense appears to have **prevailed** at last. With a fresh set of draft rules to replace last year's poorly conceived ones, the centre has sought to withdraw the ban on sale of cattle for slaughter in animal markets. The draft rules are now open for comments and suggestions. When the Union Ministry for environment, forests and climate change notified the rules under the prevention of the cruelty to animals Act on May 23, 2017, there was **concern** that in the name of preventing cruelty to animals and regulating livestock markets the government was surreptitiously throttling the cattle trade and furthering the BJP's cow protection agenda. The rules were criticized for restricting legitimate animal trade and interfering with **dietary** habits.

## 449. Lifelong learning

Education and well-being have often been **associated**. The idea that education can promote individual well-being indirectly, by **improving** earnings and promoting **social** mobility, is an old one; so are notions of education helping to promote the good society by **contributing** to economic growth and equality of opportunity.



## 450. Drug-injecting rooms

When that happens, staff will help the person- **strung** out now a little stressed- fish their drugs out of the rubbish. On their way out, they might have a blood test, their first **dental** check-up in years, or just a hot cup of Milo." We enable people to inject in the centre because that's what they do". The medical director, Nico Clarck, tells Guardian Australia during a recent visit to the North Richmond Community Health Centre. "The majority are dependent on their **substances**. The purpose is not to be the place that **facilitates** injection per, the **purpose** is to keep people alive." Victorian government rejects criticism of drug-injecting room saying it is saving lives. The centre is a response to a coroner's report that noted the heroin-relate deaths in the area in 2016.

## 451. America's children Nutrition Program

The increased funding will go to nutrition programs including school breakfast and launch and more. First lady Michelle Obama issued a **supportive** statement upon receiving the news of the passage of the bill that could impact the let's move campaigns that aims to end childhood obesity within a generation. I congratulate Chairman Miller and the house education and labour committee on the successful bipartisan passage of a child nutrition reauthorization bill out of the committee today. This important legislation will combat hunger and provide millions of schoolchildren with access to healthier meals, a critical **step** in the battle against childhood **obesity**. In the statement, she urged the house and senate for a further legislative action. The president looks forward to signing a final bill this year, so that we can make significant **progress** in improving the nutrition and health of children across our nation.

## 452. The benefits of breastfeeding

While many mothers-to-be are **advised** about the benefits of breastfeeding, what they may not be told is the effects go well beyond physical health. A new study finds babies breastfed for long periods have better performance on intelligence tests, greater school achievement, and higher monthly incomes as 30-year-olds.

While past research has found higher intelligence scores among breastfed babies, what is so significant about this study is the researchers were able to collect more complete information on breastfeeding duration and also followed for a longer period. And, by using a population-based birth cohort, the breast feeding practices had no **association** with income level. Most of the evidence of higher intelligence test scores among breastfed babies comes from high-income countries, where middle-class and higher-class mothers are more likely to breastfeed their babies than lower income mothers- certainly in the United States, breastfeeding rates reflect this trend.

With evidence coming from first-world countries "Where breastfeeding is positively associated with higher **socioeconomic status**". Horta explained, "There is always a question of whether the effect that has been **observed** in other studies is a consequence of breastfeeding by itself or has the result been confounded by socioeconomic status." Specifically, higher income babies are most likely eating better quality food and this could be impacting IQ test **scores**.

## 453. Professor phoenix

For Professor David Phoenix, the dean of the faculty of science and technology, the return of single-honours chemistry is a master of **credibility** and pride. " if you say you're a science faculty, you have to have all the core sciences, and this course will mean we attract a new supply of potential masters and Ph. D students in chemistry", but he thinks that an attraction for students will be a teaching approach that **differs** significantly from his days as an undergraduate. This takes real-life issues as the starting point of lectures and modules, such as how drugs are made or the science behind green issues. Out of this study, he says, students will be exposed to exactly the same core chemistry, unchanged over decades, but they will be doing it in a way that is more **engaging** and more likely to lead to more fundamental learning. It is an approach that **symbolises** chemistry's recent success story; moving with the times, while holding fast to the subject's essential **role** as a building block of science and technological advance.

## 454. Neanderthals

A few years ago scientists **discovered** a three-foot skeleton of an early human species on an Indonesian island. They **nicknamed** the creature a "hobbit". But the find left scientists with two major questions: Do these short, 18000-year-old bones represent an entirely new human species? Or is it just someone with a growth disorder? Now the wrist bones may provide an answer. Researchers from the Smithsonian institution **published** an article in the latest issue of science. They showed that the hobbit's wrists are **significantly** different from both early humans and from Neanderthals. In fact, the wrists are closer to those of African apes. Wrist bones take shape in early pregnancy and don't change much. They're also particularly distinctive between species. Scientists believe this shows that an early species in the human line migrated from Africa to Asia. They evolved into a new species on the Indonesian island. If modern humans and **Neanderthals** have a common ancestor, then modern humans and hobbits have a common, well, grand-ancestor. Making us and hobbit kind of second cousins.

## 455. Contaminated micro biomes

In this age of cheap DNA technology, **scientists** are sequencing every sample they can get their hands on. They've ID'd the microbes in mosquito guts, coral mucus and frog skin; in polar ice; even floating in the Earth's atmosphere. But it turns out some of the bugs reported to belong to those unusual microbiomes could unfortunately be contaminants, from non-sterile lab reagents and DNA extraction kits. So says a study in the journal BMC biology. Researchers **sequenced** a pure sample of just one type of bacteria. But depending on which kit they used, which reagents, which lab, their results **contained** DNA from up to 270 different bacterial strains. Many of those contaminating strains are **commonly** found on human skin ... ( a lab technician's, maybe?). or in soil or water. Which could explain why one recent study turned up soil bacteria in samples of breast cancer tissue, the researchers say another study found that infant's throat bacteria change as they get older. But these researchers say the **changing** bacterial communities in that study were due not to age- but to changing the brand of DNA kit over time. Study author Alan Walker, of the University of

Aberdeen, says **contamination** is only a problem if you're working with samples that aren't already rich in bacteria. "If you're doing fecal work, for example, this probably doesn't concern you, because there's enough DNA coming from the actual sample that it'll drown out any of the background contamination." His **recommendation** for scientists? Alongside the actual samples, try sequencing nothing ... to see what sort of shadow microbiome is already lurking in your lab.

## 456. Famous people

Have you ever known anyone famous? If so, you may have found that they are remarkably similar to the rest of us. You may have even heard them **object** to people saying there is anything different about them. "I'm really just a normal guy", **presents** an actor who has recently rocketed into the spotlight. There is, of course, usually a brief period when they actually start to believe they are as great as their **worshipping** fans suggest. They start to wear **fancy** clothes and talk as if everyone should hear what they have to say. This period, however, does not often last long. They fall back to reality as fast as they had **originally** risen above it all.

## 457. Guided tours

A spokesman for the project said: "a car mechanic for **instance** could find at a glance where a part on a certain car model is so that it can be identified and repaired. For the motorist the system could **highlight** accident black spots or dangers on the road." In other cases the glasses could be worn by people going on a guided tour, **indicating** points of interest or by people looking at panoramas where all the sites could be identified.

## 458. Climate change

There's no question that the Earth is getting hotter. The real questions are: how much of the warming is our fault, and are we **willing** to slow the devastation by controlling our insatiable **appetite** for fossil fuels? Global warming can seem too **remote** to worry about, or too uncertain-something projected by the same computer **techniques** that often can't get next

week's weather right. On a raw winter day you might think that a few degrees of warming wouldn't be such a bad thing anyway. And no doubt about it: warnings about **climate** change can sound like an environmentalist scare tactic, meant to force us out of our cars and restrict our lifestyles.

## 459. Flower attract insects

A flower's colour, however, isn't a full-proof guide to a good lunch. That's because the colour can change depending on the angle at which sunlight hits its petals. A yellow flower, for example, may look somewhat blue from one angle and red from another. Scientists call this kind of colour change iridescence. "It's the same phenomenon that makes a rainbow appear in a soap bubble or on a CD," says Beverley Glover. She studies plants at the University of Cambridge in England.

In 2009, Glover and her colleagues showed that even when petals look shimmery, bees can still tell which flowers likely hold food. But she and others noticed something odd about **iridescence**. It's not quite as flashy in plants as in other life forms, Glover says. The backs of jewel, beetles, or the wings of certain butterflies, for instance, shine and shimmer a lot more.

The researchers tested their hypothesis in the lab. They trained a group of bees to associate fake purple flowers with getting more nectar. Then the team **tested** the bees. They added non-shimmery fake flowers with purple-blue and purple-red hues to the bees' flight path. The bees passed the test, ignoring flowers that weren't **perfectly** purple.

Second group of bees was **trained** to drink from fully flashy, "perfectly iridescent" purple flowers. But when the team added perfectly iridescent flowers in different hues, the insects checked them for nectar too.

A third group of bees, however, had no problem finding the right flowers when the petals had only a little bit of bling. These bees were trained to drink from "imperfectly iridescent" purple flowers. When the team added imperfectly iridescent flowers in different hues, the bees weren't confused at all. "They could still clearly identify the purple flowers as the good ones," Glover says. That means imperfect iridescence is best for bees.



## 460. The Rules of Investing

To invest, you need to **draw up** a clear plan, do your own research, **build** in a margin of safety by always thinking about the valuation and, ultimately, be patient. By all means include some speculative picks if you wish, but ensure they are only a small part of your portfolio. Looking for an oil explorer whose internationally renowned shares **double**, treble and double again is exciting but such firms are very **rare**.

There are a lot more which have a consistent record of paying out the dividends which really make the markets work for you, once they are reinvested.

## 461. Animal Consciousness

So some of the time an intellectual challenge is to assimilate how similar we can be to others species. In other cases the challenge is to appreciate how, though human physiology **resembles** that of other species, we use the physiology in novel ways. We activate the classical physiology of vigilance while watching a scary movie. We activate a **stress response** when thinking about mortality. We secrete hormones related to nurturing and social bonding, but in response to an adorable baby panda. And this **certainly applies** to aggression - we use the same muscles as does a male chimp attacking a sexual competitor, but we use them to harm someone because of their ideology.

## 462. Hippocrates

Hippocrates allowed observation, rationality and his own genuine respect for his patients to **guide** his practice (Garrison 94 ). Using the scientific method, he carefully **recorded** his patient's symptoms and **responses** to treatments, and used the data **gathered** to evaluate and prescribe the most successful regimens. His prestige as a great medical **practitioner**, educator, and author helped spread these ideals of **rational** medicine throughout the ancient world.



## 463. Changes in Ocean Currents

At the end of the last ice age, the melting ice disrupted the ocean currents in the North Atlantic and **caused** a drop in temperature of almost 5 degrees.

Even **though** the rest of the planet was warming **up**, the North Atlantic region remained in a cold period for 1300 years. The same thing happened **around** 8000 years ago, when the cooling lasted about a hundred years, and it **could** happen again today. Even a short period of cooling in the North Atlantic could have a dramatic effect on the wildlife, and the human populations, living there.

## 464. Fish Farms

Coastal fish farms seem to do less harm to nearby plants and animals than **previously** believed, a new study **reveals**. And marine ecosystems can **recover** from this damage **surprisingly** fast. But the analysis of a single trout farm internationally renowned in a Faroe Islands fjord over nearly a year also shows that these facilities need to be **placed** carefully, and that there's a limit to how many can operate in a particular area before its biodiversity suffers lasting harm. In coastal farms, fish live in large cages hanging from pontoons on the surface. Fish feces and uneaten food sink to the seabed, affecting its ecosystem. **Badly**-managed farms can also have serious effects on the surrounding water column.

## 465. wolf

From the wolf's perspective, this is clearly good news. But it also had beneficial effects on the ecology of the park, according to a study published in 2004 by William Ripple and Robert Beschta from Oregon State University. In their paper in Bio Science, the two researchers showed that reintroducing the wolves was **correlated** with increased growth of willow and cottonwood in the park. Why? Because grazing animals such as elk were **avoiding** sites from which they couldn't easily escape, the scientists **claimed**. And as the woody plants and trees grew taller and thicker, beaver **colonies** expanded.

## 466. consciousness

If consciousness comes in degrees, then how far along on the spectrum is the octopus? Octopuses almost certainly feel pain. They nurse and protect **injured** body parts, and show a preference not to be touched near wounds. In addition to feeling pain, octopuses also have **sophisticated** sensory capacities: excellent eyesight, and acute sensitivity to taste and smell. This, together with their large nervous systems and **complex** behavior makes it all but certain. The question of what subjective experience might be like for an octopus is **complicated** by the odd relationship between its brain and body.

## 467. Gauss

Gauss was a child prodigy. There are many **anecdotes** concerning his precocity as a child, and he made his first ground-breaking mathematical **discoveries** while still a teenager. At just three years old, he **corrected** an error in his father payroll calculations, and he was looking after his father's accounts on a regular basis by the age of 5. At the age of 7, he is reported to have amazed his teachers by summing the integers from 1 to 100 almost instantly (having quickly spotted that the sum was actually 50 pairs of numbers, with each pair summing to 101, total 5,050). By the age of 12, he was already attending gymnasium and criticizing Euclid's geometry.

## 468. recruitment

The six programs represented here report that word of mouth is by far their most recruitment tool, particularly because it typically yields candidates who are similar to previously successful candidates. Moreover, satisfied candidates and school systems are likely to **spread** the word without any special **effort** on the part of their program. Other, less personal advertising approaches, such as radio and television spots and local newspaper advertisements, have also proven fruitful, **especially** for newer programs. New York uses a print advertising campaign to inspire dissatisfied professionals to become teachers. Subway posters send provocative messages to burned-out or disillusioned professionals. "Tired of diminishing returns? Invest in NYC kids" was just one of many Madison Avenue-inspired

invitations. News coverage has also proven to be a **boon** to alternative programs. When the New York Times, for example, ran a story about the district's alternative route program, 2,100 applications flooded in over the next six weeks.

## 469. The Romans

Over many centuries and across many territories the Romans were able to win an astonishing number of military victories and their success was due to several important factors. Italy was a peninsula not easily attacked, **there was** a huge pool of fighting men to draw upon, a disciplined and innovative army, a centralized command and line of supply, expert engineers, effective diplomacy **through** a network of allies, and an inclusive approach to conquered peoples which allowed for the strengthening and broadening of the Roman power and logistical bases. **Further**, her allies not only supplied, equipped and paid for additional men but they also supplied vital materials such as grain and ships. **On top of all** this Rome was more or less in a continuous state of war or readiness for it and believed absolutely in the necessity of defending and imposing on others what she firmly believed was her cultural superiority.

## 470. A popular tree

a popular tree grows twice as well in the New York Metropolitan sprawl as in rural New York State, according to a new test. Clones of an Eastern cottonwood (populus deltoids) in the Bronx and other city spots grew to double the biomass of clones **planted** outside small towns upstate or on Long Island, says Gillian Gregg, now of the environmental protection agency's western-ecology division in Corvallis, Ore.

The growth gap comes from ozone damage, she and her New York colleagues report: ozone chemist have known that **concentrations** may spike skyscraper high in city air, but during a full 24 hours, rural trees actually get a higher cumulative ozone exposure from urban pollution that **blows** in and lingers. A series of new experiments now shows that this hang-around ozone is the **overwhelming** factor in tree growth, the researchers say in the July 10 nature. "This study has profound importance in showing us most vividly that rural areas **pay** the price for urban pollution," says Stephen. P. Long of the University of Illinois at Urbana-

Champaign." this work should be a wake-up call," he adds. Earlier studies had fingered car fumes, heavy metals in soils, and other cityscape menaces to plant life. Yet some urban quirks, such as extra warmth and increased concentrations of carbon dioxide, may boost plant growth.

## 471. Ecosystems

Capital has often been thought of narrowly as physical capital- the machines, tools, and equipment used in the production of other goods, but our wealth and wellbeing also relies on natural capital. If we forget this, we risk degrading the services that natural ecosystems provide, which support our economies and sustain our lives. These services include purifying our water, regulating our climate, reducing our flood risk, and pollinating our crops. One reason why our natural resources continue to be degraded is that decision makers do not have a reliable way to assess the true value of the services that ecosystems provide.

## 472. Giant exoplanets

Giant exoplanets, like the so-called ' hot Jupiters' that are similar in characteristics to the solar system's biggest planet and orbit very close to their host stars, are excellent targets for astronomers in their search for their extrasolar worlds. The size and proximity of these planets is easy to detect as they create a large decrease in brightness when passing in front of their parent stars.

## 473. State schools

A big rise in state schools rated among the best institutions in the country is revealed in the latest edition of the good schools guide. Middle-class parents facing financial pressures in the downturn are increasingly looking beyond the private sector to educate their children. The 23-year-old good schools guide- a popular reference book for fee-paying families set on the best private schools- has increased the number of state schools in this year's edition to 251, pushing the figure to more than a quarter of its 1000 entries for the first time. Explaining why the guide has more than doubled the number of schools it features outside

the private sector in only five years, sue Fieldman, regional editor told the financial times:" The parents we speak to want more information on the state **sector** and the best it has to offer."

## 474. People

When people worry about a glut of liquidity, they are thinking of the first of these concepts. If money is too abundant or too cheap, inflationary **pressures** may appear in financial markets- until central banks tighten policy or market opinion suddenly changes. A slackening of **economic** activity or a drop in asset prices can leave households, businesses, and financial institutions in trouble if their balance sheets are not liquid enough (the second concept) or if they cannot find a buyer for **assets**.

## 475. Employment

Finding challenging or **rewarding** employment may mean retraining in mid-life and moving from a stale or boring job in order to find your **passion** and pursue it. The idea is to think long range and expect to have an active lifestyle into later years. Being personally productive may now mean anticipating retiring in stages. This might necessitate going for an alternate **plan** should a current career end by choice or for economic reasons.

## 476. The Australian maritime

The Australian maritime college at the University of Tasmania, in **partnership** with CSIRO and University of Queensland have been awarded 2.48 Million \$ funding **support** from Australian Renewable Energy Agency.

## 477. Science

What can science tell us about human nature?

Modern developments in areas such as neuroscience, artificial intelligence and evolutionary psychology have resulted in new ways of **thinking** about human nature. Can we explain the mind and consciousness in terms of brain function? Can we understand modern human

behavior in **terms** of our evolutionary heritage? Is science even the right place to start if we want to **understand** human nature?

## 478. Network

Researchers suggest the following tips as you begin to network, seek common ground, **engage** with your network regularly (rather than only when you have crisis) and consistently, **apply** yourself to making your network work or it will wither. It is a skill that you need to **practice**, not a talent.

## 479. Research

Research is a process of investigation leading to new insights effectively shared and is central to the purpose of any university. Students have the right to be taught by acknowledged **experts** in their field, which requires that staff members operate at the most advanced level appropriate to their **discipline** and level. Research is, therefore, crucial to a **positive** student experience from further education to doctoral development.

## 480. Deforestation

Deforestation can disrupt the lives of local communities, sometimes with devastating **consequences**. Forests provide a vast array of **resources** to all of us, including food, medicine, fresh water, and the air we breathe. Without the trees, species can disappear, the natural water balance can become disrupted and the ecosystem that supports the human population can **fall apart**.

