Google & the World Brain

[Transcript]

HG WELLS RECON

There is no practical obstacle whatever now to the creation of an efficient index to all human knowledge, ideas and achievements. To the creation that is of a complete planetary memory for all mankind.

CAPTION

From the essay "World Brain" by H.G. Wells, 1937

WARDEN BOYD RAYWARD

He was one of the early inventors of science fiction, the idea of time travel, the possibility of invisibility, of intergalactic struggles. And then he came up with ideas of how we might reorganize the knowledge apparatus of the world, which he called the World Brain. For Wells, the World Brain had to contain all that was learnt and known and that was being learnt and known

KEVIN KELLY

If you have access to anything that has been written, not just theoretical access but like instant access next to your brain. That changes your idea of who you are.

HG WELLS RECON

It can be reproduced exactly and fully in Peru, China, Iceland, Central Africa or wherever else.

ROBERT DARNTON

They were frank in their ambition and dazzling in their ability to execute it.

WARREN BOYD RAYWARD

The Google Books Scanning Project is clearly the most ambitious world brain scheme that has ever been invented.

JEANNENEY NOEL JEANNENEY

There is a danger that Google's aim is to achieve a monopoly.

EVGENY MOROZOV

The nightmare scenario in 20 years' time would be Google tracking everything you read.

PAMELA SAMUELSON

Google could basically hold the whole world hostage.

JARON LANIER

Ever since Wells, science fiction is always about the possibility that people don't really matter in the future. And the plot is always about some heroic person that either succeeds or doesn't succeed in proving that people really matter after all.

TITLE

Google and the World Brain

BBC LIBRARY ARCHIVE

It's a library, a public library, where people go to look at books, and read them and take them away. That girl works at the library and she checks on books that are going out and books that are coming back in.

LEWIS HYDE

I love libraries ... I like the smell...the smell of paper properly preserved, it's as if it's the smell of a hay barn that's been cleared of all its animals and made into a human intelligence.

REGINALD CARR

And in a library, you really...even if you're sitting in the tearoom, discussing your latest findings it's amazing how much social interaction with other people will actually help you to enrich what you're doing.

BBC LIBRARY ARCHIVE

In this part of the library, the grown-ups can read the stories to the children...

ROBERT DARNTON

People sometimes say to me, aren't libraries obsolete? It's absurd. They are nerve centers - centers of intellectual energy.

LEWIS HYDE

Libraries stand for an ideal, which is an educated public. And to the degree that knowledge is power they also stand therefore, for the idea that power should be disseminated and not centralised.

TEXT CARD

For thousands of years, mankind has dreamt of a giant library that contained every book in the world. Every human being would be able to visit this library. In the twenty first century, technology could make that dream a reality.

CAPTION

Harvard University | Boston, USA

ROBERT DARNTON

The first appeal of Google's enterprise, when we saw it, was just digitizing millions and millions of books. At Harvard we have by far the greatest university library in the world. Its enormous -17 million volumes. And every library wants its holdings digitized for lots for reasons, including preservation. But beyond that it raises the possibility of sharing your intellectual wealth. I think of the Harvard library as an international asset. Something that should be opened up and shared with the general population. So here comes Google. They've got the energy they've got the technology, they've got the money and they said: We will do it for you. Free.

PAMELA SAMUELSON

Google did such a fabulous job in creating a vision, not only that a universal digital library could be created but that it could be done today. The Google engineers are like good engineers everywhere. They just like to think about 'How do we surmount these challenges?' They sort of leave the lawsuit to the lawyers to worry about.

CAPTION

Google Headquarters | Mountain View, California

AMIT SINGHAL

Google is a company that believes in its fundamental mission of empowering everyone in this world with all the information they need. Enriched with the right information people can make better decisions for themselves, their families and their communities. This world is full of wonderful individuals, which have varied needs. From a farmer in Africa to a mother in India to a business person in Japan, everyone needs information in this modern day and age. And Google believes in breaking all the barrier between every individual and the information they seek.

ROBERT DARNTON

When you actually negotiate with Google, and do so on their turf, you enter a strange world. A Google office doesn't have chairs like this chair. The furniture consists of large inflated balls that are coloured green or red or yellow and the young Google engineers are sitting on these. It's a kind of Never-Never Land feeling.

SIDNEY VERBA

About 10 years ago, I got a visit from a vice president of Google. And she walked into my office and described a project that Google had in mind, which was to digitize all the books In the Harvard library. My first thought was - to put it bluntly that maybe they were smoking something, because I didn't think it was possible. Harvard had been digitizing books from time to time, but they were very limited in number and we didn't do many. It was a very expensive and complicated project. I don't remember exactly but it was like several 100 dollars just for a single book. But they had invented a copying station. That was a lot cheaper and easier to use, that didn't damage the books or at least went out of its way not to damage the books. And it seemed to me that it had a lot of plausibility. And so we decided to give it a try. Every great library did digitizing, sometimes on a large scale. Our open collections program digitized 2.3 million pages. I mean that's big, but nothing like as big as what Google attempted to do. The sheer ambition of digitizing everything.

TEXT CARD

Man's attempts to build a library that contained all knowledge began in the third century BC in Ancient Egypt.

WARDEN BOYD RAYWARD

In the ancient world, At the library of Alexandria they copied rolls and tablets, and attempted to copy all that was known. Eventually the library was destroyed, by Julius Caesar and the loss of that library in Alexandria was an international catastrophe.

RICHARD OVENDEN

The universal library has been talked about for millennia, there's a kind of a continuity of development and, you know, we mustn't forget the important role that libraries and scholars have always made for millennia of copying. And then you see with the development of printing, the multiplicity of texts, the copying of original texts. It was possible to think in the Renaissance that you might be able to amass the whole of published knowledge in a single room or a single institution.

JEAN-NOËL JEANNENEY

I have here a monument to French thought - the Great Encyclopedia. Among the various famous philosophers involved in this project the two leaders were Diderot and D'Alembert. They wanted to collect all the knowledge of the day and put it at the service of freedom of thought and liberty of conscience. The encyclopedia embodies a moment of French consciousness in the middle of the eighteenth century, at the end of Absolute Monarchy. It paved the way for the intellectual movement which led to the French Revolution.

RICHARD OVENDEN

Then in the 19th century you have various suggestions in France and Belgium that you can create a catalogue of everything. What will come next is microfilm. And so you start finding huge microfilming projects. And so for us the Google Project was a sort of a natural extension of that process of development.

BREWSTER KAHLE

Project Gutenberg of Michael Hart was the first digital library. He started on the 4th of July in early 1970s going in and typing the Declaration of Independence so that everybody could have access to it. Thousands of volunteers worked from all over the world to go and build this.

WARDEN BOYD RAYWARD

And he even had the idea that it ought to be possible to download the entire library that he had created if you wanted it and I think it did as a kind of example of something that later on Google and others took up in a much bigger and more extensive way.

