



SST 机经

* cocoa 开小写
* beverage 的单位
* bean 的

SST 50-70

1. Cocoa in Aztecs /可可/ 可可
This lecture talk about cocoa during the time of Aztecs. It was mainly used as a beverage. Cocoa beans can make hot or cold chocolate. Furthermore, Cocoa beans were also used as a currency, and cocoa butter can be used to protect skin against the sun. Cocoa also has the religious significance because they believed that drinking chocolate can give them wisdom. 61 marriage ceremonies

① 饮料
② 货币
③ 护肤
④ 宗教
* 不是human, 是artificial intelligence.

2. Computer and artificial intelligence /人工智能
This lecture talks about computer and artificial intelligence. Human brain is a symbol processor. Human tell computer what and how to do. Computers can operate, given the meaning of certain words. It has systems and symbols. Computer relies on analysing messages into bytes, which is similar to human brain. Computer has the potential to bring computer intelligence. 57

① 人脑
② PC 怎么运作
③ CI (计算机智能)
④ PC 分析信息, 与人脑相似

3. War for Talent (retell 出现)
This lecture talks about war for talent. Because of talent shortage, lots of companies and countries recruit young talented people. Some young people immigrated after they graduated from the university. They compete with the local students. Countries and organizations should put talent at the primary position.

shrinking adj.
recruit (招聘)
baby boom 婴儿潮
mismatch 不匹配

There are three reasons. First, the change of nature of economy leads to increase in the talent demand, /need skills. Second, the shrinking labor force after the baby-boom causes less supply of skilled workers. /the retirement of baby-boomers will cause a shortage of experienced workers. Third, there is also a mismatch between what schools are producing and what companies need.

[ˈsɪŋkɪŋ] ↓
① 经济本质
② 劳动力
③ 下降的劳动力
④ 老龄化
⑤ 所产/所需不同

prevail 流行 an shrinking labor force 下降的劳动力 the aging population 老龄化

4. Benefits of laughing
This lecture talks about benefits of laughing, especially in the adversity. People realized the importance of laughing a long time ago and there are different understanding about humor in different regions. Laugh can be used as a great therapy. Besides that, there were war jokes about the Berlin Wall prevailing in Eastern countries, such as Russia, Egypt and Iran, which can ease the harm of the war. Moreover, laughing can help people get through break and boring time. Laughing can effectively protect people's self-respect and identity.

困境
① 沟通手段
② 战争笑话
③ 打破无聊
④ 保护自尊身份

adversity 灾难 / 逆境; therapy

5. Organisms Cells DNA RNA (retell 出现)
This lecture talks about biology. Butterflies, dolphins, flowers and other creatures are interconnected. All animals have same DNA and RNA to storage and transfer/transmit genetic materials/information. DNA and RNA are based on cells. Cells are foundation of building organs. Cells have chemicals inside. All organs have similar metabolism systems which convert energy from one form to another. All organisms rely on genetic and inherited information. They all share chemical components, molecules and chemical reactions to generate energy.

生物学
① 生物间有联系
② 有DNA, RNA, 来传递基因info
③ DNA, RNA 是细胞基础
④ cells 有化学成分
⑤ 有新陈代谢, 传递能量

[ˈmɒlɪkjuːl] ① 生物学 基因遗传 info
② 通过化学成分, 分子, 化学来产生能量.



2 types of cells: 原核细胞(细菌)和真核细胞 (动物 / 植物)
creatures=animals= organisms; organs; cells= molecules; DNA,RNA; genetic,
metabolism =chemical reactions; energy.

6. Indian peasants debt - seeds companies and pesticide

debt 共
therefore pep

The debt for Indian peasants is too high. The company sells pesticide is the same of that sell seeds. Debts come from the seeds and pesticide. Because of globalization, they are very poor and they have no capital and money, then they have to borrow money from the seeds company to buy seeds and pesticide. 杀虫剂喷了一次就要一直用。 In past 5 years, the amount / 价格 of pesticide was increased by 4000 percent. 种子公司抬高价格 (More money they borrowed, the more they spend. the ? borrowed money in an expensive way, actually it borrowed for itself, most are borrowed from major creditors 债主). Debt on peasants is increasing due to high use of pesticide.

