**Google**

**The Trouble With Success**

Support Notes

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The purpose of these support notes is to provide a basis for activity & discussion, more background and suggestions for further viewing. Please select, add to/edit the material as required.

**OTHER RELEVANT FILMS & CLIPS:**

We have a number of other films and clips that show different aspects of this theme (use ‘search’ to find):

*Clip 128: Google, Responsible Corporation?* ***9 mins*** *Google is a global success story – but does it have too much of our personal information? The Information Commission Officer explains his concerns.*

*Film: Marketing Strategy Case Studies: The Starbucks Experience* ***27 mins*** *to compare ‘claims versus reality’ from large corporations.*

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**Synopsis**

**Key Topics**

* Behaviour of Multinationals
* History Of Google
* Acquisition Strategy
* Artificial Intelligence
* Human Resources
* Privacy
* Monopoly

Google has grown from nothing in 1998 to a multinational tech giant. What started as a search engine company has moved into key areas of media and smartphones. We tell that story, we identify the drivers of success. Founders Larry Page and Sergey Brin didn’t want to sell advertising at first – now Google is a giant advertising cash cow.

**MODEL EMPLOYER** We go inside the Googleplex near San Francisco to find the people and projects. Google prides itself on being a model employer, offering great pay and benefits to its staff whose average age is 29. Google’s massive profits means it can fund all kinds of futuristic projects with ‘the courage to fail’.

**DIVERSIFY, ACQUIRE** Google has used acquisition to grow and diversify. One of its best known acquisitions was YouTube in 2006 which brought it into the media delivery business – another, less well known but as significant was Applied Semantics (2003) which helped them to target their customers’ ads to likely profiles. Another acquisition allowed them to develop the now dominant smartphone OS Android. Google uses a strategy of ‘semi-organic growth’: they buy companies, but they integrate the teams into existing projects.

**ARTIFICIAL INTELLIGENCE** AI is the thread running through Google’s new projects – from enhanced search capability, to driverless cars and robots.

**DON’T BE EVIL?** But success has brought problems – something the founders have acknowledged. Google says its focus is to make the world a better place. It supports worthy projects in the developing world. But critics say, in the areas that matter, Google acts like any other multinational, working against its competitors, seeking to dominate and monopolise markets. A key concern has been privacy – their success depends on targeting and profiling web users. How secure is our data with Google?

Worksheet

*[please edit this to suit your needs; Answers At The End]*

**Play Film from beginning**(stop at Part 2: *A Short History)* **then answer the following questions.**

1. The film opens with Julie Catio in San Francisco. Who is she? What is he doing?

2. How many people work for Google worldwide?

3. What’s the name for Google’s headquarters?

4. What’s the average age of Google employees?

5. Give a figure for Google’s annual worldwide revenue?

6. When was Google founded?

**Play Part 2 *A Short History*** *(stop at Part 3 Blue Sky Thinking)* **then answer the following questions.**

1. Name Google’s founders.

2. How did their search engine differ from other search engines at that time?

3. What was Page and Brin’s first idea for a name?

4. How did they arrive at the name ‘Google’?

**Play Part 3 *Blue Sky Thinking*** *(stop at Part 4 Diversify, Innovate)* **then answer the following questions.**

1. What reputation does Google have as an employer?

2. What’s the thinking behind it?

3. What project is Johan working on? Give a short description of what it’s made up of. What’s the project called?

4. What’s the range of an XLab balloon to deliver signals to earth?

5. How did Johan start at Google?

6. When and where was the first internet connection made?

**Play Part 4 *Semi-Organic Growth*** *(stop at Part 5 Artificial Intelligence)* **then answer the following questions.**

