

Mining the Cloud



From 2014 to 2016, I was both a student at the Piet Zwart Institute, master Media Design where we shared a studio and lunch breaks together. It was a rather special time for us, a time during which we were learning about telecommunication protocols and software, shifting away from visual interfaces towards text based ones and gaining some programming abilities. At the time we were also developing our respective interests in natural language processing and network geography and cartography. These continuous explorations were the basis of a shared interest in the way metaphors, both in language and interfaces, had influenced and mediated our prior experience and understanding of space within the digital realm. Learning how to use, maintain and personalise our devices to our taste made us more attentive to the huge gap between what icons, metaphors and marketing language conveyed and the technical reality they covered, a gap we were not initially equipped to appreciate. To understand better the mechanisms behind metaphorical thinking, we turned to Lakoff and Johnson's seminal work "Conceptual Metaphor in Everyday Language". Metaphors operate as mapping devices, working across two conceptual domains: the source one, from which the metaphorical expression is drawn, and the target one, which is the object to which the metaphor is applied.

We also realised that although metaphors pervade within so many social activities, a metaphor based understanding of digital networks (and potentially of all domains) has limitations. In his PhD thesis¹, Martin Dodge juxtaposes the reality of the dial up modem with the "highway metaphor" to argue that the images created by metaphors applied to digital networks are usually far fetched considering the reality they're used to designate. He observes that this doesn't make them less effective, as they "pervade the popular imagination through reproduction in the media, being endlessly circulated and refined, so that they become a natural and invisible part of language and thought." He also notes that metaphors can act as "self fulfilling prophecies", as they end up influencing the shape of technological developments, which also further validates their use.

"The metaphors that are used to study an emerging technology usually end up influencing the shape it takes." — Sawhney (1996)

Willing to research these constructions applied to digital networks, we first made a small database of internet related metaphors, through which we tried to confront the source domains with the target domains, but also to experiment with ways of classifying them and analysing their effects or potential substitutions. We collected adverts and illustrations created to mediate a user's relationship to digital technologies, from interface icons to early adverts for Internet service providers. We spent some time with metaphor theory and articles on the topic and even joined an academic Metaphor Winterschool week at the UvA in Amsterdam², where we were introduced to a metaphor identification procedure using dictionaries and analysis methodologies on a single word level — a very slow and intense process.

"The cloud's main usefulness lies in its vagueness" — Gibson, 1999

In 2016, after having both graduated, we decided to give ourselves some time to take this research further. This is how we came up with a plan to focus our attention on one specific metaphor: the cloud. At the time, the cloud, cloud computing and cloud services were all over the place, in the news, advertising and product naming. During a meet-up initiated by Brussels based organisation Constant3 and researcher Seda Gurses⁴ The Clouds are Not an Option⁵ we realised how large was the scope for this metaphor. The cloud doesn't refer to a single object. Sometimes it is a type of network infrastructure and other times it refers to specific tools. Aside from referring to technological frameworks, the cloud is the product of an entrepreneurial state of mind and promotes an understanding of what the internet should be that has become culturally dominant.

"An icon of a cloud, the reader will recall, originally stood for any unrepresentable network on network maps, such as the Internet; in today's computer and mobile operating systems, this cloud icon now represents a reserve of seemingly unlimited computer power, or storage space; it has become, simply, a representation of the unknown." — Tung Hui Hu, A Prehistory of the Cloud

Seeing all these things coming together in one single visual symbol was a trigger for us to start analysing the functioning of cloud metaphor, and trying to retrace its evolution through time. A first thing to do was to find a reliable source, allowing us to retrace the use of the word through online available content. After careful consideration, we decided to concentrate our attention on US based tech magazine and 'thought leader'⁶ Wired.

"The people who get to impose their metaphors on the culture get to define what we consider to be true." — Lakoff and Johnson

Due to our respective commitments, our research was postponed for a year and a half, and we started to actively research with some doubts. How relevant would it be to communicate about the cloud now that the hype is fading away, making the cloud as a metaphor somewhat disappearing from plain sight? With the naturalisation of metaphors, the target domain's definition ceases to be negotiable. After giving it some more thoughts, we realised that all the characteristics mediated by source domain had been internalised, which is why it is now easy to forget about the metaphor while keeping the understanding of the technology it generated with us.

"It is clear that the cloud, as an idea, has exceeded its technological platform and become a potent metaphor for the way contemporary society organizes and understands itself." — Hui Hu, A Prehistory of the Cloud

The cloud has been for a while promoted as the main interface between commercial products and a non expert audience. How did this affect us? Could it be in the habit of streaming perpetually available songs and films when we would have priorly downloaded them? Is it in our monthly Netflix and Spotify subscriptions? Is it in the personalised suggestions platforms make for us once our behaviour has been analysed? Or perhaps in our preference towards iClouds than Hard Drives for the storage of our personal pictures? And who would have anything left if the connection went down? At the very moment the cloud started to confiscate understanding, it also locked down all the files and resources. We have come to a moment where much of our digital tools rely on centralized infrastructures and private companies' economical interest, to the benefit of a handful.

However, there are also users with an interest in cloud self hosting, such as the Rotterdam based Homebrew Server Club⁷. The cloud in this sense is still a confusing intermediary to designate ubiquitous access to your server. However, the geometries here are decentralized and distributed, as self-hosting creates an active relationship between user and network ecosystem, grounded in individual motivations and identity.

Metaphors can also be empowering, in the way that it makes certain tools available for people that would not be able to use them otherwise. More importantly they can be analysed, played with, contradicted or why not recreated. :-)

1 Understanding Cyberspace Cartographies: A Critical Analysis of Internet Infrastructure Mapping http://personalpages.manchester.ac.uk/staff/m.dodge/thesis/chap_4.pdf
2 Digital Methods <http://metaphorlab.org/metaphor-festival/metaphor-festival-17/>
3 Constant is a non-profit, artist-run organisation based in Brussels since 1997 and active in the fields of art, media and technology. <http://constantvzw.org>
4 Seda Gurses is a post doctoral fellow at Computer Security and Industrial Cryptography (COSIC) in the Technologies Team at the Department of Electrical Engineering

University of Leuven. She researches conceptions of privacy and surveillance in online social networks, requirements engineering, privacy enhancing technologies and identity management systems. <http://vous-etes-ici.net>
5 The Clouds are Not an Option, 27 January 2017 - <http://constantvzw.org/site/The-Clouds-are-Not-an-Option.html>
6 as mentioned on the Wikipedia page for the magazine
7 homebrewserver.club