## 481. Coral reefs

Coral reefs support more marine life than any other ocean ecosystem and are, not **surprisingly**, a favorite pursuit for many divers. But as well as being physically and biologically spectacular, coral reefs also **support** the livelihoods of over half a billion people. What is more, this number is expected to **double** in coming decades while the area of high-quality reef is expected to halve.



## 482. Flowers

Most people assume, correctly, that flowers look the way they do to attract insects that pollinate them. But that's not the whole story. Scientists have now discovered that plants have another 'trick up their leaves' to make themselves **irresistible** to even the most choosy insect solar power. Cambridge University's Beverley Glover and her **colleagues** recently set up some fake flowers filled with a sugar solution, which they kept at different temperatures. Unleashing a team of bumblebees on their floral **offerings**, they watched as the insects visited the flowers to drink the surrogate nectar'. Very quickly, it became obvious that the bees were concentrating on the flowers with the warmest nectar. Just in case it was something to do with the color of the fake flowers, the scientists also tried a different color combination and got the same **result**.

## 483. Journal of design

The international journal of design is a peer-reviewed, open access journal devoted to publishing research papers in all fields of design, including industrial design, visual communication design, interface design, animation and game design, architectural design, urban design, and other design related fields. It aims to provide an international forum for the **exchange** of ideas and findings from researchers across different cultures and encourages research on the impact of cultural factors **on** design theory and practice. It also seeks to promote the **transfer** of knowledge between professionals in academia and industry by emphasizing research in **which** results are of interest or applicable to design practices.

## 484. Demand for food

For two decades, leading up to the millennium, global demand for food **increased** steadily, along with growth in the world's population, record harvests, **improvements** in incomes, and the diversification of diets. As a result, food prices, continued to **decline** through 2000. But beginning in 2004, **prices** for most grains began to rise. Although there was an increase in production, the increase in demand was **greater**.

## 485. Synthetic t-shirts

You've probably noticed that **synthetic** t-shirts stink more after a workout, compared to cotton. But hey—it's not the **fabric's** fault. It's the microbes that hang out on synthetics, that create that **characteristic** stench. That's

**according** to a study in the journal Applied and Environmental Microbiology.

Twenty-six volunteers—half men, half women—worked out on spinning bikes for an hour. And they did so outfitted with shirts of cotton, **polyester**, or a cotton/synthetic blend. Then researchers stuffed the sweaty shirts into plastic bags. The next day, a trained panel sniffed them, rating their funk. Unlucky job. Because yes—the polyester shirts were indeed more musty, sour, and ammonia-like than the cotton. DNA analysis revealed that *Micrococcus* **bacteria** were to blame. They aren't actually all that common in the armpit itself. And they don't flock to cotton. But researchers say they thrive on the open-air lattice of synthetic fibers—where they sit chomping on the long-chain fatty acids in our sweat, turning them into shorter, stinkier molecules. These findings might just explain one of the most vexing questions of adolescence: why do stinky shirts smell so unpleasantly different from the body odor in the armpits

**themselves**? Could be because your favorite shirt has a microbiome of its own.

## 486. Synthetic biologist

Synthetic biologists design and make **biological** devices and systems for useful purposes. **Conservation** biologists study biodiversity to protect species and habitat. The two groups don't talk to each other much. Conservation biologist Kent Redford thus organized a conference, the aim: "A better communication and an attempt on our part to instill some of our values into the lives and decisions made by synthetic biologists; to change the path that those technologies may take, to make them less **environmentally** harmful, if not in fact environmentally beneficial."

The conference, "How will synthetic biology and **conservation** shape the future of nature?", is at Clare College in Cambridge, England, April 9th to 11th. Redford, formerly with the Wildlife Conservation Society and now at this own Archipelago Consulting, is a **co-author** of

a paper in the journal PLoS Biology that frames the issues the conference will begin to address. These include the possibility of resurrecting extinct species, **interactions** between synthetic and **existing** organisms, and how the public could be helped or harmed by synthetic biology in, for example, agriculture. "If we can start that conversation at that meeting, I'll be a happy guy."

## 487. Satellites

Two **washing-machine-sized satellite**s recently went into orbit around the moon. In March, they'll start to gather detailed data about the quirks of the moon's gravity. The working names for the **satellites** have been GRAIL A and B, for Gravity Recovery and **Interior** Laboratory. But they just got new names—courtesy of fourth graders from Bozeman, Montana.

NASA invited U.S. students to submit essays with suggested names. The Bozeman entry was picked out of more than 900 schools **representing** 11,000 students. The winners **impressed** the judges with their careful research about the goal of the mission. Because the moon's gravity gives us our tides, the kids suggested GRAIL A and B's new handles: Ebb and Flow. The mission is NASA's first with **instruments** aboard entirely dedicated to education. Each satellite has a small camera that middle school students can request be aimed at target areas on the moon for study. The winning essay writers said that what are now called Ebb and Flow are on a journey, just as the moon is on a journey around the Earth. And as the students have begun their own journey, of scientific exploration.

## 488. Microbes

It's easy to see acne **sufferers** from afar. But it's not so easy to see the bacteria that trigger their skin inflammation. Now, researchers hope to clear out those bacteria, and clear up the acne, with viruses. The work is in the journal mBio.

Many thriving microbe communities inhabit the human face. There is, for example, the pimple-producing species *Propionibacterium acnes*. Some **antibiotic** acne **treatment**s have been used so widely that these bacteria have developed **resistance**. Other treatments cause **unpleasant** side effects. But there are viruses that target the bacteria, called phages.

Researchers isolated 11 phages from people with and without acne, and sequenced the viral genomes. Phages are generally a diverse bunch, but these viruses were close **relatives** to each other—which makes sense, as they all evolved to attack bacteria that live in a specific environment: facial hair follicles. When pitted against the facial bacteria in the lab, the viruses easily mopped up their **acne causing** foes. Which may make the phages good candidates for acne treatment—a treatment that might truly go viral.

## 489. Disposal of trash

Rather than **cringing** at the next beetle or wasp in your way, you might want to thank them—for helping to keep city streets clean. **Researchers** from North **Carolina** State University working in New York City found that hungry urban arthropods play a significant role in the **disposal** of trash. For example, in a small section of Manhattan called the **Broadway** /West Street. corridor, insects consume the equivalent of 60,000 hot dogs a year that would otherwise be lying in the street. And that's assuming the bugs stop chowing down in winter. To assess how much discarded food bugs got rid of, the researchers placed measured amounts of hot dogs, potato chips and cookies at 21 park sites and 24 street medians. Contrary to their **prediction**, location played an even bigger role in garbage consumption than biodiversity did—insects gobbled up two to three times more food in the street medians than they did in the parks. The study appears in the journal *Global Change Biology*. If all that garbage disposal still does not make you an arthropod admirer, then consider this: by **competing** with larger pests for resources, insects help keep rat populations down. There's some food for thought.

## 490. A noisy restaurant

A noisy restaurant can **distract** you from your dinner conversation. But all that clatter may also drown out the taste of your food, making it more bland. That's according to a study in the journal *Food Quality and Preference*.

Researchers recruited 48 college **students**, and fitted them with headphones playing either loud white noise, soft white noise, or nothing at all. Then the **participants** closed their eyes and chomped on snack foods like **Pringles** and cookies. Turns out the students listening to

blaring static rated the chips as less salty and the cookies as less sweet—even though they were tasting the same foods as the other groups. Previous studies have shown that sound can interfere with how the brain processes smell; the **researchers** say the same could be true for taste. Or, loud noise could simply divert attention from the food's flavor. But it's not all bad news for loud restaurants. In a second study, students rated crunchy foods as crunchier in the **presence** of loud white noise—perhaps because it tuned them into the sound of their food. The researchers say this study may explain why airline food ain't earning any **Michelin** stars. Me, I think there's a little more to it than the engine noise.

people

Some people lie through their teeth. Some lie about their teeth. Our early human cousins seem to have lied with their teeth. Or they at least misled scientists into first thinking that their diet was something other than it was. See, one of our East African **relatives** had chompers that looked so powerful, scientists nicknamed him " **Nutcracker** man." With teeth and jaws so big and strong, **everyone** assumed that Paranthropus boisei was partial to nuts and seeds and other crunchy fare.

But first impressions can be misleading. Or so say scientists in the current issue of the Public Library of Science journal, PLoS One. Using high-powered microscopes, they took a closer look at this hominid's teeth. And they **compared** the microscopic wear-and-tear they saw on its molars with that of living primates. Their conclusion? That Paranthropus was capable of eating harder foods, but **generally** didn't do so. "Looks more like they were eating Jell-O," says one of the **researchers**. Okay, there was no Jell-O two million years ago. But Paranthropus, like many apes and monkeys, probably preferred nice soft fruits. When you think about it, any other choice would be nuts.

## 491. Summer

For many people summer equals tomatoes. That's when folks can get their hands on gorgeous heirloom and traditional **varieties**, full of tomatoey flavor. Such tomatoes provide a stark contrast to **year-round** supermarket ones, famous for tasting like, well, nothing. They've been bred for uniform color and ripening—not for taste.



Now scientists have determined just what's genetically missing in store-bought tomatoes. The researchers honed in on two transcription factors. Transcription factors are **proteins** that control the expression of genes—in this case they're necessary for the production of **chloroplasts**, which allow **sunlight** to generate sugars and other compounds. Darker green tomato fruit expresses genes that make possible increased photosynthesis—and so the fruits are able to produce more sugars for a tastier end product. But typical supermarket tomatoes, which had been bred to all turn light green at the same time, were also accidentally bred with reduced chloroplasts—and thus reduced sugar content. The research was published in the journal *Science*. The scientists say understanding the genes **involved** in better flavor could enable growers to offer tastier supermarket varieties. So that when you say tomato, I can say to-ma-to or to-mah-to instead of bleech.

## 492. Dogs

You've probably seen dogs working **security** at airports, sniffing for drugs, bombs and contraband food. Now our best-friend biosensors might have a new task: ferretting out the scent of bird flu.

And they may not be alone on the job. Researchers from the U.S. Department of Agriculture and Monell **Chemical** Senses Center trained mice to identify duck droppings from animals infected with bird flu. The work was presented at the **National** Meeting of the American Chemical Society in Boston. The

**scientists** trained six mice to run a maze in search of infected feces. Every time they found the right feces, they got a drink of water. The mice learned to choose infected over noninfected duck feces about 90 percent of the time. The researchers believe the **implications** could be twofold. First, bird flu apparently leaves an odor imprint on bird feces, and so dogs—and even mice—could be trained to **recognize** it. Second, scientists might be able to isolate the cocktail of compounds that gives off the odor to develop lab instruments or automated field detectors. Until then, we may find four-legged sensors, large and small, sniffing away to protect us from a **bird-borne** epidemic.



## 493. Celebration

It's the season for celebrating - and many of those celebrations include imbibing alcohol. Which **sometimes** leaves us the next morning with **uncomfortable** reminders of our excesses. But does what we drink—say bourbon versus vodka—make a difference? Apparently so, according to a study in the journal *Alcoholism: Clinical and Experimental Research*.

Researchers enlisted 95 volunteers. Their sleep **patterns** were measured to make sure that lack of rest didn't distort the results. Those who got drunk on bourbon reported worse **hangover**s—headaches, nausea and general discomfort. And they performed worse on tasks that **required** careful attention for **decision-making**. They didn't sleep any worse than vodka drinkers, though. Here's why bourbon might hurt more: many alcoholic beverages contain byproducts of fermentation called **congeners**, complex organic compounds that in large doses can have toxic effects. And darker distilled drinks and wines generally have more of these congeners than do lighter ones. Bourbon, in fact, has 37 times more than vodka does. Which, the researchers note, may add to the hangover effect. So if you're worried about a dark hangover cloud in the morning, maybe stick to lighter drinks tonight.

## 494. Violence

"Believe it or not, **violence** has been in decline for long stretches of time. And today are probably living in the most peaceful time in our species' existence." Harvard psychologist Steven Pinker at the ScienceWriters2011 **conference** in Flagstaff on October 17th. His new book is *The Better Angels of Our Nature: Why Violence Has Declined*.

"The decline of violence has not been steady. It has not brought violence down to zero. And it is not guaranteed to continue. But...it is a persistent historical **development**, visible on scales from **millennia** to years, from the waging of wars and genocides to the spanking of children and the treatment of animals." One example is **homicide** rates. "It turns out that homicide records go back in Europe in many places for **centuries** ...a medieval Englishman

was at least 35 times more likely to be murdered than his modern counterpart. This is true not just in England, but in every European country for which statistics have been gathered."

## 495. Family and marriage research

If you haven't already picked up on the trend from all the whining on Bravo's Princesses: Long Island, marriage rates in America are at an all-time low. And the median age at which women do say "I do" is now 27, the highest it's been in a century. That's according to a new report by Bowling Green State University's Julissa Cruz, published by the National Center for Family and Marriage Research. In the 1920s, 92 women walked down the aisle each year per 1,000 single women of marrying age. Today, it's a third that. Marriage rates were expected to plateau in the wake of the baby boom, but so far they just keep dropping. Apparently, many college-educated women are simply putting off getting hitched, and many black women might be foregoing it altogether. Because while every ethnic group has seen a drop in the proportion of married women since the '50s, it's dipped lowest for black women—just 26 percent of whom are married. In the U.K. and most of Europe, the average age for women tying the knot is already more than 30. And if Long Island's reality stars are an indicator, we're soon to follow.

## 496. Evolution

Imagine the evolutionary advantage of being able to hear a predator rustling in the tall grass nearby—or in the ability to hear a comrade making a sound to warn you about that predator. Now a study finds that early human species may have had sharper hearing in certain frequencies than we enjoy. The finding is in the journal Science Advances.

"We've been able to reconstruct an aspect of sensory perception in a fossil human ancestor known as *Australopithecus africanus* and *Paranthropus robustus* from South Africa." Binghamton University anthropologist Rolf Quam. "Both of these fossil forms lived about two million years ago and represent early human ancestors. We took CT scans of the skulls. We created virtual reconstructions on the computer of the internal structures of the ear that will predict how an organism hears based on these measurements of its ear." The original skull (without upper teeth and mandible) of a 2.1-million-year-old *Australopithecus*

africanus specimen so-called Mrs. Ples, discovered in South Africa. (José Braga; Didier Descouens via Wikimedia Commons) And the reconstructed physiology reveals that those early hominins likely heard differently than both modern chimps and modern humans. Specifically, the hominins were probably more sensitive to frequencies associated with sounds like t, k, f and s. "We're not arguing they had language, but we think our results do have implications for how they communicated. And the finding is that this hearing pattern would have been beneficial if you were engaging in **short-range** vocal communication in an open environment." The estimation of the hearing abilities of the hominins complements previous research suggesting that these species spent more time in open environments such as the savannah—where a hasty, short-range consonant from a comrade might convey important information—than they spent in dense rainforests, where sound travels farther. Could be that were survival tools that also paved the way for the evolution of full-fledged human language. Even if we can't hear those sounds quite as well as those ancient hominins did.

## 497. Eating Insects (Edible Insects- Different Version)

Insects have been an important part of the human diet for thousands of years. So why has insect eating died out in the developed world? Stuart Hine, an entomologist at the Natural History Museum in London, says it's a cultural **thing**: insects are seen as 'dirty' and as carriers of disease. Despite this, a decade ago, insect eating seemed to be making a **comeback**, with the publication of a number of insect recipe books. Edible, a London-based company, supplies products such as chocolate-covered ants and toasted leafcutter ants. Perhaps as we become **aware** of the sentience of higher animals, insects will become the protein of choice in centuries to come. On 6 April, Hine will give a talk on edible insects at London's Natural History Museum and offer some unusual snacks.

## 498. Are Dogs More Intelligent than Cats?

Comparing the intelligence of animals of different species is difficult although there are certain tests and problem sets that have **proved** to be useful. Making the tests equivalent, however, for say a dolphin that lives in the water and a horse that lives on the land is

obviously complicated and may prove to be virtually impossible. In the case of dogs versus cats we also have a problem, since each are specialized to do different things. Dogs are **designed** to be efficient runners while cats have better ability at manipulating things with their paws. Thus a test that involved pulling **strings** or operating levers would tend to favor a cat, while a test involving moving from place to place, where speed is a measure of performance, would favor a dog. Charles Darwin **claimed**, "Intelligence is based on how efficient a species became at doing the things they need to survive," and one might **argue** that by this definition all species that stay healthy, remain numerous and avoid **extinction** are equally intelligent.

## 499. Virtual Classrooms

E-learning is the new way forward. We believe **passionately** in e - learning. Our innovative approach opens up new **opportunities** for busy professionals that simply did not previously exist the **chance** to combine a prestigious Masters programmer with a demanding professional and personal **life**. Our small virtual classrooms facilitate intensive **interaction** and collaboration among professionals from all over the world.

## 500. The Process of Delegating

The process of delegation comprises the decision to delegate, the briefing, and the follow up. At each of these points, **anticipate** the potential problems. When you delegate, you are not delegating the right to perform **an action**, you are delegating the right to make decisions. It is important to be **flexible**, as the person to **whom** you delegate may have a better and faster way of completing a job than you **overall** responsibility for a delegated task remains with you. It is helpful to others if you can provide **constructive/positive** feedback on their performance

## 501. A trip to India

From beach holidays to **volunteer** opportunities to holy pilgrimages, a trip to India can take many **forms** and have a wide **range** of effects. Potentially, tourism can offer great benefit

both to the destination country and the traveler. At time of publication, travel and tourism are expected to account for 5 percent of all jobs in India, according to the World Travel and Tourism Council. **Aside** from economic impact, a healthy tourism industry can have far-reaching consequences affecting a nation's infrastructure and environment.

## 502. Crime Statistics

Social reforms are normally **initiated** as a result of statistical analyses of factors such as crime rates and poverty levels etc.

Large-scale population can result from projections devised by statisticians. Manufacturers can provide better products at lower costs by **using** statistical control tools, **such** as control charts. Diseases are controlled through analyses designed to anticipate epidemics. Endangered species of fish and other wildlife are protected through regulations and laws that react to statistical estimates of changing population sizes. **Through** statistical analysis of fatality rates, legislators can better justify laws, such as those governing air pollution, auto inspections, seat belt and airbag use, and drunk driving.

## 503. Idling Car Engines

In the UK, it is recommended that drivers should turn off their car engines when they expect to be stationary for more than 1 minute. To **encourage** drivers to turn off their engines while waiting at rail crossings, the Kent city council placed a **permanent** sign at the crossing asking drivers to “please switch off your engine when barriers are down to help improve air quality.” On average, drivers had to wait between 2 and 3 minutes to cross after the barrier had gone down. **however**, the sign didn’t seem to be convincing the majority of drivers to switch off their engines. “Although some research suggests that signs alone can change **behavior**, the message on this sign was designed simply to be an informational request and was not guided by any particular behavioral theory,” the researchers explain. So the research team, led by Rose Meleady of the University of East Anglia, designed an intervention study.



## 504. Urban Trees

A new report by environmental **nonprofit** The Nature Conservancy lays out how trees could pave the way to cleaner air and cooler cities. Using **geospatial** information on forest cover paired with air pollution data and population **forecasts** for 245 cities, researchers found that trees have the biggest health **payoffs** in densely populated, polluted cities like Delhi, Karachi and Dhaka. The Conservancy and the C40 Cities Climate Leadership Group presented the findings of their global survey this week at the American Public Health Association meeting in Denver, Colorado.

