

TED演讲者: Gary Liu | 刘可瑞

演讲标题: The rapid growth of the Chinese internet -- and where it's headed | 中国互联网的快速成长和它的未来方向

内容概要: The Chinese internet has grown at a staggering pace -- it now has more users than the combined populations of the US, UK, Russia, Germany, France and Canada. Even with its imperfections, the lives of once-forgotten populations have been irrevocably elevated because of it, says South China Morning Post CEO Gary Liu. In a fascinating talk, Liu details how the tech industry in China has developed -- from the innovative, like AI-optimized train travel, to the dystopian, like a social credit rating that both rewards and restricts citizens.

中国的网际网路成长速度惊人, 现在的使用者数量比美国、俄国、德国、英国、法国和加拿大的人口总和还多。南华早报的执行长刘可瑞说, 即使它不完美, 那些以前曾经被遗忘的人的生活水平确实已经被提升。在这场迷人的演说中, 刘可瑞详细说明中国的科技产业如何发展——从创新(例如用人工智慧来实现最佳化的火车旅行)到反乌托邦的做法(像是会奖赏和限制公民的社会信用评分)。

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Once every 12 months, the world's largest human migration happens in China.

每 12 个月, 中国就会发生一次 世界最大规模的人类迁徙。[00:12]

Over the 40-day travel period of Chinese New Year, three billion trips are taken, as families **reunite** and celebrate.

在中国新年的 40 天旅行期当中, 会有 30 亿人次的旅行产生, 为了回家相聚和庆祝。[00:18]

Now, the most **strenuous** of these trips are taken by the country's 290 million **migrant** workers, for many of whom this is the one chance a year to go home and see parents and their left-behind children.

这些旅行当中最艰苦的 是中国 2 亿 9 千万移民工人的旅行, 因为对许多移民工人而言, 一年就只有这次机会 可以回家看父母 和被他们留在家乡的孩子。[00:26]

But the travel options are very limited; plane tickets cost nearly half of their monthly salary.

但旅行的选择非常有限; 机票票价几乎是他们月薪的一半。[00:39]

So most of them, they choose the train.

所以他们大部分会选择火车。[00:45]

Their average journey is 700 kilometers.

他们的平均旅程是 700 公里。[00:47]

The average travel time is 15 and a half hours.

平均旅行时间是 15.5 小时。[00:50]

And the country's tracks now have to handle 390 million travelers every Spring Festival.

每年的中国新年, 中国的铁路就要处理 3 亿 9 千万名乘客。[00:53]

Until recently, migrant workers would have to queue for long hours -- sometimes days -- just to buy tickets, often only to be **fleece**d by **scalpers**.

直到近期, 移工得要排队数小时,甚至数天, 只为了买到车票, 常常还被黄牛给剥削。[01:00]

**reunite**: vt.使重聚;使再结合;使再联合/vi.重聚;再结合;再联合 **strenuous**: adj.紧张的;费力的;奋发的;艰苦的;热烈的

**migrant**: n.候鸟;移居者;随季节迁移的民工/adj.移居的;流浪的 **fleece**d: adj.布面起绒的/v.从...身上剪毛(fleece的过去式和过去分词) **scalpers**: n.黄牛(专售戏票等牟利)(scalper的复数);抢帽子者

And they still had to deal with near-stampede conditions when travel day finally arrived.

等到出发日终于到了, 他们仍然得要面对 几乎是人潮蜂涌的状况。[01:10]

But technology has started to ease this experience.

但科技开始缓和像这样子的经历。[01:16]

Mobile and digital tickets now **account for** 70 percent of sales, greatly reducing the lines at train stations.

行动和数位票券现在占了业绩的 70%, 大大减少了在火车站排队的人潮。[01:19]

Digital ID **scanners** have replaced manual checks, **expediting** the boarding process, and artificial intelligence is **deployed** across the network to **optimize** travel routes.

数位 ID 扫描器取代了人工验票, 加速了上车的流程, 网路上还采用了人工智慧, 让旅行路线能最佳化。[01:24]

New solutions have been invented.

