1. Domestication is an evolutionary, rather than a political, development. They were more likely to survive and prosper in an alliance with humans than on their own. Humans provided the animals with food and protection, in exchange for which the animals provided the humans their milk and eggs and their flesh.
2. Akimbo, this must be one of the odder-looking words in the language and puzzles us in part because it doesn’t seem to have any relatives. What's more, it is now virtually a fossil word, until recently almost invariably found in arms akimbo, a posture in which a person stands with hands on hips and elbows sharply bent outward, one that signals impatience, hostility or contempt.
3. The problem begins with the alphabet itself. Building a spelling system for English using letters that come from Latin – despite the two languages not sharing exactly the same set of sounds – is like building a playroom using an IKEA ofﬁce set. Many other languages that sound nothing like Latin do well enough with versions of the Latin alphabet.
4. Modern buildings have to achieve certain performance requirements, at least to satisfy those of building codes, to provide a safe, healthy, and comfortable environment. However, these conditioned environments demand resources in energy and materials, which are both limited in supply, to build and operate.
5. Global warming is deﬁned as an increase in the average temperature of the earth's atmosphere. This trend began in the middle of the 20th century and is one of the major environmental concerns of scientists and governmental ofﬁcials worldwide. The changes in temperature result mostly from the effect of increased concentrations of greenhouse gases in the atmosphere.
6. As far as politics go, the responses are just as varied. Mitigation is common and calls for a reduction of emissions and less reliance on fossil fuels. Coal burning power plants are now replaced with hydraulic power plants, and electrical cars are replacing some gasoline efﬁcient cars. Many people, however, feel that this is not enough.
7. The border itself between Mexico and the United States is fraught with a mix of urban and desert terrain and spans over 1,900 miles. Both the uninhabited areas of the border and urban areas are where the most drug trafﬁcking and illegal crossings take place. Crime is prevalent in urban cities like El Paso, Texas and San Diego, California.
8. Free trade is an economic policy under which the government does not interfere with trade. No tariffs are applied to imports or exports, and people are allowed to trade goods and services as they please. Supply and demand dictate the prices for which goods and services sell and are the only factors that determine how resources are allocated in society.
9. Unlike the United Kingdom, which has taken a relatively restrictive approach to the possession of arms, the United States has taken a more lenient approach. In the United States, three models have evolved regarding the interpretation of the meaning of the right to bear and keep arms as delineated in the Second Amendment.
10. Trade unions originated in Europe during the industrial revolution. Because of the machinery that had become commonplace, skilled labour became less in demand, so employers had nearly all of the bargaining power. Employers mistreated the workers and paid them too little for the work they did. Trade unions were organised that would help in the improvement of working conditions.
11. Unions take power out of the employer's hands on many issues. There are examples of cases where workers were engaging in sexual or racial harassment, but were protected by their unions and allowed to keep their jobs. Poor workers and excellent workers often receive the same pay and raise, giving no reason for a person to work harder than necessary at their job.
12. Another administration option is to bake marijuana at a relatively low temperature to kill any dangerous microorganisms and then allow that patient to eat it or drink it. Both of these methods of administration make smoking the drug unnecessary. However, criticism of medical marijuana has also been raised because as a natural plant, it cannot be patented and marketed by pharmaceutical companies and is unlikely to win widespread medical acceptance.
13. A smoking ban is a public policy that includes criminal laws and health regulations that prohibit smoking in certain public places and workspaces. There are varying deﬁnitions of smoking employed in this legislation. The strictest deﬁnitions deﬁne smoking as being the inhalation of any tobacco substance while the loosest deﬁne smoking as possessing any lit tobacco product.
14. Welfare has a special political meaning to the United States because it refers to how the poor receives ﬁnancial aid. In comparison, welfare services are regarded as a universal right in other regions like Europe, where it is believed that all citizens should be able to obtain a minimal level of social support and well-being.
15. Tesla was offered the task of completely redesigning the Edison Company’s direct current generators. In 1885, he claimed that he could redesign Edison’s inefficient motor and generators, making an improvement in both service and economy. After a month of work, Tesla fulfilled the task and inquired about payment.