ARCHIVE YOUNG RAY KURZWEIL

My name is Raymond Kurzweil and I'm from Queens, New York.

CAPTION

"I've Got A Secret" 1965, CBS

RAY KURZWEIL

When I was 12 I became fascinated with pattern recognition. And as a young teenager I did a project to teach computers how to recognize patterns and music.

ARCHIVE YOUNG RAY KURZWEIL

I built a computer and by feeding it certain relationships in music I was able to write music with it.

PRESENTER

Raymond, how old are you?

YOUNG RAY KURZWEIL

I'm 17

PRESENTER

Your parents know what you've been up to?

RAY KURZWEIL

Recognizing printed letters was a classical unsolved problem in the field of pattern recognition, and so I created the first omnifont optical character recognition, this was around 1975. 1978 we developed a commercial version. We talked about how you could ultimately scan all books and all printed material.

HG WELLS RADIO ARCHIVE

When automobiles came along first, they seemed likely to become a rich man's monopoly. They cost upward of a thousand pounds. Henry Ford changed that. He put the poor man on the road. We want a Henry Ford today to modernise the distribution of knowledge, make good knowledge cheap and easy, in this still very ignorant ill-educated, ill-served English speaking world, which might be the greatest power on earth for the good of mankind.

CAPTION

HG Wells Radio Broadcast | December 1937

TEXT CARD

In the late nineties, pioneers began to combine the scanner, the book and the internet to create giant digital libraries.

BREWSTER KAHLE

We started the Internet Archive in 1996. The idea was to have all the published works of human kind available to everybody, that this was the opportunity of our generation, that like the previous generation had put a man on the moon. The Internet Archive had been completely open with Google. In fact I'd gone and given a speech that was attended by I think all of the senior executives on how one could go about building a digital library of all books, music, video, and I'd hoped that there was going to be a way to work with them, but that was not be. Libraries had signed secret agreements with Google - we didn't know what was really going on. When it started coming out as a completely separate project, not working with others, then I started to become suspicious.

ANIMATION SERGEY BRIN

Larry Page, who founded Google with me, first proposed that we digitize all books a decade ago, when we were a fledgling start up. Five years later, in 2004, Google Books was born.

Despite a number of important digitization efforts to date none have been at a comparable scale, simply because no one else has chosen to invest the requisite resources. If Google Books is successful, others will follow.

CAPTION

From Sergey Brin, "A library to last forever" | October, 9th, 2009 | NY Times

EVGENY MOROZOV

I don't think that Google is aware of the fact that it is corporation.

I think Google does think of itself as an NGO that just happens to make a lot of money. And they think of themselves as social reformers who just happen to have their stock traded on stock exchanges, and who just happen to have investors and shareholders. But they do think of themselves as ultimately being in the business of making the world better.

CAPTION

Detroit Public Schools Book Depository, 2007

MARY SUE COLEMAN LECTURE

There are few more irreparable property losses than vanished books. Nature, politics, war have always been the mortal enemies of written works. Most recently Hurricane Katrina dealt a blow to the libraries of the Gulf Coast. At Tulane University the main library sat in nine feet of water. In the 1970s the Khmer Rouge Regime in Cambodia decimated cultural institutions throughout the country. The Khmer Rouge fighters took over the national library, throwing the books into the street, burning them, while using the stacks as a pigsty. Now with Google the University of Michigan is involved in one of the most extensive preservation projects in world history.

CAPTION

Speech given to the Association of American Publishers on February 6, 2006.

JARON LANIER

Google Books is a potent idea on a number of dimensions. What I like about Google Books is the idea of not losing books. Especially books that might be genuinely abandoned. The idea of getting all that stuff on line is of course going to be a benefit. So, that, that we have to love.

CAPTION

Bodleian Library, University of Oxford | United Kingdom

REGINALD CARR

I went to Google in January 2003. I actually made, what now I feel quite embarrassed about I made a presentation to them, telling them what they ought to be doing. Only to find out a few months later that they'd actually been doing it for a while already. "Project Ocean" was the kind of code name, development code name that Google were giving to what eventually became Google Books. So it was called Project Ocean because it was big, I imagine. Google seemed to think that they could do almost a million in 3 years.

TEXT CARD

Google would not supply us with video material of their scanning operation This is believed to be the only footage of Google's scanning warehouses. It lasts 6 seconds The other scanning images in this film have been made at university scanning stations.

ROBERT DARNTON

You could say that this mass digitization is something like running a huge machine through a library. You take books by the shelf. They are put in cartons, on carts. They are loaded onto trucks. And then Google at this time had 3 places in the country where it was doing digitization. Supposedly it didn't give the address of where they were.

PAMELA SAMUELSON

Google won't say how much scanning all the books cost. But there are estimates that you know it well...it's somewhere between 30 and 100 dollars per book. So if you multiply that times 20 million.

SIDNEY VERBA

Google, early on bent over backwards to keep us from communicating with the other libraries. There were 3 or 4 large ones and each of us was told we should not tell the others what kind of a contract we had and how we were working with Google.

REGINALD CARR

I witnessed the scale of the operation and it was very impressive. 20 very large work stations with very high resolution cameras sitting on top of a cradle with very intense lights and underneath a lot of black boxes which presumably contained all of Google's algorithms, that makes Google Search what it is. And they uploaded that stuff straight to Mountain View. Straight from Oxford.

LAURENCE LESSIG

Google certainly depends on knowing more and more and more for their algorithms to be better and better and better. And this is the core of the way economics in this space now works.

SIDNEY VERBA

They had a specific interest in having lots of things in Google that would lead people to use Google, so they could make money by having advertisements there.

PAMELA SAMUELSON

What are books? They're full of data and so the more data you have, the more you can fine tune your search technologies.

JARON LANIER

Some of the enthusiasts for Google's way of gathering data - and it's not just Google at all, I mean, its Silicon Valley in general. It's the current cultural moment. It includes the other Silicon Valley companies, but also the modern world of finance and also the modern world of spy craft for states, and also the modern world of criminality, and the modern world of insurance and health care - all these things have this idea, that you grab all this data in order to become very

powerful you create a differential in your ability to see information versus an ordinary person. And you create these new incredible castles of power.

AMIT SINGHAL

I was a little boy in the 70s growing up in India, watching re-runs of Star Trek on our family's black and white TV. And from that... those times the picture of a Star Trek computer was deeply ingrained in my head. As a little boy I was just fascinated by the fact that you can walk up to a computer and ask it: 'Computer, what's the atmosphere of that planet?' That was just the most fascinating thing to a little boy, and from that day on, it was my dream to build that Star Trek computer. But thanks to Google and all the technologies that we have built here, and what I see in the pipeline, I am closer to my dream than ever.

TEXT CARD

In America, Google refused to talk to us about Google Books, because of on-going legal action. They said we could only talk to them about Search. But we were able to speak to the head of Google Books for Spain.