## 505. Price fixing

However, proper **accounting** shows that for each hectare government subsidies formed \$8,412 of this figure and there were costs, too: \$1,000 for pollution and \$12,392 for losses to ecosystem services. These comprised damage to the supply of foods and medicines that people had taken from the forest, the loss of habitats for fish, and less buffering against storms. And because a given shrimp farm only stays **productive** for three **or** four years, there was the additional cost of restoring them afterwards.

## 506. The British academy

This is a challenging time for uk students, and we should be making their transition from university to the globalized world easier, not harder. The British academy has voiced its **concern** over the growing language deficit for some years and the gloomy statistics speak for themselves. We need **decisive** action if we are remedying this worsening situation. The **roots** of the problem lie within schools, but vice-chancellors have the power to drive change and **help** their students recognize the importance of learning language, and about the countries where they are spoken and the cultures they sustain. We **urge** them to act and protect this country's long term economic, social and cultural standing.



## 507. Competition for land

As demand for food and competition for land rises, it is vital that crop losses are limited. Chemical protection has **provided** effective control of crop losses in recent years. Alongside chemical fertilisers and improved crop genetics, it has helped to increase crop yields dramatically over the last six decades. **However**, there is now a need to develop complementary alternatives, and researchers from the Rural Economy and Land Use programme have been exploring the potential of – and barriers to – alternative pest management approaches. “Alternatives to chemical pesticides are **needed** because overuse of them leads to pesticide resistance and affects biodiversity and water quality,” says Dr. Alastair Bailey. “Heightened EU regulations are also leading to the withdrawal of many pesticide products. **Hence**, complementary approaches are required to reduce use and preserve the efficacy of those valuable pesticides that are still available to sustain food production systems.”

## 508. Re-engineering Houston

Houston is the fifth-largest metropolitan area in the United States and has an outsized **impact** on the U.S. economy. More than 90 percent of U.S. offshore oil and gas **production** takes place in the Texas Gulf Coast area, and the Houston region contains the largest **concentration** of energy, petrochemical, and refining industries in the United States. Houston is home to 25 percent of the country's petroleum refining capability, 40 percent of the nation's capacity for downstream chemical production, and the fastest-growing liquefied natural gas industry in the nation.

## 509. The Language of Law

An important corollary of this focus on language as the window to legal epistemology is the central role of **discourse** to law and other sociocultural processes. In particular, the **ideas** that people hold about how language works (linguistic ideologies) combine with **linguistic** structuring to create powerful, often unconscious effects. In recent years, linguistic

anthropologists have made much progress in developing more precisely analytic **tools** for tracking those effects.

## 510. Writing and Teens

Teens write for a variety of reasons—as part of a school assignment, to **get** a good grade, to stay in touch with friends, to share their artistic creations with others or simply to put their thoughts to paper (whether virtual or otherwise). In our focus groups, teens said they are motivated to write when they can **select** topics that are relevant to their lives and interests, and report greater enjoyment of school writing when they have the opportunity to write creatively. Having teachers or other adults who challenge them, **present** them with interesting curricula and give them detailed feedback also serves as a motivator for teens. Teens also **report writing** for an audience motivates them to write and write well.

## 511. Massive Social Experiment

For the past thirty years, the United States has been conducting what one observer (Samuelson 2001) has called “a massive social experiment” regarding the political and social consequences of increasing economic inequality. The share of national income going to families in the bottom 40 percent of the income distribution **declined** by about one-fifth, from 17.4% in 1973 to 13.9% in 2001, **while** the share going to families in the top 5 percent increased by more than one-third, from 15.5% to 21.0% (Mishel, Bernstein, and Boushey 2003). Meanwhile, the share of income going to the top one-tenth of one percent quadrupled between 1970 and 1998, leaving the 13,000 richest families in America with almost as much income as the 20 million poorest families (Krugman 2002). The economic causes of these trends—technological change? Demography? Global competition?—are a matter of some **scholarly** controversy. But the important political point is that, whereas most rich democracies have significantly mitigated increasing economic inequality through government action, the United States has mostly been content to LET economic trends take their course, doing “less than almost any other rich democracy to **limit** economic inequality” through employment and wage policies, taxes, and transfers (Jencks 2002, 64).

## 512. The Platypus

The platypus looks like no other creature on Earth. Physically, it appears to be a hybrid blend of a bird, beaver, reptile and otter, with additional characteristics not contained in any of these four. On cursory examination, the platypus has a bill that most **resembles** that of a waterfowl, not the mouth of any known mammal. Yet it is not an ordinary bill. It is actually a well-designed sensory organ. Not a nose, but a highly sensitive electrolocation sensor, detecting miniscule electrical impulses generated by its food source of small crustaceans and worms. No other mammal has a sensor so highly **developed**— in fact, only one other mammal has this ability at all. Then **there** are the webbed feet, similar to those found on otters. Unlike an otter, however, the webbing is far more pronounced on the front feet of the platypus, which it uses like paddles for swimming. While in the water, the back feet are tucked into its body and **hardly** used at all.

## 513. 'Active' video games

The study, of 322 overweight 10- to 14-year-olds, found that those whose usual, sedentary video games were partly replaced with active games **gained** less weight over six months. For years, experts have worried that the **growing** amount of time children are spending in front of TVs and computers is helping to **feed** an epidemic of childhood obesity.

## 514. Conflict expression

Most of us are **scared** of open conflict and avoid it if we can. And there is a **risk** to expressing and working through conflict. If the working through involves harsh words and name-calling, people feel deeply hurt and relationships can be **damaged**. Sometimes permanently. Some group members may be afraid that if they really **express** their anger, they may go out of control and become violent, or they may do this. These fears can be very **real** and based on experience.

## 515. Mass migration

Mass migration has produced a huge worldwide economy of its own which has **accelerated** so fast during the past few years that the figures have **astonished** experts. Last year remittances sent home by migrants were expected to **exceed** \$232 billion according to the World Bank which **tracks** these figures vital though the flow of remittances is to alleviate the plight of the migrant's family it cannot on its own lift entire nations out of poverty. Those who study the **impact** of remittances argue that the money allows poor countries to put off basic decisions of economic management like reforming their tax collection systems and building schools.

## 516. Radioactive waste

It is important to keep the quantities here in perspective. The **volume** of radioactive waste is very small - even smaller if the used **Material** is chemically re-processed - but it has to be **managed** carefully. Most countries **accept** that they are responsible for their own and a number including France, Sweden, Finland, Korea and the USA are now constructing facilities, which will eventually be deep geological repositories.

## 517. The future of plant science

Plants serve as the conduit of energy into the biosphere, provide food and materials used by humans, and they **shape** our environment. According to Ehrhardt and Frommer, the three major challenges facing humanity in our time are food, energy, and environmental **degradation**. All three are plant related. All of our food is produced by plants, either directly or indirectly via animals that eat them. Plants are a **source** of energy production. And they are intimately involved in climate change and a major factor in a variety of environmental concerns, including agricultural expansion and its impact on habitat destruction and waterway pollution.

## 518. Free trade agreements

Over the years, to increase trade, many countries have created free trade agreements with other countries. Under the framework of General Agreement on Tariffs and Trade and World Trade Organization, countries opened up their borders and agreed to **remove** trade barriers, which saw the emergence of International Trade and expanded economic globalization. For example, in 1994, the United States, Mexico, and Canada signed the North American Free Trade Agreement (NAFTA), which ultimately **removed** all tariffs on trade goods between the three nations. This **allowed** globalization of goods and services, as well as people and ideas, between these three countries.

## 519. The Significance of Face Recognition

“It appears that in the process of **evolving** specialised face-recognition abilities to quickly and accurately **extract** important information, there has been a trade-off where face-like images in **unexpected** orientations become especially difficult to process,” he says. The REASON for this trade-off is unclear, but it probably **relates** to the fact that you rarely see inverted faces, says Sheehan.

## 520. Selfies

To better understand selfies and how people form their identities online, the researchers combed through 2.5 million selfie posts **on** Instagram to determine what kinds of identity statements people make by taking and sharing the photos. Nearly 52 percent of all selfies **fell into** the appearance category: pictures of people showing off their make-up, clothes, lips, etc. Pics about looks were two times more popular than the other 14 categories combined. **AFTER** appearances, social selfies with friends, loved ones, and pets were the most common (14 percent). Then came ethnicity pics (13 percent), travel (7 percent), and health and fitness (5 percent).

The researchers **noted** that the prevalence of ethnicity selfies (selfies about a person’s ethnicity, nationality or country of origin) is an indication that people are proud of their backgrounds. They also found that most selfies are solo pictures, rather than taken with a



group. The data was gathered in the summer of 2015. The research team believes the study is the first large-scale empirical research on selfies. **Overall**, an overwhelming 57 percent of selfies on Instagram were posted by the 18-35-year-old crowd, something the researchers say isn't too surprising **considering** the demographics of the social media platform. The under-18 age group posted about 30 percent of selfies. The older crowd (35+) shared them far less frequently (13 percent). Appearance was most popular among all age groups. Lead author Julia Deeb-Swihart says selfies are an identity performance—meaning that users carefully craft the way they appear online and that selfies are an extension of that. This evokes William Shakespeare's famous line: "All the world's a stage, and all the men and women merely players."

## 521. What is Biodiversity?

Understanding the number of species we have in our marine environment is a **basic** need if we are to protect and conserve our biodiversity. This is **vital** in today's rapidly changing world, not just here in Hong Kong, but **especially** in Southeast Asia which holds the world's most diverse marine habitats. SWIMS is playing a major role in trying to measure and conserve these important resources, both within Hong Kong but also, together with its regional collaborators, in Southeast Asia." said Professor Gray A. Williams, the leader of this study and the Director of HKU SWIMS. The enormous **array** of marine life in Hong Kong, however, has yet to receive its desirable level of conservation as currently only less than 2% of Hong Kong's marine area is protected as marine parks or reserve as compared with approximately 40 % of our terrestrial area. The Government has committed to designate more new marine parks in the coming years. The Brothers Marine Park in the northern Lantau waters will be launched soon, which will bring Hong Kong's total protected marine area to more than 2%. The research team welcomed the initiative of the new marine park **while** also urging the Hong Kong government to move towards the global target of at least 10% marine protected area by the year 2020 under United Nation's Convention on Biological Diversity (CBD).

## 522. Lake Turkana

Lake Turkana is a large lake in Kenya, East Africa. This PART of Africa was home to some of the first humans. Here, archaeologists have found piles of **bones**( both human and animal) and collections of stones that humans used as **tools**. By carefully uncovering and **examining** these remains, scientists have started to put together the story of our earliest ancestors. In 2001, a 4 million year-old skeleton was uncovered in the area. Although a link between it and modern-day humans has not been established, the skeleton shows the species was walking upright.

## 523. Use of Active Video Games

There has been increased research interest in the use of active video games (in which players physically interact with images on screen) as a means to **promote** physical activity in children. The aim of this review was to assess active video games as a means of increasing energy expenditure and physical activity behavior in children. Studies were obtained from computerized searches of multiple electronic bibliographic databases. The last search was conducted in December 2008. Eleven studies focused on the quantification of the energy cost associated with playing active video games, and eight studies focused on the utility of active video games as an **intervention** to increase physical activity in children. Compared with traditional non active video games, active video games **elicited** greater energy expenditure, which was similar in intensity to mild to moderate intensity physical activity. The intervention studies indicate that active video games may have the potential to increase free-living physical activity and improve body COMPOSITION in children; however, methodological limitations prevent **definitive** conclusions. Future research should focus on larger, methodologically sound intervention trials to provide definitive answers as to whether this technology is effective in **promoting** long-term physical activity in children.

## 524. Freedom of the press

Throughout its history, one of the strengths of the Press has been the diversity of the Press's list. The Press has also distinguished itself with its strong list in social work, publishing texts

that have been **widely** adopted in courses and are used by professionals in the field. Through its European Perspectives **series** and the publication of the Wellek Library Lectures, the Press has published a range of innovative and **leading** scholars. Other notable lecture series published by Columbia University Press include The Leonard Hasting Schoff Memorial Lectures and The Bampton Lectures in America.

## 525. Animal Tracks

Monitoring animals is hard work. Field biologists have to follow **tracks** made by the animals and **look** out for fruit that they might like in order to find the animals, whether it be walking through rivers, up and down slippery hillsides with **dense** vegetation or through thick mud and swamps.

## 526. Study Location

Some students say that they need complete quiet to read and study. Others study best in a crowded, noisy room because the noise actually **helps** them concentrate. Some students like quiet music playing; **others** do not. The point is, you should know the level of noise that is optimal for your own studying. However, one general rule for all students is that the television seems to be more of a distraction than music or other background noise, so **leave** the TV off when you are reading or studying. **Also**, don't let yourself become distracted by computer games, email, or Internet surfing.

## 527. The Rise of the Machines

In the developed world, home appliances have greatly reduced the need for physical labour. **Fewer** people need to be involved in tasks that once left them little time to do much else. For example, the word processor and email have, to a great **extent**, replaced the dedicated secretarial staff that briefly flourished with the rise of the typewriter. At ONE time all copies were made with manual scribes, carefully duplicating what they read. Then we had carbon paper. Then photocopiers. Then printers. Then the requirement for physical copy reduced.

An entire stream of labour appeared and disappeared as technology advanced. We freed ourselves of one kind of work; we just replaced it **with** another.

## 528. Regular physical activity

Participating regularly in physical activity has been shown to benefit an individual's health and **wellbeing**. Regular physical activity is important in reducing the risk of **chronic** diseases, such as heart disease and stroke, obesity, diabetes and some forms of cancer. (Endnote 1) The National Physical Activity Guidelines for Adults **recommend** at least 30 minutes of moderate-intensity physical activity, **preferably** every day of the week, to OBTAIN health benefits.

## 529. Fossil footprints

The discovery of a set of what look like ancient hominin footprints on the island of Crete could throw our understanding of human evolution into disarray. Received wisdom is that after **splitting** from the chimp lineage, our hominin ancestors were confined to Africa until around 1.5 million years ago. The prints found in Crete, however, **belonged** to a creature that appears to have lived 5.7 million years ago – suggesting a more complex story. More research is needed to confirm what kind of animal made them. However, the prints seem to have been **made** by a creature that walked upright, on the soles of clawless feet (rather than on its toes), with a big toe positioned like our own, rather than sticking out sideways like an ape's. It may yet turn out to have been a **previously** unknown non-hominin that had evolved with a human-like foot; but the explanatory paper, in the Proceedings of the Geologists' Association, is not the first to suggest that hominins could have originated in Europe. A few months ago, a team put forward **evidence**, gleaned from fossils found in Greece and Bulgaria that a 7.2 million-year old ape known as Graecopithecus was in fact a hominin.

## 530. Balancing

Like the sea turtles, we are **drawn** to the bright lights of our phones, tablets, laptops, and TV's our minds and bodies becoming **disoriented** as we lose focus and direction. Each day, we are **torn** between the value of tech and the cost to our health.

## 531. Western firms

It is often assumed that when Western firms, or any firm for that matter, reach out across **borders** to establish a factory outlet here, an assembly plant there or a subsidiary in some far-off **location**, they do so through directly investing and thereby wholly owning such facilities. In the 1970s and 1980s, among the low-cost manufacturing overseas operations, this was indeed often the case, but increasingly Western firms started to conduct their business at-a-distance through a variety of indirect means, of which subcontracting became the principle **arrangement**.

## 532. Antarctic Birds

The emperor is the giant of the penguin world and the most iconic of the birds of Antarctica. Gold patches on their ears and on the top of their chest brighten **up** their black heads. Emperors and their closest relative, the king penguin, have unique breeding cycles, with very long chick-rearing periods. The emperor penguins breed the furthest south of any penguin species, forming large colonies on the sea-ice surrounding the Antarctic continent. They are true Antarctic birds, rarely **seen** in the subantarctic waters. So that the chicks can fledge in the late summer season, emperors breed during the cold, dark winter, with temperatures as low at  $-50^{\circ}\text{C}$  and winds up to 200 km per hour. They trek 50–120 km (30–75 mls) over the ice to breeding colonies which may include thousands of individuals. The female lays a single egg in May then passes it over to her mate to incubate **whilst** she goes to sea to feed. For nine weeks the male fasts, losing 45% of his body weight. The male balances the egg on his feet, which are **coverted** in a thick roll of skin and feathers. The egg can be  $70^{\circ}\text{C}$  warmer than the outside temperature.



## 533. Transport problems

Despite transport problems being a topic of frequent dinner table conversation, comprehensive **assessment** of policy directions for transport has been the subject of remarkably little academic analysis. This chapter introduces the scope of the book, which is intended to help redress this **shortcoming**. The primary focus is on **urban** transport policy, with the emphasis being on policy analysis rather than analysis of the policy process. Importantly, the chapter sets out some key propositions that have been important in shaping the authors' approach to the particular matters that are considered in subsequent chapters.

## 534. Cheating

Although not written about extensively, a few individuals have considered the concept and act of cheating in **history** as well as contemporary culture. J. Barton Bowyer writes that cheating "is the advantageous distortion of perceived reality. The advantage falls to the cheater because the cheated person **misperceives** what is assumed to be the real world". The cheater is taking advantage of a person, a situation, or **both**. Cheating also involves the "distortion of perceived reality" or what others call "deception". Deception can involve hiding the "true" reality or "showing" reality in a way intended to deceive others.

## 535. Psychoanalytic and behaviorist

Elements of both the psychoanalytic and behaviorist theories arrange in modern approaches to personality. Advances in neuroscience have begun to **bridge** the gap between biochemistry and behavior, but there is still a great deal that needs to be explained. Without a consistent understanding of personality, how can we begin to **categorize** risk takers? If we cannot, we will be unable to **compare** their genes with those of others.

## 536. Pullman

Built in 1880 on 4,000 acres of **land** outside of the Chicago city limits, Pullman, Illinois, was the first industrial planned **community** in the United States. George Pullman, of the Pullman

railroad Car Company, built the south residential portion of the company town first, which contained 531 **houses**, some of which stand today more or less as they did originally.

## 537. Pewter

Pewter is an attractive metal which has been used for the **production** of household and other items in Britain since Roman times. It is an alloy **consisting** mostly of tin which has been mixed with small amounts of other metals such as copper, lead or antimony to **harden** it and make it more durable.

## 538. Mini helicopter

A mini helicopter modeled on flying tree seeds could soon be flying overhead. Evan Ulrich and colleagues at the University of Maryland in College Park turned to the biological world for inspiration to build a scaled-down helicopter that could mimic the properties of full-size aircraft. The complex **design** of full-size helicopters gets less efficient when shrunk, **meaning** that standard mini helicopters expend most of their power simply fighting to stay stable in the air. The researchers realized that a simpler aircraft designed to stay stable passively would use much less power and reduce manufacturing costs to boot. It turns out that nature had **beaten** them to it. The seeds of trees such as the maple have a single-blade structure that **allows** them to fly far away and drift safely to the ground. These seeds, known as samaras, need no engine to **spin** through the air, thanks to a process called autorotation. By analyzing the behavior of the samara with high-speed cameras, Ulrich and his team were able to copy its design. The samara copter is not the first single-winged helicopter— one was flown in 1952, and others have been attempted since – but it is the first to take advantage of the samara's autorotation. This allows Ulrich's vehicle to perform some neat tricks, such as falling safely to the ground if its motor fails or using vertical columns of air to stay aloft indefinitely. “We can turn off the motor and autorotate, which requires no power to sustain,” says Ulrich.