现在已经发明出了解决方案。[01:34]

China's largest taxi-hailing platform, called **Didi** Chuxing, launched a new service called **Hitch**, which matches car owners who are driving home with passengers looking for **long-distance** routes.

中国最大的计程车招呼平台 叫做「滴滴出行」, 他们推出了新服务「顺风车」, 将开车回家的汽车驾驶 和找车的长途旅客做配对。[01:37]

In just its third year, Hitch served 30 million trips in this past holiday season, the longest of which was further than 1,500 miles.

「顺风车」才推出第三年, 在最近一次的长假期间就服务了三千万趟旅行, 当中最长的旅途超过 1,500 英里。[01:49]

**account for**: 对...负有责任;对...做出解释;说明.....的原因;导致;(比例)占 **scanners**: n.[电子]扫描器(scanner的复数)

**expediting**: n.推进;催货/v.加快;促进(expedite的ing形式) **deployed**: v.部署(deploy的过去式);展开 **optimize**: vt.使最优化,使完善/vi.优化;持乐观态度 **Didi**: n.迪迪(足球运动员名) **Hitch**: n.故障;钩;猛拉;急推;蹒跚/vt.搭便车;钩住;套住;猛拉;使结婚/vi.被钩住;急动;蹒跚;搭便车旅行;结婚 **long-distance**: adj.[通信][交]长途的;长距离的/vt.打长途电话给/adv.通过长途电话

That's about the distance from **Miami** to **Boston**.

那大约是迈阿密到波士顿的距离。[01:57]

This **enormous** need of migrant workers has powered fast **upgrade** and **innovation** across the country's transport systems.

移民工人的需求量非常大,[02:01]

Now, the Chinese internet has developed in both familiar and

现在,中国网路的发展, 有我们熟悉与不熟悉的方

**unfamiliar** ways.

Just like in Silicon Valley, some of the **seismic** shifts in technology and consumer behavior have been driven by academic research, have been driven by enterprise desires, with the **whims** of privilege and youth **sprinkled** in **every once in a while**.

I am a product of the American tech industry, both as a consumer and a corporate leader.

So I am well **acquainted** with this type of fuel.

But about a year and a half ago, I moved from my home in New York City to Hong Kong to become the CEO of the South China Morning Post.

**Miami**: n.迈阿密(美国佛罗里达州东南部港市) **Boston**: n.波士顿(美国城市) **enormous**: adj.庞大的, 巨大的; 凶暴的, 极恶的 **upgrade**: vt.使升级;提升;改良品种/n.升级;上升;上坡/adv.往上/adj.向上的 **innovation**: n.创新,革新;新方法 **unfamiliar**: adj.不熟悉的;不常见的;没有经验的 **seismic**: adj.地震的;因地震而引起的 **whims**: 虚妄/禅病 **sprinkled**: 撒 **every once in a while**: 有时;偶然;偶尔;时而 **acquainted**: adj.熟识的;知晓的;有知识的/v.使了解(acquaint的过去分词)

And from this new **vantage** point, I've **observed** something that is far less **familiar to** me, **propelling** so much of China's innovation and many of its **entrepreneurs**.

It is an **overwhelming** need economy that is serving an **underprivileged populous**, which has been separated for 30 years from China's economic boom.

The **stark gaps** that exist between the rich and the poor, between urban and **rural** or the academic and the **unschooled** -- these gaps, they form a soil that's ready for some incredible **empowerment**.

So when capital and investment become focused on the needs of people who are hanging to the bottom **rungs** of an economic **ladder**, that's when we start to see the internet truly become a job creator, an education **enabler** and in many other ways, a path forward.