16. A young man from a small provincial town -- a man without independent wealth, without powerful family connections and without a university education -- moved to London in the late 1580's and, in a remarkably short time, became the greatest playwright not of his age alone but of all time. How did Shakespeare become Shakespeare?
17. Introverts, or those of us with introverted tendencies, tend to recharge by spending time alone. They lose energy from being around people for long periods of time, particularly large crowds. Extroverts, on the other hand, gain energy from other people. Extroverts actually find their energy is sapped when they spend too much time alone. They recharge by being social.
18. The problem begins with the alphabet itself. Building a spelling system for English using letters that come from Latin – despite the two languages not sharing exactly the same set of sounds – is like building a playroom using an IKEA office set.
19. Who do you think is the most glamorous person? A biotechnologist who led his company in international research, an ordinary welder who gained international fame through his work, or a photographer complimented widely for a series of photos?
20. The speaker is a marine biologist who became interested in the Strandlopers, an ancient people who lived on the coastline, because of their connection to the sea. Their way of life intrigued him. As a child he had spent a lot of time by the sea, exploring and collecting things – so he began to study them, and discovered some interesting information about their way of life, how they hunted, what tools they used, and so on.
21. Yellow is the most optimistic colour, yet surprisingly, people lose their tempers most often in yellow rooms and babies cry more in them. The reason may be that yellow is the hardest colour to the eye. On the other hand, it speeds metabolism and enhances concentration; think of yellow legal pads and post-it notes.
22. Researchers gathered 160 uncaffeinated adults, people who consumed less than 500 milligrams of caffeine a week. These decaf subjects looked at pictures of various objects, then took either a placebo or a pill containing 200 milligrams of caffeine. That’s roughly the amount you’d get from two cups of coffee.
23. Many papers you write in college will require you to include quotes from one or more sources. Even if you don't have to do it, integrating a few quotes into your writing can add life and persuasiveness to your arguments. The key is to use quotes to support a point you're trying to make rather than just include them to fill space.
24. Each tube-shaped microbot is a sandwich of three materials. A grapheme outer layer, which binds to heavy metals. A middle layer of nickel, which gives the bots magnetic polarity, so they can be pulled through wastewater with magnets. And platinum inside—for propulsion. Just add a bit of peroxide to the wastewater, and it'll react with the platinum to form water and oxygen bubbles, which propel the tubes along.
25. As a historian, if you really want to understand the sensibilities of those who lived in the past, you must be like a novelist and get into the skins of your characters and think and feel as they do. You are asked to imagine what it's like to be a peasant in medieval times, asking the sort of questions a peasant might ask. What the writer is saying is that a historian needs imaginative sympathy with ordinary people in the past.
26. Some people object that in order for the eye to modify and still remain a useful instrument to its owner, many changes would have had to take place simultaneously. However, it is not necessary to suppose this if the modifications were extremely slight and gradual.
27. Such cross-protection is usually seen between two animals. But Gore studies the same sort of mutualism in microbes. He and his team demonstrated the first experimental example of that cross-protective relationship in drug-resistant microbes, using two strains of antibiotic-resistant E. coli bacteria: one resistant to ampicillin, the other to chloramphenicol
28. It is difficult to tell whether the speaker approves of Hemingway's lifestyle or not. He was famously macho and spent a lot of time hunting wild animals, going to wars and getting into fights. All these things got into his books, and the speaker thinks that this is not necessarily a good thing as it means that too many people prefer to read about his life than read his books.
29. Howard believed that all clouds belonged to three distinct groups: cumulus, stratus and cirrus. He added a fourth category, nimbus, to describe a cloud "in the act of condensation into rain, hail or snow". It is by observing how clouds change colour and shape that weather can be predicted, and as long as the first three types of cloud keep their normal shape, there won’t be any rain.
30. A recent trend in the entertainment world is to adapt classic works of literature for either TV or movies. One argument is that this is to everyone’s benefit, as it introduces people to works they might otherwise never have, but is rarely done successfully.
31. Roman writers and orators began to expand their imaginative and intellectual horizons and refine the Latin language through the study of Greek literature .Early Roman literature had two kinds; the recording and examination of public life and behaviour through life stories of famous men, and the particularly Roman art of satirical comedy and drama.