① 印度农民债务高
② 债务来源: 种子, 杀虫剂 (同公司)
③ 由于全球化, 资金少, 借债中.
④ 涨价, 更借中
⑤ 杀虫剂有依赖性

由于全球化和自由贸易, 印度 supply of seeds 被全球化公司所垄断, 农民每年都得向种子公司购买种子, 因为 farmers 由于专利原因不可以私自 save seeds. 又由于农产品价格的下降, 导致他们没有钱, 所有他们就向种子公司贷款。高额的贷款使得他们走向自杀。

来自美国的转基因种子, 不用杀虫剂, 但是售价很贵, 要借贷才买的起。借贷人就是种子公司, 并卖杀虫剂, 肥料等转基因种子需要专门肥料 (因为不适合印度土壤), 还需要杀虫剂 (因为只能杀害一种棉虫)

peasant 农民 = a country person
pesticide 杀虫剂 Indian rupee 印度卢比

7. 伤寒玛丽 Mary Mallon, Typhoid Mary

Mary Mallon was born in Ireland in 1869 and migrated to America in 1933. She was an excellent cook and proud of 自豪 and satisfied with her life. But she was infected with typhoid fever, a disease that transmitted by food and water. 22 people were infected by her / have this symptom and one of them died. Even before she died, she was denied that she was sick.

① 生于 Ireland.
② 移民 US
③ Cook, 煮食物
④ 细菌感染
⑤ 由水和食物传播
⑥ 22 感染, 1 人死
⑦ 死前也不承认

typhoid 伤寒的

8. government use tricks !!!! 不全

Citizens are not well informed. The western countries are democratic countries, but the governments use tricks to cover the truth, and people are deliberately hidden form the truth. The government policies are often interpreted wrong and misleading people. They hide the events which have taken place. 后面政府怎么样要注意听, 很短的。Government do all the tricks in the book to cover their mistakes.

① 公民未被好好告知
② 西方国家, 但能掩盖真相
③ 误导

9. a woman in student loan debt



This lecture talks about a 43 years old woman with massive student loan debt. After 15 years later, she still experiences terrible family's financial situation. Her monthly loan payment is more than triple her car payment. She is not able to find her current job without college degree, but it costs too much. Her kids also need to join the class of citizens without college support from parents. She advises people to take a realistic look at their anticipated income.

Amory Lovins - energy saving with existed technology

This lecture talks about Amory Lovins. He's with unusual character with a wide range of knowledge, but he's not an academic. He has a consulting company and lives in a mountainside town above Snowmass. He spends around 30 years thinking about how to save energy with existed technology. People think he is crazy. People tend to regard him as genius. A female writer wrote a book about him called Mr Green.

11. Globalization

This lecture talks about globalization. There are three definitions. Firstly, there are more trade, transactions, communications, service and multinational companies beyond the borders. Secondly, there are more travel, cooperation... Thirdly, economy systems. Some countries are consuming and producing a global economy and integrated economy formed as countries depend on each other more in terms of production and consumption.

1. 更多国际化的贸易交易交流和公司
2. 更多旅行
3. 经济体系: 在生产和消费一个全球的一体的经济, 互相依赖

?split the production process, there is economic progression

12. Stanford leadership/management - 细节注意听

他提到很多 worldwide large institutions 都是依靠人的管理, 而不是自己运行的一个 accountable and responsible person 起到了很大的作用

A lecture/speech held by Stanford University business school stressed the importance of management and leadership in business school. It is clear that educational purpose is to learn management and leadership. Students should be responsible for the management performance and identify how it could happen appropriately. The responsibility means that the accomplishments achieved by themselves with no indication from others.

not only delivering services but also make sure good quality. They should realize their responsibility the accomplishments achieved by others don't indicate what you are capable of.

