READING ANGUAG LEADE

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3

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READING

LEADER

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前言

2007年7月,教育部正式颁布了《大学英语课程教学要求》,其中对大学生的英语阅读能力提出了明确要求:"能基本读懂一般性题材的英文文章""能就阅读材料进行略读和寻读。能借助词典阅读本专业的英语教材和题材熟悉的英文报刊文章,掌握中心大意,理解主要事实和有关细节。能读懂工作、生活中常见的应用文体的材料。能在阅读中使用有效的阅读方法。"本教程严格按照以上培养要求,在设计和编写中力求准确把握大学英语教学的性质与目标。同时,借鉴《先锋英语》系列教材中注重培养批判性思维、树立团队意识、提升人文素养等理念,通过语言的强化输入和训练,帮助学生夯实语言基础、提高阅读能力的同时,培养学生的分析和思辨能力,使之成为具备国际化视野和创新实践能力的新型人才,以适应国家和社会发展的需求。

教材特色

- 选材内涵丰富, 体现时代特色
 - 文章题材涉及政治、经济、科技、文化、艺术、教育、体育以及日常生活、社会习俗等方面,符合新一代大学生的知识结构与思维特点,体现社会发展与时代特色。通过本套教程的学习,学习者能够充分地接触各种体裁的阅读材料,在提高阅读能力的同时,了解当今世界的社会现状与文化。
- 语言鲜活地道,确保原汁原味 文章多选自近年来英语国家主要媒体的网站和出版物,题材丰富、内容多样。在选编过程中,为确保文章的真实性和可读性,编者对原文不作随意改动,以满足学习者接触原汁原味的语料的需求。同时,注重结合当今中国大学生感兴趣的或与之密切相关的话题,在选
- 题和架构上着力凸显阅读的趣味性、新颖性和实用性。
- 学练紧密结合,测试反拨教学本教程的学习内容强调由浅入深、循序渐进,其练习设计与目前国家大学英语四、六级考试的阅读题型保持一致,以帮助学生有针对性地进行训练,有效提高考试成绩。每单元的练习题可供学生作为限时测试,以便发现不足与弱项,及时调整学习策略,充分发挥测试对教学的反拨作用。

框架结构

• 本套教材分为1-4级、每级包括10个单元、每单元包括4篇阅读文章。文章长度从第1级的

每篇700词左右过渡到第4级的每篇1200词左右。

- 内容上,每单元围绕同一主题展开,由宏观到微观,与《先锋英语》综合教程各单元主题相呼应,拓展学生对单元主题内涵的学习,加深学生对单元主题的理解,增加学生在该方面的词汇量,从而为综合教程制定的单元教学目标服务。建议将本书与综合教程结合使用。
- 练习形式包括信息匹配、单项选择、是非判断、信息填空等题型,既有跟四、六级考试完全一致的题型,又有所突破,多方位训练、培养、考查、提升阅读理解能力。书后附有练习参考答案,便于自学。

编者才疏学浅, 虽竭尽所能, 必有遗漏与不周, 敬请使用者不吝赐教。

编 者 2015年1月

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Section



Directions: In this section, you are going to read a passage with ten statements attached to it. Each statement contains information given in one of the paragraphs. Identify the paragraph from which the information is derived. You may choose a paragraph more than once. Each paragraph is marked with a letter:

How Machine-to-Machine Communication Will Work in Modern World

- Only connect, EM Forster said. Though he meant people, the rise of machine-to-machine (M2M) communication is also having a stirring and tumultuous effect on society. And we're not talking just about smartphones; tablets, vending machines and even cars are now benefiting from fast, reliable mobile connectivity. The variety of enterprises that can gain from M2M as a result of superfast and safe 4G is growing quickly.
- Barrington Hilsley is chief executive of iSoftware 360, a company that makes much use of M2M. The company creates enterprise software that allows a company to monitor and measure a contractor's performance securely, across great distances and at speed.