and plenty more: a whole lot of hangers-on, suppliers, dealers, niche marketers, and brand-new startups. (1993)
A few of them ventured into the internet to seek information and companionship; this added exponential numbers of e-mail messages and list postings. (1994)
He told me he thinks of the dj as a connection between two worlds: recorded music is floating in the air in what he calls a "data," and as dj he pulls down the information and channels it into our reality. (1994)
Second, each agent has a "permit," so a person can't send a billion of them out into the , intentionally or otherwise. (1994)
With the mac, almost no one was thinking about convergence, data , and digital revolutions. (1994)
"the beauty of teletext," says andy, "is that now, instead of just having a device to program, we now have the entire cloud out there, where a single program can go and travel to many different sources of information and create sort of a virtual service. (1994)
At a time when freestanding minicomputers like digital's vax machines dominated college campuses, georgia tech faculty, with alicia's help, were developing an experimental computing environment called . (1999)
En route to stockholm, on his third flight of the day, he writes another email from the "s": "where am i?" (1999)
See also: spying on the spies once plucked from the electronic , certain keywords allegedly trigger a recording of the conversation or email in question. (1999)
Once a communication is plucked from the electronic , certain keywords allegedly trigger a recording of the conversation or email in question. (1999)
Assembled behind him in the mountain view, california, offices of webtv, a dozen employees and consultants issue a low, collective groan as he furiously starts drawing little green houses, satellite dishes, box-shaped broadcast tv stations, and programming companies, all interconnected to a cartoon depicting the internet as a . (1999)
For humans, the detection of a meaningful signal in s of data smog happens subliminally all the time. (2000)
Customers start by choosing from a menu of SaaS database , an application server , a mail , a full web , et cetera. (2000)
If a client wants to add services - say, a shopping basket or a secure payment system - opsware can drop in any number of new s that can be switched on and off. (2000)
He says the all-important security , part and parcel of every other cloud service, uses off-the-shelf security technologies - such as cisco's firewall system and netscreen for the vpn connections - along with some proprietary additions, and includes complex password and intrusion detection systems. (2000)
The pieces have been around for a while, but as time and technology advance, the of bits and bytes begins to converge. (2003)
Strong angel ii also demonstrated a data network that used a combination of local 802.11 wireless , s, a radio link to a local isp and a dedicated satellite channel. (2004)
Grundtsele, the usb receiver dongle provides a 30ft and 480 mbps for devices to share. (2006)
Meanwhile, google runs based hardware and software better and cheaper than anyone in the world right now. (2007)
Apple makes beautiful hardware, but it hasn't improved on .mac, its based storage offering, in years. (2007)
One announcement i'm almost sure of, however : a far-reaching, computing partnership with google. (2007)
Desktop software is vanishing into the , and as balance-sheet replacements, xbox and zune don't pass the laugh test. (2007)
If you're looking for a good way to access the of music available in various nooks and crannies of the internet, check out seepod's new iphone version of their "playable search" free music service. (2007)
The other is the idea of offering an internet-based platform to developers who want to create services but don't have their own to run them on. (2008)
It's not available as a product you can use to create your own environment. (2008)
<http://www.techurchin.com/2008/11/20/the-wind-cries-computing/> link: the wind cries computing . (2008)
Buzz is in the air why computing is everyone's favorite trend. (2008)
Gee is operating internet-based services in the everything from web-based programs like gmail and hotmail to the model used by enterprise software company salesforce.com, which hosts and runs high-level business apps for corporations. (2008)
On one side, you have -based document sharing, photo sharing, wikis and other tools for collaboration. (2009)
If -based listening is going to become our main way of accessing our music , it will need that level of freedom. (2009)
This is a huge time-saver for anyone using these -based storage services - especially file traders and those who frequent the web's underground caverns of music blogs. (2009)
These are desktop software makers clinging to their old business models by keeping users partially tethered to the desktop, even as they try to compete with newer, smarter solutions that live entirely in the . (2009)
The touch-tablet is the attempt of internet hype-master michael arrington and his techurchin team to make a cheap linux -computer. (2009)
Redmond says that office 2010 will be largely -based. (2009)
Google says it's working with netbook manufacturers to get google chrome os-powered netbooks to the market in 2010, and it's not hard to see how netbooks could benefit from the new, lightweight os and its -based apps. (2009)
Gird your loins, for google's cr-48 (or chrome os notebook, laptop prototype or whatever else you want to call it) is itching to drag you kicking and screaming up to the and into it. (2010)
Printing via connection to another pc is erratic at best. (2010)
Looking ahead, ford is trying to bring computing to cars and it even has a tweeting fiesta . (2010)

The beauty of teletext," says andy,

is that now, instead of just having a device to program, we now have the entire cloud out there, where a single program can go and travel to many different sources of information and create sort of a virtual service.

Title: Bill and Andy's Excellent Adventure II

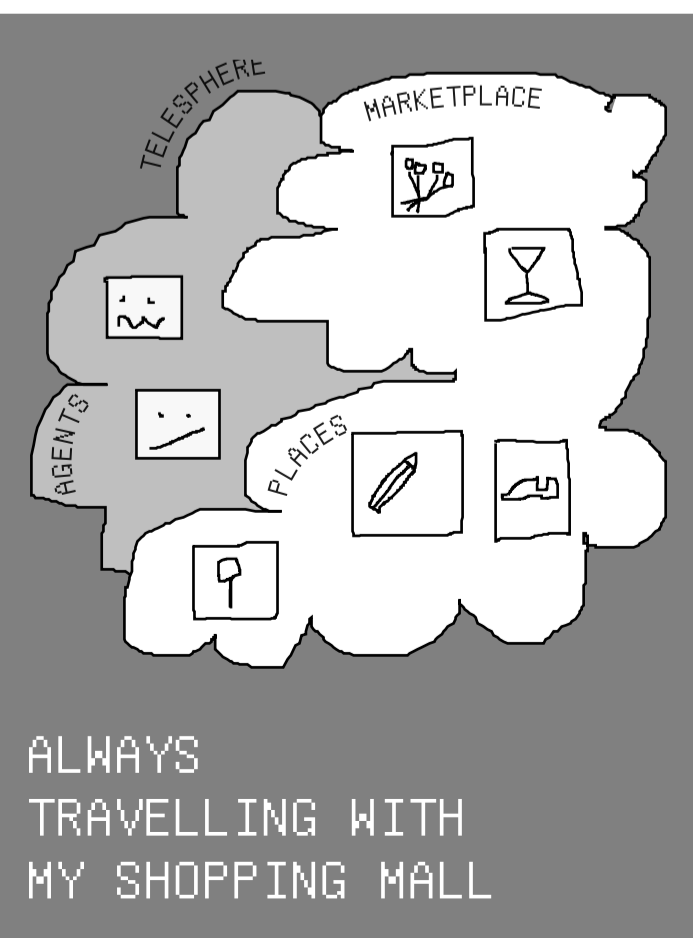
Url: <https://www.wired.com/1994/04/general-magic/>

Year: 1994

Categories: network, virtualization

THE CLOUD AS A NETWORK

Teletext is an object oriented remote programming language. It is used in the development of network architecture, which makes the Teletext network service. The maker of teletext, General Magic, started as an in-house company of Apple, but turned into a company in May 1990. The company was working on a device that would be so small and portable that it would enable people to use a computer and shop remotely from everywhere they wanted. Due to the technological restrictions at the time, thinking about a cluster of servers that could act as a cloud of computational power, made it possible to realise the General Magic dream.