13. Authoress 女作家- 细节注意听

An authoress wrote non-fiction for 12 years. She turned her attention to fiction. However, she took some detour, but she never regretted because she believed it was the right thing to do. Her belief was inspired by one pioneer who

① 43岁女人, 身负学生贷款
② 15年后, 家庭仍经济拮据
③ 每月还贷 > 3车贷

④ 无学位无工作, 但成本太高
⑤ 孩子上学也要借钱
⑥ 建议: 现实点看预期收入

[Leimari] 艾莫利
山姆·茂

① Amory Lovins
② 有咨询公司, 住山脚
③ 30年思考如何用现有技术节能
④ 天才, 现实
⑤ 女性作家写了本书

3定义 {
① 更多贸易/交易/交流/服务/跨国公司
② 更多旅行合作
③ 经济体系: 全球一体化经济, 互相依赖, 消费生产

① 斯坦福商学院
② 管理/领导力
③ 教育目的
④ 学生有责任
⑤ 责任是: 他人成就自己

① 女作家, 非小说 12年, → 小说
② 走了弯路, 但不后悔, 以正确的事
③ 信仰度人, 驱散恐惧, 要冒险
④ 1990年, 1st 小说; 1992年, 1st 章节小说名



encouraged people to venture/take risk. In 1990, she started writing first novel. In 1992, the first chapter of first novel called "the secret life of bees" is finished.

女作家从 nonfiction 到 fiction, 走了很多弯路, 但一直坚信, 受到先驱者鼓舞要冒险, 1990 开始第一本 fiction, 1992 完成第一章。

14. government power

The lecture first stated the need to modify government power from federal to state level. Then it is followed by addressing the different opinions holding by the Democratic Party and the Republican Party. The Democratic Party believes states that the government should hold the strong power and entitlements, while the Republican Party thinks the government should share its power with the states and people. (Finally, it is decided to hide power from public. /来自 Stanford 的人再 NY 时报上说..., personal power 的重要性)

州
权力
分配

- ① 修改政府需要
- ② 民主派观点
- ③ 共和派观点

15. Vitamin D

Vitamin D refers to a group of fat-soluble secosteroids responsible for increasing intestinal absorption of calcium, iron, magnesium, etc. In humans, the most important compounds in this group are D3 and D2.

Cholecalciferol D3 and ergocalciferol D2 can be ingested/intaken 吸收 from the diet and from supplements. Very few foods contain Vitamin D.

Dermal 皮肤的 synthesis 合成 of vitamin D from D3 is dependent on exposure/ sunshine.

It is not strictly a vitamin, and may be considered a hormone as its synthesis and activity occur in different locations. A hormone is a substance produced in one part of the body that travels, via the blood stream, to have effect in another part. Some regions people less exposed to sunlight don't have enough Vd compared to those living around the equator. In winter, when people wear more clothes they have less Vd as well.

- ① Vd 功效: 个月吸收与缺乏
- ② D3, D2 吸收好
- ③ 食物(饮食) 光照合成
- ④ 可看成荷尔蒙
- ⑤ 不同地区日照不同, Vd 不同; 季节衣服穿多少, Vd 也不同

Vd 可通过食物摄取(很少)或吸收阳光合成, 更像一种荷尔蒙, 不同地区由于光照不同, vd 摄取也不同, eg 冬天少量皮肤暴露 sunshine 中。

16. Genes 的发展 5000 年 ???

This lecture talks about development of genes. The lecture first talks about genetic differences on cognitive abilities between present and ancestors, then highlight the small number of different genes between modern people and people from 5000 years ago. The way of people piss is no different with our ancestors in half million years ago, because the genes didn't change too much.

认知

- ① 认知能力不同
- ② 少量基因不同
- ③ 基因并非怎么改变

现在和 5000 年前的祖先没什么大不同, 因为 gene 没怎么变

17. International environmental law ???

This lecture talks about international environmental law and climate change. British government launched the environmental law in order to control the impact of humans activities on environment and industrial revolution. The environmental law was aimed to improve environment locally and globally. ineffective. Companies applied the Adam Smith theory to increase/maximize

无效
ineffectively adv.

pay legal duty 作用不大

为 罚款个 员工健康个

⑤ 公司不遵守法律: cost ↑, 竞争力 ↓

- ① 英政府为控制人类行为/工业革命, 最初颁布此法
- ② 立法目的
- ③ 结果: 无效
- ④ 应用亚当斯密理论



their profit. 还是无效 Managers were unsatisfied with environmental law because the cost is increasing, ensure the health of employees, which made companies less competitive in the market.

the discharge of pollution 污染物的排放

penalty n. 罚款
 fine n./v. 罚款

18. The universe Einstein

1 Einstein

For thousands of years, people believed that the stars and universe were absolutely fixed and unchanged. This has been transformed by Einstein in the 20th century. He suggested the universe was under continuously dynamic change. Actually, this theory was not first proposed by Einstein, but by astronomer called Hubble.