1. How many urls did Google have indexed by 2000?

2. What was their next big challenge?

3. What type of advertising did they offer?

4. How did the first concerns over privacy come up?

5. When did Google shares go public? How much was company worth?

6. What was Google’s big acquisition in 2006? How much did it cost?

7. What are the two key ways businesses can grow? How does Google fit into that?

8. Give a key example of a business acquired to fit into a pre-existing project.

9. How does this growth strategy differ from Apple?

10. What was the ‘giant leap’ in 2007 towards the convergence of video, mobile phone and internet?

11. What was Google’s response to the iPhone?

12. What was Google’s big product launch in 2008?

13. By 2016 what percentage of the browser market belonged to Chrome?

**Play Part 5 *Artificial Intelligence*** *(stop at Part 6 Happy Googlers)* **then answer the following questions.**

1. How much time are Google employees encouraged to spend on their own ideas?

2. Give some examples of Google projects involving artificial intelligence.

3. What’s Ray Kurzweil’s basic idea?

**Play Part 6 *Happy Googlers*** *(stop at Part 7 Catch Them Young)* **then answer the following questions.**

1. Why does Google offer such a wide range of benefits to its workers?

2. How does Julie benefit from Google’s policy of employees’ welfare?

3. How many people work at the Office Of The Future Department?

4. How many CVs were sent to Google by job applicants in the previous year? How many were hired?

5. Why does Julie think Google hired her?

**Play Part 7 *Catch Them Young*** *(stop at Part 8 Force For Good?)* **then answer the following questions.**

1. What event does Google run to encourage young inventors? When did it start?

2. What is the first prize?

3. What is Eliot’s invention?

4. Name two other inventions

**Play Part 8 *Force For Good?*** *(continue until the end of the film)* **then answer the following questions.**

1. What was Google’s early motto?

2. How much does Google spend on worthy causes? What sort of projects?

3. What does Sergey Brin say about how people feel about big companies?

4. In what key areas has Google’s activities caused criticism regarding privacy?

5. How did Google CEO Eric Schmidt respond to the criticism?

6. Why has Google been criticised for its corporation tax arrangements in UK?

7. What do defenders of Google’s tax policy say?

8. What was the name of the UK tax brought in to try to change this? What year was it introduced?

9. In what other key areas has Google been under attack?

10. How many world citizens can’t get a good meal, decent housing or basic education for their children?

**Discussion or assignment topics**

1) Google clearly think it is a force for good. What are the real problems in the world and how far do high-tech giants like Google help to solve those problems? What factors work against Google making any major difference? What factors work for it?

2) Google target ads at you based on your browsing history (if you log in) and also on your Gmail inbox: is this a good thing for the consumer? Think of ways in which it works well/not well for a) the advertiser b) the consumer.

3) Google search has about 90% of the market in Europe (going down to 60% worldwide). Is it healthy for society for one search engine to have such dominance? What are the dangers a) to individuals b) to business.

4) Personally Brin and Page seem like ‘nice guys’ who want to improve the world. Why then has their business they created come in for so much criticism? Is there now a mismatch between Page and Brin as individuals and the corporation they created? If so, how has that happened?

5) As long as it’s legal, aren’t corporations entitled to minimise their tax exposure?

6) Google has brought us access to information instantly on any subject, whereas before published books and magazines were the only source: are there any dangers in this new availability of information?

7) Think of ways the internet and search engines have a) improved our lives b) made our lives worse. Who has suffered? Who has gained?

8) In 2009 Google CEO Eric Schmidt said: ‘If you have something you don’t want anyone to know, maybe you shouldn’t be doing it in the first place.’ Do you agree?

**Companion Notes**

*These notes follow the sections of the film and provide some additional commentary.*