## 539. Iceland

On average, Iceland **experiences** a major volcanic event once every 5 years. Since the Middle Ages, a third of all the lava that has **covered** the earth's surface has erupted in Iceland. However, according to a recent geological hypothesis, this estimate does not include **submarine** eruptions, which are much more extensive than those on the land surface.

## 540. Cardona Salt Mountain

Formed two million years ago when low-density salt was pushed up through the much harder materials surrounding it, the Cardona Salt Mountain is one of the largest domes of its kind in the world, and unique in Europe. While small amounts of other minerals pervade the savory hill, the salt pile would have a near translucent quality if not for the thin layer of reddish clay coating the exterior. The **significance** of the mountain was recognized as early as the middle ages when Romans began exploiting the mountain for its salt, which began to bolster the young Cardonian **economy**.

With the invention of industrial mining techniques, a mine was built into the side of the mountain and a thriving facility formed at its base as excavators dragged enormous amounts of potash (water-soluble) salt from the innards of the hill. In addition to the mineral export, the locals of Cardona began making salt sculptures to sell and invented a number of hard, salty pastries unique to the area.

## 541. Granular materials

Part of the fun of experimenting with granular materials, says Stephen W. Morris, is the showmanship. In one stunt that he has demonstrated in settings ranging from high school classrooms to television studios, the University of Toronto **physicist** loads clear plastic tubes with white table salt and black sand and starts them rotating. What transpires in the tubes usually knocks the socks off of any **unsuspecting** bystander. Instead of mixing into a drab gray sameness, the sand particles slowly separate into crisp black bands cutting across a long, narrow field of salt. As the spinning continues, some bands disappear and new ones

arise. "It's a parlor trick," Morris says. Not to deny its entertainment value, this **demonstration** of how strangely granular materials can behave is also an authentic experiment in a field both rich in fundamental physics and major practical consequences.

## 542. Human remains

In 1959, the partial skeletal remains of an ancient woman estimated to be 10,000 years old were unearthed in Arlington Springs on Santa Rosa Island, one of the eight Channel Islands off the southern California coast. They were discovered by Phil C. Orr, curator of anthropology and natural history at the Santa Barbara Museum of Natural History. The remains of the so-called Arlington Springs woman were recently reanalyzed by the **latest radiocarbon** dating techniques and were found to be approximately 13,000 years old. The new date makes her remains older than any other known human skeleton found **so far** in North America. The discovery **challenges** the popular belief that the first colonists to North America arrived at the end of the last ice age about 11,500 years ago by **crossing** a Bering land bridge that connected Siberia to Alaska and northwestern Canada. The earlier date and the location of the woman's remains on the island adds weight to an alternative theory that some early settlers may have constructed boats and migrated from Asia by sailing down the Pacific coast.

## 543. Ann Cotton

When Ann Cotton, a teacher from Cambridge, visited a rural community in Zimbabwe, she was struck by the plight of the young girls who were **struggling** to put through themselves **through** school. They were about fifteen, the same age **as** her daughter back in Britain. The girls had traveled 120 miles from their home town in **order** to be taught for the term in the village where education was cheaper. They had built their own huts, **provided** their own food, and **cared** for each other when they were ill.

## 544. The national park movement

The national park movement began in the United States in 1870 when a team of explorer suggested that part of the Yellow River region be **set aside** in order to protect its geothermal **features**, wildlife, forests, and **exceptional** scenery for the benefit of future generations. Congress **responded** by creating Yellowstone National park, the world's first, in 1872. The idea proved **popular**, and the number of national parks in this country grew rapidly, new parks being set up by presidential **proclamation**.

## 545. Changes in Eating Habits

In recent years, ready-made meals have **transformed** adjusted Britain's eating **habits**. Britons now spend four times as much as the Italians on ready-made meals and six times more than the Spanish. **Demand** for instant meals has increased across Europe as a **whole**, but why has Britain become the **undisputed** undefeated European capital of ready-made food, second only in the world to America?

## 546. Different Plants

Plants are **subjects** to attack and infection by a remarkable variety of symbiotic species and have evolved a diverse array of mechanisms designed to frustrate to potential colonists. These can be divided into preformed or passive defense mechanisms and **inducible** or active systems. Passive plant defense comprises physical and chemical barriers that prevent entry of pathogens, such as bacteria, or **render** tissues unpalatable or toxic to the invader. The external surfaces of plants, in addition to being covered by the epidermis and a waxy cuticle, often carry spiky hairs known as trichomes, which either prevent feeding by insects or may even puncture and kill insect **larvae**. Other trichomes are sticky and glandular and effectively trap and **immobilize** insects.

## 547. Desert Habitat

A desert is a special region where only certain kinds of plants and animals can survive. All deserts have very little water. This means that only animals and plants that can **do**



without water for long periods of time can exist in the desert. Plants in the deserts are particularly adapted to the dry and hot environment. One well-known desert plant is the cactus. Like many desert plants, this plant has very tiny leaves. As plants lose most of their water tiny their leaves, the small leaves of the cactus help to cut down water evaporation. There are some desert plants that do not have leaves at all. Some desert plants survive by avoiding the dry season altogether. During the dry season, this plant remains as a seed and does not emerge from the soil at all.

## 548. Saving Animals

Do you want to take part in the battle to save the world's wildlife? Animal Watch is a book which will involve you in the fight for survival that faces many of our endangered animals and show how they struggle on the edge of extinction. As you enjoy the book's 250 pages and over 150 color photographs, you will have the satisfaction of knowing that part of your purchase money is being used to help animals survive. From the comfort of your armchair, you will be able to observe the world's animals close up and explore their habitats. You will also discover the terrible results of human greed for land, flesh and skins.

## 549. The story of man's mastery

The story of man's mastery of the air is almost as old as man himself, a puzzle in which the essential clues were not found until a very late stage. However, to understand this we must first go back to the time when primitive man hunted for chased his food, and only birds and insects flew. We cannot know with any certainty when man first deliberately shaped weapons for throwing, but that act of conscious design marked the first step on a road that leads takes from the spear and the arrow to the aeroplane and the giant rocket of the present day.

## 550. Personality Research

People's personalities vary differentiate considerable from one another as there are no two alike. Our ingrained in-depth characteristics which determine the patterns of our behavior,

our reactions and temperaments are unparalleled **on account of** by means of our personality in the earliest stages of human.

Some **traits** aspects of character may to some extent be hereditary simulating the **attributes** that identify our parents. Others may **stem** from the conditions experienced during pregnancy and infancy. Consequently, the environmental factor plays a **crucial** role in strengthening or eliminating certain behavioral systems.

## 551. Flood in Venice

A team of experts has arrived in Venice to save it from increasing incidences of flooding. A controversial plan to construct a barrier with 79 gates, each weighing 300 tons, has been given permission to go ahead. Once constructed, this will be **raised** whenever a high tide **threatens** to cover the city. Everyone has known for centuries that Venice is sinking further into the mud, but floods are becoming a regular nuisance. Rising sea levels have gradually **eroded** the salt marshes and mud-banks that stood between the city and the Adriatic. Winter storms cause higher waves, which are **assaulting** the walls of the old palaces. But there are fears about how the building of such a barrier might affect the Venice lagoon, particularly the possibility that it could further restrict the flushing of the city's waterways by the tide, making the famous foul-smelling canals even more **stagnant**.

## 552. Outdoor entertainment

Outdoor entertainment has a long history in countries with a warm **climate**. In ancient Greece, for example, plays were **performed** in larger open arenas. Today, audiences enjoy concerts of classical, opera, pop, and rock music in outdoor **surroundings**. These are usually less formal and restrictive for the listeners than a stuffy concert hall, and a warm, starry night **creates** a unique atmosphere. Music heard inside a building is **subject** to different acoustics. Sound vibrations are **transmitted** from a musical instrument or voice to the eardrum and the building's structure can **produce** these vibrations, which we then experience as an echo.

## 553. Essentials about Tintin and Hergé

What is **so** special about Georges Herge Remi's tales of the adventures of a boy called Tintin, created for a newspaper in Belgium in the 1920s, that they should have **finished off** being translated into more than 50 languages and selling more than 120 million copies? How is it that they have managed to **endure** for so long? One reason may be Herge's extraordinary attention to **detail**. He constantly revised and improved Tintin's original black and white adventures to make them more **relevant** to new audiences. And he based all his illustrations on an extensive personal library of photographs which he **amassed** over the years.

## 554. The Growing Impact of Social Media

Mass media and social media love to feast on sports events as they evoke debates. While some people think that sports events build character, others believe that sports events cause **hooliganism** among the fans of the rival teams. Clashes among the fans of rival teams of football clubs are prevalent in Europe. The reputed teams are always under tremendous **strain** to win every game they play. However, winning and losing are two sides of the same coin and thus should be accepted gracefully by fans. Forgetting the sportsmanship spirit, many times fans of a winning team **mock** the members and fans of the rival team. This kind of **rowdy** behaviour is inculcated among youth since their childhood when they have started following their favourite teams by their elders. If such behavior is not rectified at the right stage by parents, it can be dangerous for society. As fans emulate their role models, famous sports persons should encourage their fans to exhibit true sportsmanship **virtue**. Sports authorities and sports persons should come forward to curb the hooliganism among their fans and encourage positive virtues of sports.

## 555. Oldest human footprints

Three **primitive** humans who scrambled down a volcano's slopes more than 325,000 years ago left their footprints fossilised in volcanic ash. If the ages of the trails are confirmed, they could be the earliest known footprints of our Homo ancestors. Paolo Mietto of Padua University and his colleagues examined three tracks of footprints on the Roccamonfina

volcano in southern Italy, known to locals as “devils’ trails”. “Because they occur in volcanic rock, they have always been **considered** supernatural,” says Mietto. The scientists say the footprints are fossilised in ash deposited by an eruption that has already been dated as 385,000 to 325,000 years old by radiometric techniques. One person left a track of 27 footprints in a zig-zag pattern, which probably made **descent** of the steep slope easier. Another track of 19 prints shows a gentle curve, but there are occasional palm-prints where the walker put a hand on the ground probably to **avoid** slipping. A third track of 10 evenly spaced prints forms a straight line. There are also two animal tracks, **possibly** made by big dogs or wolves. The human footprints are about 20 centimetres long and 10 cm wide. Using the average foot length to height ratio of 15 per cent, this suggests the people who made the tracks were only about 135 cm tall (4’ 5”).

## 556. Boris Johnson

Theresa May made a transition deal her top Brexit **priority** at this week’s EU summit. But even as EU leaders call for the British prime minister to make more concessions to start transition talks, problems are **emerging** with the very idea of keeping the status quo for two more years after Brexit in 2019. “Transition is not what it seems,” says a senior Eurozone official, who jokes that the concept almost amounts to “fool’s gold”. A transition deal is a great prize for British negotiators because it provides business with two **precious** commodities: extra time and more regulatory certainty. Companies need legally binding assurances about the next 12 months. The problem is that guarantees may be insufficiently binding to meet such needs. A UK-EU transition agreement could also cover less than proponents might hope while a two-year deal may only delay the challenges Britain **confronts**. Brexit is a political negotiation, set to the two-year timeline of the Article 50 exit clause. That means any transition deal will **ultimately** depend on a final UK-EU exit agreement and ratification by the European Parliament. In the old Brussels mantra, nothing is agreed until everything is agreed — a moment that may come only in 2019.

## 557. Black War

The Black War was the period of violent conflict between British colonists and Aboriginal Australians in Tasmania from the mid-1820s to 1832. The conflict, fought largely as a guerrilla war by both sides, **claimed** the lives of more than 200 European colonists and between 600 and 900 Aboriginal people, all but annihilating the island's **indigenous** population. The near-destruction of the Aboriginal Tasmanians, and the frequent incidence of mass killings, has sparked debate among historians over whether the Black War should be defined **as** an act of genocide. The escalation of violence in the late 1820s prompted Lieutenant-Governor George Arthur to declare martial law— **effectively** providing legal immunity for killing Aboriginal people—and in late 1830 to order a massive six-week military offensive known as the Black Line, in which 2200 civilians and soldiers formed a series of moving cordons stretching hundreds of kilometres across the island in order to drive Aboriginal people from the colony's settled districts to the Tasman Peninsula in the southeast, where it was intended they would **remain** permanently confined. Attacks were launched by groups of Aboriginal people almost always in daylight with a variety of weapons including spears, rocks and waddies used to kill and **main** settlers and shepherds, as well as their livestock, while homes, haystacks and crops were often set alight. European attacks, **in contrast**, were mainly launched at night or in the early hours of dawn by pursuit parties or roving parties of civilians or soldiers who aimed to strike as their quarry slept in bush camps. Women and children were commonly casualties on both sides.

## 558. Forests of New Guinea

The lush tropical rainforests of Papua New Guinea are not the unspoilt haven that many believed till now. **In fact**, they are disappearing faster than those in the Amazon. That's the conclusion of a team led by Phil Shearman of the remote sensing centre at the University of Papua New Guinea (PNG) in Port Moresby, who applied pattern recognition software to recent satellite images, and paired the results with map data from the 1970s to reconstruct the **rate** of forest loss. The team presented its findings on Monday at a workshop on climate change, forests and carbon trading in Port Moresby. Their study found that in 2002, 1.4 per



cent of PNG's forests were cleared or degraded, **increasing** to 1.7 per cent in 2007. If the trend continues, more than half the forest that existed when PNG became independent from Australia in 1975 will be gone by 2021. The Brazilian Amazon is losing 0.9 per cent of its forests annually. Nearly half the land was cleared for subsistence farming. The **rest** was lost to logging. "Malaysia is virtually completely logged out. Indonesia is nearly logged out, so in the last 15 years the logging companies have moved to PNG," says co-author Julian Ash of the Australian National University in Canberra. PNG is the eastern half of the island of New Guinea, **which** is home to 6 to 8 per cent of the world's species. Much of that diversity is concentrated in the rainforests.

## 559. Vehicle inspection

Nissan will overhaul the inspection process for its Japan-destined vehicles for the first time in decades as the carmaker seeks to address a widening inspection scandal that has forced it to suspend production for the domestic market. The company said on Thursday that unauthorised workers had been certifying vehicles set for sale in the Japanese market, **even** after the company announced the recall of nearly 1.2m cars earlier this month over the same issue. **With** investors increasingly concerned about Japan Inc's adherence to standards — concerns that were most recently **inflamed** by the Kobe Steel data falsification scandal — the news pushed Nissan shares down 1.6 per cent on Friday, and also weighed on the prices of its suppliers. Hiroto Saikawa, Nissan's chief executive, pledged "drastic measures" to deal with the problem, **namely** the suspension of vehicle production for the home market at all six factories in Japan run by the company and its affiliate, Nissan Shatai.

## 560. The Mystery of the Tunguska Event

Conspiracy theorists will be disappointed. The object that exploded and formed a crater that **emitted** mysterious gases in Peru on 15 September was a meteorite that hit soil where the subsurface water table was high, according to the first official report from geologists who have returned from the scene. **Speculation** raged about what caused the crater, found in the Peruvian town of Carancas, near the Bolivian border, with a hydrothermal explosion of gas and even a downed spy satellite offered up as culprits. "The mysterious gases were steam. It

was a rock that fell out of the sky and made a hole in the ground. End of story,” says Lionel Jackson of the Geological Survey of Canada in Vancouver. But some questions still **remain**. The meteorite came from the north-northeast and was bright enough as it streaked over the city of Desaguadero – which lies 20 kilometres north of Carancas – that many residents there clearly saw it at 1145 local time. Witnesses did not see the fireball break up in the air, but people up to 20 kilometres from the crater reported hearing an explosion – presumably the impact. Windows were **shattered** at the local health center a kilometre from the impact site. The space rock hit a region of soft red soil a few metres thick at an elevation of 3.8 kilometres in an area that had been covered by Lake Titicaca during the ice age. A report by Luisa Macedo and José Macharé of the Peruvian Institute for Geology, Mining and Metallurgy describes a crater measuring 13.3 by 13.8 metres, with a **rim** a metre above the original soil level.

## 561. High-heels

High-heel shoes are popular with many women worldwide. A new study shows that wearing them for a long time can **permanently** injure the body. A team of biomotion researchers from Stanford University did tests on the knees of women who wore flat shoes, shoes with 3.8-cm heels and shoes with 8.9-cm heels. The results show that women who wear high heels risk permanent damage to their knees. High heels put knees in an **awkward** bent shape that makes them function like aged or damaged joints. This increases the risk of needing surgery. A recent survey of 1,200 women shows how popular high heels are. It said 93 per cent of women feel sexier and more feminine when they wore heels, 88 per cent considered themselves more stylish and 77 per cent said heels made them feel slimmer. Many women **ignore** health warnings, the pain and the discomfort of wearing heels to look and feel good. A British doctor said he often treats women with problems caused by wearing heels. He said heels put the feet at a strange angle, which increases pressure on the knees by 25 per cent. This puts a lot of **stress** on the kneecaps.

## 562. GM crop review

GM (Genetically modified) grains are not allowed in South Australia, where some grain producers have called for the moratorium to be **lifted**. They argue the GM technology would help them tackle weeds and other pests, and that farmers should be able to choose how they run their enterprises and whether or not they wanted to grow the 'premium products' described by Leon Bignell, the South Australian (SA) Agriculture Minister. Producers have also said their GM-free grain is not translating to higher profits. Bignell **conceded** more work needed to be done to market produce as GM-free but said he was confident producers would see higher financial returns in the near future. In March 2015, Bignell told farmers they should not use GM but should instead **rely** upon what he called 'God's gifts'. He said the "amazing" results of the Government's 'New Horizons' soil improvement program "prove," in his view, that grain producers "do not need genetic modification technology." He said that "Instead of using the top five centimetres of the soil, you go down to 50cm or even deeper. You put clay in it when it's needed, you put organic matter where it's needed as well." Bignell said the trials had strengthened his view that South Australia should maintain a moratorium on GM technology, which he said gave the state's produce a "market **edge**". Bignell also said he believed results of the New Horizons program could be replicated in all grain growing areas of the state. Bignell added that "If you look at GM and the promises around increases of about seven per cent in yields, why would you go for seven per cent when you can get 50 to 100 per cent increases in yield without having to use genetically modified seeds?"

## 563. Pope Francis Message

Pope Francis had a damning message for European leaders when he addressed them in the European Parliament. He attacked Europe's 'throwaway culture'. He said the elderly, the **seriously** ill and unborn children are ignored. He said technology and economics are now more important than people. He said men and women were just "cogs in a machine that treats them as items of consumption". He added that: "Whenever a human life no longer proves useful for that machine, it is discarded." He called it the "consequence of a

throwaway culture, and an **uncontrolled** consumerism". The Pope **criticized** Europe's politicians and systems. He said Europe's dynamic, caring and artistic cultures were disappearing because of bureaucracy. He said great ideas were being replaced by "the bureaucratic technicalities of its institutions" which were "downright harmful" to people. The Pope warned that Europe risked losing its sense of **community**. He said: "One of the most common diseases in Europe today is the loneliness typical of those who have no connection with others. This is especially true of the elderly, who are often abandoned to their fate, and also in the young."