**vantage**: n.优势;有利情况 **observed**: adj.观察的;观测的/v.观察;遵守;注意到(observe的过去分词形式) **familiar to**: 熟悉的;亲近的;通晓的 **propelling**: adj.推进的/n.推进/v.推动(propel的ing形式) **entrepreneurs**: n.企业家(entrepreneur的复数) **overwhelming**: adj.压倒性的; 势不可挡的/v.压倒; 淹没(overwhelm的ing形式); 制服 **underprivileged**: adj.贫困的; 被剥夺基本权力的; 社会地位低下的 **populous**: adj.人口稠密的;人口多的 **stark**: adj.完全的; 荒凉的; 刻板的; 光秃秃的; 朴实的/adv.完全; 明显地; 突出地; 质朴地/ **gaps**: n.差异,缺口;缝隙(gap的复数形式)/v.裂开;使豁裂(gap的第三人称单数形式) **rural**: adj.农村的, 乡下的; 田园的, 有乡村风味的 **unschooled**: adj.天生的;未受学校教育的/n.文盲 **empowerment**: n.许可,授权 **rungs**: n.[建]梯级(rung的复数形式) **ladder**: n.阶梯;途径;梯状物/vi.成名;发迹/vt.在.....上装设梯子 **enabler**: n.使能器;使能者;促成者;赋能者

Of course, China is not the only place where this alternative fuel exists, nor the only place where it is possible.

But because of the country's sheer scale and status as a rising **superpower**, the needs of its population have created an opportunity for truly **compelling** impact.

When explaining the rapid growth of the Chinese tech industry, many **observers** will cite two reasons.

The first is the 1.4 billion people that call China home.

The second is the government's active **participation** -- or **pervasive intervention**, depending on how you view it.

Now, the central **authorities** have spent heavily on network infrastructure over the years, creating an attractive environment for investment.

At the same time, they've insisted on standards and regulation, which has led to fast **consensus** and therefore, fast **adoption**.

**superpower**: n.超级大国;超级强权 **compelling**: adj.引人注目的;强制的;激发兴趣的/v.强迫;以强力获得(compel的ing形式) **observers**: n.观察者(observer的复数) **participation**: n.参与; 分享; 参股 **pervasive**: adj.普遍的;到处渗透的;流行的 **intervention**: n.介入;调停;妨碍 **authorities**: n.当局,官方(authority的复数) **consensus**: n.一致; 舆论; 合意 **adoption**: n.采用;收养;接受

The world's largest pool of tech talent exists because of the abundance of educational **incentives**.

And local, domestic companies, in the past, have been

式。[02:09]

就像在硅谷一样, 有一些科技和消费行为的转变, 是由学术研究所带动的, 是由企业的欲望所带动的, 偶尔,还会因一些当权者的一时兴起, 或是年轻人的突发奇想而发生转变。[02:14]

我是美国科技产业的产物, 是消费者,同时也是企业领导者。[02:27]

我非常清楚这种推动力量。[02:32]

可是,大约一年半之前, 我从纽约搬家搬到香港, 去担任南华早报的执行长。[02:36]

从这个新的有利位置, 我观察到了一种我很不熟悉的状况, 它驱动了中国大量的创新, 激励了许多中国的创业家。[02:43]

它是一种强大的需求经济, 对象是下层的众多人口, 30 年来,中国的 经济景气与他们无关。[02:55]

这个非常明显的差距, 存在于富人和穷人之间, 城市和乡村之间, 或是受教育和未受教育的人之间—— 这些差距形成了一种沃土, 准备好要成就大事,协助赋权。[03:05]

当资本和投资的重点都放在 位于经济阶梯下层者的需要时, 我们就会看见网际网路 真正变成了工作创造者、 教育实现者, 在许多层面上, 也变成是条向前行的路。[03:19]

当然,不只中国, 其他地方也有这种替代的推动力, 在其他地方也有可能实现。[03:37]

但因为中国身为一种新兴 超级力量的规模和状况, 其人民的需求已经创造出了一个有着极大影响力的机会。[03:44]

许多观察家在解释中国 科技产业的快速成长时, 会引用两个理由。[03:55]

第一个理由是中国有 14 亿居住人口。[04:01]

第二个理由是政府的积极参与—— 或普遍的干预, 看你怎么去看它。[04:05]

这些年来,中央当权机关投入很多 在做网路的基础建设, 创造出一个很吸引投资的环境。[04:12]

同时,他们对于标准 和规制十分坚持, 导致了快速的共识, 因而能快速上路。[04:19]

世界上最大的科技人才库 之所以会存在, 是因为教育奖励很充足。[04:27]