**PART 1:**  **Introduction**

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| Julie Catio, a Google employee from France, is testing a new product in San Francisco. It’s an app that translates signs from English into French by pointing your smart phone at them. The sign is literally translated in realistic form, integrated with the rest of the picture. There’s still some work to do on the project, as we see. It’s an example of the countless projects, large and small, going on at the ‘Googleplex’, three and a half million square foot of office space a few miles south of San Francisco. Google worldwide employs 57,000 people worldwide – average age 29.Here the world’s brightest and best are running hard to keep the multinational monster on its trajectory of incredible growth. Annual revenue: over 70 billion dollars and rising.**PART 2:**  **A Short History**Scroll back to the mid-90s. Something called *the world wide web* is starting to take off. These were the days when websites were, well… *quite basic*.Two students, Larry Page and Sergey Brin, start a research project at Stanford University.Sergey: ‘Our basic idea was: What can you do with the world’s information, now it’s online?’There *were* search engines about in the mid 90s – such as Alta Vista, Web Crawler and Ask Jeeves – but they were *slow* and the rankings were based on the number of times a search item appeared on a website. That didn’t necessarily mean the search item was important. It meant that a lot of results were irrelevant. Page and Brin thought of another way.Larry: ‘We started to collect the links on the web – which pages linked to which pages – we didn’t know *exactly* what to do with them at that time.’What they did with them was develop a new kind of search that ranked websites according to the ‘backlinks’ that connected to them to *other* websites. The more backlinks, was the theory, the more that meant a website was useful.Hence: *Backrub* – their first idea for a name. The world was spared that one!Instead they called it Google – itself an accident, a misspelling of *googol*, that means 10 to the power of 100.Larry: ‘I never was very good at spelling.’It was the right idea at the right time. This accident of spelling is now a household word. ‘Google’ has become a universal verb that would have meant nothing 20 years ago.It was early on that the now world famous motto: ‘Don’t Be Evil’ was adopted. It seemed to fit the philosophy of the founders, and the image of a nice, friendly organisation was born – if that was later to lose some of its shine. Page and Brin were also careful: although they did accept capital investment, never to give away so much of the business so as to lose control.**PART 3:**  **Blue Sky Thinking**20 years on – and back to the Googleplex, a cross between a university campus and the United Nations. First stop, the restaurant. Top brains need the best food – and it’s free: only one of the amazing range of perks for Google staff. We meet 30 year old Johan. Like Julie, he is also FrenchJohan, as he queues for food: ‘I added a few pounds when I arrived. There’s a lot of choice but I try to stay focused on the healthy things.’Google has the reputation of a super-enlightened employer. That applies not only to the perks and the salary levels: they want ‘googlers’ to have the freedom to have crazy ideas – and the freedom to fail. You only need to succeed *once*, as Page and Brin found out.That means *blue sky thinking…* Johan’s working a project to bring the internet to the approximately three billion people across the world who can’t currently access it. It’s basically a solar panel, a mast connected to insulated casing – connected to... an airship that delivers the internet.Johan shows us some components.‘This material is used widely in the space industry. It’s finely engineered to be as light as possible.’You can’t get any more blue sky than this! It’s called the Xlab project. Over the last four years they’ve sent up dozens of tests, 20 kilometers high into the stratosphere, twice as high as airliners fly. From there they relay 4G internet signals to an area 40 kilometers wide, anywhere on earth.Hired seven years ago, Johan started his Google-life as an entry-level engineer working on the search engine. He happened, also, to be passionate about aeronautics, and convinced his bosses to let him work on the navigation system.InJune 2013 they made the first internet connection to a remote corner of New Zealand.Johan: ‘So can you give me a quick update on the launch?’Johan finds himself 7000 miles away in New Zealand in a farmer’s kitchen – waiting in suspense…Farmer: ‘Bingo. That was fast.’Johan: ‘It was quite a remote farm in New Zealand and to see the smile on the farmer’s face when he saw the internet so much faster… that’s one of the really cool moments of the project.’Still in the testing phase, the project has 75 balloons crisscrossing the world.Johan, from a modest engineering school in Picardie, France, is an exception at Google, where most of his colleagues come from the top institutions in the world. But the company spotted his potential – and gave him the chance to prove himself.**PART 4:**  **Semi-Organic Growth**By 2000 Google, using its unique algorithm based on backlinks, had a billion urls indexed across 15 languages – they were leaving the opposition for dead.Just one little problem: ‘How do we make money?’Page and Brin were cautious about over-commercialising their product. They wanted a clean, uncluttered look to the pages – in contrast their competitors’ sites that were covered in banner ads. And yet advertising was the only obvious way to earn revenue.The answer: *AdWords* – simple text ads, separate, but close to, the search results.Advertisers loved it – it meant their ads were targeted to likely customers, and they only paid on the number of clicks through to their websites.The money started *flowing in*.Soon after that came the first worries over privacy. Google was accused of scanning emails from their new Gmail service, for the benefit of advertisers. It was only the in-box – users’ actual emails were not scanned, claimed Google, and they were not personally identified – all the same, wasn’t this invasion of privacy?There was some negative press, but no one seemed to mind very much. In the same year, 2004, Google shares went public. The company was suddenly worth $23 billion.Corporations need to *grow* to survive – to please their investors, to avoid take-overs from competitors. Google was looking around for new ideas and products. With advertising the big cash cow, they could think big, and think long.Businesses grow in two key ways: buying other businesses (acquisition) or by internal growth – so called ‘organic growth’. There are pros and cons with each approach. Acquisition – buying a business ‘off the shelf’ may achieve faster growth, if its business model is already proven. Organic growth, developing new products and ideas out of internal teams, may be slower but safer – without the risk of ‘culture clash’ which have marred some acquisitions.Google goes in for a mix of the two: ‘semi-organic growth’. They *do* buy businesses, lots, but often to fit right into an existing product line. This makes the acquisition more likely to fit with their culture.A key example was Applied Semantics in 2003 – they bought them to help them build AdSense, a key plank of their ad revenue. Really, they’re buying the *people* behind the company more than the company itself.This is different from Apple, for example, which tends to develop ideas and products *within* their existing teams.They have acquired many other businesses, large and small, over the years – a headline-making move was to buy YouTube in 2006 for $1.65 billion. It was a smart move – bringing Google firmly into the world of providing video to its customers.There were many concerns – there still are – about how YouTube absolves itself from copyright infringement, putting responsibility on the users. Whatever the rights and wrongs, the YouTube phenomenon has been so big as to be unstoppable – and, with it, more huge chunks of ad revenue.The internet, video media and mobile phone markets were converging – a giant leap in that direction came in 2007 with the launch of Apple’s iPhone. It also meant that the web giants, Apple, Microsoft and Google were becoming more and more direct competitors. Despite the cosy, friendly image, Google was now fighting as hard as any other corporation for market share.Google’s response to the iPhone: Android – the result of another acquisition – an operating system that runs on multiple brands of phone.Steve Jobs accused Google of trying to kill the iPhone. Google’s Vice President Of Engineering Vic Gundotra, hit back. ‘If Google did not act we’d be faced with a future where one man, one company, one device, one carrier, would be our only choice. That’s a future we don’t want.’2008: Google took a big swipe at its other major rival, Microsoft, launching the Chrome browser to knock Internet Explorer off its perch. By 2016 Chrome had grabbed 60% of the browser market. Microsoft hit back by launching the search engine Bing (2009), an attempt to challenge Google search – but Google remains dominant.

