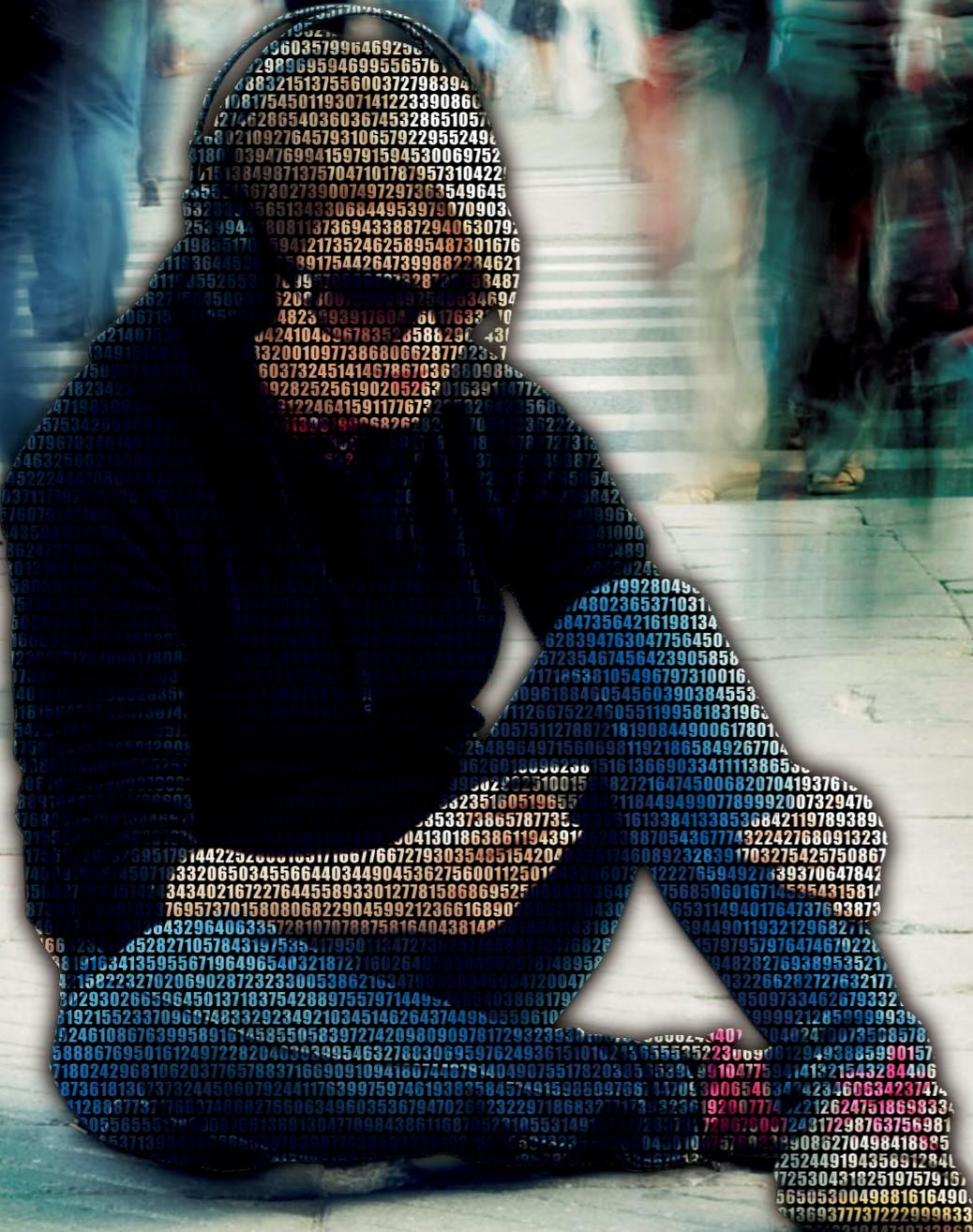


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# The personal information revolution

What happens when consumers take control of their own data? **Bronwen Morgan** investigates