LUIS COLLADO

The Internet is a young medium. The only things you used to be able to find on the net were things specially created for it but our entire cultural heritage, all that we know and that humans have learnt through history is contained in books. If books were not available on the Internet then all of the potential of the Net as a medium to access information and knowledge would be limited. *Size*. Once we began developing the product, our objective was to incorporate other types of content published outside the Anglo-Saxon world and available in the great libraries of the world.

FATHER DAMIÀ ROURE

The library of Montserrat was founded in the eleventh century. When the monks first arrived they needed books for prayer and spiritual readings. This is one of the books digitised in the Google project the spiritual exercises of Father Garcia de Cisneros who was abbot here in the sixteenth century. He devised exercises to guide one to a deeper Christian life. On the Internet you can surf from one web page to another without deepening your knowledge. This book could be interpreted as a call not to flit from one page to another without deepening your spiritual understanding.

FATHER DAMIÀ ROURE

Google digitised about 23,400 books from this library. It seemed to us that this was a way of spreading our culture. It gives us a great satisfaction that they are available to everybody.

INTERVIEWER

Google didn't pay you to scan your books - was that fair? What happens if someone turns all this into a business and makes a profit from it? Perhaps the question is too difficult?

FATHER DAMIÀ ROURE

I am not in a position to comment on anything other than the digitisation and the access to these books from wherever that might be. I am not in a position to comment on anything other than the digitisation and the access to these books from wherever that might be.

REGINALD CARR

Google were and are free to do what they want with the scans. And why should that concern us? I mean part of our ethos and part of our objective as a library is to make the information that is contained in our library available as free of charge as we can possibly make it to anybody who needs it. And if Google is going to do that on a larger scale, that's fine. If they are going to make money out of it down the line, why not? You know, they have invested a lot of money in it. There is no such thing as a free lunch.

EVGENY MOROSOV

Who wouldn't want to have all of the world's knowledge available to everyone on the planet? The problem is that Google as an intermediary in this process has certain interests and has a certain agenda that's not always transparent

JARON LANIER

If you're in Silicon Valley you have another job which is you are building this new life form that's gonna take over the world and Google is providing the memories for its brain or the other companies are providing the memories... And this is something that is openly talked about.

KEVIN KELLY

It's all human knowledge in books and out of books woven together into a single entity that is accessible by anybody anywhere in the world, any time. And that all knowledge is transformative. It really kicks up the civilization and our society to another level.

LAURENCE LESSIG

Shortly after the launch of Google Books, at different events I ran into Larry Page and Sergey Brin and had this brief exchange with them about the potential. And, you know, there was a characteristic Google-founder response, which was a kind of glint in their eyes and a smile and the sense that this was just the beginning of something much bigger than even you at this point can imagine.

ROBERT DARNTON

At Harvard we only permitted Google to digitise books in the public domain but the other research libraries, that Google first went to, permitted Google to digitise books covered by copyright. As soon as you get into the copyright area things get rapidly complicated.

TEXT CARD

Google scanned around 10 million books. Six million of these were books in copyright - scanned without asking the authors' permission.

MARY SUE COLEMAN

We're allowing Google to scan all of our books, those in the public domain and those still in copyright. We believe it is legal, ethical and a noble endeavour that will transform our society.

Legal because we believe copyright law allows us fair use of the millions of books that are being digitised.

TEXT CARD

It is generally unlawful to make copies of books that are in copyright without the permission of the authors. However, one of the exceptions to this rule in the US is 'Fair Use.'

LEWIS HYDE

Fair use is a piece of American copyright law that allows us to make copies without ever asking any permission, without paying any fee for certain carved out uses.

PAMELA SAMUELSON

I happen to think that Google's fair use defence is strong. One of the things that courts have done, over the last decade or so, is decided, that Search Engines, who routinely make copies of information, are making fair uses when they do it in order to help people find information that they are looking for. One of the things Google has done is provide links to places where you can buy the book.

LEWIS HYDE

They scanned but they did not release the copy. You could not search, except for key words. You could not see a page, except for snippets. They were trying to allow indexing and searching, without allowing people to get copies.

MARY SUE COLEMAN

We will protect all copyrighted materials, your work, in that archive... let me repeat that: I guarantee you we will protect all copyrighted materials. I assure you, we understand that providing public access to materials in copyright particularly those still in print would be unlawful.

EVGENY MOROZOV

One of the things that you need to understand about Google is that they try to roll out projects first and then to think about the consequences later. So you will often see them experiment with something that looks very cool. It may be the Google Streetview project.

STREETVIEW STORY

Google launched Streetview in 2007, part of the Search Engine's long term goal to create a 3D map of the whole planet right down to street level. But investigations have revealed that Google's Street View cars were collecting more than just photographs for their databanks. Their antennas were also hoovering up personal information from unencrypted wi-fi networks including internet history and passwords.

CAPTION

Copyright | Google

EVGENY MOROZOV

I think the case of Google collecting wi-fi information....it reveals a complete lack of respect for privacy within the corporation. Such projects often reveal that Google does not fully understand the social consequences of its own work.

CAPTION

Beijing | China

TEXT CARD

Alongside Google and the Internet Archive, several large internet corporations have been implementing their own book scanning projects. Among them: Amazon, Microsoft and, in China, Baidu.

KAISER KUO

We actually do more search queries in China alone than any other search company does in any other single national market, by which I really mean Google in the United States. So we certainly do aspire to be a World Brain... I think HG Wells was, I mean he is well known for having been quite prescient about a lot of the things he envisaged. Sure we don't have the time machine yet, but pretty much the rest of it was dead on. We have a product, which is a very, very popular product, it's called "Baidu Wenku", the Chinese name of it is the Baidu Library. It allows people to upload materials that they have that are either of their own creation, or that they have the intellectual property rights to, to our site.

CAPTION

Super Star Book Scanning Centre Beijing | China

Yu Chun Lei

We mainly scan books for schools and universities, and some for individual professors. Each person here scans about 30 books a day on average. The number of books we scan is increasing every year. At first it was only Chinese books. But now we are scanning foreign books and magazines as well. When we started, we just had one scanning centre in Beijing but now we have 17 scanning centres across China. We can store more information if we scan it and preserve data for the future.

KAISER KUO

There isn't an area of human knowledge that hasn't been filled out and made more rich and wondrous by the fact of the internet. I am often sort of shocked by people who see it as the beginnings of this dystopian future. I embrace it unequivocally.

HG WELLS IN VOICE OVER

The Fundamental Knowledge System which accumulates, sorts, keeps in order and renders available everything that is known, centres on Barcelona, with its seventeen million active workers. It is a Memory of Mankind.

CAPTION

From "The Shape of Things to Come"

H.G. Wells, 1933

CAPTION

Barcelona | Spain

JORDI TORRES

This is the Marenostrum supercomputer. It has 10,000 processors. That's like 10,000 laptops that have all been put together with their hard disks. It's changing our day-to-day lives, the way we work and interact.