| **Search engine** | **World Market share in September 2015** |
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| [Google](https://en.wikipedia.org/wiki/Google) | 69.24% |   |
| [Bing](https://en.wikipedia.org/wiki/Bing) | 12.26% |   |
| [Yahoo!](https://en.wikipedia.org/wiki/Yahoo%21) | 9.19% |   |
| [Baidu](https://en.wikipedia.org/wiki/Baidu) | 6.48% |   |
| [AOL](https://en.wikipedia.org/wiki/AOL) | 1.11% |   |
| [Ask](https://en.wikipedia.org/wiki/Ask.com) | 0.24% |   |

Google has also launched products to exploit its vast worldwide user base, including Google earth, Google maps, Street View and Google Translate. In recent years it has also moved heavily into the apps market for Android.**PART 5:**  **Artificial Intelligence**As well as the big moves, the Googleplex is buzzing with countless smaller projects. If there’s a thread through all the research it’s a*rtificial intelligence*.Googlers are encouraged to spend at least 20% of their time *on their own ideas* – no wonder people want to work here! These people are encouraged to think big and not fear failure. And there *have* been failures. Google Glass, an attempt to integrate smartphone features into a pair of glasses, was withdrawn from production in 2015, following criticism over possible privacy violations (the glasses included what amounted to a secret camera facility).It’s arguable, however, that even failures like this do Google no harm – given the publicity these ventures receive, showing how Google is working at the cutting edge of technology even if they do occasionally have to think again. Google also maintain that Google Glass was never really more than a test product – they claim it will be reintroduced ‘when it’s been perfected’.There are many other – also much publicised – ambitious projects, including driverless cars, packed with sensors, guided by satellites. They’ve already driven three million kilometres in 6 years of tests… and had a few crashes! Whether they ever achieve commercial success is yet to be seen.Robots and robotics are another headline-grabbing initiative. The robots run up to 15 miles an hour, they’re shock resistant and already the US army’s using them. Are these the new ‘boots on the ground’? Regime change by robots? Other, less worrying uses include housework. It may even be possible for humans to form relationships with robots at some future time – whether it’s desirable is another matter.*And not forgetting:* not quite so ambitious: Julie Catio and the smartphone app that translates signs, visually, into French – or any language. Her co-worker on the project is Otavio from Brazil.Actually, the app was Otavio’s idea. He’s working with Julia on improvements.Otavio’s another high tech entrepreneur spotted by Google and brought into the fold. They bought his company – he’s a little shy of saying how much they paid.‘It was a good deal,’ is all he’ll say.We meet another new recruit, a little older than Julie, in Google terms, an old timer: Ray Kurzweil, author, futurist and leading authority on AI. ‘Restless genius’ the Wall Street Journal calls him. His basic idea: humans and machines will merge together and become immortal.Ray Kurzweil: ‘If you have the right idea, you can solve any problem.’Hiring Kurzweil is a strategic move says Nancy Lee, Google’s Director of Human Resources.Nancy: ‘We have no idea what the potential is for someone who has those kind of ideas, and being willing to take risks and to do experiments that are a little bit... you know, “outside the box”, or “moon shots” as our founder Larry would say. Be really aspirational and audacious in our thinking, that’s what it means to be able to be innovative, and I think that’s core to who we are.’**PART 6:**  **Happy Googlers**So this is the plan – hire the best brains, treat them like royalty, they’re *bound* to think of great ideas. It’s not only the food that’s free: transport, sports facilities, laundry, gym, swimming pool...Happy workers means productive workers – and less likely to move on. It’s like a big happy family. Free haircut? No problem.New recruits even get a cap. They’re called, wait for it… *Nooglers*.Employees’ welfare knows no bounds. It so happens Julie suffers from back pain – she goes to Google’s Office Of The Future Department to get a better chair. She tries a number of different arrangements, including the treadmill desk – a way to keep fit at the same time as working.Julie: ‘This is the first time I’ve tried it, I’ve heard about it and it's true, it's pretty good. I’ll try it for a day and see what happens.’200 people work in the Office Of The Future Department. In another part, they’re working on a new style of meeting room. At the flick of a switch you can make the glass wall opaque.For six years now Google heads the list of companies providing the best working conditions – and there’s a *long queue* of people hoping to work here. Last year, out of two and a half million hopeful Googlers who sent in CVs, just 3,000 were hired.No wonder Julie feels privileged. This spacious apartment in downtown San Francisco costs a cool £2,700 a month. She shares with her boyfriend – none other than Johan of the XLab project.Julie was hired five years ago after graduating. It was more than grades, she feels, they were looking for. Julie: ‘At engineering school I created a website for children to draw Japanese style comics. I think that meant more to them because it showed I’m passionate about the technology. I think that's the kind of profile they’re looking for – people who are passionate, curious.’Julie and Johann are both on good salaries, plus shares in the company – enough, for example, to pay for Johan’s passion for aviation. His pilot’s licence cost about £5,500. At weekends he hires a Cessna for £70 an hour for a trip over Silicon Valley.