过去,地区性、国内的 公司一直受到保护, 不受国



protected from international competition by market controls. Of course, you cannot observe the Chinese internet without finding widespread <b>censorship</b> and very serious concerns about <b>dystopian monitoring</b> .	际竞争影响, 保护方式就是市场控制。[04:33] 当然,如果你观察中国网路, 就一定会发现有很广泛的审查制度, 并且会严重关切反乌托邦的监视。[04:41]
As an example: China is <b>in the process of</b> rolling out a social credit <b>rating</b> that will cover its entire population, <b>rewarding</b> and restricting citizens, based on highly <b>qualitative characteristics</b> like honesty and <b>integrity</b> .	举例来说: 中国正在推行一项社会信用评分, 会涵盖到中国的所有人口, 给公民奖励或是限制, 依据则是高度质性的特性, 比如诚实和廉正。[04:49]
At the same time, China is <b>deploying facial</b> recognition across many of its 170 million <b>closed-circuit</b> cameras.	同时, 中国也在展开脸孔辨识, 中国有 1 亿 7 千万台闭路摄影机, 大多都会套用。[05:04]
<b>incentives:</b> n.激励;奖励;诱因(incentive的复数形式);奖励措施 <b>censorship:</b> n.审查制度;审查机构 <b>dystopian:</b> adj.反面假想国的;反面乌托邦的/n.反面乌托邦的鼓吹者 <b>monitoring:</b> n.监视,[自]监控;检验,检查/v.监视,[通信][军]监听,监督(monitor的ing形式) <b>in the process of:</b> 在...的过程中 <b>rating:</b> n.等级;等级评定;额定功率/v.对...评价(rate的ing形式) <b>rewarding:</b> adj.有益的, 值得的; 有报酬的, 报答的 <b>qualitative:</b> adj.定性的; 质的, 性质上的 <b>characteristics:</b> n.特性,特征;特色(characteristic的复数);特质 <b>integrity:</b> n.完整; 正直; 诚实; 廉正 <b>deploying:</b> v.部署(deploy的ing形式);配置;展开/n.分发 <b>facial:</b> adj.面部的,表面的;脸的,面部用的/n.美容,美颜;脸部按摩 <b>closed-circuit:</b> adj.闭路式的	
Artificial intelligence is being used to predict crime and terrorism in Xinjiang province, where the Muslim minority is already under constant <b>surveillance</b> .	人工智慧被用来预测 在该省份中,穆斯林少数 已经受到经常的监视。[05:13]
Yet, the internet has continued to grow, and it is so big -- much bigger than I think most of us realize.	然而,网际网路持续成长, 它是如此庞大—— 比我们大部分人所知道的还要大很多。[05:24]
By the end of 2017, the Chinese internet population had reached 772 million users.	截至 2017 年年底, 中国网路已经达到 七亿七千两百万名使用者。[05:31]
That's larger than the populations of the United States, Russia, of Germany, of the United Kingdom, of France and Canada combined.	这个数量比美国、俄国、德国、英国、法国和加拿大 所有人口加起来还多。[05:37]
Ninety-eight percent of them are active on mobile.	其中 98% 的使用者都是用手机上网。[05:44]
Ninety-two percent of them use <b>messaging</b> apps.	其中 92% 会用讯息应用程式。[05:46]
