



The increasing value of data

€1 trillion – value of Europe's digital identities by 2020

\$45 – the value of one person's data if same as Google's ARPU in 2015

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As organisations try to retain as much information about their customers as possible, data becomes a currency with a value and a price. It therefore requires a marketplace where anything that is information is represented.

It has never been easier for organisations to gather and store information. Companies know more about their customers, governments can have a closer relationship to their citizens and individuals can store and access all sorts of information that was previously too cumbersome to analyse. Data is now the new raw material of business, an economic input almost on a par with capital and labour. It is now cheaper and easier for anyone to collect data as the capabilities of digital devices soar and prices plummet; sensors and gadgets are able to digitise information that was previously unavailable while powerful algorithms and analytical tools create meaning. This is gold dust for organisations, and like gold, data demands a marketplace.

By 2020 people and connected objects will generate 40 trillion gigabytes of data that will have an impact on daily life in one way or another. This data will make known about us things that were previously unknown or unknowable. In Europe the value of our digital identities, the sum of all the digitally available information about us will be worth €1 trillion. It's not just people; 'things' are already generating data, and these are predicted to generate an additional value-add of \$1.9 trillion globally over the next five years. Much of the value is not likely to be from the 'things' themselves, but from the understanding derived about them from the data that is collected. This promises to transform every sector, bringing efficiencies and cost savings, but also entirely new service possibilities.

Something approximating a privacy marketplace is now becoming a reality.

Internet interactions are gathered by tracking our "data exhaust", the trail of clicks that we, or increasingly our possessions, leave behind. This is where value can be extracted, providing organisations with valuable insights and the ability to influence customer purchasing decisions and other behaviours. Unsurprising perhaps that the sale and resale of "third party data" has already become a mainstay of the Internet economy. Online, cookies, web beacons, e-tags alongside "likes" or "tweets" all carry a code that enables social networking companies to track movements and sell this behaviour on to others. Offline, the installation of a wide range of new sensors in vehicles is already transforming many aspects of motoring, for example usage based insurance schemes which, based on information from sensors that collect data on location, speed, braking and acceleration, determine the risk profile of the driver, and consequently their insurance premium.

The value of data lies in its accuracy, so power lies in the hands of those who are able to ensure it is clean and organized. Large numbers count so, generally speaking, personal data alone does not have a true market value. Its aggregation on the other hand is of huge interest to corporates and government, and many are already taking advantage of this. Credit card companies all sell anonymised data about their customers to advertising companies, as do Google and Facebook among others. Although bringing some benefits, more targeted advertising, better search results and so on, there is very little oversight of how these transactions take place and how the data is used or where it is sold. In the next decade expect this process to become more formalized

Data revolution



as individuals become more aware of the value of what they used to give away for free and regulators bring order to the process. The seeds have already been sewn as something approximating a privacy marketplace is now becoming a reality, consisting of tools that prevent tracking and other counter-surveillance services on the one hand, and personal data vaults and banks that enable the curation and management of one's own data on the other. Major players in the Internet and communications space have also already begun to lay down their markers. As this market matures, it is hoped that consumers will benefit from the greater control over their personal data that results.

But some consider that personal data is already being over exploited by established players and this is pushing up the divide between the haves and the have nots. The inequality is driven by knowledge and technical capability with an asymmetry in power between organisations and individuals. Organisations have an abundance of information about consumers and analytics tools to interrogate it, while consumers suffer information scarcity and possess few tools to make any sense of their own data. This imbalance appears to be getting worse and is a matter of increasing concern, particularly amongst those

who created the Internet and whose open access philosophy ensured its success. The World Wide Web Foundation 2014 – 15 Web Index, an annual report measuring the Web's contribution to social, economic and political progress highlights this, "We stand at a crossroads between a Web 'for everyone' — one that enables all people around the world to improve their life chances and reduces inequalities both between and within countries — and a 'winner takes all' Web that further concentrates wealth and political power in the hands of a few."

In this land grab for information, it may also be worth bearing in mind that what is technologically possible may not be culturally acceptable. This is tricky to manage as different countries have different standards of what data counts as personal information; Germany forbids marketing to specific ethnic groups, but America does not. In order to make the most of the opportunities big-data offers, regulators will have to establish a new legal understanding of the balance between the right to privacy and the use of data for public good. If it is discovered that companies are exploiting data that has been collected without genuine permissions and are using it in ways that have no societal benefit, there is a risk that a negative public response will limit future opportunities for everyone.

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Looking ahead, personal data will increasingly become viewed as a product and will be treated as such. As understanding grows consumers will no longer be prepared to share their personal information for free and organisations will have to work harder to access information. If the corporate world fails to deliver on promises to protect customers' privacy, those customers may well decide to "go dark" as they become more aware of the value of the data and their need to protect it.

At some point we will reach a balance between the social benefit of aggregated information, for example around disease prevention or traffic monitoring, and individual or corporate privacy. Data market places will help to achieve this and will become established in many sectors, allowing individuals or indeed their appointed advisors, acting in a similar way to stockbrokers today, to trade. The focus will be not necessarily about privacy but on a collective understanding of outcomes and products. The way we sort, label, store and share information at scale will change in order to unlock the data benefits. As suppliers are increasingly paid on outcome, the value of data will increase and become part of financial models that will encourage further sharing. Existing information silos will be connected via trusted third parties able to unify, mine and discover new insights.

When the public good is concerned it is entirely possible that governments will take the same approach as some have done with organ donation programmes: citizens will have to proactively opt out of sharing their personal information, rather than opting in to do it. It is entirely possible that in the future, world health data will be shared, integrating public and private datasets in order to provide a holistic view of the individual at the same time as contributing to the greater benefit of all.

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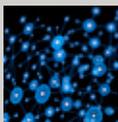
Related insights

Data ownership



Individuals recognize the value of their digital shadows, privacy agents curate clients' data sets while personal data stores give us transparent control of our information: We retain more ownership of our data and opt to share it.

Everything connected



Over 1 trillion sensors are connected to multiple networks: everything that can benefit from a connection has one. We deliver 10,000x more data 100x more effectively but are concerned about the security of the information that flows.

Privacy regulation



The push towards global standards, protocols and greater transparency is a focus for many nations driving proactive regulation, but others choose to opt-out of international agreements and go their own way.

The changing nature of privacy



As privacy is a public issue, more international frameworks seek to govern the Internet, protect the vulnerable and secure personal data: The balance between protection, security, privacy and public good is increasingly political.