Say there's a document which needs to be distributed to staff and associates in different locations, some of them remote. Upload it into the iSoftware 360 system and it's quickly delivered via computers, smartphones and tablets as necessary. You could do that by email, but this system shows which staff have read and accepted the document and who has yet to see it. "The client can also see when the recipient accepted and signed for it with their signature attached to the time and date stamp," Mr Hilsley says. The system gives his customers greater clarity and useful data. "Think of any business paper form you may have for field engineers or retail staff. You can simply add it into the portal and all mobile users will have instant access to it."

- This was impossible before but 4G changes everything because the greater speeds, resilience, capacity and widespread availability mean that much more data can be sent and retrieved, making for richer interaction between machines. The iSoftware 360 system shows how that extra data, swiftly analyzed, benefits the bottom line. Mr. Hilsley says: "It allows a client to monitor a service provider's key performance indicators in real time, understand what processes the providers are going through and see if they are spending too much or too little time and money to hit those targets."
- Missed targets can be flagged automatically within minutes. "A client can see if a service starts to tail off and with this system it will become clear very quickly. And of course all this is communicated via mobile products." Beyond logistics, the availability and robustness of 4G means that it is possible to keep track of everything in the supply chain. As Marc Overton, vice-president of wholesale and M2M at telecoms company EE, says: "Products are now being made that have connectivity embedded at the time of manufacture, so tracking is easy. And the gizmos that do the tracking are smaller than ever, thanks to smartphones with their powerful capabilities."
- The ultimate in machines talking to each other could be driverless cars, which have already been tested in more than 300 000 miles of action by Google in the US. Sensors in the cars keep them safe distances from other vehicles. When all cars can talk to each other, crashes could become a thing of the past and commutes will be safer. Closer to home, Transport for London is introducing systems to offer bus passengers better and more flexible time indicators. Automotive companies are eager to work with M2M now that 4G is here. Mr. Overton explains: "A connected car is important for entertainment and Internet on the move. With a 4G connection you can turn the inside of the car into a Wi-Fi hotspot, so passengers can stream movies, check emails and surf the net as they're moving."
- Additionally, the car can send diagnostic information to the manufacturer, so the service garage will be expecting your call or can contact you to tell you if the brake fluid is running low. Mr. Hilsley says they are also integrating GPS and scanners: "We can use the cameras in tablet PCs for the logistics business: a client that has a lot of trucking may need to inspect the seals on the trucks against documentation, maybe do

a vehicle inspection. Pictures of the vehicle show its condition and it's all fed live to the system."

- "Under 3G," says Mr. Hilsley, "it was not a good user experience. The 4G network means we can send bigger pictures. It allows us to do a lot more for the client in the field that's why it's important for us to be on a quicker network." Crucially, he adds that a key benefit of 4G is to save companies from having to extend their IT infrastructure, also saving time. "When a client wants to use us right away, we don't have to talk to their IT department and get involved in the company's internal security standards [for IT installation] as we would if it was going on their network. Our units don't have to touch anybody's network, we're ready to go."
- The combination of M2M and 4G is opening up a world of possibilities to businesses. Digital signage such as advertising hoardings can be updated with new ads quickly. A connected vending machine can report that it's overflowing with one chocolate bar, saving the company from buying more and thus reducing stock in the channel. Or it can warn that the machine is running low on Kit Kats so the owner can restock its contents instantly.
- The vending machine could be plugged into the Internet, of course, but the cost of installing a landline to the corner of a car park or shopping centre is considerable, while a 4G connector can be removed and reused easily. As Mr. Hilsley says: "With 4G, not only is it fast, it offers better coverage, so it's a consistently good signal."