Google goggles project lead david

One big one is the idea that smart software needs to work across devices—not just in the sense that it shares data through the net—but rather by offering a truly seamless user experience from screen to screen. (2013) You don't need to build a website or an online shopping cart yourself – a cloud-based company such as bigcommerce can handle that for you. (2013)

Amazon azure data centers infrastructure as a service microsoft (2013)

This will include local versions of ec2, which provides instant access to processing power, and s3, which provides data storage, and it will mean that amazon's empire will stretch across ten geographical regions around the globe, with data centers already up and running everywhere from north america to australia to Japan. (2013)

Amazon declined to discuss its new arrangement in china, but it seems that in partnering with local companies, amazon can not only satisfy local regulatory and legal requirements, but also avoid having to turn over – under the u.s. patriot act – any information uploaded by customers to its chinese services. (2013)

The team pays amazon and microsoft azure a few thousand dollars a month for hosting – a bargain compared to what they would have had to pay upfront for supercomputers ten years ago. (2013)

This would have been prohibitively expensive a decade or two ago, but today, with the rise of cloud computing, it's relatively cheap. (2013)

And it shows that, thanks to the rise of open source software and cloud computing, anyone can compete on wall street. (2013)

That means everything that is broadcast on network or cable tv would be available to play whenever you like, making it something like a cloud-based DVR that records everything on your tv. (2013)

Second, the potential economies of scale of a truly-functioning eu-wide single market for computing where the barriers to free data flow around the eu are substantially reduced would be a massive boost to competitiveness. (2013)

This is why europe should aim to be the world's most secure and trusted region for computing. (2013)

How to restore trust and build the world's most secure and trusted region for computing? (2013)

That is why europe must establish a fully functioning internal market for computing: finally, a wide adoption of computing by the public sector would drive adoption since the public sector is the largest it procurer in europe it can set the right framework for europe's business to get ahead that is why public sector in europe should position itself as an early adopter of computing. (2013)

A fragmented market for computing will be a set-back for the digital single market, for a connected continent, and for customers and suppliers alike. (2013) It would also open up new opportunities for european providers, which are at the moment far from being market leaders. (2013)

Addressing the justified concerns of european citizens, businesses and public administrations should be seen as an opportunity for the development of computing in europe. (2013)

What could europe gain by become a world leading trusted region? (2013)

A better overview of standards, certification of the use of those standards and safe and fair contract terms for computing are essential. (2013)

The european computing strategy, includes measures increase transparency of the market. (2013)

What is cloud computing? (2013) In particular, the cloud puts the best it solutions within the reach of small firms and organisation. (2013)

These characteristics provide a solid basis for further development of computing in europe, as users become more conscious of the need for cheap, flexible it services, without wanting to compromise privacy. (2013)

She's on her lunch break from an outsourcing firm, where she works on a team that moderates photos and videos for the storage service of a major us technology company. (2014)

After two and a half years on the storage moderation team, maria plans to quit later this year and go to medical school. (2014)

It lies with the new breed of mobile devices and services that are slowly eating away our need for newer and faster pcs. (2014)

Though the cloud is a great way to get a startup off the ground or run a website where the daily traffic ebbs and flows, the voice services there are other times when it's far cheaper to just buy your own computer hardware. (2014)

Meanwhile, the rise of cloud computing services such as amazon web services—which let businesses rent computing power over the internet—has undermined the market for computer servers, data storage gear, and other data center hardware. (2014)

One company, hewlett-packard enterprise, will focus on cloud computing services and other tools for businesses, while the second, hp inc., will handle personal computers and printers. (2014)

Recently, hp acquired eucalyptus, a startup that lets companies build cloud computing services in their own data centers. (2014)

In splitting itself in two—and investing more heavily in its own computing services—hewlett-packard is fighting much the same battle, as it seeks to retain its relevance in the face of competition from the likes of amazon, google, and others. (2014)

Today, at an event in san francisco, the tech giant significantly reduced the prices attached to several of its cloud computing services, seeking an edge over amazon, the world's dominant cloud company. (2014)

Sync is incredibly hard to get right dropbox's greatest strength is that it makes syncing files with the cloud and sharing them with other users seem so easy. (2014)

The first \$500,000 infusion will go to baremetrics, a company that lets software businesses track their overall financials and measure the value of every customer by analyzing stripe payments data. (2014)

Hölzle believes that the world will evolve to the point where people realize their data is actually safer on google and where government regulations bend for global services. (2014)

In reality, most of our digital lives remain scattered across files, folders, devices, and drives both in the cloud and bedroom closets. (2014)

"this brings you industry leading pricing without the complexity you're used to," said urs hölzle, who oversees google's services and its entire online infrastructure. (2014)

"we know, from aggregate statistics, that utilization for the typical customer is kinda low," he says. (2014)

By infusing such a massive company with its cloud-based sharing and collaboration tools, box is hoping it prove that its "user-centric it" can speed the flow of information through even the largest organizations. (2014)

Qdlay, which is available today for \$49 in a sort of quasi-beta early adopter release, is made up of a small android-powered adapter for your tv, a service for juggling content, and an ipad app for controlling it all. (2014)

Gideoni describes storage for microsoft as just one aspect of its "holistic" approach to the cloud—an approach anchored not by file-syncing but by office 365, the online version of its iconic productivity software. (2014)

"we actually think we're offering a lot more," dropbox what that "more" looks like is now the centerpiece of the competition among storage services as the price per unit of data becomes a non-issue. (2014)

(it should be pointed out here that many storage products aimed at business customers, including dropbox for business and rival startup box, already don't bother to cap the amount of data stored at all.) (2014)

Photo deal: \$310 reg: \$870 save: \$560 rakuten narrative label camera hands-free camera that uploads your lifestream to the cloud. (2014)

He made microsoft's cloud division an unexpected success: no one expected the button-down company to thrive in the world of online service platforms, where open standards and interoperability are everything. (2014)

Photo deal: \$678 reg: \$1097 save: \$750 rakuten htc re-camera hands-free camera that uploads your lifestream to the cloud. (2014)

The big problem: apple was powering its legions of computers with dirty energy, supplied by coal-burning companies such as north carolina's duke energy. (2014) As talks continued, they lit on the concept of a cloud-based intelligence, a global brain. (2014)

i confess: when it comes to storing files in the cloud, i am firmly in microsoft's region of the sky. (2014)

Apps: cloud drive software and operating systems til of the week (2014)

Through its amazon web services (aws)—a menu of products that pioneered the idea of cloud computing—the company has

transformed the internet startup economy by opening up its digital infrastructure to anyone. (2014) This general snooping on/data-mining of users is a routine business model for the majority of free-based services and apps. (2014)

"or so it has, but – whipped up by the storm of snooping revelations – some counter-currents are (finally) emerging to challenge the accepted wisdom that accessing the convenience of services necessitates giving up your personal data and abandoning any shred of privacy in the process. (2014)

It was still known as server and tools, and many people were still asking whether microsoft was serious about cloud computing, a technology that lets you rent computing power over the internet instead of buying and installing your own hardware. (2014)

"we're as serious about the cloud as we are about evolving our businesses," said kurt delbene, the head of the microsoft office group at the time, with a nod to nadella, who sat beside him at the table. (2014)

They were preparing a major expansion of the company's cloud computing services—services that let outside businesses or software developers run their own software atop google's infrastructure. (2014)

In a post to the online discussion site hacker news, bryan cantrill, the cto at cloud provider Joyent, called the idea that apis could be copyrighted a "perverted and depraved principle." "an api is a description of what the software is going to do," cantrill tells us. (2014)

After all, many important pieces of open source software are clones of something else, including the linux operating system and various services. (2014)

After all, cloud services ultimately feed the mobile as well as the gaming world, providing a way for software developers and businesses to build and host and operate the mobile applications that run on a world of smartphones and tablets. (2014)

"a good, unique place" when we sat down with satya nadella at a san francisco restaurant in the fall of 2011, he was about nine months into his job running microsoft's cloud and enterprise group – though it wasn't called that at the time. (2014)

Why some startups say the cloud is a waste of money in silicon valley, tech startups typically build their business with help from cloud computing services – services that provide instant access to computing power via the internet. (2014)

At a certain point, they say, moving off the cloud just makes more sense. (2014)

Particularly as engineers, we say: "[the cloud] is] the way the world is moving. (2014)

Last year, mitra won the \$1 million ted prize to bring the school in the cloud to life. (2014)