KEVIN KELLY

You can look at the internet as something divine. We eventually will come, I think, to revere some of our technological creations, like the internet, to be almost like cathedrals of redwoods, to be as complicated and as beautiful as natural creations. And that in a real sense, that there is more of God in a cellphone than there is in a tree frog because a cellphone is an additional layer of evolution over the natural frog.

JORDI TORRES

Big corporations are amassing information about us, information that we're not even aware of that they constantly use for their own purposes. The amount of data is generating a bottleneck. Storing this data is a problem. And the methods we've been using up till now no longer work. We need to find a completely new approach, and this is part of the research we're conducting at this centre

JARON LANIER

It's a new form of medieval church or something like that. Everybody is to give their data in service of worship of this new digital God. And I think it is really, really dumb.

STUDENT

Has this computer been placed in the middle of a church for any special reason?

JORDI TORRES

It's one of life's coincidences. But I think it was a good idea. This may not be the fastest computer in the world, but it's certainly the most beautiful.

EVGENY MOROZOV

.. it's not unique to this era. You can look at previous technologies, whether it was radio, whether it was television, whether it was the telegraph, whether it was electricity, you do have many similar hopes that those technologies will bring universal communication. People would talk to one another, there will be peace everywhere, education will spread globally, a lot of similar hopes have been expressed in connection to earlier technologies. So this is nothing new, but I think there is something about the scale at which projects and groups and various companies and organizations now are putting those cyber utopian beliefs to work that is different now than from what it was before.

CAPTION

EVGENY MOROZOV

Internet Analyst

WILLIAM GIBSON ANIMATION

Science fiction never imagined Google. Google is a game-changing tool on the order of the equally handy flint hand axe. But Google is not ours. We are its unpaid content-providers, in one way or another. We generate product for Google, our every search a minuscule contribution. Google is made of us, a sort of coral reef of human minds and their products. We have yet to take Google's measure

CAPTION

"Google's Earth" by William Gibson | Op-Ed, New York Times August 31st, 2009

CAPTION

Paris, France | Bibliothèque nationale de France

JEAN-NOËL JEANNENEY

A couple of Google reps came to visit me. They were well-behaved young people. They'd obviously swapped their jeans for ties because they thought that would be better in Europe. They had a kind of arrogance and a spirit of brutal commercialism. They misread my psychology so badly that they brought me a small gift a thermoflask, which keeps your tea warm on train journeys I looked at these young men, I dropped the gift, and suddenly I could see in their expressions, that, these salesmen had miscalculated what kind of commercial target I was. They clearly had no idea who the President of the National Library of France was.

EVGENY MOROZOV

I do think that Google generally wants to make all the worlds information organized and available, to people throughout the globe. I do think that they generally believe in ...that mission, um but they also happen to believe that nothing will get lost and no one will get harmed, if it's Google who will implement that mission, And I think it is normal, if they didn't trust themselves to do it, that there would be, you know they would have some weird schizophrenic problem. You know If they don't trust themselves to implement, their own project.

JEAN-NOEL JENNENEY

The challenge posed by Google's thunderclap announcement to build a universal digital library and to do that by itself - this challenge required a very swift and clear response. A few days later, I held a meeting with my team of librarians and the technicians at the National Library. I decided to plan a counter-offensive, yes a counter offensive. I wrote an article in Le Monde with the headline: "When Google Challenges Europe". This also became the title for the book I later published. What disturbed me was that if you typed in Victor Hugo, Cervantes or Goethe. 19 of the 20 search results you got were in English. I know they corrected it later of course but it was alarming.

CAPTION

"Quand Google défie l'Europe"

SIDNEY VERBA

One of the concerns which came out as you would expect from France was that this was really part of a plot in the United States to make English the universal language and as we know the most important thing about France, aside from its wine, is its language. And there was a real sense of 'Who were we to be digitising all those books in English. And I remember some correspondence about the fact that we at Harvard were not just digitising English books but were digitising a very large number of books in French. To which, if I remember correctly the response came back "Who are you to digitise books in French?"

JEAN-NOËL JEANNENEY

It is a battle. This is combat, always I see nothing negative in the word "combat". There are noble battles and noble conflicts.

CAPTION

New York, United States of America

JAMES GLEICK

First we learned that Google was scanning books and I remember loving the idea because I'm a reader and I write non-fiction books and I do research and I wanted access to those books. Then we heard that they were scanning our books, they were scanning copyrighted books and they hadn't asked anyone's permission, the libraries had just handed them over. Well...That was obviously a violation of our copyright and a little bit of a surprise to put it mildly.

CHARLES SEIFE

I remember being very curious about what they were doing and I popped my name in Google and saw that it came up with snippets of my books. So what I did was searched for terms that I knew were common in my book like "star, galaxy" and there were lots and lots of hits and it would display several snippets. And then I would search for other common words and it was clear that if you were clever with your searches you could see quite a bit of the text if not all of it.

KEVIN KELLY

The problem that most authors have is obscurity. That's the issue. There are a gazillion books, how do you get people to pay attention to yours?

CAPTION

The Day of The Book Barcelona | April 23rd, 2012

JAMES GLEICK

Google claimed that it's use of these millions of copyrighted books that it digitised was an example of fair use. Why I'm not sure. I still don't understand how that can be justified that point is that the entire book has been copied and it's been copied by a single company that's doing it

for purposes of profiting off the work. If you allow a profit making company to copy a million books, then how can you say no to the next enterprise that also wants to copy a million books. So the Authors Guild organised a class action suit, asking them to stop doing that.

ANIMATION NEWSREADER

The authors guild on Tuesday filed a lawsuit against search engine Google alleging that it's scanning and digitising of library books constitutes a massive copyright infringement. The Authors Guild represents more than 8000 authors and is the largest society of published writers in the United States.

LAURENCE LESSIG

When Google made its decision to scan these millions of books, it certainly realised, that depending upon how litigation developed, this could be a bet-the-company decision. Because copyright liability in the United States can be quite extreme - \$150,000 per copyrighted work. And, depending on the number of copyrighted works at stake, it could be in the billions of dollars.

ANIMATION NEWSREADER

The association of American Publishers has filed a lawsuit against Google, alleging the internet company's plans to scan and digitally distribute the text of major library collections would violate copyright protections.

KEVIN KELLY

I think the issue of copyright is an archaic and unproductive view. When you create something you're building on the work of other people no matter who you are, whether you are JK Rowling or Shakespeare. You're basing your work on the work of others. You're basically taking their ideas. An artist does not own their ideas. No artist does.

JARON LANIER

Any useful information exists because of the efforts of real people and copyright is our way of remembering who those people are. It's crucial to not lose that. And I think cyber culture is missing the point of copyright. You might say well who cares about authors, let a few authors not make as much money as they would have...but it's a precedent... the whole internet will become a tool for the concentration of power and that would be a disaster,

KEVIN KELLY

The internet is the world's largest copying machine and that everything that touches it is being copied and just to transmit something along the way um, people are making copies of things. Copies are valueless they have no worth at all and so there is a focus on copies because that is an industrial age artefact.