(930 words)

1.	Missed targets can be marked automatically within a short time.
2.	A customer that has a lot of trucking may need to inspect the seals on the trucks
3.	against documents, maybe do a vehicle examination. Digital signs such as advertising billboards can be updated with new ads quickly.
4.	Importantly, he continues to say that a key advantage of 4G can save enterprises
	from having to extend their IT infrastructure, also saving time.
5.	The diversity of firms that can gain from M2M as a result of very fast and secure
	4G is developing rapidly.
6	The expenses of installing a landline to the corner of a car park or shopping centre are large.
. 7.	Sensors in the cars keep them safe distances from other automobiles.
8.	The company creates enterprise software that allows a company to watch and assess a contractor's performing safely, across great distances and at speed.
9.	The iSoftware 360 system indicates how that extra data, quickly analyzed, does good to the bottom line.
10.	The customer can also see when the receiver accepted and signed for it with their

Section B

Directions: In this section, you are going to read a passage with ten statements attached to it. Each statement contains information given in one of the paragraphs. Identify the paragraph from which the information is derived. You may choose a paragraph more than once. Each paragraph is marked with a letter.

The New Age of the Internet: Why London Needs to Step up

- My career in the Internet industry began in London in 1993 and if you had told me then that the UK would one day be the most advanced Internet economy in the world, I would have questioned your sanity. But that is precisely what it is today.
- According to the Boston Consulting Group, by 2016, 3 billion people will be online and the Internet economy will be worth \$4.2 trillion among G20 countries almost doubling in size since 2010. It's a revolution which is rewiring every part of business and society, from SMEs (small and medium-sized enterprises) to multi-nationals, not-for-profits to governments and Britain is leading the way. In 2010, the Internet accounted for more than 8% of UK GDP (a figure I'll come back to), more than any other G20 nation, including the US (at 5.4%) and China (6.9%). We spend three times as much on e-commerce as any other country and double the amount on online advertising so the impact on retail and media is more profound in the UK than anywhere else. Moreover, the online economy here is predicted to expand more quickly than in the world's two biggest economies.
- Nowhere is that growth more clearly demonstrated than in Tech City, east London's technology quarter. Over the past two years, the number of Internet-based companies located in the Old Street area, has quadrupled to more than 800. Not only is London firmly established as a social media hub it is the only English-speaking city in the top 10 global cities for Facebook users and the No. 1 world city for Twitter but Internet giants including Amazon, Facebook, Google, Skype, Twitter and Yammer have launched operations in the capital. Everywhere you turn, the case for this being London's "moment" grows more compelling. Stanford and Berkeley Universities have long been hailed as one of the key ingredients in Silicon Valley's success, yet three of the world's top 10 universities Oxford, Cambridge and Imperial College are nearby, or in the capital itself, in addition to the London Business School, the LSE (The London School of Economics and Political Science) and Central St. Martins. Southampton, a global leader in the semantic web and home to Prof Nigel Shadbolt and Sir Tim Berners Lee, founders of the Open Data Institute, is also little more than an hour away.
- The UK now has one of the best environments globally for founders and angel investors. Thanks to a campaign by Seedcamp, Britain is the only G20 country with an

Entrepreneur Visa, so that if you have £50 000 of accredited investment, you can come from abroad and start your business here. Similarly, the first £10 million of an exit is taxed at just 10%, while the Seed Enterprise Investment Scheme (SEIS) allows backers to invest up to £100 000 in a single tax year, which can be spread over a number of UK companies, offering tax relief of 50%. And perhaps most important of all: London plays host to at least 20-plus category breakout companies — including King.com, Just Eat Mind Candy, Mimecast and Wonga. These are all big businesses, still private and growing fast. Their rise is eye-watering; five years ago there were only four or five companies of that size in London (Asos, Lovefilm, Playfish, Skype). If present trends persist, in five years time there'll be 50. In a decade, perhaps, 100 — or more. If some of the current wave can go public, either here or even on the NASDAQ (and at least two of them are currently preparing for IPOs), then we will start to see companies on the scale of Facebook and Google headquartered in London, which would create tens of thousands of jobs.