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regarded by some as 'the new oil', by others as 'the new currency', there's no denying the importance of data to the modern age. The former analogy is a neat one: like oil, our data is refined to power many industries. Unlike oil, however, our data is in no danger of running out. In 2012, 2.8 zettabytes (that's 2,800,000,000,000,000,000) of data was created: that's about 500 times the amount of data that would be produced if the genome of every person on earth was sequenced. This figure is set to double by 2015, and will to continue to double every two

years after that

Most of this data – 68%, says intelligence firm IDC – is created by consumers: watching digital television, visiting websites, using apps, sending emails and messages; in short, all of the seemingly innocuous activities that have

**“Most data is created by consumers, yet enterprises have responsibility for nearly 80% of information in the digital universe”**

become part of our daily lives. Yet it is enterprises, not consumers, who have responsibility for nearly 80% of the information in the digital universe. They deal with issues of copyright, privacy and compliance with regulations. Many also use this data to track us, to profile us, and, ultimately, to sell to us.

On the whole, consumers are

aware of the nature of this ‘transaction’, and make a conscious decision to take part: we sign up to free services such as Facebook and Google Mail in exchange for access to our data. But are we getting a good deal?

Aral Balkan doesn’t think so. Balkan is a designer, and founder of Indie Phone, a privacy initiative that he developed in response to what he calls “digital feudalism” – the idea that people don’t own their own technology, their own services or their own data, but instead have to rent them from corporate entities.

“Think about whether Google are making a profit or a loss,” he says. “If they’re making a profit, then they’re seeing more benefit than we are. If they’re making a huge profit, then they’re seeing a huge amount more benefit.”

Balkan argues that the amassing of vast amounts of data by venture capital-backed free services – the business model for which is based around quickly gaining millions of



Aral Balkan

users and monetising their data – has led to what he calls “dragnet government surveillance”. For that reason, he believes we need to consider the long-term and short-term impact of giving up our data in order to truly assess the symmetry of the exchange.

“If I look up something on Google Maps – yes I’m getting quite a lot of benefit from that, and it’s a great experience, and it empowers me in the short term. But, in the longer term, what am I sacrificing?”

### Taking a stand

In 2012, UK think tank Demos published a report, *The Data Dialogue*, that highlighted changing UK consumer attitudes to sharing personal information (bit.ly/1fmXdoL). The report, based on a survey of 5,000 members of the British public, said that consumers had “significant worries” about the current situation. People recognise that sharing personal information is important – and that there are some benefits – but there is “a lot of discomfort and unease about the terms on which that is currently

couple of bucks back?”

Although finance figures prominently in his original pledge, Zannier insists, now, that he was never really in it for the money. “I think the main importance of the project was about taking control of my own data – like making a point that it is my own personal information and I want to be able to control it; to say: ‘No, I don’t want you to track me’; or: ‘Actually, I don’t think you should know this personal information about me’.”

Zannier exceeded his funding goal of \$500 by more than 400%, and says that most of his backers were buying into the idea, rather than the data. They were, like him, making a statement.

Emotions aside, is there really money to be made in personal data? Eduardo Ustaran, a solicitor specialising in the law relating to information technology and data, believes there could be.

In his book, *The Future of Privacy*, Ustaran outlines his argument that there should be a legal framework in place to ensure that – if a company collects a person’s data – they are obliged to give some of that value back.

Ustaran argues that, beyond creating an obligation for sharing value, having a legal framework in place would also help people to realise just how powerful their data is, and to what extent they can benefit from it individually.

“The peculiar thing is, we are often not even aware of the value that this information generates for others,” he says. “Those who are able to figure out what to do with the data are in a very, very powerful position.”

### Engage individuals; unlock value

As a result of growing unease about how data is collected and used, suggestions are emerging about how to redress the balance. In February 2013, as part of an initiative called Rethinking Personal Data, the

## LEGISLATION LOWDOWN

### What next for the UK government’s midata initiative?

Alan Mitchell, strategy director at consultancy Ctrl-Shift – which acted as business adviser to the Department for Business, Innovation and Skills (BIS) for the midata programme until 2013

– says the issue of personal data is “at a pivotal point”.