There are now 650 million digital news consumers, 580 million digital video consumers, and the country's largest <b>e-commerce</b> platform, Taobao, now <b>boasts</b> 580 million monthly active users.	现在有六亿五千万个 数位新闻的消费者, 五亿八千万个数位影片消费者, 中国最大的电子商务平台淘宝网 自称现在每个月有 五亿八千万名活跃的使用者。[05:49]
It's about 80 percent larger than <b>Amazon</b> .	大约比亚马逊还要大 80%。[06:03]
<b>surveillance:</b> n.监督;监视 <b>messaging:</b> n.消息传送;通知;信息传送/v.发送;报信(message的ing形式) <b>e-commerce:</b> n.电子商务 <b>boasts:</b> 自夸,夸耀(boast的第三人称单数) <b>Amazon:</b> 亚马逊; 古希腊女战士	
On-demand travel, between <b>bikes</b> and cars, now accounts for 10 billion trips a year in China.	脚踏车和汽车的按需旅行, 现在在中国一年有 100 亿趟。[06:06]
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That's <b>two-thirds</b> of all trips taken around the world.	那是全世界旅行趟数的三分之二。[06:13]
So it's a very mixed bag.	所以,这个袋子的内容很杂。[06:17]
The internet exists in a restricted, <b>arguably manipulated</b> form within China, yet it is massive and has <b>vastly</b> improved the lives of its citizens.	在中国,网际网路存在的形式是个 受限制且可说是被操控的形式, 然而,它非常巨大, 且大大改善了中国公民的生活。[06:20]
So even in its <b>imperfection</b> , the growth of the Chinese internet should not be <b>dismissed</b> , and it's <b>worthy of</b> our closer examination.	所以即便它不完美, 中国网际网路的成长不该被忽视, 很值得我们更深入探究。[06:30]
Let me tell you two other stories today.	今天,让我再跟各位说两个故事。[06:38]
Luo Zhaoliu is a 34-year-old engineer from Jiangxi province.	罗昭刘 (Luo Zhaoliu) 是江西省的 34 岁工程师。[06:41]
Now, his home region used to be extremely important to the <b>Communist</b> party because this was the <b>birthplace</b> of the Red Army.	对共产党来说,他的家乡 曾是极度重要的区域, 因为这是红军的诞生地。[06:45]
<b>bikes:</b> n.自行车(bike的复数形式)/v.骑自行车(bike的第三人称单数形式) <b>two-thirds:</b> n.三分之二/三分之二的/三分之二地 <b>arguably:</b> adv.可论证地;可争辩地;正如可提出证据加以证明的那样地/[广义用法]可能,大概 <b>manipulated:</b> v.操作(manipulate的过去分词) <b>vastly:</b> adv.极大地;广大地;深远地 <b>imperfection:</b> n.不完美;瑕疵;缺点 <b>dismissed:</b> v.开除,解散(dismiss的过去分词);摒弃/adj.解雇的;解散的,被排除的 <b>worthy of:</b> 值得,配得上 <b>Communist:</b> n.共产党员;共产主义者/adj.共产主义的 <b>birthplace:</b> n.出生地/发源地	
But over the decades, because of its separation from the economic and <b>manufacturing</b> centers of the country, it has <b>slid</b> into <b>irrelevance</b> .	但经过数十年,因为它 与中国的经济和制造中心分离, 它也渐渐变得不重要了。[06:51]
Luo, like so many in his generation, left home at a young age to look for work in a major city.	罗和他同辈的许多人一样, 年轻时就离乡背井, 到大城市去找工作。[06:59]