CAPATION

Heidelberg, Germany

ROLAND REUSS

In 2007 I discovered that a lot of our books had been digitized by Google Book Search without us being asked. And then it turned out that, just from the one publishing company which prints my books over 200 books had been scanned by Google without any permission being obtained. This is about a serious company which acts illegally on such a massive scale that it appears legal. In 2007 I wrote my article, which not only pointed out the legal issues, but also pointed out the abysmal quality of the scans of the books. You see hands of the scanner-operators, or a third of the page is corrupted, so the scans are useless. It's like this, you make a very delicate work of art, where every detail counts, But what comes out on Google Book Search is as if they had put this work of art through a meat grinder.

JARON LANIER

A book is really a plateau that a person reaches to say this is my testament this is what I can offer. A book is not just an extra-long tweet. A book is something that is hard to do. It's hard to finish. It's hard to publish. It's a certain achievement of scale it's a declaration of this is what my life has learned this is what I can offer. And that is not something that can be dissected and the little minced pieces simply can't mean the same thing.

PAMELA SAMUELSON

The lawsuits were commenced in the fall of 2005 and within six months the Authors Guild and the publishers came to Google with a proposal about settling the lawsuit.

ROBERT DARNTON

I was sitting innocently in my office and a lawyer for the University appeared and he said: You are about to take a non-disclosure oath. Well I never had anything to do with lawyers except once in my life when I made a will and I thought oh I'm in deep water now what is this all about? Well it turned out there were secret negotiations between Google on the one hand and The Authors Guild and the Association of American Publishers on the other. They were suing Google for infringement of copyright. And as happens frequently with suits they began to negotiate a settlement. Well, we were not part of that at Harvard, however we had to be informed about it because we had the books.

JAMES GLEICK

It took three years to work it out because there were a lot of issues to be discussed. There were publishers at the table as well as authors and publishers. And authors did not have identical interests there were libraries not at the table but very much in the picture they were talking to Google away from the room. I'm not sure how much I can say I definitely cannot talk specifically about the negotiations because I signed a non-disclosure agreement, which I'm told is still in force, and I don't want to go to jail.

ANIMATION NEWS READER

Google's long running legal battle with the US publishing industry came to an unexpected halt this morning as the parties announced a settlement that will see both sides co-operate on online access to copyrighted books. Google have agreed to pay \$125m in the settlement. \$34.5 of that sum will go towards the establishment of a rights collecting body for digital books. \$45m has been set aside to compensate writers whose copyrighted books Google has already scanned - they will get around \$60 per book. the largest portion of the settlement - \$45.5 million will go

just on the legal fees. But the most striking aspect of the agreement is that it turns Google into a bookseller, selling online access to out-of-print but still in-copyright works.

JOHN HOLLAR

For those of you who don't know the details of the Settlement agreement. It's 385 pages. It has 46 sections of definitions, it's got 15 sections on Google's obligations, it's got 9 sections on the economic terms, it's got 6 sections on libraries' obligations. So this is not a little 3 or 4 page memorandum of understanding that we are talking about here. This is a very heavily negotiated agreement.

CAPTION

"Books, Google and the Future of Digital Print" The Computer History Museum | July 30th, 2009

DAN CLANCY

So how many people have not read the 334 pages?

JAMES GLEICK

We proposed something that was a little bit outside the box and that was If money is being made, share the money with the rights holders. It couldn't be simpler. So I thought it would be pretty non-controversial that apparently was naïve of me.

ROBERT DARNTON

I personally became increasingly disenchanted with what originally looked like a great idea. They basically transformed the search service into a gigantic commercial enterprise. They really thought they would digitize every book in existence and make it available, for a price, everywhere.

TEXTCARD

The Settlement gave Google an exclusive right to sell scans of all out-of-print but in copyright works These books are sometimes known as 'Orphans.'

PAMELA SAMUELSON

The settlement would allow Google to have essentially a licence to commercialize all books that are out of print. There were certainly hundreds of thousands and probably millions of books, for whom, even if they were in copyright, no author, no publisher, no rights holder would come forward. And those books are orphans and Google would be able to commercialize those and nobody else would.

ROBERT DARNTON

A monopoly was being created a monopoly of access to knowledge. Did we want the greatest library that would ever exist to be in the hands of one giant corporation, which could really charge almost anything it wanted for access to it?

PAMELA SAMUELSON

It's not a library, it's a bookstore! And, you know, sell it as a bookstore if you want, but don't pretend that it is a library.

DAN CLANCY

When I talk to people in the publishing industry, they find it humorous because it's like, well, they are orphan for a reason! And that in fact if we suddenly found this goldmine where the future of the book are the orphan books then okay, boy, those publishers sure aren't very smart.

TEXT CARD

In September 2009 the US Congress held a hearing into competition and monopoly in the digital books market

PAUL MISENER

Our principal concern here in this discussion is that under the proposed settlement, Google would be the only entity that could treat copyright as an opt-out mechanism. Everyone else would have to treat it as opt-in. There are other problems with this proposed settlement.

CAPTION

Hearing on Competition and Commerce in Digital Books | September 10th, 2009

TEXT CARD

Both Amazon and Microsoft scanned copyrighted books, but only with permission. Both companies opposed the Google Book Settlement.

CHARLES A. GONZALEZ

Listed below are various potential revenue streams for Google as identified within the settlement - institutional subscriptions, consumer purchases, advertising uses, public access service, print-on-demand, custom publishing, pdf downloads, consumer subscription model, summaries, abstracts, compilations of books. That's what you are going to end up with at a minimum. What I am saying to you Mr Drummond, does this in fact place Google at such a tremendous advantage in disregard of what has been historically copyright law. How do you respond to those concerns?

DAVID C. DRUMMOND

As of today we have zero market share in any sort of books so we are a new entrant into the market. Far from being someone who's controlling the market we're not even in it yet and we are trying to get in there.

PAMELA SAMUELSON

They thought that 'All we have to do is kind of announce this to the world and the world will go "God what a great agreement!" ... and for a while some people did but then you started reading the agreement really carefully and there were lots of questions. The problem was there was nothing in the agreement that respected the privacy of the people who were looking at the books. Google was going to be keeping track of who exactly was reading that book, how long they were reading it and what they read next. That information could get back to the government, could get back to the FBI, could get back to the police, could get back to their employer. Because Google

wasn't making any kind of guarantees about what they were going to do in respect of this privacy.

KEVIN KELLY

If people find that the privacy policies of a particular technology are not to their liking, they should unplug it. They should retreat from the internet. They should cut off their phone lines and they should go up hide in the mountain. They have that choice.