On 12 March, there was a vote in the European Parliament on EU data protection regulations. One clause in the

regulations – the right to data portability – would effectively enshrine the principles of midata in European law. What does that mean?

“It would no longer be a voluntary programme; it would be a regulatory right for consumers to request their data in electronic form, across the whole of Europe, in every single

industry,” says Mitchell. “We still don’t know exactly what the wording will be – and whether it will be voted for or against. But, if it gets passed, it’s ‘job done’.”

According to Mitchell, a number of governments around the world are already looking to the UK for guidance on launching schemes similar to midata in their own markets.

### MIDATA TIMELINE

<b>April 2011:</b> midata scheme announced.	<b>July 2012:</b> BIS publishes a consultation, setting out the benefits of midata and the potential benefits to consumers of data released in an electronic format.	<b>November 2012:</b> Government publishes its response to consultation, announcing that it will look to legislate if companies fail to comply with the voluntary release of consumers’ electronic data.	<b>June 2013:</b> Enterprise and Regulatory Reform Act 2013 approves this power.	mobile phone companies, energy companies) due to be reviewed. Possibility of amending regulations to make industry cooperation compulsory.
<b>November 2011:</b> First phase of implementation launched.		<b>March 2014:</b> Progress on voluntary participation in midata from three major sectors (banking,		

Eduardo Ustaran



2

World Economic Forum (WEF) prepared a report, *Unlocking the value of personal data* (bit.ly/19yopil). It was the result of a nine-month, multi-stakeholder, global dialogue about how the principles for using personal data needed to be refreshed, to ensure the rights of individuals are protected, and the socio-economic value is successfully harnessed. “By themselves, technology and data are

“One of the missing elements in the dialogue around personal data has been how to engage individuals”

neutral,” the report reads. “It is their use that can both generate great value and create significant harm, sometimes simultaneously.”

The report presents the argument that one of the missing elements in the dialogue around personal data has been how to effectively engage individuals; to give them a voice – and the tools – to express choice and control over how data about them is used.

It echoes the conclusion of the Demos report, which said regulators and businesses need to form a framework that allows people to “customise and negotiate their relationship with organisations, so it is, and feels, mutually beneficial”.

### Bad data

An example of one mechanism that might exist within such a framework is Handshake, an app – currently still in beta – designed to allow users to connect directly with companies that are looking to access their data, and to negotiate a price for it.

Handshake users create a detailed profile that companies can use to target them, and as context for any opinions they seek. The idea is that users are rewarded for the quality of their data: the more detailed and up-to-date it is, the more money they can expect to make.

Handshake co-founder Duncan White believes that by rewarding people for creating and maintaining “richly detailed” profiles, the overall quality of data increases.

“If you look at businesses like Facebook and Twitter, a lot of their valuation on a stock market is around the number of users they have,” says White. “But, actually, they’re not worried about the accuracy of the data they hold.

“Nearly half of people admit to putting false data in because they don’t want to be bothered by anybody subsequently. So there’s an awful lot of ‘bad’ data floating about, and it’s in no one’s interest, really, to make sure that data is good.”

While White’s assertion is open to debate, there are examples of unintentional ‘bad data’, particularly in relation to geo-location. An oversensitive cell tower, picking up a distant signal and recording an incorrect location, for example; or the story of a university lecturer visiting a friend living above an adult store, and subsequently receiving targeted ads he’d rather his students didn’t see.



## THE ADVERTISING INDUSTRY PERSPECTIVE

The Incorporated Society of British Advertisers (ISBA) is the representative membership body for British advertisers. We talked to ISBA representatives about the industry's stance on the emergence of a personal information economy.