① 以前: 不变
 ② 被 Einstein 改变
 ③ 宇宙是不停动态变化
 ④ 事实, 由 Hubble 提出

Einstein; astronomer 天文学家; Hubble; propose 提出; transform 改变; universe

19. Citizenship curriculum ? ?

知识面

Citizenship education is important subject in school as compared to the past. In the past, people reluctant to teach. It is important for students in this changing world. There are still problems in teaching this subject due to lack of commitment and lack of provision for teachers to teach.

义务
 批评

Criticism about citizenship education in schools argues that merely teaching children about the theory of citizenship education 理论 is ineffective, unless schools themselves reflected democratic practices 实践 by giving children the opportunity to have a say over decision making. It suggests that schools are fundamentally undemocratic 不民主的 institutions, and that such a setting cannot instill 灌输 in children the commitment 承担义务 and belief in democratic values 民主价值观 that is necessary for citizenship education to have a proper impact.

① 这门课是重要而又
 ② 教材中仍有问题
 - 无义务
 - 无老师?
 - 只教理论没实践?
 ③ 课程本身不民主, 没设置更不过程
 让孩子=无义务

citizenship education is one critical element. students will acquire knowledge of civics, including the principles of democracy and associated local, state and Australian government structures and processes. In addition, students will also learn to participate responsibly and cooperatively in community. It provides opportunities such as...

公民 原理

这门课很重要, 但只有 1/5 学校开设, 但是这个 benefits skills and attitude 态度, 很多。这门课比其余的课少, 如果投入足够时间, 学生可以自信的面对 the changing world

④ 该课对学很重要
 - 获公民知识:
 - 公民原理
 - 政府结构和处理过程
 - 如何在社区中表现合作

20. the relationship between agriculture growing and urbanization ??
 the increasing productivity of agriculture
 one farmer grow food to benefit families
 people move to city to seek jobs; countryside make a living

urbanization 城市化; productivity 生产力 countryside 乡下 compel = force to do

21. University Competition ? ?

考

① 关系: ... 和 ... : 城市化, 农业, 农村, 城市
 ② 对家庭而言: 要人有农村, 也要人有城市
 ③ 个农民 养着 城市中心人口
 ④ 去城市的机会合作 ⑤ 有人不想呆农村, 但被留住



□ info 不够!

农村 ~~rural area, countryside~~

This lecture talks about urbanization
the development of urbanization. Agriculture
如果每个人都待在农村/城市会怎样.

① rural areas
urban areas
② urbanization
agriculture growing

农村生产 food, then trade 去 city, 没那么多都不行.

One farm/grow food can benefit many families in the city.

The reason ppl moving to cities is ^{more} opportunity / jobs?

They don't want to ~~make a living~~ in countryside anymore.

ppl ~~move to city~~ but they
start losing jobs.



have more choices to national board. English speaking countries have intensive competition. more than one university, vice/prime 主 chancellor competition facing: government funding, research resources, academic job market, staff competition, donors 捐赠者, students

The competition between students form univeristies become more intensive and thirl. The funding problem between universities is also quite competitive now. Raise more funding from both private and public sectors. research quality, research contracts and charity.

22. making error
how to do things right, 2 reasons:
If the task is well designed, people are likely to do the right things, otherwise they are prone /easy to make mistakes.

distractions: eg. photocopying might leave the original in the machine if something disrupt the thinking process.