## 564. Joy through Pain (Different Version)

Deep tissue massage aims to release painful knots **of** muscle called trigger points. The way to do this is to stop the blood flow **by** applying pressure to the point and then **to** release **for** a few seconds, which tricks the brain into flooding the affected area **with** blood, encouraging the muscle to relax.

## 565. The fight or flight response

The human body is designed to **respond** physically rather than mentally to stressful situations. This instinctive reaction to a situation is **known** as the "fight or flight" response. The body is prepared to either stand and deal with the problem by fighting it, or to escape to safety. Even if the problem or threat is emotional and not physical, the body behaves in the same way: the heart beats faster, the muscles tense, and the skin sweats more. If someone finds themselves in a situation where there is no **chance** to escape or overcome the **cause** of the threat, then stress and anxiety will occur. Some of the first signs that the pressure is getting to you are loss of concentration, inability to sleep, loss of temper for minor reasons, headaches, aching limbs and a general feeling of uneasiness. These **symptoms** can lead on to more serious problems, such as high blood pressure which increases the risk of a heart attack. Stress weakens the body's defence system, so you are more likely to get minor ailments like colds. It can also lead to baldness. Mentally, it becomes harder and harder to perform your normal day-to-day activities, and can lead to a

nervous breakdown. Recognizing all this is the first step **towards** getting back to health and being able to cope with the causes of stress.

## 566. Amelia Earhart's Legacy

Over sixty years after Amelia Earhart vanished mysteriously in the Pacific during her **Attempt** to become the first person to circumnavigate the world along the equator, Linda Finch, a San Antonio businesswoman, accomplished pilot, and aviation historian, recreated and completed her idol's last flight as a **tribute** to the aviation pioneer's spirit and vision.

On March 17, 1997, Ms. Finch and a navigator took off from Oakland International Airport, California, in a restored Lockheed Electra 10E, the same make and model aircraft that Earhart used on her last journey. The mission to fulfill Amelia Earhart's dream was called "World Flight 1997." Although Ms. Finch was not the first to **attempt** Earhart's around-the-world journey, she was the first to do it in a historic airplane. Linda Finch closely followed the same route that Earhart flew, stopping in 18 countries before finishing the trip two and a half months later when she **landed** back at the Oakland Airport on May 28.

Over a million school children and others were able to follow the flight daily through an **interactive** web site part of a free multimedia educational program called "You Can Soar," provided by the project's sponsor.

## 567. Marshall McLuhan

McLuhan's preeminent theory was his idea that human history could be **divided** into four eras: the acoustic age, the literary age, the print age and the electronic age. He **outlined** the concept in a 1962 book called The Gutenberg Galaxy, which was **released** just as the television was starting to become popular. He **predicted** the world was entering the fourth, electronic age, which would be characterized by a community of people brought together by technology. He called it the "global village", and said it would be an age when everyone had **access** to the same information through technology. The "global village" could be understood to be the internet.



## 568. Education for Global Leadership

The Importance of International Studies and Foreign Language Education for U.S. Economic and National Security Committee for Economic Development. To confront the twenty-first century challenges to our economy and national security, our education system must **be strengthened** to increase the foreign language skills and cultural awareness of our students. America's continued global leadership will depend on our students' abilities to **interact** with the world community both inside and outside our borders.

## 569. The American People

The American People: Creating a Nation and a Society examines U.S. history as revealed through the **experiences** of all Americans, both ordinary and extraordinary. With a thought-provoking and rich presentation, the authors explore the complex lives of Americans of all national **origins** and cultural backgrounds, at all levels of society, and in all **regions** of the country.

## 570. Questionnaire

The How I Feel About My School questionnaire, designed by experts at the University of Exeter Medical School, is **available** to download for free. It **uses** emoticon-style faces with options of happy, ok or sad. It asks children to rate how they feel in seven situations including on the way to school, in the classroom and in the playground. It is **designed** to help teachers and others to **communicate** with very young children on complex emotions. The project was supported by the National Institute for Health Research Collaboration for Applied Health Research and Care South West Peninsula (NIHR PenCLAHRC). Professor Tamsin Ford, Professor of Child and Adolescent Psychiatry at the University of Exeter Medical School, **led** the design, involving children to give feedback on which style of questionnaire they could relate to best. She said: "When we're **carrying** out research in schools, it can be really hard to meaningfully assess how very young children are feeling. We couldn't find anything that could provide what we needed, so we decided to create something."

## 571. Ageing populations

Low fertility is a concern for many OECD countries as they face the prospect of population aging. This article makes **comparisons** between Australia and seven other OECD countries in fertility rates between 1970 and 2004. Changing age **patterns** of fertility are also compared and show that for most of the countries, women are **postponing** childbirth and having fewer babies. The **associations** of women's education levels and rates of employment with fertility are also explored.

## 572. Life Science Institute

The Life Science Institute at the University of Michigan achieves **excellence** in biomedical research by bringing together the world's leading scientists from a variety of life science disciplines to **accelerate** breakthroughs and discoveries that will improve human health. With close to 400 scientific staff members, the LSI is exploiting the power of a **collaborative** and interdisciplinary approach to biomedical research in an open-laboratory facility.

## 573. Management of Water Resources (Different Version)

Equally critical is the challenge of water security. The UN Environment Program (UNEP) has pointed out that about one- third of the world's population lives in countries with moderate to high water stress, with a **disproportionate** impact on the poor. With current projected global population growth, the task of providing water for human **sustenance** will become increasingly difficult. And increasing competition over this scarce but vital resource may fuel instability and conflict within states as well as between states. The UN is doing a great deal in both areas to proactively foster **collaboration** among Member States. UNEP has long been actively addressing the water issue together with partner UN **agencies** and other organizations. Looking ahead, the UN can do more to build synergies of technology, policy and capacity in this field. In this regard, events like the annual World Water Week in Stockholm come to the forefront of the public mind when talking about championing water issues.

## 574. Why do moths fly towards lights?

Why are moths fatally attracted to the light? **One solution** is that the moths use light to navigate. **This explanation**, however, doesn't tell us why in some of the moths species, only males are highly attracted. **What's more**, if navigation could probably only happen to the species that migrate, moth is not a migratory species.

## 575. Émile Durkheim

Durkheim found humanistic studies uninteresting, turning his attention from psychology and philosophy to ethics and eventually, sociology. He graduated with a degree in philosophy in 1882. Durkheim's views could not get him a major academic appointment in Paris, so from 1882 to 1887 he taught philosophy at several provincial schools. In 1885 he left for Germany, where he studied sociology for two years. Durkheim's period in Germany resulted in the publication of numerous articles on German social science and philosophy, which **gained recognition** in France, earning him a teaching appointment at the University of Bordeaux in 1887.

## 576. German Trip

It's a **trip** to Germany not for leisure but for Germany exchange. This is the worst flight I have ever had in my life, I **have** been...We were originally from Amsterdam, I arrived half hour due the time that plane take off, but our plane was late, we took another plane and flew somewhere, and the result was still wrong, landed. **Another** airport, this airport is a few hundred kilometers away from my destination. We can only wait for the next **connecting** flight to continue the journey, for which I have waited for **another** and half hour. No wonder we all hope to go home straight away

## 577. Dog Emotion

Can dogs tell when we are happy, sad, or angry? As a dog owner, I feel **confident** not only that I can tell what kind of **emotional** state my pets are in, but also that they respond to my emotions. Yet as a hard-headed scientist, I try to take a more **rational** and pragmatic view.

These personal **observations** seem more likely to result from my **desire** for a good relationship with my dogs.

## 578. The Australian Renewable Energy Agency

The Australian Renewable Energy Agency (ARENA) has **awarded** \$2.49 million to cover a portion of the cost of a collaborative project led by the Australian Maritime College at the University of Tasmania, in **partnership** with The University of Queensland and CSIRO. The \$5.85 million 'Tidal Energy in Australia – Assessing Resource and Feasibility to Australia's Future Energy Mix' project will map the country's tidal energy in unprecedented detail before assessing its ability to contribute to Australia's energy needs.

## 579. AVGs

The purpose of this study was to: (1) determine energy expenditure (EE) during a range of active video games (AVGs) and (2) determine whether EE during AVGs is influenced by gaming **experience** or fitness. Twenty-six boys (11.4±0.8 years) participated and performed a range of sedentary **activities** (resting, watching television and sedentary gaming), playing AVGs (Nintendo® Wii Bowling, Boxing, Tennis, and Wii Fit Skiing and Step), walking and running including a **maximal** fitness test. During all activities, oxygen uptake, heart rate and EE were determined. The AVGs resulted in a significantly higher EE compared to rest (63-190%,  $p \leq 0.001$ ) and sedentary screen-time activities (56-184%,  $p \leq 0.001$ ). No significant differences in EE were found between the most **active** video games and walking. There was no evidence to suggest that gaming experience or aerobic fitness influenced EE when playing AVGs. In conclusion, boys expended more energy during active gaming compared to sedentary activities. Whilst EE during AVG is game-specific, AVGs are not intense enough to contribute towards the 60min of daily moderate-to-vigorous physical activity that is currently recommended for children.

## 580. how to write clearly and plainly

Learning to write well in college means learning (or re-learning) how to write clearly and plainly. Now that doesn't mean that plainness is the only good style, or that you should become a **slave** to spare, unadorned writing. Formality and ornateness have their place, and in **competent** hands complexity can take us on a dizzying, breathtaking journey. But most students, most of the time should **strive** to be sensibly simple to develop a **baseline** style of short words, active verbs and relatively simple sentence **conveying** clear actions or identities. It's faster, it makes arguments easier to follow, it increases the chances a busy reader will bother to pay attention, and it lets you **focus** more attention on your moments of rhetorical flourish which I do not advise **abandoning** altogether.

## 581. chemical reactions

It's about animals that produce some chemical reactions to protect themselves.

The first empty saying itself will produce an **appalling** smell and foul taste to resist the natural enemies... in the **struggle** for survival.... **feature** is the animal's own color and other characteristics... **dangerous** .. ..... **trial** and error is that some animals have their own defense system without repeated experimentation...

There is another version of this question, one more empty: the most **important** skill says that this is an instinctive reaction that does not require training.

## 582. Digital media

Digital media and the internet have made the sharing of texts, music and images easier than ever, and the **enforcement** of copyright restriction harder. This situation has encouraged the growth of IP law, and **prompted** increased industrial concentration on extending and 'policing' IP protection, while also leading to the growth of an 'open access', or 'creative commons' movement which **challenges** such control of knowledge and **creativity**.



## 583. Fingerprints - V2

Fingerprints, referred to as “fingermarks” in forensics, are formed when residue from the ridged skin of the fingers or palms is **transferred** onto a surface, leaving behind an impression. Fingermarks are often made of sweat and colorless **contaminating** materials such as soap, moisturizer and grease. These fingermarks are described as “latent” as they are generally invisible to the naked eye, which means that **locating** them at a crime scene can be challenging.

## 584. E-learning

E-learning is the new way forward. We believe **chance** in e-learning. Our innovative approach opens up new **opportunities** for busy professionals that simply did not previously exist. We **passionately** to combine a prestigious Master’s program with a demanding professional and personal **life**. Our small virtual classrooms facilitate intensive **interaction** and collaboration among professionals from all over the world.

## 585. Economists and Ecologists

There is a pointless argument between economists and ecologists over which **crisis** is more important - the ecosphere or the economy? The materialist answer is that their fates are interlinked. We know the natural world only by interacting with it and transforming it: nature **produced** us that way. Even if, as some supporters of 'deep ecology' **argue**, the earth would be better off without us, it is to us that the task of saving it falls.

## 586. museum

The best way to experience the museum is from the top floor down. One emerges from the elevators into a spacious hallway. At some hours, museum staff members are giving small hands-on **demonstrations** of techniques such as quillwork. These activities take place near wall cases filled with objects. These small surveys of the museum’s vast holdings are called “Windows on the Collection”. Appearing on every floor in the halls that **overlook** the

rotunda, these display cases serve as a kind of visible storage, presenting a panoply of objects and materials. Their arrangements are artistic, and their contents perhaps **intentionally** designed to jar the visitor. For example, the largest case on the fourth floor displays animal imagery of all sorts. Older **sculptures** of birds, mammals and sea creatures **appear** alongside witty contemporary works such as Larry Beck's version of a Yup'ik mask made of rubber tire treads and metal tools, and Jim Schoppert's "Walrus Loves Baby Clams" mask. Recently-made ivory carvings challenge the common distinction between so-called "authentic fine art" and commodity (a distinction which may be passe in the academic world, but which still holds strong among much of the general public).

## 587. Mapping software works

Mapping software works with your phone's GPS for the location and then the in-built **compass** finds north, adjusting to the direction you're facing and **pointing** the way. But that's not easy because there are two 'norths'. There's **true** north - which is the direction of the North Pole and which reliably stays put - and there's **magnetic** north which, thanks to the flowing layer of molten iron in the Earth's outer **core**, has a habit of moving around

## 588. National Responsibility

The principal recommendation of the world conferences was that countries must take full responsibility for their own development. National responsibility for national development is the necessary consequence of **sovereignty**. The Monterrey Consensus states that 'Each country has primary responsibility for its own economic and social development, and the role of national policies and development strategies cannot be **over-emphasized**'. The Johannesburg Plan of Implementation called for all governments to begin implementing national sustainable development strategies (NSDS) by 2005 and the 2005 Summit agreed on a target of 2006 for all developing countries to **adopt** and start **implementation** of these strategies to **achieve** the internationally agreed goals. The automatic **corollary** of that principle is that each country must be free to determine its own development strategy. It is essential that all donors and lenders accept the principle of country ownership of national development strategies. This implies the acceptance of the principle that development

strategies should not only be **attuned** to country circumstances, but also be prepared and implemented under the leadership of the governments of the countries themselves. The 2005 World Summit also acknowledged, in this **regard**, that all countries must **recognize** the need for developing countries to strike a **balance** between their national policy priorities and their international commitments

## 589. Online Game

Online Game Offers Insights Into Epidemics--August 21, 2007 The **epidemic** swept the world. Fortunately, it was only the World of Warcraft, a popular online **role-playing** game. But that got gotten the attention of real disease experts at Tufts and Rutgers Universities. That's because the **accidental** outbreak that attacked the virtual characters offered a unique opportunity to study how social groups can help spread a disease.

In late 2005 the epidemic hit the World of Warcraft, played by millions. It all started with an error. One creature was supposed to infect only a few virtual players with so-called **corrupted** blood. But some of the nastiest virtual inhabitants **exploited** a flaw and spread the disease to **unsuspecting** masses. The virtual quarantines game designers tried to impose didn't work, in part because the virtual people didn't follow them, and so entire virtual cities were virtually destroyed.

## 590. Electronics shapes

Electronics come in all shapes and sizes—but there's been a limit on their flexibility. Now, **researchers** say they've created electronics that can be shaped in virtually any way, including bent, **stretched** and even tightly coiled. They published their results in the Proceedings of the National Academy of Sciences.

Silicon is the principal ingredient in electronics, and it's inflexible and brittle. To **overcome** this constraint, the researchers first developed one-dimensional, single-crystal silicon electronics, which they reported in 2005. The crystals could be stretched without losing their properties.

Then last summer they **demonstrated** that they could build tiny circuits that were connected by tiny metal bridges. The final product could be bent and placed over a curved surface.

Most **recently**, the researchers **modified** the bridges into an S shape. The additional step takes the flexibility further—the electronics can now be twisted into curves as well. One use could be a sensor on a human body. But the scientists see **applications** beyond the biological—they're trying to develop flexible solar cells. Flat cells need to move to follow the sun. But a flexible cell could always receive direct rays without constant repositioning.

## 591. Molecule of DNA

DNA is a molecule that does two things. First, it acts as the **hereditary** material, which is passed down from generation to generation. Second, it directs, to a considerable extent, the construction of our bodies, telling our cells what kinds of molecules to make and **guiding** our development from a single-celled zygote to a fully formed adult. These two things are of course connected. The DNA sequences that construct the best bodies are more likely to get passed down to the next generation because well-constructed bodies are more likely to survive and **thus** to reproduce. This is Darwin's theory of natural selection stated in the language of DNA.

## 592. registering new marriage

In 2005, 109,000 new marriages were registered in Australia. This was equivalent to 5.4 marriages for every 1,000 people in the population. This rate has been in overall **decline** since 1986 when there were 7.2 marriages per 1,000 people. Over the same period, the crude divorce rate has remained relatively unchanged with 2.6 divorces for every 1,000 people in 2005 and 2.5 divorces per 1,000 people in 1986. The greatest annual number of divorces occurred in 2001 when there were 55,300 divorces recorded. This peak has been followed by recent declines, with 52,400 divorces in 2005.

As well as marrying less, Australians are tending to marry later than in the past. In 1986, the median age at first marriage for men was 25.6 years, increasing to 30.0 years in 2005. For women, the median age at first marriage **increased** from 23.5 years in 1986 to 28.0 years in 2005.

People are also divorcing at older ages. In 2005, the median age of divorcing men was 43.5

years, compared with 37.5 years in 1986, while for women the median age in 2005 was 40.8 compared with 34.7 years in 1986.

The decline in marriage rates and increase in divorce rates has led to a **decrease** in the proportion of the **population** that is formally married. In 1986, 60% of the population aged 15 years and over were married; by 2001 this proportion had decreased to 55%. **Conversely**, the **proportion** of the population aged 15 years and over who were never married increased from 29% in 1986 to 32% in 2001.

## 593. The Ironbridge Gorge World Heritage

The Ironbridge Gorge World Heritage property covers an area of 5.5 km<sup>2</sup> (550 ha) and is located in Telford, Shropshire, approximately 50 km north-west of Birmingham. The Industrial Revolution had its 18th century **roots** in the Ironbridge Gorge and spread worldwide leading to some of the most far-reaching changes in human history.

The site incorporates a 5 km length of the steep-sided, mineral-rich Severn Valley from a point immediately west of Ironbridge downstream to Coal port, together with two smaller river valleys extending northwards to Coalbrookdale and Madeley.

The Ironbridge Gorge provided the raw materials that revolutionized industrial processes and offers a powerful **insight** into the origins of the Industrial Revolution and also contains **extensive** evidence and remains of that period when the area was the focus of international attention from artists, engineers, and writers. The property contains substantial remains of mines, pit mounds, spoil heaps, foundries, factories, workshops, warehouses, iron masters' and workers' housing, public buildings, infrastructure, and transport systems, together with the traditional landscape and forests of the Severn Gorge. In addition, there also remain **extensive** collections of artifacts and archives relating to the individuals, processes and products that made the area so important.

Today, the site is a living, working community with a population of approximately 4000 people as well as a world renowned place to visit. It is also a historic landscape that is interpreted and made accessible through the work of a number of organizations, in particular, the Ironbridge Gorge Museum Trust (established in 1967 to preserve and interpret the remains of the Industrial Revolution within the Ironbridge Gorge) and the



Severn Gorge Countryside Trust (established in 1991 to manage the woodland, grassland and associated historic structures in the Gorge)

## 594. Sydney

Sydney is becoming effective in making the best of its limited available unconstrained land. Sydney is suitable for integrating suitable business, office, residential, retail and other development in accessible locations so as to maximise public transport **patronage** and encourage walking and cycling. Also this city can reduce the **consumption** of land for housing and associated urban development on the urban fringe. For the proposed mixed business, mixed use and business park areas, there was no employment data available for **comparable** areas. It is also concluded that lack of housing supply will affect **affordability** in Sydney.