WARDEN BOYD RAYWARD

Well's conception of the world brain was that it was intended to have a power of surveillance over mankind - information gathered and organised in such a way that we had an eye that could actually survey everything that was going on. It would be able to register where everybody was, everywhere they went, potentially all the transactions that they were engaged in. And he seemed to think this is likely to be a good thing

ROBERT DARNTON

It was a gradual process of getting to know the details of Google Book Search and it was the cumulative effect of these details that made me feel, this project was actually something that I myself could not recommend to the president and fellows of Harvard as something that we should enthusiastically support.

WARDEN BOYD RAYWARD

H.G. Wells' idea of the World Brain was a dictatorship of technologists and intellectuals. These are the geeks of their day and gradually he saw that their power would spread from laboratory to laboratory, from university to university, as these people with the expertise began to coalesce into almost like managerial groups that would mean that we don't need the politicians and the conflicts and the noise, the confusion, the babble. But for the World Brain there was to be a further component - and this is the component that is what disturbs me - it's how that would be used to achieve the ultimate goals of civilization as it appears to have been evolving towards.

ROLAND REUSS

The snippets are just what you can see on the surface. The question is: What is a company doing with all the data I have produced? If they are simply inputting my texts into their databases, that is illegal whether they have a visible web interface or not. You understand? Because they are doing it for commercial and not private ends.

IBM EPK ARCHIVE

VOICE OVER

It's gonna change how we interface with information. People are gonna ask "how did it do that?" how did it accomplish this task before we thought only humans could hope to do?

GAME SHOW HOST

David Hume held this view: "that sense and experience are the sole foundation of knowledge" Watson?

WATSON

What is empiricism?

CAPTION

'Jeopardy!' | February, 2011

CLAY SHIRKY

After IBM's success with Deep Blue they looked around for other kinds of games that they could take on and they wanted something that was a very different kind of game than chess and so they picked Jeopardy, which is basically a fancy trivia game, it's one of those games that you or I could play.

IBM EPK ARCHIVE

VOICE OVER

It's a human standing there with their carbon and water versus the computer with all of its silicon and its main memory and its disk.

GAME SHOW HOST

After Germany invaded the Netherlands this Queen, her family and cabinet fled to London – Maria?

MARIA

Who is Beatrice?

GAME SHOW HOST

No. Watson?

WATSON

Who is Wilhelmina?

GAME SHOW HOST

That is correct. This US President negotiated the treaty of Portsmouth ending the Russo-Japanese war. Watson?

WATSON

Who is Theodore Roosevelt.

GAME SHOW HOST

Good for \$800.

KEVIN KELLY

I did talk to Larry Page when Google first started because I was really perplexed about why would anybody make a new search engine when we had Alta Vista which was the current search

engine. It seemed good enough. And he said: "Oh, it's not to make a search engine, it's to make an A.I."

RAY KURZWEIL

Most of my discussions have been with Larry Page. We have talked in general about their quest to digitize all knowledge and then develop true AI. You can create intelligent systems if you have very large databases. And books are actually probably more valuable than all the other stuff on the internet, because we have a high standard for what we put in books. The computer industry and its implications in terms of information technology is a multi-trillion-dollar part of the economy. It will be you know the basis of everything we do in the future.

CLAY SHIRKY

What Watson showed was, you can take a very large, very messy set of data and if you can use those inputs correctly you can actually answer really sophisticated questions. And certainly the presence of large amounts of data on the Internet is going to be as much an input for machines as it is for people.

RAY KURZWEIL

What we will really need to tap that is computer systems that can understand natural language, and natural language understanding is actually coming along very well. IBM's Watson is a very good example of the current state of the art and computers understanding natural language, because not only did Watson have to understand the convoluted language in the jeopardy query which includes metaphors and similes and puns, and riddles and jokes, but it got its knowledge to respond to the query, from actually reading 200 million pages of natural language documents, including all of Wikipedia, and several other encyclopedias.

CLAY SHIRKY

When you see a computer play it better than we ever could, it's one of those moments when you realise that 'Oh, yes! the world really is different.'

NEWS ARCHIVE

An IBM supercomputer named Watson has won the first ever "Jeopardy" quiz show competition starring a computer as a player.

KEVIN KELLY

Google Books Project is in a sense trying to make that universal library which could then be read by an AI or a Watson-like supercomputer.

RAY KURZWEIL

By 2045 we will have expanded - according to my calculations - the intelligence and the capability of the human machine civilisation a billion fold so that's such a profound transformation such a singular transformation that we call it the Singularity. Now this is not as yet inside my body or brain. It may as well be. I'm very dependent on it. I think this is part of who I am. Ultimately this kind of device will be the size of blood cells. They will go inside our body to keep us healthy, go inside our brains, put our brains directly on the internet, give us direct access to the entire library of all books.

CAPTION

San Francisco, USA

JARON LANIER

AI is just a religion, it doesn't matter. What is really happening is real world examples from real people who entered their answers, their trivia, their experiences into some online data base. It's actually just a giant puppet theatre repackaging input from real people that were forgotten, we're pretending they aren't there. We are able to have an economic disaster in the midst of plenty precisely because we are not acknowledging the information contribution from people as we enter information economy. And this is something I really want people to see, the insane structure of modern finance is exactly the same as the insane structure of modern culture on the internet. They are precisely the same, it's an attempt to gather all the information into a high castle, optimize the world and pretend that all the people information came from don't deserve anything. That it's all the same mistake.

AMIT SINGHAL

Google search is going to be assisted intelligence not artificial intelligence. In my mind I think of search as this beautiful symphony between the user and the Search Engine and we make music together.

ROLAND REUSS

Since 1995, we have published exact facsimiles of the handwritten works of Kafka. One of the main themes of Kafka's work is the tension between the individual and the institutions and systems which try to control him.

ARCHIVE ORSON WELLES

Before the law, there stands a guard, a man comes from the country begging admittance to the law.

CAPTION

"Before the Law" read by Orson Welles From "The Trial" | 1962

ROLAND REUSS

In his famous "Before the Law" story a peasant, who an ignorant fool from the countryside and a coward approaches the city gates and the gatekeeper says to him. "I am the master here". And the mere fact that he says that produces authority. Therefore, the question of whether he really does have any power can only be answered by actually taking action. So it is actually only a small step from Kafka to the confrontation with Google Book Search.

ARCHIVE ORSON WELLES

The man tries to peer through the entrance, he had been taught that the law should be accessible to every man. "Do not attempt to enter without my permission" says the guard. This tale is told during the story called "The Trial."

SERGEY BRIN ARCHIVE

I've been surprised at the level of controversy there because digitising the worlds books and making them available there's really there's nobody else who's attempted it at our scale or who is really working on it so and I feel like we had a number of technical challenges which we've overcome there was this legal dispute which we have a settlement, settlements proposed that we at least jointly agree to with the authors and publishers and so forth but anyway it remains somewhat controversial so yeah I'm surprised at the amount of resistance that's had but ultimately I'm optimistic that we're going to be successful.