23. species and animals to survive and reproduce 生殖
This lecture talks about factors for species and animals to survive and to reproduce, including environmental conditions, temperature, tolerance range, body size/weight, diets, seasonal and daily activity, behaviour, migrate to find a good habitat 栖息地, etc genetic factors altitude they live

e.g. fog in cold water, produce antifreeze substances
body temperature: warm blooded animals = endotherms 恒温动物 = generate their heat internally; ectotherms 外温动物 = 冷血动物
the size limit of animal's body for ectotherms, otherwise unlikely to warm up too big
migration; supply of food; take enough food as energy to generate heat
water, air, food, shelter; hypothermia 低体温 hyperthermia 高体温 adaptation
structural, behavioural or physiological 生理的 feature
The structure and the physiology of plants and animals determine tolerance range. For each organism, the limits of its tolerance ranges for various environmental factors are fixed, except for the occurrence of an enabling mutation 突变. The human species is the only organism that makes extensive use of tech- nology to extend the limits of its natural tolerance range.
water balance: without drinking, dormancy 休眠, moving around 迁移,
offspring 生育 e.g. 仙女虾
structural feature: camel ; physiological feature

24. Human creativity 3P
This lecture talks about human creativity. There are three key elements, product- what is a creative product, process- how is creativity achieved and people/person- who.
The speaker most focused on identifying/assessing the creativity of a finished product. It is taken as a proxy for the creativity of the person who produced such a product. Therefore, a creativity product should be surprising, original, beautiful and useful. people: factors necessary for genius 天才: ability, grit 勇气, right mindset 心态
Process is the most important one: list of process

大学间:
① 有各种各样竞争
② 竞争激烈

① well designed
② 分神. 容易犯错

生物知识
她都会改掉

影响因素:
① 温度 < 外界
② 耐受范围
③ 自身 体重大小
④ 饮食基因
⑤ 季节
⑥ 行为
⑦ 迁徙 栖息地

① 产品: 惊喜感/原创(好看/有用)
② 人: 能力, 勇气, 心态
③ 过程: 最重要
提高
创造力
想象



improve- imitate and change, insight- look from new perspectives, innovate- create sth original, imagination- expand conceptual spaces
the study of creativity- little/middle/big c research
Human being can survive because of their creativity.

25. monkey - typewriter

The infinite monkey theorem states that a monkey hitting keys at random on a typewriter keyboard for an infinite amount of time will almost surely type the complete works of Shakespeare. Almost surely is a mathematical term, and monkey is not an actual monkey, but a metaphor. The probability of a monkey typing a complete work is tiny, but not zero. But technologies can help monkeys to write. They can finish the task within a day with computer programming.
theorem 原理; infinite 无限的; surely 肯定; programing 程序

26. sound receptor — eardrum 耳膜 记得快! 信息很紧凑!

This lecture talks about sound receptors. These little spiky things in the ear can translate vibrational energy, hunting the eardrum, into a fluid vibration and then physical motion. The receptors then turn it into electrical motion and electrical signal. Instead of talking about the details, the speaker invited MIT students to have a closer view of these remarkable devices.

receptor 接收器; fluid 液体; motion 移动; spiky 大钉的

27. drug advertisement and prescriptions ??

① drug advertisement are shown frequently on TV; the \$ they spent on advertisement is doubled than several years ago. Although those advertisement are technically accurate, but it could mislead. The patients recovered once they have the drug, but it's not the truth. We should let drug buying easy like buying a soap.

but if it is well used, it can cure 38 allergies, help depressed patients, and change their life.

28. Sea Creature?

29. Business entity- marketing ??

28. 药物广告

回忆要点:

- 有点像电视新闻, 有主持人有连线采访的模式。说现在大量的钱都花在了处方药的广告上。在黄金时段反复播出, 对这个现在提出质疑
- 关于药物的广告促销 越来越多人去看广告服用药物, 而不是去见医生。
- 然后连线采访, 说广告中的信息没有问题, 是准确的, 但是广告中的语调会诱导人们去买药。
- 这样做有好处, 能 control, 坏处是 change lifestyle.
- 最后一句说毕竟买处方药和买肥皂不一样。

The drug company has doubled the amount of money spent in ads. The information of the drug ads is accurate but the tone is misleading the consumers to see doctor and ask for prescription to buy these drugs. Also the change in the lifestyle also contributes to this trend.

IT: drug ad

AM: drug companies spend doubled \$ on ad.

MI: ↑ ppl buy drugs via ad, rather than go

to see doctor, ask for prescription

LS: the info of ad is obj. but the tone of ad can mislead.

And: change in lifestyle
buy drug is diff with buy soap.