He ended up in Shenzhen, which is one of China's tech <b>hubs</b> .	他最后到了深圳, 中国的科技中心之一。[07:04]
As the young <b>migrate</b> , these rural villages are left with only elderly, who are really struggling to <b>elevate</b> themselves above <b>abject</b> poverty.	当年轻人外移, 这些乡村村子就只剩下老年人, 他们很辛苦才能维持在 比凄苦贫困稍好一点的水平。[07:08]
After nine years, Luo decided to return to Jiangxi in 2017, because he believed that the <b>booming</b> e-commerce marketplace in China could help him <b>revive</b> his village.	2017 年,即 9 年后, 罗决定要回到江西, 因为他相信, 中国的电子商务市场景气 能够协助复苏他的村子。[07:17]
Like many rural communities, Luo's home <b>specialized</b> in a very specific <b>provincial</b> craft -- making <b>fermented</b> bean <b>curd</b> , in this case.	和许多乡村社区一样, 罗的家乡也特别擅长 一种很明确的地方性手工艺, 在这个例子中, 这项手工艺是做臭豆腐。[07:28]
<b>manufacturing:</b> adj.制造的;制造业的/n.制造业;工业/v.制造;生产(manufacture的ing形式) <b>slid:</b> v.滑;滑落;不知不觉地陷入(slide的过去分词) <b>irrelevance:</b> n.离题;枝节问题;不相关的事物 <b>hubs:</b> n.枢纽;中心(hub的复数);毂 <b>migrate:</b> vi.移动;随季节而移居;移往/vt.使移居;使移植 <b>elevate:</b> vt.提升;举起;振奋情绪等;提升...的职位 <b>abject:</b> adj.卑鄙的;可怜的;不幸的 <b>booming:</b> adj.兴旺的,繁荣的;大受欢迎的/v.兴旺(boom的ing形式);发出隆隆声 <b>revive:</b> vi.复兴;复活;苏醒;恢复精神/vt.使复兴;使苏醒;回想起;重演,重播 <b>specialized:</b> adj.专业的;专门的/v.专攻(specialize的过去分词);使...专门化;详细说明 <b>provincial:</b> adj.省的;地方性的;偏狭的/n.粗野的人;乡下人;外地人 <b>fermented:</b> adj.酿造;已发酵的/v.使...发酵;动乱(ferment的过去分词) <b>curd:</b> n.凝乳;凝乳状物/vt.使成凝乳/vi.凝结	
So he started a small factory and started selling his locally made goods online.	所以他开了一间小工厂, 开始在线上销售他的 当地制造的商品。[07:37]
There have been many years of consumption growth across China's major cities.	整个中国主要城市的消费成长 已经持续了很多年。[07:43]
But recently, technology has been driving an explosion in craft goods sales among China's middle and upper classes.	但近期,科技开始带动了 手工艺商品的业绩, 销售对象是中国的中高阶层人士。[07:47]
<b>WeChat</b> and other e-commerce platforms allow rural producers to market and sell their goods far beyond their original distribution areas.	微信和其他电子商务平台 让乡村的制造者 能行销和出售他们的商品, 所及范围远超过 他们原本的销售区域。[07:53]
Research companies actually track this impact by counting what is called "Taobao villages."	研究公司真去追踪这项影响, 做法是去计算所谓的「淘宝村」。[08:02]
This is any rural village where at least 10 percent of its <b>households</b> are selling goods online and making a certain amount of revenue.	任何一个乡村只要有 一成以上的家庭上网卖商品,[08:07]
And the growth has been significant in the last few years.	在过去短短几年,成长非常显著。[08:14]
There were just 20 Taobao villages in 2013, 212 in 2014, 780 in 2015, 1,300 in 2016 and over 2,100 at the end of 2017.	2013 年只有 20 个淘宝村, 2014 年 212 个, 2015 年有 780 个, 2016 年有 1,300 个, 2017 年年底有超过 2,100 个。[08:17]
They now account for nearly half a million active online stores, 19 billion dollars in annual sales and 1.3 million new jobs created.	现在总共有将近 50 万间活跃的网上商店, 年销售额达 190 亿, 还创造出了 1,300 万个新工作。[08:30]
<b>WeChat:</b> 微信(腾讯出品的一款语音聊天应用) <b>households:</b> n.家庭;拆迁户;家户(household的复数)	
In Luo's first year back home, he was able to employ 15 villagers.	罗在返乡的头一年 雇用了十五位村民,[08:40]
And he sold about 60,000 units of fermented bean curd.	卖出了六万块臭豆腐。[08:45]
He expects to hire 30 more people in the next year, as his demand rapidly rises.	他预计隔年随着需求快速攀升, 会需要再雇用三十人。[08:49]
There are 60 million left-behind children <b>scattered</b> across China's rural landscape.	在中国各个乡村地区 有六千万留守儿童。[08:55]
And they grow up with at least one parent far away from home, as a migrant worker.	在他们成长的过程中, 至少有一位家长远离家乡 去当移工。[09:01]
Alongside all the general <b>hardships</b> of rural life, they often have to travel vast and dangerous distances just to get to school.	乡村生活一般来说都非常困苦, 这些孩子还得要行经 危险且长远的路途 才能到达学校。[09:06]
They account for 30 percent of the country's primary and high school students.	他们就占了中国 小学和中学学生的 30%。[09:13]
Ten-year-old Chang Wenxuan is one of these students.	10 岁的常文轩 (Chang Wenxuan) 就是这样的学生。[09:18]
He walks an hour each way every single day to school, across these deep ravines, in an isolated landscape.	他每天上学与返家各要花一小时, 要穿过一片孤立地区中的深谷。[09:22]
But when he arrives at the small farming village in Gansu province, he will find just two other students in this entire school.	但当他抵达甘肃省的这个农村时, 整所学校中只有他和另外两个学生。[09:30]
<b>scattered:</b> adj.分散的;散乱的 <b>hardships:</b> n.艰难(hardship复数形式);困苦	
Now, Chang's school is one of 1,000 in Gansu alone that has less than five registered students.	光是在甘肃省, 像小常的这间学校一样 只有不到 5 名注册学生的 学校就有 1 千间。[09:38]