Mitra then parlayed that success into the creation of school in the cloud, a set of schools based on the sole model. (2014)

Amazon web services infrastructure as a service (2014)

But even if we don't know the number of servers in each rack, knowing the number of racks helps us get a sense of the size of the amazon cloud and its rate of growth. (2014)

Liu was originally trying to measure the size of amazon's flagship elastic compute cloud, but it's possible that some of the racks are used by other services as well. (2014)

What we can say is that the cloud is still growing – despite the nsa. (2014)

These cloud issue is hardly cut and dry. (2014)

In addition to running cloud services like windows azure, it sells all kinds of software that buyers can use to build their own cloud services. (2014)

"we're trying to drive hardware innovation in computing," says bill laing, the microsoft corporate vice president who will reveal the designs at this week's open compute summit, a conference dedicated to the free exchange of hardware know-how. (2014)

The od-11 speaker (\$899) streams songs directly from spotify or pandora over wi-fi; cooler still, it supports multiple remotes, allowing everyone in the house to have a say in what gets played. (2014)

They're all so tightly connected to that ever-growing thing called the cloud. (2014)

"the broadcasters are asking the court to deny consumers the ability to use the cloud to access a more modern-day television antenna and dvr. (2014)

If the broadcasters succeed, the consequences to consumers and the industry are chilling," gordon smith, the chief executive for the national association of broadcasters, said his side would prevail. (2014)

Full article 'us wants to outlaw eu cloud in ttip negotiations' (06.03.14) http://acta.ffii.org/?p=2050 transatlantic data flows and the trade and investment partnership (ttip) (05.03.14) http://www.greens-efa.eu/transatlantic-data-flows-and-the-trade-and-investment-partnership-ttip-11815.html http://c.greenmediabox.eu/archive/2014/03/05/transatlanti-c-data-flows/ the libe report on the us nsa surveillance programme, surveillance bodies in various member states and their impact on eu citizens' fundamental rights and on transatlantic cooperation in justice and home affairs (21.02.14) http://www.europa1.europa.eu/sites/getdoc.do?type=report_node&ml_references=72014-0139 language=en (contribution by ante wessels - ffii) ===== 9, (2014)

And that reality, in turn, speaks to dropbox's strategy for distinguishing itself in the (over)crowded field of cloud-based file storage, syncing, and sharing. (2014)

On yesterday's earnings call, microsoft said its cloud-based office 365 gained a million subscribers during the quarter, up from 4.4 million three months ago. (2014)

Instead, they become the business records of the provider that stores them. (2014)

The government has argued that unlike letters sent through regular mail, emails stored in the cloud don't belong exclusively to the person who sends or receives them. (2014)

Unveiled by google cloud computing guru eric breuer at a conference in san francisco, the tool is called kubernetes—after the ancient greek word for shipmaster or pilot—and basically, it's a way of more easily and more efficiently running online software across a vast array of machines. (2014)

"it's a way of stitching together a collection of machines into, basically, a big computer," says craig mcluckie, a product manager for google's cloud services. (2014)

Once you turn on camera uploads, every picture you take gets sucked up into the cloud. (2014)

"with the world's largest public cloud apparently joining apple, google, facebook and others in committing to power with 100 percent renewable energy, the race to build a green internet may be gaining a crucial new competitor," the statement reads. (2014)

Many popular websites and services, such as netflix, spotify and pinterest, all use the amazon cloud. (2014)

With a post on its website, amazon's cloud computing division-amazon web services—said it has a "long-term commitment to achieve 100 percent renewable energy usage for our global infrastructure footprint." amazon is the largest cloud computing company in the world, providing services where developers and business can rent computing power. (2014)

Amazon cloud green data centers laas (2014)

Amazon cloud computing google microsoft satya nadella (2014)

It's hard not to worry about uploading video footage from your house to the cloud, but masian says that all the video is encrypted so that not even camio's engineers can access it (though it's not possible to verify this without auditing camio's servers). (2015)

"it's a camera and cloud-based ai engine where we trained it on faucets by going on the web, downloading pictures of faucets, and using neural network learning on what makes a faucet," angle explains. (2015)

When a business is built on the cloud from the start, going mobile is easy: every device is just a portal onto what you do. (2015)

"this is vitally important given many apps moving to the cloud. (2015)

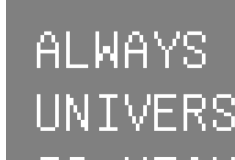
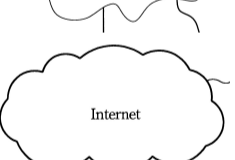
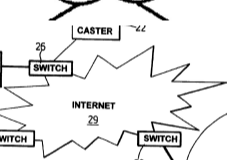
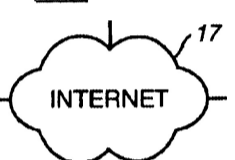
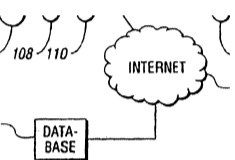
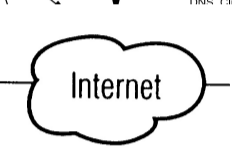
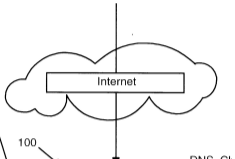
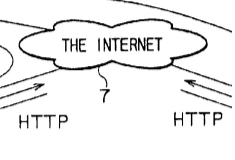
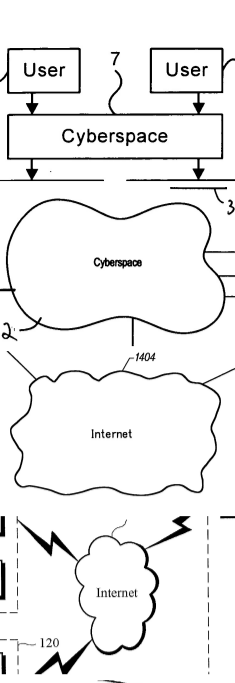
Apple big tech companies have rendered the cloud incomprehensible through their fragmented products and redundant features. (2015)

It has cloud storage and syncing. (2015)

Where the energy comes from but while netflix is efficient when it comes to the watts that it takes to get a series from its servers to you, the company is less specific in its post about the kind of energy its cloud provider, amazon web services, is using. (2015)

When you binge watch orange is the new black, amazon web services' infrastructure, netflix's content servers, ISPs, and, of course, your wifi router and laptop or tv all consume energy. (2015)

But with its pioneering collection of cloud computing services, it's also an it company, a company that serves up tech to the world's businesses. (2015)



Wired?

The decision for Wired was motivated by several things. First of all, we grew up seeing the magazine established in Europe as an authority in digital culture and technology related news, without much alternatives, or at least none with the same influence capacity. From the UK to the Netherlands or France, the magazine has become a point of reference used by established newspapers such as Le Monde, de Volkskrant or the Guardian who has introduced Wired as "the Silicon Valley bible".



Wired's cover as 'image of the day' in Quotidien, a famous and influential 'infotainment' program in France (February 2018)

Capitalism to Cybernetic Communism by Richard Barbrook, with Andy Cameron.¹ The publication contained the then 20 years old essay *The Californian Ideology*, a critic of the Silicon Valley's dotcom neo-liberalist discourse, in which Wired is presented as a promoter for such doctrine, by developing a storyline in which "heroic entrepreneurs were the only pioneers of the digital future"²:

"The California Ideology is a mix of cybernetics, free market economics, and counter-culture libertarianism and is promulgated by magazines such as WIRED and MIMMO 2000 and preached in the books of Stewart Brand, Kevin Kelly and others."³

This essay made it clear for us that alongside our text analysis pursue, the entanglement between the publication's content, and the Silicon Valley corporate movement. Wired fuelled a whole generation of entrepreneurs with some specific ideas of what the future may hold and reciprocally popularised their products and economical models.