- This surge in growth is only possible because London is now not only the most international city on earth, but the peerless centre for European early stage capital. If a founder, with a promising business, took a 10-minute stroll around Mayfair, they'd have access to 5 billion of early stage capital and that's not just from Index: but from Accel, Balderton and Wellington. Indeed, tech investment is flourishing at every layer: from seed and Micro VC, thanks to Seedcamp and new micro VCs such as Hoxton Ventures, as well as London's traditional strengths in private equity, hedge funds and capital markets. So the cash is here, as are, crucially, people looking for investment opportunity.
- And that certainly wasn't always the case. When I first returned to London in 2002 after a decade in the US I wanted to start an Internet business. But Silicon Valley-style investors were thin on the ground back then. The turn-of-the-century Internet crash had fostered a sense that the web was a fad and businesses built on it were no longer investable. The prevailing attitude, I recall, from the media, corporates and investors was: Thank God this Internet thing is over. Now things can return to the way they were before.
- But they didn't, of course, and I can pinpoint the precise moment I felt a seismic shift. I had launched the DVD rental company Video Island (which would later become Lovefilm), when I was introduced to a group of Nordic founders, who were thinking of moving their HQ to London. My partner at Index Ventures Danny Rimer urged me to download their product, and aside from the day I first downloaded the Netscape browser 15 years earlier, I'd never seen anything as exciting. Skype's arrival was a genuine game-changer. Outside of the Valley and Seattle, this was the very first time I'd seen something that had the potential to be a global Internet brand and the fact that this was happening in London was truly amazing to me.

	The years since, and the last five in particular, have seen the total transform the capital's technology landscape. Yet for London to retain its position a	
	beater, there's one statistic we should all be repeating, mantra-like, until it	
	the national consciousness: the Internet economy is worth more than 8% of	
	With that in mind, investors of whatever shape or size should look at every	
	not just in the FTSE100 (the footsie 100, a share index of the 100 companie	
	the London stock Exchange with the highest market capitalization.), but t	the EU500
	too, and ask their CEOs: "Do you do more or less than 8% of your busine	ss over the
	Internet? If you don't, then I'll be shorting your stock. If you do, maybe I	should be
	buying more of it." Of governments, from the EU to regional administration	is and local
	councils, we should be demanding that at least 8% of services are delivered	d online. If
	not, then they are failing tax-payers.	
	8% is what success looks like in the Internet age. Anyone who is doing more	e than that,
	is growing faster than GDP. It really is that simple. The UK is in the van	nguard of a
	worldwide technological revolution. We have a once-in-a-lifetime chance	to cement
	London as one of the top five hub cities of the Internet century. This is our r	moment on
	the global stage. Now all we have to do is perform. (1	163 words)
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1. Skype's coming was a real game-changer.	
	2. In fact, tech investment is booming at every layer: from seed and Micro V	/C.
	3. Over the past two years, the sum of Internet-based companies situated	in the Old
	Street area, has multiplied by four to over 800.	
	4. The UK is in the leading position of a worldwide technological innovation	on.
	5. The turn-of-the-century Internet crash had fostered a sense that the	web was a
TO RESTRICT	craze and businesses built on it were no longer investable.	
	6. Of governments, from the EU to regional authorities and local councils,	we should
	be demanding that at least 8% of services are completed online.	
	7. The UK now possesses one of the best conditions worldwide for founder	s and angel
	investors.	
	8. The cost of e-commerce is three times as much as that of any other coun	try and the
	amount on online advertising is twice.	,
	9. Stanford and Berkeley Universities have long been praised as one of the	key factors
	in Silicon Valley's success.	Kcy factors
	집에 가는 살아보는 이 소리가는 하면 이렇게 하라하다고 내용하게 되었다면 하면 하면 하는 가는 가는 가는 사람이 없다.	
entr	10. Because of a movement by Seedcamp, Britain is the only G20 nation	on with an
	Entrepreneur Visa.	Marie C
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Section C

Directions: In this section you are going to read a passage quickly and answer the questions. For questions 1-7, choose the best answer from the four choices marked A), B), C) and D). For questions 8-10, complete the sentences with the information given in the passage.