So with limited student interaction, with underqualified teachers and schoolhouses that are barely <b>furnished</b> and not <b>insulated</b> , rural students have long been <b>disadvantaged</b> , with almost no path to <b>higher education</b> .	因为学生互动很有限, 老师又资格不符, 学校建筑几乎没有什么配备, 也没有隔热, 乡村学生长年来一直都是弱势, 几乎不可能进入高等教育。[09:44]
But Chang's future has been <b>dramatically shifted</b> with the installation of a "Sunshine Classroom." He's now part of a digital classroom of 100 students across 28 different schools, taught by qualified and <b>certified</b> teachers live-streaming from hundreds of miles away.	但小常的未来出现了剧大的转变, 因为「阳光教室」的装设完成了。他现在参与了一个数位教室, 成员是来自 28 所不同学校的 100 名学生, 他们的老师是合格的, 也有证照, 以直播的方式从数百英里外教导他们。[09:58]
He has access to new subjects like music and art, to new friends and to experiences that extend far beyond his home.	他能够接触到新的科目, 如音乐和艺术, 能交新朋友, 能学到经验远远超出他家乡能够提供的。[10:14]
Recently, Chang even got to visit the Frederiksborg Castle museum in Denmark -- virtually, of course.	最近, 小常甚至造访了 腓特烈堡城堡博物馆, 它位于丹麦——当然, 是虚拟的造访。[10:22]
Now, online education has existed for many years <b>outside of</b> China.	在中国以外的地方, 线上教学已经存在很多年。[10:28]
<b>furnished:</b> adj. 家具, 有家具的/v. 供应; 装备(furnish的过去分词) <b>insulated:</b> adj. [电] 绝缘的; 隔热的/v. 使...绝缘(insulate的过去式) <b>disadvantaged:</b> adj. 贫困的; 处于不利地位的; 社会地位低下的/n. 弱势群体; 不利条件/v. 使处于不利地位(disadvantage的过去式和过去分词) <b>higher education:</b> 高等教育(指含大学以上的教育) <b>dramatically:</b> adv. 戏剧地; 引人注目地/adv. 显著地, 剧烈地 <b>shifted:</b> 转移/移动(shift的过去式和过去分词) <b>certified:</b> adj. 被证明的; 有保证的; 具有证明文件的/v. 证明, 证实; 颁发合格证书(certify的过去分词形式) <b>outside of:</b> 在...的外面; 超出...的范围	
But it has never reached truly <b>transformative</b> scale, likely because traditional education systems in other tech centers of the world are far more advanced and far more stable.	但它从来没有达到能够 真正造成改变的规模, 很可能是因为世界上其他 教学中心里的传统教育体制实在先进太多, 也稳定太多。[10:32]
But China's extreme <b>terrain</b> and size have created an enormous and immediate need for innovation.	但中国广大和极端的地形, 导致对创新有着立即且极大的需求。[10:43]
There's a tech <b>start-up</b> in Shenzhen that grew to 300,000 students in just one year.	在深圳有间新创科技公司的 学生人数成长到 30 万, 只花了一年。[10:50]
And by our best <b>estimation</b> at the Post, there are now 55 million rural students across China that are addressable and accessible by live-streaming classes.	根据我们南华早报的最佳估计, 全中国现在有 5,500 万乡村学生 直播班可以找到他们、接触他们。[10:55]
This market of need is larger than the entire US student population between kindergarten and grade 12.	这个需求市场比全美国幼稚园 到 12 年级的学生总数还要大。[11:04]