32. Clementson wanted to see if claims of question dodging actually held up, historically—not necessarily in the unique case of Trump. So Clementson analysed the transcripts of 14 presidential debates, from 1996 to 2012. Overall, he found 51 accusations of question dodging— 26 by Dems, 25 by Republicans.
33. By this time, however, paleontological momentum had moved to England. In 1812, at Lyme Regis on the Dorset coast, an extraordinary child named Mary Anning-aged 11, 12 or 13, depending on whose account you read found a strange fossilised sea monster, 17 feet long and now known as the ichthyosaurus, embedded in the steep and dangerous cliffs along the English Channel.
34. A university is a lot more than just classes and exams; university is a concept that offers you a host of possibilities to develop both academically and personally. Find out about the different projects, clubs and societies that are in your university. You will definitely find something you are interested in.
35. The term supernova was coined in the 1930s by a memorably odd astrophysicist named Fritz Zwicky. Born in Bulgaria and raised in Switzerland, Zwicky came to the California Institute of Technology in the 1920s and there as once distinguished himself by his abrasive personality and erratic talents. He didn't seem to be outstandingly bright, and many of his colleagues considered him little more than “an irritating buffoon”.
36. Trump has threatened to declare China, a currency manipulator, but experts say he has little legal or economic basis to take such a step. He has also threatened to impose a tariff of up to 45 percent on Chinese imports if Beijing doesn't “behave” a move that could lead to a trade war and damage the economies of both nations.
37. They controlled for the birds’ age, sex, body size and species. And they found that the hunted specimen’s brains were actually five percent smaller, on average than the brains of birds that died by other means. “The surprising thing is that, if you make a smaller kind of analysis of liver or heart size, there is absolutely no difference there. So this is specific to the brain. ”
38. Kindermann says he thinks the compound could be a win-win for the planet—and the animals. "You know the methane is kind of a waste product. And this energy, instead of losing it for the animal, it can be reused for the animal in terms of performance, and at the same time we are doing something for greenhouse gas emission and climate change." The product is not on the market yet—toxicology tests are ongoing.
39. What we found is that the plant is actually damaged by herbivores like most plants are in nature. And in response to that, it secretes sugar from the wound edges where the herbivores have damaged the plant." Tobias Lortzing is a graduate student at Freie University Berlin and one of the study authors.
40. At the end of this year, we will launch the Cup Class boats. So these will be about twice the power. The sailors are down in cockpits, unlike today. A lot of the power is being generated by these four grinders that are providing hydraulic power, and that energy is being used to control the flying surface, the hydrofoil, and is also being used to control the wing and the flaps, effectively the engine, of what we have.
41. “The situation is similar to a pregnant woman that has twin babies in her belly.” Avi Loeb of the Harvard- Smithsonian Centre for Astrophysics. He’s proposing the idea in a paper that’s been accepted for publication in the Astrophysical Journal Letters.
42. The English Revolution has been interpreted in several ways by historians: as a fight between the aristocratic Cavaliers, who were open to life, and the serious Puritans; as a battle for power between parliament and the monarchy over the rights of Englishmen that had been going on for centuries; and as a class war similar to the French Revolution, of which it was a forerunner.
43. The speaker reminisced about his views of the English Revolution when he was a student and how it seemed quite clear which side he was on - the aristocrats', not the puritans'. Later he realised there was more to it than that and there were several ways of interpreting the Revolution: as a struggle between the king and parliament, as a class war or as an unpredictable situation without clear sides.
44. DeLone and McLean’s model has been criticised by some authors. Indeed, this model is specific to contexts of voluntary use of information technology. The usage variable remains a success variable of information systems if the user himself decides to adopt or reject the technology. However, for mandatory uses, such as for ERP systems, the use of the technology is obvious. The success of information systems cannot, therefore, be measured by usage.
45. Currently, integration is increasingly needed in the business environment. This need emerges from the efficiency and synergy requirements necessary in a complex and turbulent environment. In other words, integration is needed to facilitate coordination, which is again related to the building of competitive advantage.
46. The primary application we're targeting at first is to give people a decision aid during rehabilitation, following an acute knee injury, to help them understand when they can perform particular activities, and when they can move to different intensities of particular activities." A useful thing to take a crack at.