Facebook Home Wants Your Data, but Don't Worry: Just Lie to It Now and Then

Facebook's new mobile platform is like a home without curtains; your exhibitionism is very much in their interest. But there's no need to opt out entirely — just keep your signals mixed.

The first mobile-phone call was made 40 years ago this week, by a Motorola engineer roaming the streets of New York. Phones have made amazing advances since then: I for one would be lost without Google Maps, literally and all the time. Having something called a "smartphone" makes me feel ... well, smart. (Non-smartphones are known in the industry as "feature phones.") And now the latest exciting evolution of the phone has just been announced: Facebook Home. Premiered on a new phone, the HTC First, it's a forthcoming Android app that replaces your "home screen" with direct Facebook access. Wake up your phone and your Facebook news feed is right there. OMG, "Like"! Right?

Facebook promises that this will result in a "great, living, social phone", which gives me alarming mental images of something alive wriggling around in my pocket, connected directly to Mark Zuckerberg's brain. The instantly available news feed is apparently "for those in-between moments like waiting in line at the grocery store or between classes when you want to see what's going on in your world", which oddly implies that "your world" is not what is actually going on around you — which you could, after all, see by simply staring at it rather than fumbling for your phone. No, "your world" is Facebook's world. Welcome to it!

Facebook's use of the word "Home" for the app does reflect, though, the site's attraction to many of its billion users: that it is the digital world's equivalent of a gated community, or perhaps a padded cell. Facebook is nice because it's comfortingly insulated from the flame wars, gadget reviews, and paedophile rings that make up 99% of the rest of the Internet. And smartphone users already spend a third of their time on Facebook, so why not make it even easier?

If Facebook is a home, it's furnished by Ikea, in calming blue and white: minimalist, reassuringly boring. But it also has no curtains. Modern technology increasingly encourages a peculiar kind of information exhibitionism, defaulting to making you "share" your every digital move, not only with the drone-bots of the corporate cloud but with everyone you know. Some users of the new Blackberry Z10 have been mildly discombobulated on learning that the phone's video player was alerting their friends that they had been browsing sites such as pornhub.com, which is (or so I understand) very much Not Safe For Work.

The publicity material for the very first mobile phone emphasised the urban freedom offered by the device. "It will be possible," enthused a Motorola spokesman in 1973, "to make telephone calls while riding in a taxi, walking down the city's streets, sitting in a restaurant or anywhere else a radio signal can reach." After four decades, people are still making calls in taxis and restaurants (possibly more loudly than ever before), but the difference is that your phone now knows where you are better than you do, and it's phoning home about it. A recent MIT study determined that even "anonymised" location-tracking data from mobile phones can uniquely identify 95% of individuals; a Cambridge study found that simply "Liking" things on Facebook can reveal, to clever analysts, lots of personal things, such as sexual orientation and "use of addictive substances", which one might prefer to keep private. In using such services, we sign up to what effectively is a voluntary self-surveillance program. We manufacture and collect our own data and send it for free to the companies who will profit from it through targeted advertising. And so we become unpaid data-entry clerks, happily busy contributors to a giant program of corporate welfare.

Facebook Home will encourage us to do even more of this: to use Facebook for all our text messaging, phone-number storage, instant chat (via the scary-sounding Chat Heads feature), and so forth. That way Facebook will come to "know" even more about us. The point, of course, is to sell adverts. Mark Zuckerberg announced that advertising might be coming to Facebook Home's news feed in due course, which is probably why Facebook's stock jumped 3% after the unveiling. (Google, which makes the Android phone operating system on which Facebook Home runs, won't be happy: it would rather show you its own mobile ads.)

Adopters of Facebook Home might also be tempted into a subtle shift in the rhetorical framing of their Taylorised social lives. The app that currently stores people's phone numbers and addresses on your phone is probably called "Contacts." According to the excellent book *Work's Intimacy*, by Melissa Gregg, the popularization of the term "contact" by industrial communications software worked to blur the boundary between work and social life. In Facebook world, on the other hand, you don't have "contacts", only "friends." To call everyone you know a "friend" is as odd as calling them all "contacts", but here the emphasis is reversed: rather than clinically treating everyone as a potential business partner, the hegemony of "friends" implies a wheedling sentimentalisation of mere acquaintance.