## 595. bilingual education

Roberto's story is just one of **countless** success stories. Research has shown that bilingual education is the most effective way both to teach children English and **ensure** that they succeed academically. In Arizona and Texas, bilingual students consistently outperform their **peers** in monolingual programs. Calexico, Calif. , implemented bilingual education, and now has **dropout** rates that are less than half the state average and college acceptance rates of more than 90%. In El Paso, bilingual education programs have helped raise student scores from the lowest in Texas to among the highest in the nation.

## 596. the famous dictionary

the famous dictionary of Samuel Johnson, published in London in 1755; its principles dominated English **lexicography** for more than a century. This two-volume work surpassed earlier dictionaries not in **bulk** but in precision of definition.

Its strength lay in two features: the original, carefully divided and ordered, elegantly formulated definitions of the main word stock of the language; and the **copious** citation of

quotations from the entire range of English literature, which served in support and illustration and which **exemplified** the different shades of meaning of a particular word.

A Dictionary of the English Language included a history of the language, a grammar, and an extensive list of words representing basic general vocabulary, based on the best conversation of **contemporary** London and the normal usage of respected writers. The original was followed in 1756 by an abbreviated one-volume version that was widely used far into the 20th century.

Johnson's accomplishment was to provide for the English language a dictionary that incorporated with skill and intellectual power the **prevailing** ideals and resources and the best available techniques of European lexicography. It was the standard English dictionary until Noah Webster's (1828).

## 597. the gorilla

I have a question that is not a chicken. Before I talked about the gorilla, I have a classmate who recalled this time. I remember all the answers. The first one is an **exhibition**. What do you say about the gorilla? Then through the sth of the continent and then say to pick two gorillas at random. You can get much more **information** than any other two Radom human.... It is concluded that We are a special **uniform** species! Overall, it is not difficult to interfere with the option is the third empty, but you can see the other to confirm that other **excerpts** have differences, and the reading of through is not outstanding, but it feels right.

## 598. The Department of Fine Arts

The Department of Fine Arts is a vibrant department comprising active art professionals housed in a modern, well-equipped facility. The faculty enjoys **collaborative** relationships with local museums, numerous galleries and a variety of other art organizations. Fine Arts students benefit from studying with artistically **active** mentors who exhibit and research regionally, nationally and internationally. The department provides students with many opportunities for artistic and personal **growth** through daily contact with full -time faculty members who are noted artists and researchers. Classes are small to allow for personalised feedback and guidance. Well-appointed studios on campus **facilitate** the daily practice of

art in combination with the study of liberal arts. During their studies, students gain exposure to world -class visiting artists and exhibitions, and also have local and international travel **opportunities** .

## 599. The koala

Conservationists have long debated whether the koala should go on the Australian national threatened species list. **While** the koala is clearly in trouble in some parts of the country - in Queensland, for example, high numbers are afflicted by disease - in other parts such as Victoria and South Australia the problem is not that koala populations **are falling** , but that they have grown to the point where they are almost too numerous. For a species to be classed as vulnerable, its population **must have decreased** by more than 30 percent over the last three generations or 10 years. The problem is that when such a stipulation is applied to koalas, the Victorian boom offsets the Queensland bust, and the species stays off the list. This has repercussions because northern koalas are different to southern ones. They are smaller, for example, and they contain a genetic variation not represented in the South. **For this reason** , a split listing has been devised koalas from New South Wales, the ACT and Queensland are now officially 'Vulnerable'; those from Victoria and South Australia are not considered threatened.

## 600. The European landscape

A well-known feature of the European landscape is the castle. Some types of fortifications **were** built thousands of years ago, but the first real castles only started to appear as recently as one thousand years ago. Construction of most of the larger castles in Europe was between around 1100 and 1500. Initially, the **purpose** of these castles was to lay claim to land won in battle and also for defence. [However], the owners of the castles also realised that their castles were an effective **way** to intimidate local people. Therefore, castles became a symbol of wealth and authority for those owning them, and a useful tool to keep control of territory and the residents living on that territory.

## 601. The ability to walk

A recent study reveals that the ability to walk quickly in old age is an indicator of a long life. The report examined results from recent research. The **participants** in the research were tested on a regular **basis** over an extended period of time. The researchers focused on the relationship between walking speed in the post sixty-five age group and longevity. They concluded that there was a direct correlation between walking speed and life span. A key researcher gave the explanation that this link exists **because** walking involves the use of many bodily functions working in unison. The heart, lungs, skeletal system, joints, muscles, nerves and brain have to work together in order to ensure a consistent speed. Damage to any of these systems may mean a much slower walking speed **which** could signal medical problems.

## 602. How much of the news is biased?

One of the questions we need to ask ourselves is: How much of the news is biased? Can we recognise bias? The fact is, despite the journalistic ideal of 'objectivity', every news story is **influenced** by the attitudes and background of its interviewers, writers, journalists, photographers and editors. That is not to say that all bias is **deliberate**, but it does exist. So how can we, as readers or viewers, determine bias? Well, in the case of newspapers, it manifests itself in a number of ways, such as what events **are selected** for inclusion or omission. The **placement** of the article, meaning its proximity to the front or back pages, is significant. The use of headlines, photographs and language are further examples.

## 603. private troubles and public issues

Sixty years ago an American sociologist made a distinction between 'private troubles' and 'public issues'. His theory was that **despite** there being many 'troubles' or 'problems' that individuals may experience in their lives, not all of these always emerge as 'public issues' which attract general interest, or are seen as requiring public responses or even action. Personal troubles are seen as 'private' and are **handled** within households, families or maybe even small communities. On the other hand, 'public issues' are dealt with publicly,

through forms of social intervention or regulation, for example. One **factor** that distinguishes whether issues or problems are perceived as private or public is number. **If** only a few people experience some form of trouble, then it is highly likely to remain a private matter; whereas when a large number of people begin to experience this same trouble it will quite possibly **become** a public issue.

## 604. Lyrebirds

Lyrebirds, a common bird in rainforest areas of Australia, have an incredible repertoire of sounds that they are able to mimic from their environment, including over 20 other bird calls as well as sophisticated mechanical sounds. They **have been known** to replicate the sounds of chainsaws and pneumatic drills. The male lyrebird sings a medley of mimicry to impress females - and the more detailed and varied his repertoire is, the more interesting it seems to potential **mates**. Like females of other bird species, female lyrebirds do not **take place** in the imitating, but simply judge the competing males' symphonies. Once learned, it seems a lyrebird rarely forgets a call, and the sounds are passed down through the generations. There are some lyrebirds in Victoria, Australia, that **still** recreate the sounds of axes, saws and old-fashioned cameras which have not been used in the area for years.

## 605. An interesting Mayan house

Excavations have recently been carried out on an interesting Mayan house in Central America. The house dates **from** the 9th century, and it has turned out to be of great interest to archaeologists. **What** is particularly remarkable about the house is that its walls are covered with tables **showing** detailed astronomical calculations. These tables suggest that Mayan society had considerable understanding of astronomy at a much earlier time **than** was previously thought to be the case. The tables focus on lunar cycles. This was important to the Mayans because they believed that there were six different gods of the moon, **each** of which would take his turn to be in charge of the cycle at any given time.



## 606. Meteorologists

Meteorologists are making increasing use of information provided on photo websites by ordinary people. There was a presentation dealing with **how** they do this at a recent conference in New York. Scientists based at a university in Indiana looked at thousands of photos of snow scenes **posted** on line. These provided them with information about snow falls in areas where, because of heavy cloud cover, **no** information from satellite photography was available. It is not necessary to make use of this source of information as far as urban weather is **concerned**, as there is usually easy access to plenty of other data about towns. But photos taken by the public can be an excellent way of filling in the gaps in knowledge **about** weather events in more distant rural locations.

## 607. A manakin

A manakin is an unusual type of bird found in the tropical forests of Colombia and Ecuador. Approximately twenty of the forty different types of manakin **make** a kind of music by moving their body parts. This is particularly done by the male bird when it is hoping to attract a female. Although ornithologists had **long** been aware that the bird somehow managed to make its characteristic noise with its wings, they were unable to work out exactly how the sound was produced. **However**, a post-graduate student has recently solved the puzzle. She did so by recording the bird's movements with a camera operating **at** a speed of a thousand frames per second. A standard camcorder records about 30 frames per second. On examining the footage she was able to see that the bird used one special feather to click against other feathers - in much the same way **as** guitarists use a plectrum to pluck the strings of their instrument.

## 608. The production of a robotic suit

A team of young engineering students in Japan are working on the production of a robotic suit. This **has** been designed to help the elderly to move around and lift heavy objects **more** easily. The suit is like a kind of exoskeleton which goes over the top of your body from your shoulders to your calves. It is made of aluminium and has joints at the

shoulder and elbow. It is also equipped with artificial muscles. The wearer **can** be helped to stand up, for example, by pressing controls which inject air into the suit **so** that the legs straighten and the person rises. The suit weighs almost ten kilos but users report that this does not seem heavy at all. They said that the increased strength that they got **from** wearing it gave them very positive feelings of empowerment.

## 609. History poetry

Throughout history poetry has often been created to celebrate a wedding. This article will examine the ways in **which** this has happened at different periods of time and in many **widely** differing societies. It will look at some examples of wedding poems from a range of eras and cultures, and will **set** them in their specific context, drawing out the particular features that reflect that context. Other writers on this topic have tended to focus on more personal wedding poems, **those** dedicated to the bride or the groom. Here, however, the intention is to consider poems that were written with more of a social purpose **in** mind.

## 610. Christine Manfield

With an insatiable appetite for travel, food and new experience, Christine Manfield has traversed the globe in search of inspiration. Her **quest** has taken her from Tokyo to Istanbul, and from Hanoi to Marrakech. Now, in FIRE, she shares her world of flavour: her favourite places, the **memorable** dishes she has enjoyed along the way, and the recipes they have **inspired** her to create. Her verve and irrepressible enthusiasm make her an excellent travelling **companion**, and she leaves no stone **untuned** in her quest for new tastes.

## 611. Melina Marchetta's first novel

Melina Marchetta's first novel, Looking for Alibrandi, swept the pool of literary awards for young adult fiction in 1993, winning the Children's Book Council of Australia (CBCA) Book of the Year Award (Older Readers) **among** many others. In 2000 it was **released** as a major Australian film, winning an AFI award and an Independent Film Award for best screenplay as

well as the NSW Premier's Literary Award and the Film Critics Circle of Australia Award. Melina **taught** secondary school English and History for ten years, during which she released her second novel, *Saving Francesca*, in 2003, **followed** by *On the Jellicoe Road* in 2006. Her novels have been **published** in more than 14 countries and 11 languages.

## 612. Hephzibah

A fascination with the fate of those who show great early talent remained with me. Then in 1981, I happened upon a radio documentary **commemorating** Hephzibah, who died earlier that year. Produced and narrated for the Australian Broadcasting Commission's *The Coming Out Show* by the influential feminist commentator and academic Eva Cox – who was, I **learnt** for the first time, Hephzibah's stepdaughter – it **featured** interviews with Hephzibah and with those who had **known** her. I heard her light, precise voice with its slightly Germanic vowels and hint of an American **drawl** as she spoke about things that were important to her, and I was drawn to her warmth, thoughtfulness and humour.

## 613. New technologies

A number of global forces have gradually, sometimes almost clandestinely, altered the world as we know it. The most visible to most of us has been the increasing **transformation** of everyday life by cell phones, personal computers, e-mail, BlackBerries, and the Internet. The exploration after World War II of the electronic **characteristics** of silicon led to the development of the microprocessor, and when fiber optics combined with lasers and satellites **revolutionized** communication capacities, people from Pekin, Illinois, to Peking, China, saw their lives change. A large percentage of the world's population gained **access** to technologies that I, in setting out on my long career in 1948, could not have imagined, except in the context of science fiction. These new technologies not only opened up a whole new vista of low-cost communications but also **facilitated** major advances in finance that greatly enhanced our ability to direct scarce savings into productive capital investments, a critical enabler of rapidly expanding globalization and prosperity.

## 614. Antisocial behavior

Evidence for a genetic basis of antisocial behavior stems from several different lines of research. First, behavioral genetic studies of twins and adoptees have demonstrated that **heredity** plays a role in antisocial behavior, including various forms of aggression and criminality, by finding greater concordance for such behavior in genetically **related** individuals, compared to non-relatives living in the same environment. Second, various correlates of antisocial behavior, including personality factors such as impulsivity, sensation-seeking, risk-taking, and callous-unemotional traits, are known to be at least partly genetically **influenced**. Third, psychiatric outcomes related to antisocial behavior, including antisocial personality disorder, gambling, and substance use and abuse, have also been **investigated** in genetically informative designs, and each of these has demonstrated significant genetic links.

## 615. Umami

Umami was first identified in Japan, in 1908, when Dr. Kikunae Ikeda concluded that kombu, a type of edible seaweed, had a different taste than most foods. He conducted **experiments** that found that the high concentration of glutamate in kombu was what made it so tasty. From there, he crystallized monosodium glutamate (MSG), the seasoning that would become **popular** the world over. Decades later, umami became scientifically defined as one of the five individual tastes sensed by receptors on the **tongue**. Then in 1996, a team of University of Miami researchers studying taste perception made another breakthrough. They discovered separate taste receptor cells in the tongue for detecting umami. Before then, the concept was uncharted. "Up until our research, the **predominate** wisdom in the scientific community was that umami was not a separate sense. It was just a combination of the other four qualities (salty, sweet, bitter, sour)", explained Dr. Stephen Roper, the University of Miami physiology and biophysics professor who helped zero in on the taste along with Nirupa Chaudhari, the team's lead researcher.

## 616. the greatest environmental challenge

Global climate change is the greatest environmental challenge we face. We have at most a few decades to make the necessary investments to prevent the most serious impacts of climate change. Future generations will judge us based on the investments we are considering now. In its February 2007 report, the Intergovernmental Panel on Climate Change (IPCC) warns that global emissions must peak no later than 2015 if we are to hold average global temperature increases to 2.4°C (4.3°F) or less. Moving to an emissions pathway that will hold temperature increases to a minimum will require a **colossal** effort. There is no time to lose given the long lag in research and development cycles, and energy-intensive **infrastructure** and product turnover. Fundamentally, **altering** the world's energy system is unlikely to occur within this timeframe. It is thus imperative to find means to reduce the footprint of the existing system - most particularly, of coal, which is the most greenhouse gas intensive of the fossil fuels driving climate change. It is in this context that Carbon Dioxide Capture and Sequestration (CCS) becomes one of the most critical technologies in the menu of choices. It is the only option that provides a potentially near-term solution to rapidly expanding coal use here, in China and around the world. CCS must play the critical role of **curbing** growth in emissions from coal until other alternatives are ready.

## 617. what is the difference between humor and satire?

Most of us **claim** to have, or like to think we have, a sense of humor. It makes us better company and is an effective way of dealing with the various annoyances and frustrations that life brings, whether **caused** by people or by circumstances. We assume that it gives us the ability to laugh at ourselves, even when others make **fun** of us. Now, what is the difference between humor and satire, and is it true, as many people seem to think, that humorists are on the whole optimistic and sympathetic, while satirists are cynical and negative? I will be taking two writers - Henry Fielding, a writer of comedy, and Jonathan Swift, a satirist - to examine what the differences might be and how much a comic or satiric view of things is a matter of character and temperament, and to see how much the lives



these two men led coincided with their respective visions. However, first I'd like to put **forward** a theory of sorts that would seem to reverse the general idea that humor is a positive and satire a negative view of the world. Humor is a way of accepting things as they are. Confronted with human stupidity, greed, vice, and so on, you shrug your shoulders, laugh, and carry on. After all, there is nothing to be done. Human nature is unchanging and we will never reform and improve ourselves. Satirists, on the other hand, begin with the idea that making fun of the follies of man is a very **effective** way of reforming them. Surely, in believing this they, rather than the humorists, are the optimists, however angry they may be.

## 618. Left-handed and right-handed

In any given population, about ten percent of the people are left-handed and this figure remains relatively **stable** over time. So-called "handedness" **runs** in families, but what causes it and why the proportion of left-handed to right-handed people is a constant are still a mystery. One thing we do know is that hand dominance is related to brain asymmetry; and it seems to be generally agreed that the human brain is profoundly asymmetric, and that understanding how this works will tell us much about who we are and how our brains work. Brain[function] is distributed into the left and right hemispheres, and this is crucial for understanding language, thought, memory, and perhaps even creativity. For right-handed people, language activity is mainly on the left side. Many left-handers also have left-side language dominance, but **a significant** number may have language either more evenly distributed in both hemispheres or else predominantly on the right side of the brain. Because left-handedness is seen as a key to the complex anatomy of the brain, scientists are **searching** for links to other conditions, including immune disorders, learning disabilities, and reduced life expectancy.

## 619. Organic agriculture

A charge often leveled against organic agriculture is that it is more philosophy than science. There's some truth to this indictment, if that is what it is, though why organic farmers should feel **defensive** about it is itself a mystery, a relic, perhaps, of our fetishism of science

as the only **credible** tool with which to approach nature. The philosophy of **mimicking** natural processes precedes the science of understanding them.

## 620. Computer viruses

Computer viruses have been a **fact** of life at least since the 1980s, if not before. They can cause companies to lose hours of working time and they can also spread panic among computer users everywhere. There are, however, several **distinct** types of computer infection - all loosely referred to as viruses - and they each work in a slightly different way. A particularly nasty one is the worm, which is a program designed to sneak its way into an entire computer network, and reproduce itself over and over again. Then there is the Trojan, which strictly **speaking** isn't a virus, but a piece of software that appears to do one thing, but actually does something malicious instead. When the [unsuspecting] operator introduces it into the computer, the alien program will take over the machine. With Trojans you have to be particularly careful because they can often be introduced by way of a message advertising an anti-virus product. So what motivates someone to introduce a virus into the computer systems of innocent victims? Perhaps it's simply the desire to prove that it can be done. Or because it gives the kind of pleasure you get from solving a difficult problem - nowadays people protect their computers with all sorts of security software, so it takes considerable **skill** to break through all the defences and introduce a virus.

## 621. Utopias

Many Utopias have been dreamed up through the ages. From Plato's Republic to Thomas More's Utopia and beyond, serious thinkers have **envisioned** societies where people live in peace and harmony. Most of these imaginary worlds have things in common: everybody is equal and plays a part in the running of the society; nobody goes without the **essentials** of life; people live mostly off the land; often there is no money, and so on. Another thing they have in common is that, to the average person, they appear distasteful or unworkable since they do not take into account ordinary human nature or feelings. Architects have got in on the act, too. After the Great Fire of London, Christopher Wren drew up plans for a **reconstruction** of the whole city, including precise street widths. And in the 20th century

there was Le Corbusier's Radiant City in which, if you weren't in a car or didn't have one, life would have been a nightmare. Also in the 20th century; another famous architect, Frank Lloyd Wright, dreamed up a perfect city that got no further than the drawing-board. Wright believed that what was wrong with modern cities was, in his words, rent. Ideas, land, even money itself, had to be paid for. He saw this as a form of slavery and believed that modern city dwellers had no sense of themselves as productive individuals. Thus, Wright's city was to be made up of numerous individual homesteads, and the houses themselves were to be simple, functional and in **harmony** with the environment. Everyone would own enough land to grow food for himself and his family. No outsiders would be allowed to come between the citizen and what he produced, or to **exploit** both for money. Goods and services would all be exchanged, not bought and sold for profit.