"Wired, The people changing your mind", Wilco at the Wired Rave Awards in 2003, H. Michael Karshis from San Antonio, USA - Flickr.com - image description page

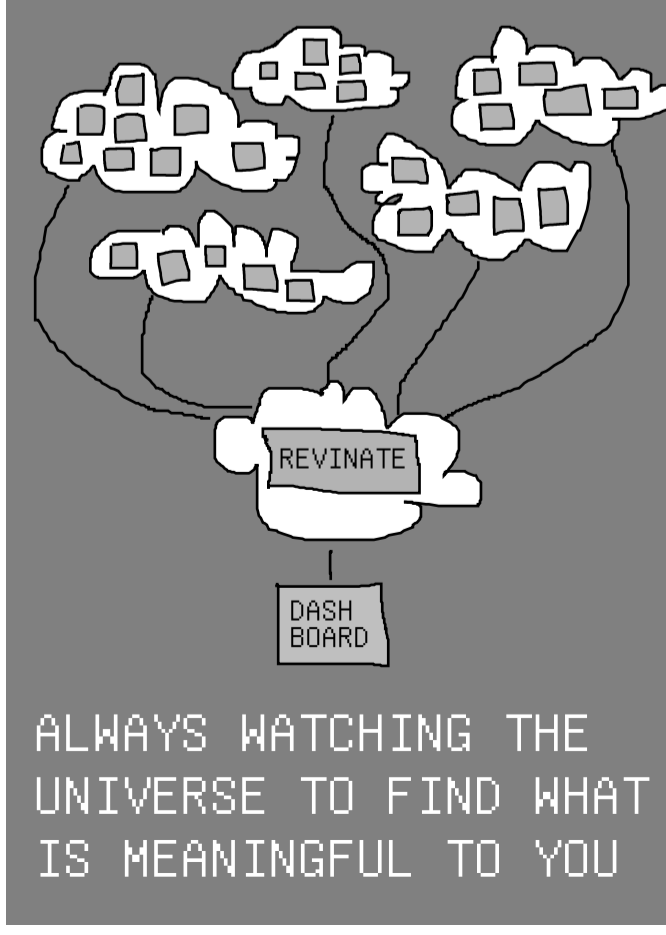
are made up of managerial professionals with a median household income of well over \$80,000. They may be revolutionaries, but they also happen to be the legions of MBAs graduating each year from business schools around the country, where Wired is a must read".

Through the development of the project we've had some experience that corroborated White's analysis. As of February 2018, Wired introduced a paywall, meaning that users could only access 5 articles per month⁴. It didn't interrupt our inventory. As part of this project we had done a scrape of 184.305 Wired articles, covering most of the published content from 1993 to the current day. Ironically, the paywall only made more apparant the bridge between the kind of expert image cultivated by the magazine and the tech savyness it expects from its audience. We initially thought that the restriction was based on our IP address and couldn't bother looking into proxys. But no. After some time we discovered that a simple removal of the Wired cookies restored our access to the articles again. A regular and not too technical-heavy act of removing the cookies in the browser was sufficient to gain access to an unlimited amount of articles. Also, we could scrape all the content in spite of the paywall anyway, which makes the Wired paywall a very light one. Our main realisation there was that this payroll approach had been implemented in spite of these easy possibilities to circumvent it by a potentially techno-literate community of readers.

Revinate bundles it all into a simple cloud-based dashboard that lets one employee do the work of five or so, when it comes to monitoring a given company's reputation.

Title: Social Marketing Doesn't Have to Suck
Url: https://www.wired.com/2010/08/social-marketing-doesnt-have-to-suck/
Year: 2010
Categories: network, virtualization, data-mining

"Transform guest data into revenue". It is the motto of the company Revinate, founded in 2009 and located in San Francisco, where they offer software-as-a-service social media and data analysis services to the hotel branch. Revinate gathers customers reviews of hotel visits in order to get a better understanding of the current hotel market, after which they and offer their insights as a service to companies. The company grew much bigger since they officially partnered with TripAdvisor in 2011, giving them access to a large amount of rankings and reviews written by hotel guests. With the dashboard tool mentioned in this sentence, Revinate's employees can use a software hosted remotely on the Revinate servers, to monitor many different platforms (such as Twitter, Facebook, Yelp) at the same time in an efficient way.



Upon further investigation, we've notice that other characteristics of the publication were making it relevant as a support for the analysis of the evolution of the vocabulary used to propagate Internet related tools to the wider masses. The magazine, currently a property of the Condé Nast group, was founded in 1993, when the Internet was opened to the public. It has its headquarters in San Francisco, establishing obvious proximity with the Silicon Valley, the cradle of revolutionary tech companies that changed the way we consume and envision technologies.

Around the same time, we were browsing a recent notebook by the Institute of Network Cultures, *The Internet Revolution: From Dot-com* by Richard Barbrook, with Andy Cameron.¹ The publication contained the then 20 years old essay *The Californian Ideology*, a critic of the Silicon Valley's dotcom neo-liberalist discourse, in which Wired is presented as a promoter for such doctrine, by developing a storyline in which "heroic entrepreneurs were the only pioneers of the digital future"²:

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In an other even older paper, published in 1994 in the Baffler, Keith White analysed how Wired was instrumental in shaping the corporate neo-liberal revolution. While maintaining the misleading impression of being 'irreverent' through positioning itself as a voice of the underground 'hacker culture', Wired continued to heavily promote the latest cool tech gadgets and covered all the latest technological developments through a heroic entrepreneur centric approach.

"Wired refers to its readers as "digital revolutionaries," but don't be fooled: the "r" term is being used in the same way it is elsewhere in recent management literature – to signify a particularly unscrupulous type of executive. In fact, according to Advertising Age, some 84% of Wired readers are made up of managerial professionals with a median household income of well over \$80,000. They may be revolutionaries, but they also happen to be the legions of MBAs graduating each year from business schools around the country, where Wired is a must read".

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To our surprise, it was nothing as bad as we expected. Wired had put quite a bit of work in maintaining their online archive of articles, which ranges back to 1993. Thanks to the clear and coherent structure introduced by Benjamin Chirlin when migrating the archives in 2015, the process of scraping the Wired archive was rather flawless. In the article *How We Moved 34,000 WIRED Pages to One Site in 9 Hours*¹ Chirlin describes how he decided to group articles by year, resulting in url's such as [wired.com/1993](https://www.wired.com/1993), [wired.com/1994](https://www.wired.com/1994), etc. When visiting these pages you can find a list of all² the articles for that year: a perfect resource for a scraping spider to create a list of links.

Chirlin concluded his article by describing how migrating these old articles into the current WordPress workflow "reclaimed [their] publication's digital heritage and ensured it will be passed on to the next WIRED website and its readers".

Although we tried on several occasions to reach out Wired's staff to discuss about our decision to scrape them beforehand, none of our multiple requests for discussion was ever answered.

We decided to assume that wouldn't end up in jail for researching the evolution of a metaphor's use and took the liberty of scraping Wired's archive. We believe that our intentions are somewhat covered by the doctrine of fair use (educational, scholarly and personal use without any intent to redistribution). As artists and researchers we think it is important to stay aware of the implicit interests and positions of Wired. The influence of Wired on a general understanding of digital networks and perhaps on technology in a bigger sense is significant and should be documented and reflected upon by other parties.