CAPTION

Web 2.0 Summit San Francisco | October, 2009

TEXT CARD

Under American law, The Google Book Settlement had to be reviewed in an American Court. Authors, publishers and their representatives, who were against it, had the right to object. A judge had to consider their arguments and then decide which side was right.

PAMELA SAMUELSON

It's important to understand that the Google books settlement was negotiated by a small number of people, claiming to represent authors and claiming to represent publishers, but not every author and not every publisher was in the room. So once the settlement's announced, there's a six-month period in which it's required to notify them about the terms of the settlement and give them a chance to opt out if they don't like the settlement or to give them a chance to object to the terms of the settlement.

ROLAND REUSS

I quickly realised that the Google Book Settlement would have an effect on the copyright situation in the Federal Republic of Germany I considered that totally unacceptable, because no one had negotiated with us We decided that we would launch a public petition called the Heidelberg Petition and within two to three weeks we had all the major authors Herta Mueller with the Nobel Prize, she joined later. Gunter Grass signed and so there was a snowball effect.

GERMAN NEWS READER

Whether it's a slim paperback or a fat doorstopper more and more books are available to read in their entirety on the Internet. Google have uploaded over ten million titles and that is just the start. But this is something that outrages many European authors.

GERMAN VOICE OVER

The internet – thieves' paradise. Digital revolution - the spirit of rebellion. Access for everyone - for free, forever and everywhere. Google is now realising our ancient dream of a universal library. As nice as it sounds, total digitization may have big losers.

ROLAND REUSS

The goal was to get the German government to take action.

ANGELA MERKEL

The German government believes that there must be a place for copyright on the Internet. That's why we are opposed to the scanning of books without any copyright protections as Google has done. The German government is determined to defend the rights of German authors.

JEAN-NOËL JEANNENEY

It was like a bushfire, which suddenly erupts and spreads. And I have to say that I was assisted by the President of the Republic. The President of the Republic and one or two of his aides shared the view that this was an important challenge.

NICOLAS SARKOZY

We will not allow our cultural heritage to be taken away by a large corporation. No matter how nice they may be, important they may be, or American they may be.

CAPTION

Beijing, China

MIAN MIAN

The first time I realised Google scanned my book was 2009. November. Actually my lawyer called me and he said, do you know your book be scanned by Google Book?

CHINESE NEWS ARCHIVE

The Search Engine Google came under intense fire from Chinese authors as the digital library used books written by Chinese authors without permission.

MIAN MIAN

The reader they can search my book by keyword and made maybe around 100 keyword but I remember the most ridiculous keyword of my book bed, b-e-d, and telephone that's two words I remember and that made me laugh. That is not intellectual at all. Me and my lawyer decided to sue Google. My lawyer ask \$60,000 something like that and my journalist friend said to me, I don't even want to tell people I know you. Why you ask for such low money.

CAPTION

Tokyo, Japan

SHOJIRO AKASHI

I was a victim. I discovered that my whole book had been scanned by Google. So I decided to investigate. Then I found out about this American concept called "snippets". They extract a few lines from the book for you to read online. That works for American books because the writing is horizontal. But they applied this same snippet method to Japanese books. Unfortunately, the majority of Japanese books are written vertically. So what they display as a "snippet" cannot be read as a sentence. So Google's snippets are meaningless in Japanese. Playboy magazine is full of pictures of nude young girls which doesn't have much to do with journalism. But Japanese Playboy - maybe the American one too - has a spirit of defiance. When no one else will write about something, they will take it on. That is why they got interested in this story. They told me "This is a job that only you can do, Akashi!" So we started publishing articles.

CAPTION

New York, United States of America

TEXT CARD

In Autumn 2009, an American court began Fairness Hearings to consider whether it should approve the Google Book Settlement. No cameras were present.

CAPTION

Southern District Court of New York

COURT ROOM ANIMATION, JUDGE DENNY CHIN

Before the court is the plaintiff's motion to approve the settlement as fair and reasonable. Numerous materials have been submitted. Did anyone count up the number of objections?

CAPTION

From the Transcripts of the Google Books Fairness Hearings, 2009-2011

COURT ROOM ANIMATION, MICHAEL BONI

We have in the range of 500.

COURT ROOM ANIMATION, JUDGE DENNY CHIN

Thank you.

PAMELA SAMUELSON

I flew to New York and it was very exciting there were 25 outside parties that made presentations to Judge Chin and there were 500 objections for him to read. Judge basically said I'm not going to rule from the bench but people were hanging on every word.

ROBERT DARNTON

This is a fascinating turning point actually in the whole history of knowledge and of access to knowledge and it was being played out in a New York court-room, before Judge Denny Chin in the Southern Federal District Court of New York.

SHOJIRO AKASHI

We thought just in case we don't get in we'll be the first to arrive and get a seat on the front row.

COURTROOM ANIMATION, SHOJIRO AKASHI LETTER TO COURT

I confirm that one of my books has been digitally scanned by Google without my permission. Because this act is a clear violation of the copyright law of Japan, I have asked the Metropolitan Police Department of Japan to criminally charge Google and its CEO for this violation.

CAPTION

From Shojiro Akashi's letter of objection to the Fairness Hearing

ROBERT DARNTON

The court's decision was to a considerable extent going to determine the future of books, of digital books.

COURTROOM ANIMATION, DR IRENE PAKUSCHER

The proposed settlement results in a de facto monopoly on information and an intensification of media concentration on Google. As a result, the right of free access to information as well as the existing cultural diversity in both Germany and Europe will be usurped. Would it be basically in the hands of commercial speculators whose responsibility was to their shareholders or would it be organised for the public good?

PAMELA SAMUELSON

There was a risk of monopolisation there, that the Department of Justice saw.

COURTROOM ANIMATION, WILLIAM CAVANAUGH

The proposed settlement would establish a marketplace in which only one competitor would have authority to use a vast array of works.

PAMELA SAMUELSON

The risk was that Google could basically hold the whole world hostage to the price of access to these books and because no one else would have a licence, no-one else would have a corpus like the corpus they had. We'd have to pay whatever they wanted to charge.

COURTROOM ANIMATION, DARALYN DURIE

The core concerns seem to be that this would diminish the ability to read books in private. That is not true. This service will be available at public libraries. You can walk into your neighbourhood library, you can sit down at a free access terminal, anonymously, you can search for and read a book.

COURTROOM ANIMATION, JUDGE DENNY CHIN

And if you want to look at it at home, then what?

COURTROOM ANIMATION, DARALYN DURIE

Well, if you want to look at it at home, that may present an issue. Here's the rub. This is a tension between requirements for security that are insisted on in order not to have these works be sort of freely disseminated.

CAPTION

From Shojiro Akashi's letter of objection to the Fairness Hearing

PAMELA SAMUELSON

I remember there being a Japanese writer there. The language was very vivid. It was as though copyright was going to be swept away, that copyright was going to be destroyed and that approval of the settlement was going to, you know, make the United States out of compliance with treaty obligations.