## 622. Enlightenments

Of course there were many different Enlightenments, and scholars still argue about which was the real torch-bearer ... However, despite their quarrelsome diversity, most Enlightenment thinkers shared certain intellectual traits – **insistence** on intellectual autonomy, a **rejection** of tradition and authority as the infallible sources of truth, a **dislikes** of bigotry and persecution, a **commitment** to free enquiry, a **belief** that (in Francis Bacon's words) knowledge is power.

## 623. Influence of advertising

It is surprising how many people still believe that advertising has little or no influence on what they buy. It is more surprising still when these same people **admit** to using a particular brand of, say, washing powder, toothpaste or cigarettes, and say they wouldn't change if you paid them - even after they've been shown that another brand is either just the same, better or cheaper. The fact is, people **persuade** themselves that they have never consciously made a deliberate decision to buy a product based on an advertisement they have seen. They may, however, own up to doing so when they come to buy a product they have never owned before and shop around for the best **deal**. But there's no **getting** away from ads. They're everywhere, and they're designed very cleverly and carefully to play on your

emotions. And it works: you remember the ads that make you laugh, or feel sad, or simply annoy you. Often you find yourself buying something simply - you tell yourself- to try it out, but how did this brand of this product get into your head? Another reason for supposing advertising works is the question: why would so many hard-headed business people spend so much money on something that didn't?

## 624. The first printed books

The first printed books began to **appear** during the second quarter of the 15th century. The earliest examples were put together in a number of different ways, sometimes leaving space for decorations and ornate capitals to be **added** by miniaturist painters, and sometimes containing handwritten text alongside printed illustrations. Most of them had texts and pictures printed **entirely** from woodblocks, which is how they got the name "block-books". Printing was normally done on separate leaves which were then bound together in book form. The obvious advantage of having printed text and visual images together on one sheet was quickly grasped by monks, who saw its **potential** as a means of spreading knowledge, and as an economic and effective way to get their message across to a wide audience. The monasteries, however, by no means had a monopoly on the production and sale of woodcut printing; in fact, probably the most profitable area of European printmaking was the production of playing cards. Nonetheless, the content of most surviving block-books is essentially biblical. The purpose of the illustrations was functional: to make the meaning of the stories as clear and as understandable as possible to those who were unable to read the often difficult text. It was also a result of the need to **popularize** the stories that the characters were presented in contemporary clothes and the illustrations contained details of ordinary life in the late Middle Ages.

## 625. Copyright law

For copyright purposes, a literary, dramatic, musical or artistic work must be original and it must be set down in some **permanent** form, for example, on paper, computer disk, or on audio or video tape. It is not unusual for people to have the same idea at roughly the same time, but copyright applies in the way an idea is expressed, not in the idea itself. This is

because ideas can encompass a wide range of concepts: for example, thousands of books and films have the same basic **plots** - boy meets girl, loses girl, gets girl back, good triumphs over evil, and so on. So ideas, as opposed to the way in which they are expressed, cannot be protected under copyright law. Perhaps oddly, statistical lists and computer programs are also **regarded** as literary works and therefore come under copyright law. You are breaking the law when you reproduce the whole or a significant part of someone else's creation without their permission. This would include, for example, recording a CD or a video, putting on a public **performance** of a play, making photocopies, or copying onto a computer disk. It is also a breach of the law to key copyright material into a computer without consent, as is storing it on the computer memory. This can even apply to a small part of a work if the **content** is considered to be essential. Infringement of copyright can be both a criminal act and a civil wrong. However, consumers who buy illegally copied materials, such as music CDs and films on DVD, for private use cannot be prosecuted, even if they know its origin.

## 626. Zika disease

Zika is more pernicious than public health officials anticipated. At present, it is circulating in more than 50 countries. And as of mid-May, seven countries or territories have reported cases of microcephaly or other serious birth defects linked to the virus, which is transmitted by mosquito bite, blood transfusion or sexual contact with an infected human. It can also be passed from mother to fetus during pregnancy. Despite Zika's **vast** range over almost 70 years, there is little genetic difference among the various strains, according to an analysis by researchers at the University of Texas Medical Branch at Galveston. For example, the strain currently in the Americas and another previously detected in French Polynesia are practically indistinguishable from each other (group in white box). If the virus has changed so little over time, why is it rearing its ugly head now? Scientists are not sure yet, but new experimental work in mosquitoes suggests that the virus was capable of **causing** detrimental health effects and outbreaks all along. Therefore, it is unlikely mutations enabled new abilities. Instead, public health officials probably did not understand Zika's potential because the virus circulated mostly in remote locations until recently.



## 627. Oak

In prehistoric times, Europe was **covered** with vast primeval woods and forests, which must have deeply influenced the minds as well as the lives of our ancestors. In places where they had not made clearings, they must have lived in a constant half-light. As far as we know, the oak was the commonest and most **useful** tree. We get our evidence partly from the statements of some classical writers, but more convincingly from the **remains** of ancient villages built on wooden piles in lakes and from the oak forests which have been found embedded in peat bogs. These bogs, which are most evident in northern Europe, but which are also found in some central and southern parts of the continent, have **preserved** the plants and trees which flourished after the end of the Ice Age. The great peat bogs of Ireland reveal that there was a time when vast woods of oak and yew covered the country, the oak growing on hills that were up to a height of four hundred feet or so above the sea, while the yew grew at higher **levels**. Ancient roadways made of oak have been found, as have, more famously, human relics.

## 628. Museum of heating systems

Since Austria sits at a high elevation and spends a quarter of the year under the **snow**, it should come as no surprise that heating is a matter of considerable **importance** in the country. What may be surprising, however, is that Vienna—a grand imperial city of music, art, and history—actually boasts a museum **dedicated** specifically to heating systems.

## 629. Butterflies

A rule of thumb for distinguishing butterflies from moths in this country is to examine the antennae or feelers, although, when comparing Lepidoptera worldwide, this technique is not to be relied on. Generally, especially among those native to the UK, butterflies have clubbed feelers, **whereas** moths can have feelers of various kinds other than clubbed. There are moths that fly by day and the more brightly colored of them are sometimes **mistaken** for butterflies, but their feelers will distinguish them. Variations within a single species of butterfly often occur, and all kinds are **liable** to vary in their tint or markings, or sometimes

both. These variations may at times be so **slight** as to be hardly noticeable, but in a fair proportion, the variation is quite striking. In such cases, unless the difference is extreme, it is possible to track all the intermediate stages between the ordinary form of a species and its most extreme variety. The coloring on the underside of a butterfly differs from that of the upper side and matches, or **blends** in with, its natural habitat to a remarkable degree. This is why, when they settle, you can see them with their wings positioned together upright over their back. The number of known species of butterflies throughout the world has been put at about thirteen thousand or more, but some believe there are several thousand more species as yet undiscovered.

## 630. MPhil

This MPhil **introduces** students from a wide variety of academic, business and political **backgrounds** to the traditions, methods, and state-of-the-art research that shape an advanced analysis of human society. The MPhil is an eleven-month course designed for those who wish to go on to do doctoral research or **equally** for those who **simply** want to improve their understanding of methodology and analysis and attain an independent postgraduate degree in its own right.

## 631. how the decision might affect us as individuals?

Every day, on television, on the radio, and in the newspapers, we see, hear, and read about leaders and politicians making decisions that are clearly wrong-headed and that seem to us, the horrified watchers, listeners, and readers, counter-productive. To be reasonably impartial about such blunders, we must try to put **aside** for the moment how the decision might affect us as individuals; what we are looking for are decisions that are contrary to the interests of their makers. A glaring historical example of such stupidity would be the respective attempts of Charles XII, Napoleon Bonaparte, and Hitler to invade Russia **despite** the disasters it brought each of their predecessors. Now, when investigating these matters we must tread carefully and remember that it is wrong to judge the past by the ideas of the present. Therefore, the disastrous **decisions** made in the past must have been seen at the time by contemporaries to be counterproductive, not just with the **benefit** of experience.

Again, we must check to see if there were any other **courses** of action that could have been taken and, if so, why they were not.

## 632. low-cost housing

When it comes to low-cost housing, architects are hardly ever **involved**. About 98% of the market is built without architects and the result is usually rows of clones of a building, regardless of whether they are **practical** for an area or not. Developers alone, without the **input** of an architect, do not see the big picture needed to make housing part of a safe, vibrant community. A little more thought could instantly improve community **safety** as well as lead to building houses that are both comfortable and cheap.

## 633. Light

Light is usually **described** as a form of energy and it is indeed a kind of electromagnetic energy, not much different from radio waves, television signals, heat, and X-rays. All of these are made up of waves that spread, bend, interfere with one another, and **react** with obstacles in their path, rather like waves in water. A physicist might tell you that light, along with all its electromagnetic relatives, is really a form of matter, little different from more substantial matter such as houses and, like them, it is made up of individual particles. Light particles, called photons, **travel** in streams, similar to the way in which water pours through a hose. To most people, this might sound paradoxical or illogical, as many things to do with physics seem to these days. How can light be both energy and matter, wave and particle? The reason it can be is, in fact, not at all **complicated**: all energy is a form of matter. Almost everybody recognizes- even if they do not understand- Einstein's famous equation,  $E = mc^2$ , which spells it out: E refers to energy and m to the mass of matter. Furthermore, all matter has some of the **characteristics** of waves and some of the particles, but the waves of such solid-seeming things as houses are not discernable and can generally be ignored because ordinary matter acts as if it were made up of particles.

## 634. Louis Daguerre

Of all those whose names are associated with the invention of photography, Of all those whose names are associated with the **invention** of photography, Louis Daguerre is perhaps the most famous. He started out as a student of architecture, but by the age of sixteen was working as a stage designer and his work in this field, especially his handling of lighting effects, **brought** him to fame. His **interest** in photography grew out of his use of the camera obscura to help with perspective in painting and his desire to freeze the image. To this end, he formed a partnership with the photographer Nicephore Niepce - but this was short-lived as Niepce died not long after. Daguerre continued to experiment and made, it seems by **accident**, an important discovery: he had put an exposed photographic plate - this was, of course, before the age of film - in his chemical cupboard and some days later found that the latent image had developed. There was also a broken thermometer in the cupboard, and he assumed that the vapor from the mercury had caused it. This meant it was now possible to reduce the time the plate was exposed from eight hours to thirty minutes. This produced an image. The next step was to fix it, which he managed to do in 1837. He called this new process the Daguerreotype, then advertised and looked for sponsors, but initially very few people were interested. The discovery was made **public** on January 1839, but details of the process were not given until August the same year, the French government in the meantime having bought the rights to the process.

## 635. The word civilization

I use the word civilization now for the first time because before the Bronze Age there is nothing that we would define as civilization. Civilization involves the establishment of permanent dwelling areas that we call **cities** as opposed to villages. Agricultural villages will have existed all over the place in the late Stone Age, in the Neolithic Period, as it is known. But there is a difference and the critical difference is that a city contains a number of people who do not provide for their own support. That is to say, they don't **produce** food. They need to acquire it from somebody else. Instead, they do various things like governing and

are priests, and are bureaucrats, and are **engaged** in other nonproductive activities that depend upon others to feed them. That's the narrowest definition of cities.

## 636. the Lumière brothers

Our sense of cinema as a site of commercial entertainment can be traced back to the Lumière brothers. In December 1895 they **attracted** a fee-paying public in Paris to sit and watch flickering images on an illuminated screen. The commercial Pandora's Box they opened was to **blossom** in a few years into a world cinema **industry** and, at its peak, the fantastical Hollywood. Yet in the 30 years in which this miraculous construction was accomplished, audiences rarely **had to listen** to films, only watch them. Hence, the early decades of cinema were characterized by the title "silent".

**In fact**, there was a lot of noise, machinery, audiences, musicians, and commentators. Even so, the absence of the human voice and **dialogue** make the films seem rather strange when viewed by a modern audience.

## 637. Nuclear reactor accident

"The type of accident that is **occurring** in Japan is known as the station **blackout** : loss of off-site AC power—power lines are down—and then a **subsequent** failure of emergency power on-site, the diesel generators. The station blackout has been one of the great concerns for decades."

Physicist Ken Bergeron , speaking on March 12 during a press briefing. He worked on nuclear reactor accident **analysis** at Sandia National Laboratories.

"The probability is hard to calculate primarily because of the possibility of what are called common-cause accidents, where the loss of off-site power and of on-site power are caused by the same thing. In this case the earthquake and tsunami. We're hoping that all of the barriers to release of radioactivity will not fail. So far the first barrier, which is the fuel **cladding** , has apparently failed, because they are detecting cesium. We now have to hope that the subsequent layers, including primarily the **containment** building, will succeed in preventing release of major amounts of radioactivity."



## 638. Anopheles mosquitoess

People get malaria from **Anopheles mosquitoes** that **themselves** are infected with a protozoan parasite called **Plasmodium**. The mosquitoes do have immune systems. But the parasite has figured out how to get past the mosquito's defenses. So researchers at Johns Hopkins University Malaria Research Institute are trying to help people—by pumping up the mosquitoes' **immunity**.

When a mosquito takes some blood from a human, she may also ingest Plasmodium. The parasite ends up in the insect's gut. The mosquito immune system jumps into action as the parasites try to push through the gut wall. Most parasites do get killed, but some manage to survive that gut migration. Then they replicate and move to the salivary glands, ready to infect the next person the mosquito bites.

Researchers are tinkering with specific mosquito genes to see how they affect the development of the parasite. Their goal is to develop a genetically **modified** mosquito with a strengthened immune system that kills all the parasites. They say next they'd need to get the gene into enough wild mosquitoes that they would breed and pass that gene on. No simple effort. But if it works, it could be a big victory in the war against malaria.

## 639. Malaria

People have been buzzing this week about a study from Johns Hopkins University on mosquitoes, **genetically** engineered to be resistant to malaria. The idea is to introduce the modified insects into an area affected by the disease and have them completely replace the native population. If the mosquitoes can't get infected, the logic goes, then the people they bite won't either.

But to make that scheme work, **transgenic** mosquitoes need to **outcompete** the locals. So **scientists** at Johns Hopkins tested their ability to do this, by allowing equal numbers of resistant and non-resistant mosquitoes to feed on the blood of malaria-infected mice. After nine generations, the transgenic mosquitoes made up 70 percent of the population, meaning they survived better and laid more eggs than the ordinary ones. Winning a **head-to-head** contest in the lab, though, doesn't mean the same thing will happen out in the field.

There are a lot of mosquitoes out there, and elbowing them out won't be easy. The researchers say the strategy would have to be **combined** with insecticides, drugs and perhaps a malaria vaccine to effectively wipe out this deadly disease.

## 640. The management of an enterprise

Decision making is central to the management of an enterprise. The manager of a profit-making business has to decide on the manner of implementation of the objectives of the business, at least one of which may **well** relate to allocating resources so as to maximize profit. A non-profit-making enterprise (such as a department of central or local government) will be making decisions on resource allocation so as to be economical, efficient and effective **in its use of** finance. All organizations, whether in the private sector or the public sector, **take** decisions which have financial implications.

Decisions will be about resources, which may be people, products, services or longterm and short-term investment. Decisions will also be about activities, including whether and how to undertake them. Most decisions will at some stage involve consideration of financial matters, **particularly** cost.

# New Questions

## 1. New

متن راجع به این بود که هزینه خدمات ساختمانی اژانس ها میارن روی اجاره واسه اینکه هر واحد خوش به-

میشد اگه اشتباه نکنم unit صورت جدا قبض پرداخت نکنه یکی از جا خالی ها هم

بود Imp داشت اما نه اینی که تو icy fragments یه متن دیگه هم بود -

یه همچین چیزی...، نمیدونم متنش هست یا نه اما (distribute) اینا تیکه تیکه میشن و پخش میشن clash یه تیکش فکر کنم میگفت در اثر

سخت نبود.

## 2. New

a new rfib that talked about something like this: the world is described and people have to find their places in the world. (one of options was jobs but I chose places...)

## 3. New

behaviour, یکی جدید بود گزینه ها در مورد یک جور حشره بود اگر اشتباه نکنم

nevertheless, this explanation,

## 4. New

متریال و سایتای ولی اکثرا نیستن (تو یک متن رد مورد زبان و شبیه به اینکه برای موفقیت بازار کارمون باید فارغ التحصیلین مسلط به زبان باشن و

(توش بود native و bi-lingual چینی پیداش نکردم- کلمات

## 5. New

NEW (recreational, virtually, originally)

## 6. New

متن در مورد پیشرفت زنان توی موقعیت های شغلی و از جمله ارتش

## 7. New

داشت several در مورد جفدها که توی جاخلی هاش

## 8. New

یکی از متن های ریدینگ هم توش کلمه ی کنسرشیم داشت

## 9. New

هست uniform مشابه ای ندارن در حالی که برای انسانها DNA sequence شامپانزه ها بود که میگفت DNA در رابطه با مطالعه

## 10. New

Colonisation, variety, cultivated

این متنش راجع به کاشت محصول بود که تو استرالیا مهاجرین که وارد شدن بخاطر تنوع زیاد گونه ها فلان محصولات رو استفاده نکردن، بجاش ذرت  
و لوبیا که در مکزیک کاشت شده بود رو استفاده کردن. متن تو همین داستانها بود

## 11. New

راجع به بوجود اومدن نظریه و ... بود که اول یه دانشمند بر اساس فرضیاتش میاد یه مسئله ای رو بیان میکنه بعد تو کل دنیا - Hypothesis  
میاد اون رو بررسی میکنن و بر اساس نتایج و شواهد بدست آمده اثباتش میکنن

## 12. New

یه متنم بود در مورد زندگی رو کرات دیگه که توش اسم تمام سیاره های منظومه شمسی رو نوشته بود و میگفت که اگرم بشه روشن زندگی گرد تو جزوه جاخالی یکی دیگه در مورد امکان زندگی رو سیارات limited و environment محیط های محدود و شرایط کنترل شده باید باشه، رو انتخاب کردمها بود believe که من (believe / like" it or not") دیگه بود و یکی از جاهای خالی این بود که می گفت

## 13. New

راجع به دیر شروع شدن مدارس شیفت صبح و تاثیر اون در یادگیری دانش آموزان بود

9, 11, morning, researchers, thanks to, because of

## 14. New

راجع به چند تا کشور بود که انگار تجمیع شده بودن تو یه کشور و در مورد تفاوت های زبانی شون می گفت

Milestone, language, Britain, welsh

:جاهای خالی

Begun, considered, continued

## 15. New

راجع به فقر بود و مرگ و میر ناشی از فقر در کودکان

Poverty, kid, children, 500 millions, 15 to 18 million people, killed

:جاهای خالی

Amid, maximum, minimize, no doubt, protest

## 16. Researcher

Not only does not have head but also has no heart

## 17. New

Stepping in (doing)

something Allow to

Result in



## 18. the changing climate

This article explains that the changing climate will be very costly for US states...

losses

rainfall

catastrophic

economic



## 19. Creature

A creature may have fine physical defenses ... (APPALLING, STRUGGLE, FEATURES, IMPORTANT, TRIAL)

## 20. Tourism

reducing, increase, board, cheaper

## 21. European tales

European tales, vivid, portrait

## 22. psychic theories

survive, categories, risk averse, compare them with others.