So I'm extremely encouraged to find out that private investment in ed-tech in China now <b>exceeds</b> one billion dollars a year, with another 30 billion dollars in public funding that is committed between now and 2020.	有件事让我感到非常受鼓舞, 我发现, 针对中国教育科技的私人投资 现在超过了每年 10 亿元, 另外还有 300 亿元的公共资金, 会在现在到 2020 年之间提供。[11:12]
As the Chinese internet continues to grow, even in its imperfection and restrictions and controls, the lives of its once-forgotten populations have been <b>irrevocably elevated</b> .	随着中国网际网路持续成长, 即使它不完美, 对于那些以前曾经被遗忘的人, 他们的生活已经被实实在在地提升。[11:27]
<b>transformative:</b> adj. 变化的, 变形的; 有改革能力的 <b>terrain:</b> n. [地理] 地形, 地势; 领域; 地带 <b>start-up:</b> n. 启动/adj. 启动阶段的; 开始阶段的(异体字startup) <b>estimation:</b> n. 估计; 尊重 <b>exceeds:</b> vt. 超过; 胜过/vi. 超过其他 <b>irrevocably:</b> adv. 不能取消地; 不能撤回地 <b>elevated:</b> adj. 提高的; 高尚的; 严肃的; 欢欣的/v. 提高, 抬起; 振奋; 提拔(elevate的过去分词)/n. 高架铁路	
There is a focus on populations of need, not of want, that has driven a lot of the curiosity, the creativity and the development that we see.	当把焦点放在有需求的人口, 而非有欲望的人口时, 它能够驱动许多的好奇心、创意, 以及我们所见的发展。[11:38]
And there's still more to come.	将来还有更多会出现。[11:46]
In America, internet population, or <b>penetration</b> , has now reached 88 percent.	在美国, 上网人口, 或说渗透率, 现在达到 88%。[11:49]
In China, the internet has still only reached 56 percent of the populous.	在中国, 只有 56% 的人 在使用网际网路。[11:54]
That means there are over 600 million people who are still <b>offline</b> and <b>disconnected</b> .	那意味着, 还有超过 6 亿人 还没有上线, 还没有被连结。[11:58]
That's nearly twice the US population.	那几乎是美国人口数的 2 倍。[12:03]
An enormous opportunity.	一个极大的机会。[12:06]
Wherever this alternative fuel exists, be it in China or Africa, <b>Southeast Asia</b> or the American <b>heartland</b> , we should <b>endeavor</b> to follow it with capital and with effort, driving both economic and <b>societal</b> impact all over the world.	不论这种替代的推动力在哪里, 不论是中国或非洲, 东南亚或美国心脏地区, 我们应该要用资本 和努力来尽力追随它, 带动全世界各地的经济和社会影响。[12:09]
Just imagine <b>for a minute</b> what more could be possible if the global needs of the <b>underserved</b> become the primary focus of our <b>inventions</b> .	花一分钟想想看, 如果我们在发明时, 能把焦点放到全球各地 服务缺乏的人口的需求上, 那我们会创造怎样多的可能性? [12:24]
<b>penetration:</b> n. 渗透; 突破; 侵入; 洞察力 <b>offline:</b> n. 脱机; 挂线/adj. 脱机的; 离线的, 未连线的/adv. 未连线地 <b>disconnected:</b> adj.	

分离的;不连贯的;无系统的/v.分离(disconnect的过去分词) **Southeast:** adj.东南的;来自东南的/n.东南;东南地区/adv.来自东南 **heartland:** n.中心地带;心脏地区 **endeavor:** n.努力;尽力(等于endeavour)/vi.努力;尽力(等于endeavour)/vt.努力;尽力(等于endeavour) **societal:** adj.社会的 **for a minute:** 一会儿 **underserved:** adj.服务不周到的;服务水平低下的 **inventions:** n.[专利]发明(invention的复数);创意曲

Thank you. 谢谢。 [12:34]

(Applause) (掌声) [12:35]

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