**PART 7:**  **Catch Them Young** It’s grand prize day at the Google Science Fair – a worldwide online competition for 13 to 18 year olds for the best invention. It’s been going since 2011.Eliot Sarrey is in the top 20. His dad’s with him on the all-expenses paid trip. If Eliot wins, he gets a scholarship worth $50,000.Eliot: ‘It's really nice, it's like a dream to be here. It's a bit, well… Google are just a crazy business.’Eliot’s idea? Well, it’s a robot controlled vegetable garden – of course!Elliot: ‘You put the pots in here with a little seed – don’t water them because the robot does that, to control the growing.’He worked on it for three months in his father's garage, using a 3D printer. Eventually, the robot will be controlled by smartphone. It’s enough to get him a booth at the exhibition, to show off his invention. Eliot’s is exactly the kind of brain of the future Google wants to… cultivate – it’s good PR too – even if he *did* get some help from his dad, who happens to be a robotics engineer.And Eliot’s next project?Eliot: ‘A robot to tidy my room.’Other ideas include: Calvin from Canada, who’s designed a machine that makes three litres of drinking water every night out the air’s humidity.And two Taiwanese sisters whose machine detects contaminated liquid by analysing sound waves.The winner is 16 year old American Olivia Alisé, who’s invented an Ebola detection device. She gets the $50,000 scholarship – and Google get some good PR.**PART 8:**  **A Force For Good?**Google started out as a nice, friendly set up run by nice boys who only wanted to help the world.Sergey: ‘At Google our mission is to make all the world’s information accessible and useful… we now have pretty much all the world’s information available in seconds, and to make that really useful you have to have a good way of finding that information… My hope is to provide instant access to any information anybody ever wants in future.’Their well-publicised early motto *Don’t Be Evil* seemed to fit that cause exactly.We’ve seen how well Google treats its people – how it encourages young talent… they also support worthy causes… spending $100 million a year on clean energy and health projects worldwide – actually a very small proportion of its $16 billion profits, thereabouts, but still a significant sum.But Google’s success has also led to problems and criticisms. It’s something *they* recognise.Sergey: ‘People don’t really like big companies, the issue is, how do you address that? You don’t want to be disliked… what is the company doing with all its vast resources to make the world better? We have potential to make very big, positive differences in the world.’**Privacy**Google’s vast ad revenue, about $60 billion a year, depends on *targeting* – that means tracking users’ browsing history.And with Gmail users, Google admits it scans the emails in your inbox, to be able to show you relevant ads, but it claims this is all automated and no one reads the emails.Google is adamant it never sells or passes on users’ data.Privacy is a big issue in the media, across all aspects and corporations involved in the internet – Google was never going to escape criticism, especially when their income depends on a degree of customer profiling. Defenders say that customers can opt out of this targeting – others still say they appreciate seeing relevant ads and recommendations, for example, on YouTube.Deeper worries were expressed regarding data getting into the wrong hands. In 2013 documents leaked to *The Guardian* cited Google among a list of companies that co-operate with the USA’s National Security Agency’s PRISM surveillance programme, which authorizes the US government to secretly access data of non-US citizens hosted by American companies without a warrant.Following the leak, government officials acknowledged the existence of the program. According to the leaked documents, the NSA has direct access to servers of those companies, and the amount of data collected through the program had been growing fast in years prior to the leak. Google has denied the existence of any "government backdoor", yet Google users world-wide may be entitled to wonder: how safe *is* our personal data?Critics like Google Watch say Google uses sleight of hand in its privacy policy, making users feel more secure than they are.Quoting from Google’s security policy:*When you are using Gmail, you might see ads at the top of your inbox. The ads you see could be based on factors such as the messages in your inbox and the searches you have done.**For example, if you have recently received a lot of messages in your inbox about photography and cameras, then you may see an ad for a deal from a camera store.**The process by which ads are shown in Gmail is fully automated. Nobody reads your emails in order to show you ads.*Google Watch say Google's language means that all Gmail account holders have consented to allow Google to show any and all emails to any official from any government whatsoever, even when the request is informal or extra legal, at Google's sole discretion. Google Watch don’t say Google is worse than others like Facebook or Apple – but they object to the ‘nice guy’ image:‘It's amazing how a vague privacy policy, a minimalist browser interface, and an unconventional corporate culture have convinced so many that Google is different on the issues that matter.’And Google Street View has been criticised for invading individuals’ privacy and gathering unauthorised data from wi-fi signals. Some countries, such as Germany, do not allow Street View.Regarding privacy generally, speaking in 2009, Google’s CEO Eric Schmidt used attack as the best form of defence.‘If you have something that you don't want anyone to know, maybe you shouldn't be doing it in the first place. If you really need that kind of privacy, the reality is that search engines—including Google—do retain this information for some time and it's important, for example, that we are all subject in the United States to the Patriot Act and it is possible that all that information could be made available to the authorities.’Blunter still was Scott McNealy of Sun Microsystems, speaking generally in 1999, a now-infamous quote:‘You have zero privacy anyway. Get over it.’The Cloud service has raised security concerns, not only from Google but all providers: how safe are they against data hackers?