COURTROOM ANIMATION, CYNTHIA ARATO

There's a real risk that, should the court approve the settlement, members of the World Trade Organisation will initiate settlement proceedings against the US government and if the US government were to lose such proceedings, which is a very real possibility, our partners would be entitled to impose trade sanctions against the United States.

PAMELA SAMUELSON

And you know you don't use words like that very often it wasn't kind of like, oh gee there are these issues and we're concerned about something, it was like, "this violates a treaty. How can the judge do something that's going to violate a treaty? This is crazy!"

COURTROOM ANIMATION, JUDGE DENNY CHIN

I am not going to rule today. There is just too much to digest. I will reserve decision. There's much to think about.

COURTROOM ANIMATION, CLERK

All rise.

ROBERT DARNTON

And then Judge Chin thought about it, he thought about it and he thought about it.

SHOJIRO AKASHI

Google is a flagship American company which makes a lot of money for America all over the world and so we were worried that the court might deliver a politically-motivated judgment.

ROBERT DARNTON

He took a very long time and every morning I got up and I thought what is Judge Chin going to announce his decision today? And when he finally did I myself felt thrilled because the court actually refused to sanction the settlement, then Google Book Search could not take place at least according to Google's original business plan.

FINANCIAL NEWS NETWORK

US circuit judge Denny Chin said the creation of the digital library would benefit many but would simply go too far. Chin said the settlement of a class action lawsuit that the company reached with US authors and publishers would grant Google significant rights to exploit entire books without permission of copyright owners. Chin also said the deal gives Google a significant advantage over competitors and it would be rewarding it for engaging in wholesale copying of copyrighted works without permission.

ROLAND REUSS

I expected that this would be the outcome. I wasn't surprised. Of course I was happy that it turned out this way but. II didn't crack open the champagne or anything like that.

JEAN-NOËL JEANNENEY

I don't know Judge Chin, but I salute him as an example of the remarkable independence of the American judicial system. Despite all the formidable financial power of Google he quietly ruled

that the agreements drawn up by this Mountain View firm were invalid, baseless and inappropriate.

KEVIN KELLY

I think you could read the decision by Judge Chin as a defeat of the screen by the book. But this is a long war. This is one battle and, whatever triumph there might have been for books, it's gonna be short lived, because the screen will ultimately triumph.

TEXT CARD

The Authors Guild is suing Google for up to \$2 billion in damages for scanning books in copyright. Google continues to scan out-of-copyright books in agreement with major libraries. They are also showing snippets of copyrighted books in agreement with many publishers.

TANTAO NEWS ARCHIVE MATERIAL

Baidu, China's search engine giant has been blamed by Chinese writers for participating in copyright violation. This is because the website offers free online excerpts of stories and books without the author's prior approval.

KAISER KUO

I think very late March or early April of 2011 we purged the site of about 2.8 million files that we believed might be copyright infringing within a period of 72 hours. I think a good number of them were books or chapters of books. We then implemented a rule where no one could upload anything of more than 1000 Chinese characters without it being manually inspected for copyright infringement or automatically inspected for copyright infringement. The problem is that then people started uploading parts of books in 1000 character increments so that they would avoid detection. So umm There are always people who want to abuse the system.

PAMELA SAMUELSON

The question is, has Google already been able to make its search engine better because of the Google Books corpus and the scanning of twenty million books? I think the answer to that is yes.

EVGENY MOROZOV

The question of whether large internet companies are making our lives easier or getting power over us, I think it presents a kind of false binary because they are doing both because if they were not making our lives easier we would not be using their services this is the tricky complicated question that we will have to face down the road. I mean all of them are making our lives easier I mean they are making products cheaper they are making our commute less bothersome and more exciting. Google will be supplying us with glasses that will augment reality and tell us about where our friends are in the city, they'll tell us the weather, they'll tell us everything. The question is what will the trade-offs be? And no one has asked: what happens with all the information that would pass through Google glasses? I mean surely it will be stored somewhere, surely Google will not be discarding it, because they will need to know what it is that I have seen yesterday, so that they can customise what I see today even better. But then the question is: would the National Security Agency be able to go to Google and ask for that data? Ask for everything I've seen through my Google glasses and if that would be the case, then the question

should be do we actually want to have a society where citizens are wearing CCTV cameras on their heads?

LUIS COLLADO

I can see why many people view Google or the Internet as some kind of "Big Brother" controlling everything, just as Wells wrote in his science fiction many years ago. But things are much simpler than that. The Internet is nothing more than a medium that offers everyone better access to information, entertainment and knowledge.

TEXT CARD

Google is not the only Internet Corporation which is being scrutinised by government agencies. Apple is facing a lawsuit for price-fixing of e-books. In Germany Data Protection officials are investigating Facebook for privacy violations.

JARON LANIER

Getting to a better system where people are rewarded for their information contributions to the world, getting to that system, from where we are, where people are expected to get by with less, that's gonna be a hard transition and it might involve government, but they might involve the big companies, and the reason why is that the big companies like Google and Amazon and all the rest are shooting themselves in the foot with what we are doing. Because what we are doing is shrinking the economy.

EVGENY MOROZOV

My concern is not so much with the direction in which Google or Facebook, for that matter, want to take the world. My concern is with the fact that it's Google and Facebook taking us in that direction.

ROLAND REUSS

You can't just argue that this serves the common good. If I go into the Deutsche Bank, steal all the money and distribute it on the streets and say "Look how many unemployed people I am helping! Look, there aren't any beggars anymore". It's still a bank robbery! Do you understand?

TEXT CARD

Now Governments and libraries in Europe and America are working together to build their own public and free digital libraries.

ROBERT DARNTON

Our current policy is to open up the library and to make it part of this really very ambitious project, more ambitious I think than Google's, which we call the digital public library of America. You know I think that we owe a great deal to Google. I can't imagine that this Digital Public Library of America would ever have gotten off the ground had Google not started to race ahead with its own version of digitization on this massive scale. However, you know, wonderful as it is, Google is not familiar with books. For example, Walt Whitman's famous book of poems Leaves of Grass was catalogued under gardening.

JEAN-NOËL JEANNENEY

I was very careful not to come across as a kind of reactionary French chauvinist. You know, the Gallic cock who struts about crowing because he is upset that in the 18th century Louis XV abandoned America as Napoleon did later with Louisiana! Some of my opponents claimed this to avoid responding to my arguments, but it wasn't. I wanted to launch a European library project as a response to Google which I called 'Europeana.'

HG WELLS RECONSTRUCTION

Our world of self-delusion will perish amidst its evasions and fatuities. It is like a convoy lost in darkness on an unknown rocky coast, with quarrelling pirates in the chartroom and savages clambering up the sides of the ships to plunder and do evil as the whim may take them.

CAPTION

From "Mind at The End of its Tether" | HG Wells, 1945

HG WELLS RECONSTRUCTION

That is the rough outline of the more and more jumbled movie on the screen before us. There is no way out, or round or through.

[END]