After collecting the article links in one big .txt file, we wrote another spider script that would visit each article and save the content as single .txt files on our computer. Chirlin's work of creating a coherent archive was again very helpful for to do this. As we were planning to apply a couple of text analysis scripts to the scraped articles, we're looking for a way to save the articles as plaintext documents. What was helpful here, is that Chirlin decided to add a element to every article page in the archive with the class 'post'. This enabled us to search for it and download only the article content.

```
def start_requests(self):
    urls = open("wired-links.txt","r").readlines()
    for url in urls:
        yield scrapy.Request(url=url.replace('\n',''),
            callback=self.parse)
```

```
def parse(self, response):
    for post in response.css("div.post"):
        output = {
            'url': response.url,
            'title': post.css(
                'h1.post-title::text').extract_first(),
            'content': post.css(
                'article.content').extract()[0],
            'images': post.css(
                'article.content img::attr(src')
            ).extract(),
            'links': post.css(
                'article.content a::attr(href')
            ).extract(),
            'tags': post.css(
                'article.content ul#article-tags a::text')
            ).extract(),
        }
```

1 Describing the migration of 34,000 Wired pages into the current WordPress workflow - [https://www.wired.com/20](https://www.wired.com/2015/10/cyphor-wired-archive-migration/)

Cloud computing for Businesses

The most significant finding in our Wired analysis was that the metaphor of the cloud progressively became totally embedded within corporate discussion. Back in 1994 we could find cyberpunk fantasies, like some "dj as a connection between two worlds", working with recorded music, floating in the air as a "data cloud", before pulling information down and channelling it into the raver's reality. Later on, the ravers became start up entrepreneurs and the cloud ended up designating products that would revolutionize the tech industry through the creation of new business models and scalable infrastructures to run software for costumers.

The passing of time within our scraped Wired archive reflected the developments in the tech field, and we noticed a progressive increase in corporate name-dropping and marketing catch phrases. The 'cloud' integrated businesses and products appellations: "CL9" (short for "Cloud Nine"), "Cloudmarks", "Cloudera", "Cloudflare", "Cloud Foundry", "Cloudcroft", "Cloudhead", "Cloudant", "Cloudandco", "Metacloud", "Piston Cloud", "Loudcloud", "iCloud", "Cloudbook", "Berg Cloud", "Cloud Drive", "CloudConvert", "CloudApp", "CloudAudit".

Trapped in a circular movement, Wired popularised the idea of this strongly business oriented cloud culture.

The Wired archive is a resource of specific examples and stories of historical and current cloud culture. Although the aesthetic experience of the Telesphere and the Apple Homepod are far from being similar, both products are built on top of the same systemic thought: that it is a good idea to make a product that is

When speaking in terms of cloud to refer to networked access, content server hosting, virtualisation or the aggregation of data across networks, we make use of a visual symbol that was created for a specific context. In 2015, Noah Veltman, former data analyst for the BBC, made a blog post entitled what shape is the Internet, displaying a collection of patent drawings depicting the Internet as a web, an explosion, some sort of bean, a highway and a vast declination of clouds. A lot of these drawings predate 2000 and the immense majority of assignees for these patents were companies such as:

AT&T
Webloyalty
International Business Machines Corp
Nortel Networks Ltd
Netscape Communications Corp
Samsung Electronics Co Ltd
NTEX DATACOMMUNICATIONS BV
Telefonaktiebolaget LM Ericsson
HP Inc
Stanford Telecommunications Inc
Sony Corp
Fujitsu Ltd
Lucent Technologies Inc
...

The clouds of the patented internet

A collection of clouds appearing in patent diagrams, grouped under the name *What shape is the internet?* by Noah Veltman.

The emergence of these wobbly shapes started as a way to signify a part of the network that didn't need to be extensively described in its full complexity when the discussion had to be focused on specific aspects. As the technical diagrams were circulating amongst engineering staff, already familiar with the technology, the omission of networking aspects "not relevant to the discussion" didn't impair anyone's comprehension of what happened beyond it. The use of clouds in complex telecommunication systems diagrams predated the Internet and had never been popularized outside the realm of technical diagrams.

However, the coinage of "cloud computing" took network abstraction to a new domain by progressively introducing the metaphor to the market place. The first found mention of cloud computing happens to exist in an internal document at Compaq from 1996. The paper stated that "application software is no longer a feature of the hardware—but of the Internet".¹ Not long after, NetCentric, a company making "software for inside the Internet"², filled a trademark application for the term "cloud computing"³. The demand was not approved.

The first known mention of 'cloud computing' was found in a Compaq internal document⁴.

In 2006, Amazon.com released its Elastic Compute Cloud service (EC2), allowing people to run programs from rented virtual computers. In the very same year Google's then CEO Eric Schmidt promoted the word during a conversation hosted by Danny Sullivan at the Search Engine Strategies Conference:

*"I don't think people have really understood how big this opportunity really is. It starts with the premise that the data services and architecture should be on servers. We call it cloud computing – they should be in a 'cloud' somewhere. And that if you have the right kind of browser or the right kind of access, it doesn't matter whether you have a PC or a Mac or a mobile phone or a BlackBerry or what have you – or new devices still to be developed – you can get access to the cloud."*⁵



Cloud companies logos LoudCloud - 1999 SoundCloud - 2007 iCloud - 2011 Microst Cloud - 2014 Western Digital's My Cloud - 2015

- http://tsdr.uspto.gov/#caseNumber=75291765&caseType=SERIAL_NO&searchType=statusSearch
- http://tsdr.uspto.gov/#caseNumber=75291765&caseType=SERIAL_NO&searchType=statusSearch
- http://tarr.uspto.gov/servlet/tarr?regser=serial&entry=75291765
- Compaq internal document PDF (November 1996)
- https://www.google.com/press/podium/ses2006.html
- https://www.wired.com/1994/08/spooky/

Wacom offers storage for bamboo spark pages, and the files are easily shared to dropbox, to evernote, or as pdfs. (2015)

In the world of computing, this has long been the question: what happens if you run your company on amazon web services and amazon ends up competing with you? (2015)

It's the world largest computing company—by an astronomically large margin. (2015)

Josh valcancel/wired thanks to the proliferation of cheap and universally accessible storage, you can have your data and documents follow you everywhere. (2015)

Netflix and dropbox, for example, built two of the world's biggest online empires atop amazon's services. (2015)

As it turned out, the spawned a revolution. (2015)

Inside big businesses, just about every so-called private project has failed. (2015)

Many of these skeptics worked at places like hp and dell and ibm and oracle, the tech giants most threatened by the revolution, companies that sold the expensive computer servers and other data center hardware and software that the could replace. (2015)

and while amazon's is now facing challenges from similar services offered by the likes of microsoft and google, Jeff bezos and company have established an enormous lead in a market that could be worth \$191 billion by 2020 . (2015)

amazon controls the amazon is a 21-year-old company. (2015)

but it wasn't long before the company realized the potential of its vast computing capabilities—and moved to monetize it. (2015)

Just six years after it launched, the company's computing infrastructure was estimated to run as much as 1 percent of the entire internet . (2015)

Some bets, like its massive computing service, amazon web services, have proven hugely successful. (2015)

All hail the that certainly is true of amazon's services. (2015)

The effort started in august, 2006, when amazon introduced the elastic compute (ec2). (2015)