**Taxation**Google has been under sustained attack for its tax policy.Google in Europe is based mostly in Ireland (5000 workforce), where the corporation tax rate is only 12.5% compared to 20% in the UK. Although it gets up to £4.6 billion of ad revenue from UK advertisers a year, the vast bulk of that is channelled through Ireland. This is because Google, in tax jargon, has ‘no permanent establishment’ in UK. That means Google can claim it only technically makes profits of about £80 *million* in UK – paying tax of only about £20 million. It’s a strategy nick-named ‘double Irish’. There is nothing illegal in this, but it has been criticised as ‘aggressive tax planning’.Defenders of Google say, well, if they’re acting legally, what’s the problem? It’s the law that’s at fault, not Google.UK Chancellor George Osbourne did bring in the ‘Diverted Profits Tax’ in 2016 – dubbed the ‘Google Tax’.Osbourne: ‘When I became the chancellor, Google paid no tax. Now Google is paying tax. The Diverted Profits Tax will make sure they pay tax in future. I regard that as a major success.’Critics were less impressed, calling the amount Google paid, £130 million, derisory. Others called it a ‘sweetheart deal’.Robert Peston (then BBC’s Economics Correspondent): ‘Perhaps what's most interesting about the government's planned new Diverted Profits Tax, AKA the "Google" tax, is how much noise and debate it has generated, for precious little potential revenue.’He added: ‘And yet it represents something of a revolution in tax policy, in that it introduces the idea that the volume of sales in a particular country should determine the tax paid in that country - over-riding the current presumption that companies should pay most of their tax on their home turf, and that it is perfectly reasonable for them to exploit different tax rates applicable in different countries to minimise their global tax bill.’Meanwhile, also in 2016, the EU unveiled plans for large companies to reveal more about their tax affairs. All these moves reflected a general disquiet about the behaviour of multinationals – Google high on the list. If the plans go through they will have to declare publicly how much tax they pay in each EU country as well as any activities carried out in specific tax havens.Google UK CEO Matthew Brittin has responded to criticism over tax.‘We have long been in favour of simpler, clearer rules, because it is important not only to pay the right amount of tax, but to be seen to be paying the right amount.‘But changes to the tax system are not Google's call. Reform must come from governments, not from the companies who are subject to their rules.’**Monopoly?**Corporations like Google, despite their vast power, are not democratic. They are answerable to shareholders, not employees or customers – and the shareholders want growth and profits. This may be at odds with any role as ‘good citizen’.In Europe Google has 90% of the search-engine market – a virtual monopoly. This has led to anti-trust investigations. Although capitalism, theoretically, is based on free competition, in fact the best profits are made by corporations that have a monopoly or near monopoly in the market – for obvious reasons.And Google’s entry into the smart phone market, via the Android operating system, has led to run-ins with EU regulators, who say mobile phone makers using Android are forced to pre-install Google apps. They accused Google of ‘abuse of dominance’.Online commentator Politico: *‘Levelling formal accusations against Android would open a second front in the regulator’s battle and increase the risk of massive fines. It would also further strain relations between Brussels and Washington, where the EU probes into US tech firms have drawn accusations of protectionism and anti-US bias.**‘Android, which Google licenses for free, is a key channel for keeping users within its sphere of influence. Through Android, billions of users worldwide are nudged towards Google’s proprietary services, from search to email.**‘At the heart of many complaints is Google Play. According to Statista,*[*the Android app store stocks 1.6 million apps*](http://www.statista.com/statistics/276623/number-of-apps-available-in-leading-app-stores/)*, more than Apple’s app store and four times more than Amazon.**‘Rival app-makers complain Google allows smartphone makers to install Google Play on an Android phone only if they also carry other Google services, like email, maps and in particular search, which must receive prominent placement.’*<http://www.politico.eu/article/why-margrethe-vestagers-android-case-is-googles-worst-nightmare/>**Too Many Compromises?**In future, Brin and Page want to give us better and better searches.Larry: ‘What we want to do is build the ultimate search engine that would understand everything in the world, understand exactly what you wanted when you type a query, and give you back the exact right thing instantly.’They want to bring artificial intelligence into work, into the home – to make our lives better.But we’ve also seen how Google, like *all* multinationals, behaves in its own self-interest.Ken Auletta, author of *Googled: The End Of The World As We Know It*: ‘These two founders really think of themselves and noble men. They think what they’re doing is good for the world. They’ve always enjoyed feeling like the underdog, like the evil empire was Microsoft, now they’ve discovered some people think *they’re* the evil empire.’ There have been compromises. In 2006, to get into the China market, Google agreed censor search results on banned topics – such as the 1989 Tiananmen Square protest. The deal broke down in 2010 only after it seems China’s Gmail users were hacked into by the Chinese authorities to look for human rights activists.There’s no doubt the internet has transformed our lives – opening up research, publishing, social media. But it’s also opened up a darker side: pornography, misogyny and the dissemination of hate. Google is not alone in providing a platform for these developments, but it’s a big player.And we’re vulnerable in other ways, to invasion of privacy, to data theft. Google is also a big part of that. And while artificial intelligence improves the lives of the rich – how does that help the 1.6 billion world citizens who can’t get a good meal, basic education, decent housing?Google wants you to think it’s different: it’s kinder, quirkier than your average multinational. Is that true, or has it grown into a corporate monster with its own morality – *apart* from that of the well-meaning founders? |