Google's rival social network, the not-very-popular Google+, attempts to solve this problem by letting you define and name different "circles" — e.g., Family, Friends, Colleagues, Weirdos from the Internet. On Twitter, meanwhile, you just "follow" and have "followers" — if you think about it, a curiously messianic term. (Do let me encourage you to join the swelling cult of @stevenpoole.)

However our relationships are described, we might not want to be publicly associated with them for ever. So it is right that data-privacy and data-retention issues involving Facebook, Google and their brethren are being scrutinised in the European courts, and that the European Commission is working up a consumer-data protection plan that would include the right to have your data erased — or as the EC puts it, with a pensive Mediterranean poetry, the "right to be forgotten." (This won't, as hysterical new-media cyberhustlers intermittently claim, destroy the Internet as we know it.)

In the mean time, you don't need to eschew the joy and utility of smartphones and slip on a tinfoil onesie to resist digital overexposure. I don't want to leave Facebook, because it's a good way of keeping in touch with friends abroad: I'd miss the updates from my former London flatmate

who now runs mountain-based ultramarathons around San Francisco, which are very inspirational to read while I'm lying on the sofa covered in crisps. You too can perfectly well continue to use Facebook, and even adopt Facebook Home, as long as you make sure to "curate" your data trail with appropriate misdirection. Facebook doesn't know where I live or work, and it thinks my oldest schoolfriend is my grandson. And today, I updated my "Liked" pages to include George Osborne. That ought to keep the bots confused for a while.

(1 157 words)

1	The first mobile-phone call was made	40 years ago this week by	
	A) a Nokia engineer	B) a Google engineer	
	C) a Motorola engineer	D) an HTC engineer	
2		ngly insulated from the following except	
	A) the flame wars	B) personal remark	
	C) gadget reviews	D) paedophile rings	
3		acourages a peculiar kind of information exhibitionism,	
	defaulting to making you 'share' your every digital move" What does the underlined word mean?		
	A) Neglecting.	B) Omitting.	
	C) Succeeding.	D) Failing.	
4.	e very first mobile phone stress?		
	A) The personal privacy.	B) The daily convenience.	
	C) The urban freedom.	D) The public disturbance.	
5.	A recent MIT study determined that even "anonymised" location-tracking data from mobile		
	phones can uniquely identify of individuals.		
	A) 90%	B) 95%	
	C) 85%	D) 75%	
6.	According to Mark Zuckerberg, what	was the possible reason why Facebook's stock jumped 3%?	
	A) Reputation.	B) Advertising.	
	C) Management.	D) Competition.	
7.	According to the book Work's Intimacy, the popularization of the term "contact" by industrial		
	communications software worked to blur the boundary between		
	A) work and personal life	B) work and individual life	
	C) work and social life	D) social work and life	
8.	Google's rival social network tries to s	olve this problem by letting you define and name different	
		" — e.g., Family, Friends, Colleagues, Weirdos from the	
	Internet.		
9.	So it is correct that data-privacy and data-storage concerns involving Facebook, Google and		
	their brothers are being	in the European courts.	
10.	At the same time, you don't need to		
	of emertahones		

Section D

Directions: In this section you are going to read a passage quickly and answer the questions. For questions 1-7, write Y (YES) if the statement agrees with the information given in the passage; write N (NO) if the statement contradicts the information given in the passage; write NG (NOT GIVEN) if the information is not given in the passage. For questions 8-10, complete the sentences with the information given in the passage.

Can You Buy the IPhone 5S or 5C with a Clear Conscience?

Apple has arguably done more than its rivals to improve conditions at factories and reduce its environmental footprint.

Can I Buy the New IPhone with a Clear Conscience?