As my colleague cade met wrote in 2012 , amazon's reasons for making its public when it did is a bit of a mystery. (2015)

During its annual conference for amazon web services users last week, the company introduced a range of computing business services that layer on top of its computing infrastructure. (2015)

and during an event in las vegas, amazon introduced a sweeping collection of new computing services that let you juggle vast amounts of data without setting up your own hardware. (2015)

It stores video locally, instead of in the , which some will find reassuring. (2015)

The city of long beach didn't need to write code, or even buy servers, since the whole thing is hosted on microsoft's azure . (2015)

During its last earnings call, amazon revealed that its computing services are actively used by over one million customers. (2015)

Alibaba amazon aws computing (2015)

Both its amazon web services business and its north american retail sales were strong performers for the company. (2015)

The business's operating income in the third quarter (\$521 million), was almost as much as amazon's whole north america e-commerce business (\$528 million). (2015)

All of which just means: its business is still killing it. (2015)

and at the same time, it runs the world's most successful computing business. (2015)

That's why we wanted to come out of the gate right away with mobile first, first, and windows desktop," says weisberg. (2015)

The cognitius dinosaur connects to a watson computing service via the internet. (2015)

but the private thing isn't what it might seem. (2015)

it can't compete with services from the likes of amazon and microsoft and google. (2015)

Chief computing dell emc hp pivotal private public (2015)

Yes, companies like this can offer their own services. (2015)

But now they can use services from amazon and google and microsoft. (2015)

The company will focus on, well, the private . (2015)

but the picture for its division amazon web services was even better: a \$391 million profit based on \$1.82 billion in revenue. (2015)

within the prunt app, after you capture a photo, you take a short, six-second video afterward that "attaches" itself to the photo via the . (2015)

in addition to these exits, nadella is also shuffling existing staff, reorganizing the engineering team into three core groups: one that will focus on and enterprise products, another that will concentrate on applications and services, and a third that will work on the windows platform and devices, including lumia phones, surface tablets, xbox, and microsoft's augmented reality device, holoLens. (2015)

last July, the ceo also issued a lengthy memo explaining that the company would be honing its focus, shifting from a "devices and services company" to one that prioritizes productivity and computing. (2015)

"at our core, microsoft is the productivity and platform company for the mobile-first and -first world," nadella wrote at the time. (2015)

The -connected smart home takes shape more products from google's nest group and apple homekit are rolling out, and voice control (apple tv with siri, google now, amazon's alexa, cortana in windows 10) is starting to work . (2015)

it would be in their best interests to contribute back

to the main founding project, but they might be disinclined to do so by the fact that they compete directly with pivotal, a company spun out of vmware and emc in part to commercialize foundry. (2015)

"So some of the old nature of the open source model is starting to break down as these projects become bigger and more valuable, i think that's where foundations come in." for example, ibm and hp offer services based on foundry. (2015)

Dubbed the native computing foundation, the organization is just the latest in a series of high profile new foundations now stewarding opensource projects created by large tech companies. (2015)

It gave away all rights to kubernetes, a computing system originally designed by google engineers, asking a non-profit to manage its development. (2015)

While the linux kernel, apache server, and hadoop platform were all started initially as non-commercial projects, some of these new projects, like foundry, have always been corporate products. (2015)

In the past year, we've also seen the launch of the foundry foundation to govern a project originally released by vmware, the establishment of the node.js foundation , thanks services company Joyent, and the founding of the open container initiative , thanks to several different companies, most notably docker and coreos. (2015)

Companies like google want others to use their open source software since it can help drive the use of online services, like google's computing tools. (2015)

In his keynote at the o'reilly open source conference in portland, oregon last week, foundry foundation ceo sam ramji argued that the shift is being driven by economics. (2015)

It relays that info to the , and an iphone or android app will notify you if anything seems amiss. (2015)

"In fact, doing so would undermine the power efficiency that enables moto voice to work." amazon declined to comment for this story, but its echo faq page confirms that its bluetooth speaker also "uses on-device keyword spotting to detect the wake word." in other words, voice recognition on both of these devices is cut off from the until you want it to connect. (2015)

It's been eight years since netflix first began streaming movies, and by now the catalog is essentially a tiny civilization: each month, dozens of titles shuffle off the -based coil, and dozens more are born to take their place. (2015)

Like most other aging tech giants, the 103-year-old ibm is has been working to retrofit itself for era mobile devices, social media, and computing. (2015)

To that end, it has invested \$1 billion into a version of its jeopardy winning artificial intelligence platform watson, inked a deal with twitter to bring its mountain of data into watson, and partnered with both apple and japan's postal service to build mobile services for senior citizens. (2015)

Both companies are working on ways to secure data stored in the but are approaching the problem from very different angles. (2015)

Alkicrypt is working on a new way to encrypt data. (2015)

Traditionally, if you want encrypt data in the in such a way that the hosting provider can't read it, you won't be able search or operate on that data in any meaningful way without decrypting it first. (2015)

Oblivilock, on the other hand, is trying to protect metadata stored in the . (2015)

But as harteau explains, there's a point where the cost-versus-convenience math of moving to the does make sense. (2016)

"Nobody is running a business as a charity," says aditya agarwal, the vice president of engineering at dropbox, which has used amazon's services for a nearly decade. (2016)

"They can leverage the economies of scale in ways that would be pretty difficult for us." if you move onto a service, you're still paying a premium. (2016)

If you want to keep your messages fully end-to-end encrypted, never sync whatsapp or viber with a backup program. (2016)

"Chances are you're making a compromise by backing up to the ." says zdziarski. (2016)

By making that a part of its offering, google is signaling just how seriously it takes the . (2016)

Meanwhile, the onesie will be waiting at the store, after a trip in a semi-automated, -linked platooning truck that saved travel time and fuel. (2016)

Microsoft has offered services based on similar technologies. (2016)

Today's move is part of an enormous effort by google to grab a bigger foothold in the all-important computing market. (2016)

During a lengthy keynote speech meant to highlight the company's entire suite of services-services, it sees as an enormously important part of its future-google new application programming interfaces (apis) for identifying images, recognizing speech, and translating from one language to another, among other services. (2016)

Today at an event in san francisco, the company unveiled a new family of computing services that allow any developer or business to use the machine learning technologies that power some of google's most powerful services. (2016)

It would upload your data to the for processing, then deliver results and health suggestions to you when you were ready to check in. (2016)

You won't because you are concerned about the security of the ? (2016)

If you're (understandably) not an itunes fan, then you may prefer to backup your phone over the . (2016)

But the crazy growth of its is slowing down a bit: two quarters ago, amazon posted 82 percent growth in aws revenue; last quarter, sales grew 78 percent year-over-year. (2016)

Another trend amazon can be proud of: its ever-expanding business. (2016)

And back then, it didn't make sense for a company like spotify to run a live streaming service in the . (2016)

When spotify first built its streaming service in 2006, computing was only just getting started inside amazon , well before google or anyone else really got into the game. (2016)

A massive market this is just a small part of a sweeping movement towards the services offered by amazon, google, microsoft, and so many others, including ibm and rackspace. (2016)

According to tech research firm forrester, the market for services-where anyone can build and operate software without setting up their own machines- will grow to \$191 billion by 2020 . (2016)

She'd always been interested in the sort of thing they studied-server administration and computing-but it was only in that program, she told me, that it clicked. (2016)