## 23. Inflation pressure

inflation **pressure** ..... buyer.....**assets**.

## 24. Renting ship

**visitors; waters; attack; lives**

## 25. Australian literature

**had been, not until, is becoming**

## 26. Energy

(**improve**) their health

supplement

your protein (**intake**)

(provide)sustainable (**energy**)

When your body is (**fed**)adequate amounts of quality protein

## 27. American Donation

**donor, emphasis, reliance on**

## 28. Students' Study-Work

XX allows students to earn money through part-time employment on-campus while attending school.

(**extra** hours, **gain** experience, **develop** skills, **debt**, **exceed**)

## 29. Sydney Traffic

**apologized, ferry , exceptions, spectacle**

## 30. Consumers

consumers choice to one product or service with another, ...a price movement.

Convince, substitute, pending

## 31. Developments in socioeconomic

Recent developments in socioeconomic climate and technology

Important

Gap

Increase

Speed

Respond

## 32. An American retail giant

An American retail giant is set to ask its suppliers to measure and report their greenhouse gas emissions

Disclose

Data

Conflate

Campaigners

## 33. Space travel

space travel, heartbeat, pilots, tourism

## 34. Forests

Forest plays a crucial role in migration of climate change

Answers: PRIMARILY, PROMOTING, INCREASING, EQUIVALENT

1. primarily basically importantly essentially
2. developing promoting fostering making

3. decreasing **increasing** pushing catching
4. equal **equivalent** same proportionate

## 35. Travelling To Germany

Last year I was in Germany... (5 Blanks)

Answers: **trip, been, connecting, land, another**

My last (trip/journey/travel,...) to Germany was the most terrible trip that I had ever (taken/experienced,...) on. we stayed about 4hours in airport for (delayed/connecting/changing,...) flight. then we stayed (another/two/more) about hour and a half to meet my family.

we were far from the place we predicted to (land/take off/....)

## 36. new

Australian business etiquette .. America and Europe, but it **differs**... taken in Asia, .....less blunt and **hierarchical**.....Egalitarian ... than it was, .....**transparent**

contributes                      **differs**                      unusable                      **hierarchical**  
**transparent**

## 37. New

...began network...You should \_\_\_ with..., \_\_\_ yourself to concentrate..., ... This is the skill that you need to \_\_\_, not a talent

Options: engage, direct, concentrate, practice

# Mock Test Questions

- سوالات تست ماک را به بعد از امتحان ماک ماکول کنید تا ارزیابی شما از این آزمون آزمایشی به شکل صحیحی صورت پذیرد.

## 1. Thea Proctor

Thea Proctor was just sixteen when her entry at the Bowral Art Competition caught the eye of the judge, Arthur Streeton. It was the first of many **associations** with at world **recruits**. The next year saw her at the Julian Ashton Art School in the **illustrious** company of Elioth Gruner, Sydney Long and George Lambert, for whom she often **posed** and **remained** her great friend until his death in 1930.

Lambert's paintings and sketches of Proctor emphasis the elegance of her dress. A keen interest in fashion was just one **aspect** of her fascination with design, and she saw herself as an early style guru on a quest to rid Australian art of "its lack of imagination and inventive design". Skilled in watercolors and drawings, Proctor did not **limit** herself to paper, canvases or to her popular magazine **illustrations**; she designed theatre sets and a restaurant interior and wrote on a range of subjects from flower arranging to the colors of cars. It made for a busy and **varied** life but, as she said she was not the sort of person "who could sit at home and knit socks".

## 2. Entrepreneurs

Entrepreneurs seek the best opportunities for production and **coordinate** all the other resources in order to carry them out. An entrepreneur **visualizes** needs and takes the **necessary** actions to initiate the **process** by which they will be met. This often means classifying and **taking** risks.



### 3. Farming

In the last years of the wheat boom, Bennett had become increasingly **frustrated** at how the government seemed to be encouraging an **exploitative** farming binge. He went directly after his old employer, the Department of Agriculture, for **misleading** people. Farmers on the Great Plains were working against nature, he **thundered** in speeches across the country.

### 4. The Genetically Engineered Foods Question

Genetically modified foods provide no direct benefit to consumers; the food is not **noticeably** better or cheaper. The greater benefit, **proponents** argue, is that that genetic engineering will play a crucial role in feeding the world's burgeoning population.

Opponents disagree. **Asserting** that the world already grows more food per person than ever before-more, even, than we can **consume**.

### 5. The Attitude and Behavior of Children-Centered Mothers

The conducted study serves to three objectives. The first objective is to reveal the **values** loaded to the child by the child centric mother's attitude and the behavior about the effect of 5-6 aged nursery school children on the purchasing decision of the families who belong to high socio-economic class. The second objective is to **develop** child centricity scale and the third objective is to examine the attitude and behavior differences between low child centric and high child centric mothers. **Analyzing** the data gathered from 257 mother respondents, the researchers have found out that the lowest influence of child upon the purchasing decision of the family are those which carry high purchasing risk and used by the whole family, whereas the highest influence of the child upon the purchasing decision of the family are the products with low risk and used by the whole family. Findings also reveal that there are statistically significant **differences** between the high child centricity and low child centricity mothers regarding the purchasing products that are highly risky and used by the whole family.

## 6. Development Strategy

The principal and most consistently articulated recommendation of the world conferences was that countries must take full responsibility for their own development. National responsibility for national development is the necessary consequence of **sovereignty**. The Mon-terrey Consensus states that 'Each country has primary responsibility for its own economic and social development, and the role of national policies and development strategies cannot be **overemphasized**. National development strategies and policies are therefore critically important. This was reflected most recently at the 2005 Summit when Member States agreed on a target date of 2006 for all developing countries to adopt and start to implement/start **implementation** of these strategies to achieve the internationally agreed development goals and objectives, including the M DGs.

The automatic **corollary** of that principle is that each country must be free to determine its own development strategy. It is essential that all donors and lenders accept the principle of country ownership of national development strategies. This implies the acceptance of the principle that development strategies should not only be **attuned** to country circumstances, but also be prepared and implemented under the leadership of the governments of the countries themselves. The 2005 World Summit also acknowledged, in this regard, that all countries must recognize the need for developing countries to strike a **balance** between their national policy priorities and their international commitments.

## 7. Australian Overseas Departure

Over the past ten years, Australian overseas departures have grown from 1.7 million to 3.2 million. This represents strong average, annual growth of 6.5 per cent. This paper **analyses** outbound travel demand to each destination country using the travel demand models of short-term resident departures. The models are **specified** in terms of a double logarithmic linear functional form, with overseas departures as the dependent variable and real household disposable income prices of travel and accommodation in Australia, and overseas and the exchange rate as independent **variables**.

The models were estimated using **historical** time series data from 1973 to 1998. The data were obtained from several **sources** such as the World Tourism Organization, Australian Bureau of Statistics, World Bank and International Monetary Fund. The results suggest that the estimated elasticity parameters are consistent with standard economic theory. The number of short-term resident departures is positively influenced by per capita real household disposable income; and the price of domestic travel and accommodation are **negatively** influenced by the price of travel and accommodation overseas. The estimated demand models were used to develop the Tourism Forecasting Council's long run forecasts. The forecasts suggest that the number of short-term resident departures will increase **strongly** over the next ten years, largely due to the strength of the Australian economy, **competitive** travel prices, and Australian's interest in **experiencing** different cultures and lifestyles.

## 8. A Financial Director

There isn't a financial director around who wouldn't like to accelerate cash flow by reducing debtor days – in other words, get customers to pay up faster. In Europe's top 1,000 quoted companies, nearly one quarter of all invoices are unpaid **at any point in time**, according to recent research carried out by the ASF organization. This means they are sitting on a total of 274bn overdue debt. Most of this is caused by poor collection practices. According to Jan Porter, ASF's Managing Director, "You can set up all the systems you want, you can insist on water light contracts and payment terms, the government can even introduce late payment legislation, but there are always some debtors who **fail to pay on time**."

Once a payment is overdue, your first step is to talk to your debtor. You should let them know the payment is late and try to find out if there is a dispute about the work, or if your debtor has financial problems." **This is okay**, but Tim Vainio, a chartered accountant, believes that too many companies are afraid of losing a relationship, and that, **before undertaking any action**; the focus should be on recovering as much money as possible, rather than on **preserving** a relationship.

## 9. Violin

In the 250 years of its active evolution Funerary Violin moved from the formal to the personal. It is clear from the earliest **accounts** of the form that its role during the sixteenth and seventeenth centuries was largely heraldic: to **exemplify** the continuity of the social structure. The few works that have survived from this period are often **surprisingly** unemotional and at times overtly **grandiose**.

## 10. Transitions (mock c)

School-to-work transition is a historically **persistent** topic of educational policymaking and reform that impacts national systems of vocational education and training (Bailey, 1995). The **transition** process refers to a period between completion of general education and the beginning of vocational education or the beginning of gainful employment as well as to training systems, institutions, and programs that prepare young people for careers (Rauner, 1999). The status passage of youth from school-to-work has changed structurally under late modernism, and young people are **forced** to adapt to changing demands of their environment especially when planning for entry into the labor market. Since the transition to a job is seen as a major success in life, youth who manage this step successfully are more **optimistic** about their future; still others are disillusioned and pushed to the margins of society. While some young people have developed successful strategies to cope with these requirements, those undereducated and otherwise disadvantaged in society often face serious problems when trying to prepare for careers. Longer transitions lead to a greater vulnerability and to **risky** behaviors.

## 11. A Big, Bad Idea (mock c)

From the wolves' perspective, this is clearly good news. But it also had beneficial effects on the ecology of the park, according to a study published in 2004 by William Ripple and Robert Beschta from Oregon State University. In their paper in BioScience, the two researchers showed that **reintroducing** the wolves was **correlated** with increased growth of willow and cottonwood in the park. Why? Because grazing animals such as elk were **avoiding** sites from

which they couldn't easily escape, the scientists **claimed**. And as the woody plants and trees grew taller and thicker, beaver **colonies** expanded.

## 12. Using Images in the Writing Process (mock c)

It is the **assertion** of this article that students who use visual art as a pre-writing stimulus are composing their ideas both in images and in words. The result of the art creation process allows students the distance to **elaborate**, add details, and create more coherent text. The process of writing is more than putting words on a piece of paper. Effective authors are able to create **imagery** and to communicate ideas using well-chosen words, phrases, and text structures. Emergent writers struggle with the **mechanics** of the writing process, i.e., fine motor control for printing legibly, recall of spelling patterns, and the use of syntax and grammar rules. As a result, texts written by young writers tend to be simplistic and formulaic. The artwork **facilitates** the writing process, resulting in a text that is richer in sensory detail and more **intricate** than the more traditional writing-first crayon drawing-second **approach**.

## 13. self-defeating habits

Don't allow yourself to slip into self-defeating habits, such as procrastinating. Try to keep a **momentum** going in your study. **Scatter** blocks of study with short breaks to limit fatigue. If you study solidly for a couple of hours, make sure you give yourself fifteen minutes or so before you start up again. Think positively about yourself and your situation. Challenge the negative thoughts that creep into your mind and cause you unnecessary stress at times, such as "I'm going to fail", "I'll end up blowing my future, my chance of getting a career". You don't have any need to think **catastrophically**, it's not achieving anything. In fact, it's doing you a lot more harm than good, because it's distracting you away from what you need to do. Learn to become more relaxed in your daily life. There are simple **techniques**, such as breathing exercises and progressive muscular relaxation exercises, as well as guided imagery, which can help you to feel calmer, and more focused. The Macquarie University Counsellors can help you with these techniques. Some do relaxation tapes for students.



## 14. Frost's poetry

There's duplicity in Frost's poetry, and there's certain doubleness in the figure that he **projects** as a poet. I like to think of his obsession with **double** meanings, which he has, as a way of responding to a division in culture, between popular and elite readers, a division that he saw as **expressive** of a division in American culture between money and esteem, business and art.

## 15. the wolves

In their paper BioScience, tow researchers showed that reintroducing the wolves was **correlated** with increased growth of willow and cottonwood in the park. The reason is that grazing animals such as elk were **avoiding** sites from which they couldn't easily escape, the scientists **claimed**. And as the woody plants and thicker and thicker, beaver colonies expanded.

## 16. the behaviourist approach

Another way of looking at personality is the behaviourist approach. According to the behaviourists, the inner **facts** of the consciousness are not important instead, they believed that our behaviours, and therefore our **personalities**, are learned primarily through our **experiences**. The theories of behaviourism arose through **experiments**, largely on animals, in which behaviours were learned through carefully controlled **stimuli**.

## 17. The common understanding of genius -B

The common understanding of genius is that you're either born with it or not. This picture is so **entrenched** that it has come to **define** the way we educate children. Trouble is, the thinking is wrong- **profoundly** so, if we are to believe a growing body of evidence from the cognitive sciences.



## 18. take risks-B

An individual's propensity to take risks is influenced by their own experience and that of others. The key **feature** in risk taking is the balancing of perceptions of the **risk** and the possible rewards, and this balance may be a **reflection** of an individual's particular type of **personality**.

## 19. Roman poet Ovid-B

Roman poet Ovid wrote that "there is nothing constant in the universe, all ebb and flow, and every shape that's born bears in its **womb** the seeds of change." These words are remarkably **relevant** when one considers the way life has changed through time as revealed by the **fossil** record.

## 20. The increased importance of scientific-B

The increased importance of scientific knowledge in society has led to a **corresponding** increase in respect for scientific evidence. In order to be **perceived** as sound, rational or **valid** it is important that a claim is thought to be 'scientifically founded'. We give claims **backed up** by science more credibility than we allow other kinds of claims, and anyone with a product to sell, or a claim about the universe to make, will seek to support their **position** with 'scientific evidence'.

## 21. Mosaics

The wondrously intricate tile mosaics that adorn medieval Islamic architecture are disguising a mastery of geometry not matched in the West for hundreds of years, according to new research. For a long time, historians **have assumed** that sheer hard work with the equivalent of a ruler and compass allowed medieval craftsmen to create the ornate star-and-polygon tile patterns that cover mosques, shrines and other buildings from Turkey to India. Now a Harvard University researcher **argues** that more than 500 years ago, long before Western scholars gained a good understanding of geometry, mathematicians in the Islamic world met up with the artists and began creating far more complex tile patterns that culminated in

what mathematicians today call “quasi-crystalline designs”, which did not appear in the West until the 1970s. Quasi-crystals **are made** by fitting together a set of shapes into patterns that, unlike typical tile floors, don’t repeat. In an article published by the journal Science, Peter J. Lu and Paul Steinhardt report finding a set of polygon-shaped tiles—decagon, pentagon, diamond, bowtie and hexagon—that **were arranged** into distinctive patterns found on major Islamic buildings from the 12th through 15th centuries.

## 22. climate change

If climate change continues unabated, the plight of Bangladesh, which wages an annual battle against floods, provides a grim lesson for many other parts of the world. It will lose the war against **rising** water.

“If the sea level **predictions** are true, parts of the country will simply disappear,” said Jo Scheuer, deputy country director of the United Nations Development Programme in India. Most parts of Bangladesh are less than 10m above sea level, so rising seas coupled with storm surges could put large parts of the population and agricultural land under **threat** of severe flooding. The toll would be catastrophic for a country where half its population lives below the poverty line.

South and east Asia, including Vietnam, Bangladesh, India and parts of China, including Shanghai, will be most **vulnerable** to climate change because of their large coastal populations in low-lying areas, according to the UK International Institute for Environment and Development.

## 23. Neuroscience

The past year has offered me an incomparable chance to catch up with biologists, to fill in gaps in my methodological **repertoire** and to pick up essentials in neuroscience (the area I am specializing in). Hence the previous months have been packed with new information and I have enjoyed learning most of it.

On the other side, I realize that the **level** of ignorance on which we base our experimental assumptions is frightening. Neuroscience is a multidisciplinary field. Yet there still comes a point when, for example, a molecular biologist cannot achieve his goal because he doesn't

know a new imaging **technique**; or a zoologist's experiment fails because she hasn't used the latest physiological data on a certain brain function. That's why I sometimes feel discouraged; I am looking for a needle in the haystack but the haystack grows bigger everyday. But that's also the fun of science. The **bottom** line is that the interdisciplinary nature of science is essential and I was blessed to have been **immersed** in this spirit over the last year

One of the crazier ideas for dealing with global warming is to sprinkle the oceans with iron filings. One reason the sea (unlike the land) is not covered with plants is that it lacks **crucial** nutrients—iron, in particular. Add iron, the theory goes, and you will promote the growth of algae. These will **absorb** carbon dioxide from the atmosphere and then conveniently sink when they die. Thus, over the course of a few decades, the concentration of the gas in the atmosphere will return to pre-industrial levels. Presto! Problem solved.

The law of unintended **consequences** argues against doing any such thing, of course. But an experiment carried out a decade ago in the Southern Ocean suggests that the underlying idea is sound—and at a conference in Oxford this week, John Munford, an independent British researcher, suggested that a more **modest** version of the “fertilise the oceans” project might indeed help to stop climate change.

Mr Munford's proposal is to harvest the algae, rather than allowing them to die and sink. He notes that many species of algae **pack** a far denser punch energy-wise than the plants now used as energy crops. In particular, they produce oils, of the sort valued as biodiesel, and are attracting a lot of attention from scientists and entrepreneurs looking for fuels to replace mineral oils.

## 24. A member of the group-B

It is not that the view of man as an individual is more or less misleading than the view of him as a member of the group. It is the attempt to draw a **distinction** between the two which is misleading. The individual is by **definition** a member of a society, or probably of more than one society- call it group, class, tribe, nation or what you will. Early biologists were **content** to classify species of birds, beasts, and fishes in cages, aquariums, and showcases, and did

not seek to study the living creature in **relation** to its environment. Perhaps the social sciences today have not yet fully **emerged** from that primitive stage.

## 25. Computer science (Computer science (mock c))

What can computer science tell us about what biological systems do and how they do it? Can these chemical information-processing functions be **replicated** in digital computing systems? What are the **implications** of developments in computer science in understanding the nature of causality? Aaron Sloman, author of *Computer Revolution in Philosophy* **delves** into the world of connections between ideas developed in computer science, biology and philosophy, providing new **insights** into some fundamental questions about the nature of consciousness and free will.

## 26. The Rough Guide to Climate Change (mock c)

Three degrees does not sound like much but it **represents** a rise in temperature compatible with the global heating that occurred between the last ice age, some 15,000 years ago, and the warmth of the eighteenth century. When Earth was cold, giant glaciers sometimes extended from the polar-regions as far south as St Louis in the US and the Alps in Europe. Later this century when it is three degree hotter glaciers everywhere will be melting in a climate of often **unbearable** heat and drought, punctuated with storms and floods. The **consequences** for humanity could be truly horrific; if we fail to act swiftly, the full impact of global heating could cull us along with vast populations of the plant and animals with whom we share Earth. In a worst case scenario, there might - in the 22nd century - be only a remnant of humanity eking out a **diminished** existence in the polar-regions and the few remaining oases left on a hot and arid Earth.