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Answers

Worksheet

**Play Film from beginning**(stop at Part 2: *A Short History)* **then answer the following questions.**

1. The film opens with Julie Catio in San Francisco. Who is she? What is he doing?

She’s working for Google, doing a field trial for a new translation app.

2. How many people work for Google worldwide?

57,000

3. What’s the name for Google’s headquarters?

The Googleplex

4. What’s the average age of Google employees?

29

5. Give a figure for Google’s annual worldwide revenue?

Over $70 billion

6. When was Google founded?

1998

**Play Part 2 *A Short History*** *(stop at Part 3 Blue Sky Thinking)* **then answer the following questions.**

1. Name Google’s founders.

Larry Page, Sergey Brin

2. How did their search engine differ from other search engines at that time?

They ranked results according to the number of ‘backlinks’ a website had – the number of times it linked to other websites.

3. What was Page and Brin’s first idea for a name?

Back Rub

4. How did they arrive at the name ‘Google’?

By accident – it was a miss-spelling of the word *googol*, meaning 10 to the power of 100.

**Play Part 3 *Blue Sky Thinking*** *(stop at Part 4 Diversify, Innovate)* **then answer the following questions.**

1. What reputation does Google have as an employer?

Super-enlightened.

2. What’s the thinking behind it?

They want staff to have ‘the freedom to have crazy ideas’.

3. What project is Johan working on? Give a short description of what it’s made up of. What’s the project called?

To deliver the internet to 3 billion people who can’t currently access it. It consists of a solar panel, a mast connected to insulated casing, connected to a balloon. It’s called ‘X-Lab’.

4. What’s the range of an XLab balloon to deliver signals to earth?

40km wide

5. How did Johan start at Google?

As an entry-level engineer, working on the search engine.

6. When and where was the first internet connection made?

2013, in a remote corner of New Zealand.