I want all the other little girls to see, wow, you can make it in the boys' club." as we walked out, i told andrews it seemed to me that perhaps she was being underutilized in her role; after all, she'd told me that she had certificates in networking and administration. (2016)

But now it's intent on transforming itself into a computing company, inviting a world of businesses to build and run their software on its vast online infrastructure. (2016)

In short: the rise of ai and computing have put an end to fight club. (2016)

It too is, well, a company. (2016)

"the right answer is to actually not do this yourself," says urs hölzle, the former university of california, santa barbara, professor who, as google employee number eight, oversaw the creation of the company's global network and now helps run its computing services. (2016)

The irony is that in fleeing the , dropbox is showing why the is so powerful. (2016)

Like the bigger companies, they too deliver tools that businesses and developers can use without setting up their own hardware-the essential appeal of the . (2016)-

Users should no longer trust these devices: if you wouldn't post it to the internet publicly, don't put it on a fire tablet." further, amazon's insistence that it maintains a secure connection with the doesn't ease concerns over the data on the device itself that's now vulnerable. (2016)

Since everything the echo does happens in the anyway, you can definitely now control your living room temperature from the comfort of your hotel. (2016)

They boast the latest in financial technology, like internet banking and computing services tailored for the online gambling industry. (2016)

Indeed, google revealed its new chip as a way of promoting the services that let businesses and coders tap into its ai engines and build them into

their own applications. (2016)

At the same time, as more and more businesses adopt the computing services offered by google , they'll be buying fewer and fewer servers (and thus chips) of their own, eating even further into the chip market. (2016)

And that's what google must do to ascend to the future of its dreams. (2016)

And google's belongs to greene. (2016)

That's computing. (2016)

By 2020, the company has said, the money it makes from computing could eclipse its ad business altogether. (2016)-

We're thoroughly children of the these days, and portable hard drives have come to feel as quaint as cassettes. (2016)

Besides, most of your stuff's in the by now anyway, meaning it may not be as bad a transition as you'd think. (2016)

Besides, most of your stuff's in the by now anyway, meaning it may not be as bad a transition as you'd think. (2016)

There are practical reasons for memories, namely that saving snaps to your phone either leaves you vulnerable to losing that phone (and your snapchat history along with it) or dependent on another service's for backup. (2016)

"You can't collect data on everyone just because anyone could be a criminal," stored communications the electronic communications privacy act is overdue for an overhaul. (2016)

So, like millions of other music fans with limited iri storage space, i put complete faith in the , despite the fact that it had been named for an aerosol that has a tendency to suddenly disappear. (2016)

Besides, i'd been assured that everything was going to be in the . (2016)

Store your data in the fragmented over many locations outside u.s. - orin kerr (@orinkerr) July 14, 2016 but microsoft and civil liberties advocates have argued that giving american prosecutors access to foreign data would have severe privacy consequences. (2016)

Today in san francisco, build 2016 is happening, so we should expect to see announcements about new features in windows 10, some new stuff coming to xbox, updates on microsoft's software services, and maybe another peek at the company's augmented-reality goggles, holoLens . (2016)

Upgraded processing capability and new sensors will collect this data and communicate it to the service managers and ge's -based computing platform for analysis. (2016)

Fresham township pays evidence.com for six terabytes of storage a month, and friel says the department will soon need at least another two terabytes a month to keep up. (2016)-

To set up your preferences, you'll need to use a machine that can run a browser. (2016)

If you add a \$10 per month nest aware subscription , you get constant recording, with video feed stored in the . (2016)

Sticky password's premium option also permits wi-fi syncing across devices, so your encrypted data never has to leave your device and you don't have to trust the . (2016)

Similar to lastpass and dashlane, you can download the desktop and mobile app, but need to subscribe to their service for syncing. (2016)

All their writing uploads to the and will sync from that point forward, until they disconnect. (2016)

"the steps to get to writing are as simple as opening the box and turning it on," when it comes time to sync with the , leeb says, the user simply connects to wi-fi and inputs their email address. (2016)

You don't need to upload to the ; you can also save "over one million pages" of documents in plain text format to the freebite's internal drive. (2016)

You can save your documents directly to freebite's onboard storage, but it also has wi-fi connectivity that allows you to save to the . (2016)

Dyn said on friday evening that the security firms flashpoint and services provider akamai detected mirai bots driving much, but not necessarily all, of the traffic in the attacks. (2016)

This morning, the company unveiled its own computing service-a service that lets anyone build and operate software without setting up their own hardware. (2016)

Amazon pioneered the concept of the about a decade ago with amazon web services, which has since turned into a \$9.6 billion side business for the world's largest online retailer. (2016)

There remains much debate over the idea. (2016)

The argument was stoked last week when big name san francisco startup dropbox announced that it had moved off of the amazon . (2016)

But with companies like amazon and google providing the all-important economies of scale while keeping prices low in order to compete with each other and the rest of the market, the makes more and more sense as the way for businesses to outsource their it. (2016)

That's even more the case now that its most profitable business isn't selling products, but rather services, through its aws division. (2016)

A lot of your content is stored by other companies that provide you with email service: it's stored in their ." said neema singh gulliani, legislative counsel with the aclu, one of the groups that is working to pass the bill. (2016)

Warrants for the under the current law, police need a subpoena to access communications that are stored online, which only requires law enforcement to provide reasonable suspicion, a much lower standard than the probable cause that must be shown in order to obtain a search warrant. (2016)

The new bill (an earlier version for which, full disclosure, the author once helped co-write an endorsement as an advocate with the eff) would require a warrant for law enforcement to access content stored in the ." that includes emails, text messages, documents, photos, spreadsheets, or a facebook message you sent to somebody," gulliani explained. (2016)

Tip 2: disable backups beyond key fingerprints, anyone who backs up their data may face an even more glaring issue: those backups often aren't encrypted-or at least not using an encryption system for which only you control the key. (2016)

Like so many other tech startups in recent years, dropbox ran its on operation atop what is commonly called "the amazon ," a hugely popular service run by, yes, that amazon-the world's largest online retailer. (2016)

In fleeing the , dropbox is showing why the is so powerful. (2016)

Rather ironically, it highlights how computing is rapidly transforming the way businesses operate. (2016)

Amazon's computing service lets anyone build and operate software without setting up their own hardware. (2016)

Microsoft's skype translation service leans on neural networks, and according joseph sirosh, who oversees microsoft computing services related to data and machine learning, the tech is moving into other microsoft translation services as well. (2016)

If you want a -free way to keep your phone's photos, contacts, and music, this is a clever and easy way to do it. (2016)

Since windows 10 phones can't run full desktop apps, they'll run -based virtual apps instead for enterprise duty. (2016)

If you're zipping along, they have just a moment to pitch you burgers, or tires, or services . (2016)

There's a database with cooking instructions for those meals, as well as wi-fi connectivity so it can pull down new and newly perfected recipes from the . (2016)

There's a new native app called files, which is a smarter and cleaner way to browse all of your files-not only on the ipad, but in i , google drive, onedrive, and other services. (2017)

Digitizable Journals. Like this one from rocketbook , let you upload your notes to the so you'll never have to worry about losing your brilliant thoughts. (2017)

Snap a photo of your musings, and the software will crop it before sending it to dropbox, slack, google docs, or a handful of other applications. (2017)

Clips are encrypted and stored securely in the . (2017)

She began asking ge questions about whether jibo sends pictures to the (according to the app and company, he doesn't). (2017)

But siri, apple's voice assistant, can't make the speaker do much beyond the basics and can only summon music from apple-owned services. (2018)

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