47. There are perhaps three ways of looking at furniture: some people see it as purely functional and useful, and don’t bother themselves with aesthetics; others see it as essential to civilized living and concern themselves with design and how the furniture will look in a room - in other words, function combined with aesthetics; and yet others see furniture as a form of art.
48. Psychologist Saho Takagi, a graduate student at Kyoto University in Japan, strolls into one of Japan’s many cat cafes. These establishments allow customers to pay an hourly fee for the chance to cuddle some cats. They're popular in Japan because so many apartment buildings forbid pet ownership. But Takagi isn’t a typical customer. She’s not there for feline affection, but to probe their minds.
49. Reiss took a stab at settling the argument with a meta-analysis—a study of studies—on whether people can really perceive better-than-CD quality sound. He analysed data from 18 studies, including more than 400 participants and nearly 13,000 listening tests. Overall, listeners picked out the better-than-CD-quality track 52.3 percent of the time. Statistically significant, if not all that impressive.
50. To understand the past, you have to be able, as far as possible, to think like the people in the period you are studying thought. The example of what it must have been like to be a peasant in the middle Ages is used. However, sensibilities change over time, and we can't completely throw off the mentality of the present. Therefore, every age will have a slightly different perspective on the same period of the past, no matter what the facts are.
51. There are three main interpretations of the English Revolution. The longest lasting interpretation was that the Revolution was the almost inevitable outcome of an age-old power struggle between parliament and crown. The second sees it as a class struggle and a lead-up to the French and other revolutions. Finally, the third interpretation sees the other two as too fixed, not allowing for unpredictability, and that the outcome could have gone either way.
52. The researchers enlisted real mothers and infants and quantified their interactions, which fell into four categories. One: babies wanted to maximise the amount of time smiling at their mothers. Two: they wanted to maximise the time the mothers smiled at them. Three: they wanted to experience simultaneous smiling, and four: no smiling at all.
53. A university is not a business. More precisely, a not-for-profit college or university is significantly different than a for-profit business. A university has no owners; it is a public trust. Without owners, it has no one to pay dividends to and no one for whom it must maximise its profits. Business has a single overriding goal: the maximisation of return for the owners. A university has a multiplicity of goals: to foster learning, to create knowledge, and to serve its community.
54. The tsunamis could provide crucial information about the habitability of ancient Mars. The first one occurred when the planet must have been relatively warm and amenable for life because it carved out backwash channels as it returned to the sea. By contrast, the planet had become much cooler by the time the second tsunami hit—the waters apparently flash-frozen after flowing onto the surface.
55. Britain, then, was slower to create and develop a police force than the rest of Europe: France had one long before - indeed, the word police is taken from the French. This fact was not unimportant, as the very idea of a police force was seen as foreign - that is, French - and particularly undesirable, and was generally regarded as a form of oppression.
56. "Thompson recognised and exploited all the ingredients of a successful amusement ride," writes Judith A. Adams in The American Amusement Park Industry. "His coasters combined an appearance of danger with actual safety, thrilled riders with exhilarating speed, and allowed the public to intimately experience the Industrial Revolution’s new technologies of gears, steel, and dazzling electric lights."
57. The initial thud comes from when those dorsal bursae collide. And the reverberation results from the vibrations that linger when the tissues pull apart. But Thode the younger says the bursae have to be somewhat sticky for the clapping together and snapping apart to produce a noise with the correct loudness and pitch. That stickiness comes courtesy of the mucus.
58. Usually, age is determined by physical characteristics, such as teeth or bones. Great—if you have a body. Researchers have tried unsuccessfully to use blood. But in this study, the scientists used immune cells called T-cells. T-cells recognise invaders through receptors that match molecules on bacteria, viruses, even tumours. The cellular activity that produces these receptors also produces a type of circular DNA molecule as a by-product.
59. This study marks the first time scientists have linked dyke formation to large, damaging earthquakes, and Wauthier is looking back through history for more examples. She says researchers will never be able to predict exactly when an earthquake might strike after a dyke intrusion. But at least now, researchers and rift zone residents know they’re not just in for bangs—they may also be in for shudders.