In the leap from drawing board to circuit board, Apple's sleek, polished designs undergo many processes that the company cannot fully control. With colourful cases and a friendly price, Apple is promising that its first low-cost iPhone will "brighten everyone's day." But reports about conditions at the factories subcontracted to make Apple products jar with the upbeat image. Workers making the handset's cases are being asked to stand for 12-hour shifts, with just two 30-minute breaks, six days a week, investigators for the non-profit organisation China Labor Watch have found. The factory is owned by American contract manufacturer Jabil Circuit, which along with Apple has sent experts to investigate.

Hasn't Apple Already Promised to Improve Practices at Factories?

Targeted more than any other consumer electronics company over the treatment of its workers, Apple has arguably done more than any of its rivals to tackle the problem. It has been publishing audits of its suppliers for the past seven years, and is now working with independent campaigner the Fair Labor Association to inspect facilities.

Suppliers that employ children can have their contracts terminated. Last year, Apple cut off a Chinese circuit board producer found to be employing 74 children under the age of 16. It also reported a local labour agency that had falsified records to make children appear older than they were, and the business had its license suspended and was fined by local authorities.

Children found to be illegally employed at Apple factories must be handed back to their families. Suppliers must also provide money to compensate for their lost earnings, and further funds for their education.

Apple has set a maximum of 60 hours of overtime per week at its factories, and its audits have shown 92% compliance. Apple carried out 393 audits at facilities covering 1.5 million workers for its last annual supplier responsibility report.

It also has initiatives against bonded labour, forbids mandatory pregnancy tests, and works to prevent Chinese students being coerced into factory work in order to graduate from further education courses.

What about the Materials?

Factory conditions are not the only ethical minefield when it comes to smartphones. Most of the world's known supply of Coltan, a metallic ore used to manufacture the circuitry found in most electronic gadgets, comes from the Democratic Republic of Congo. National parks have been destroyed to mine it, and proceeds from sales of the mineral have been used to fund bribes and illegal militia.

Apple is committed to using conflict-free minerals. It asks suppliers to confirm their smelter sources, and is working to identify trusted smelters which source conflict-free minerals.

Are Apple's Products Environmentally Friendly?

Like any other large manufacturer, Apple's carbon footprint is yet isized. In 2012, it was responsible for almost 31 million tons of greenhouse gas emissions. Better design and planning have reduced emissions per dollar of Apple revenue by 22% since 2008. Its data centres run on 100% renewable energy.

The reality is that Apple products can be traced back to the same mineral mines, parts makers and assembly plants as most other smartphone brands. Nokia, Amazon, Sony and Samsung have all been customers of Foxconn, where the conditions under which the iPhone was being produced were first exposed. Conditions at the factories used by Apple in China will be similar to those used by other brands.

A Dutch company called Fairphone has had some success in crowd-funding what it believes will be the first entirely ethical smartphone. After securing 14 537 pre-orders for its 325 phones, which customers have paid for upfront, Fairphone will go into production in time for Christmas. Based on Google's Android operating system, it looks similar to a Samsung Galaxy handset, and prototypes will be on show at a pop-up shop in London's Soho from 18 September.

Each bag of tin and coltan used to make a Fairphone will be labelled and tracked on its journey to the smelter. The phones themselves will, however, be made in China, at a factory owned by Chang Hong, which makes TVs and smartphones for the Chinese market. Fairphone will carry out regular audits to ensure the legal limit of 60 hours per week per worker is respected. It has also set up a fund to top up pay so that employees receive not just a minimum wage, but a living wage. However, Fairphone admits that with its small order of 25 000 phones, it cannot dictate worker conditions at a factory it does not own.

One way around the problem is to bring production to countries where workers are treated more fairly. The Moto X smartphone, the first Motorola handset entirely designed and produced since its acquisition by Google, is largely assembled at a plant in Texas. Its parts and materials are sourced from all over the world, but like Apple, Motorola is identifying ethical smelters for tantalum, tin, tungsten and gold. While Google cannot make a cast iron claim to be producing entirely ethical phones, by bringing manufacturing home, to a plant that it owns, it can do more to improve working