**Play Part 4 *Semi-Organic Growth*** *(stop at Part 5 Artificial Intelligence)* **then answer the following questions.**

1. How many urls did Google have indexed by 2000?

1 billion (across 15 languages).

2. What was their next big challenge?

How to make money.

3. What type of advertising did they offer?

Adwords – simple text ads, linked to search results, but separate. So the ads were targeted to likely customers, and advertisers they only paid according to the number of clicks-through to their website.

4. How did the first concerns over privacy come up?

Google was accused of scanning Gmail users’ inboxes to help target adverts.

5. When did Google shares go public? How much was company worth?

2004. £23 billion.

6. What was Google’s big acquisition in 2006? How much did it cost?

YouTube. $1.6 billion.

7. What are the two key ways businesses can grow? How does Google fit into that?

1) Growth through acquisition (buying other businesses). 2) Internal (or ‘organic’) growth. Google strategy is seen as a mix of the two: ‘semi-organic growth’.

8. Give a key example of a business acquired to fit into a pre-existing project.

Applied Semantics (2003), to help them build AdSense.

9. How does this growth strategy differ from Apple?

Apple tends to grow internally (‘organically’).

10. What was the ‘giant leap’ in 2007 towards the convergence of video, mobile phone and internet?

Launch of Apple’s iPhone.

11. What was Google’s response to the iPhone?

Android – an operating system that runs on multiple brands of phone.

12. What was Google’s big product launch in 2008?

Launch of the Chrome browser to compete with Microsoft’s Internet Explorer.

13. By 2016 what percentage of the browser market belonged to Chrome?

60%

**Play Part 5 *Artificial Intelligence*** *(stop at Part 6 Happy Googlers)* **then answer the following questions.**

1. How much time are Google employees encouraged to spend on their own ideas?

At least 20%

2. Give some examples of Google projects involving artificial intelligence.

Driverless cars, robots, smartphone app to translate signs.

3. What’s Ray Kurzweil’s basic idea?

Man and machines will merge and eventually become immortal.

**Play Part 6 *Happy Googlers*** *(stop at Part 7 Catch Them Young)* **then answer the following questions.**

1. Why does Google offer such a wide range of benefits to its workers?

They believe ‘happy workers means productive workers’ and they will be less likely to leave.

2. How does Julie benefit from Google’s policy of employees’ welfare?

She goes to the ‘Office Of The Future Department’ to try out a better chair.

3. How many people work at the Office Of The Future Department?

200

4. How many CVs were sent to Google by job applicants in the previous year? How many were hired?

About 2.5 million applied. About 3000 were hired.

5. Why does Julie think Google hired her?

She created a website at school to help children draw Japanese style comics. She thinks that meant more to them, because it showed she was passionate about the technology. They want passionate, curious people.

**Play Part 7 *Catch Them Young*** *(stop at Part 8 Force For Good?)* **then answer the following questions.**

1. What event does Google run to encourage young inventors? When did it start?

The Google Science Fair, including a world-wide on-line competition for 13 to 18 year olds for the best invention. It started in 2011.

2. What is the first prize?

A scholarship worth $50,000

3. What is Eliot’s invention?

A robot-controlled vegetable garden.

4. Name two other inventions

A machine that makes drinking water from the air’s humidity, a device that detects contaminated liquid by analysing sound waves, an Ebola detection device.

**Play Part 8 *Force For Good?*** *(continue until the end of the film)* **then answer the following questions.**

1. What was Google’s early motto?

‘Don’t Be Evil’

2. How much does Google spend on worthy causes? What sort of projects?

£100 million a year. Clean energy and health projects worldwide.

3. What does Sergey Brin say about how people feel about big companies?

They don’t like them.

4. In what key areas has Google’s activities caused criticism regarding privacy?

Privacy (tracking browsing habits, giving data to US government, Google Street View).

5. How did Google CEO Eric Schmidt respond to the criticism?

‘If you have something you don’t want anyone to know, maybe you shouldn’t be doing it in the first place.’

6. Why has Google been criticised for its corporation tax arrangements in UK?

It gets up to £4.6 billion ad revenue from UK advertisers, it channels this through Ireland where the tax rate is lower. In UK it only pays tax on profits of about £80 million.

7. What do defenders of Google’s tax policy say?

It’s fine as long as it’s legal – it’s up to governments to change the tax laws.

8. What was the name of the UK tax brought in to try to change this? What year was it introduced?

Diverted Profits Tax, 2016.

9. In what other key areas has Google been under attack?

Monopoly in the search engine market, abuse of dominance with Android.

10. How many world citizens can’t get a good meal, decent housing or basic education for their children?

About 1.6 billion

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**ENDS**

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