Liam Northfield (LN)  
Communications manager

Ian Twinn (IT)  
Director of public affairs

David Ellison (DE)  
Marketing services manager

**How would the advertising industry react to a change in the way consumer data is gathered?**

DE: Most of our members would prefer to keep a personal relationship with their users. If you look at the amount of data that you hand over to Facebook, our members would prefer that kind of relationship. What advertisers need to do is to offer something tangible to users in exchange for their information.

**Is inaccurate data a problem?**

LN: If the consumer thought they were getting something out of it, they might be more likely to give correct data.

IT: If a brand only relied upon data from people who are prepared to make a value exchange with an agency, it's going to be a very skewed sample. So I'd be very careful, as a brand, about relying on that.

**Are advertisers aware of consumers looking for a better deal with regard to sharing their data?**

DE: When the EU cookie laws came in, I would say one or two of our more engaged members realised that consumers were getting more savvy, and that they were looking for something tangible for their data.

IT: The data belongs to the consumer, and it's a marketplace. It's a rational thing to do. But because it's rational, I don't think many people are going to do it.

LN: There might be a generational split here. Studies have shown the younger generation are more likely to relinquish their personal data for products and services; they don't see it as inherently abhorrent.

**Is the advertising industry bracing itself for the personal information economy?**

DE: I don't think the percentages will rise that much over the next couple of years. It's up to us to educate our members. At the same time, our members have a duty to be transparent about what happens to the personal data they collect. To develop the relationship our members have with their users, more education needs to take place.

White describes Handshake as a kind of "dimmer switch" between opting out of and opting in to sharing data online. He explains that users can decide which data they want to share, and with whom, depending on how much people are prepared to pay.

It seems a logical proposition, but Ustaran believes this approach raises some legal issues. Many regulators, he says, feel uncomfortable with the idea of 'haggling' over the value of data. European law, for example, regards the protection of personal information as a fundamental right and, therefore, asserts that it should be above any trade or commercial exchange.

"The reality is that data is valuable," says Ustaran. "The protection of that information may be a fundamental right people have; I don't disagree with that – but it's still valuable."

### Crunching numbers

But there are some who question the approach of assessing the exchange purely on financial parameters. People such as Andreas Weigend, former chief scientist at Amazon, who argues that the perception of who is getting the most benefit from the transaction "depends on how you write down the equation". If people are targeted with an advert for something they don't want, he says, nobody benefits.

However, if Amazon increases its sales because someone receives a recommendation that they do act upon, everyone's a winner. Weigend argues: "I benefit now by having the same item as my friend; Amazon benefits by having made another sale; Google or Facebook benefits from having shown the ad, and getting the kickback. The economy benefits because we have one more item in circulation."

Perhaps, more crucially, Weigend doesn't believe consumers have a good enough understanding of how much it costs to process their data to

be able to negotiate a fair price in exchange. It costs little to produce data, he says – as evidenced by the vast quantities of it. It's the cost of distributing it, organising it, and getting permissions for it that costs money. These costs are higher than consumers think, he says.

The idea of assigning a 'unit cost' to someone's data is an issue that the research industry also struggles

**"Data is valuable. The protection of that information is a fundamental right – but it's still valuable"**

with. Dominic Jarville, associate director of product development and innovation at Research Now, says: "On the face of it, it seems like a fair proposition – I can collect valuable information on you, and therefore you should get something for it.

"The problem is that, by just having one person, getting any real statistical validity to that is going to be pretty tricky. So, say I get 30 people together – can I actually get enough money for that to pay each one the amount they think it's worth?"

Jarville has another reason to be sceptical that a system based on financial reward is viable on an individual basis: people, on their own, just aren't that interesting.

"The truth is, my movements or your movements aren't really very interesting," he says.

"We [Research Now] do some behavioural tracking of what web pages people are looking at, and a friend of mine said: 'There's no way I'd do that – I don't even show my wife what I look at online.' But I told him that it doesn't matter if we see, because we don't care. We're just looking at information in aggregate; we want to know what people, as a whole, are looking at."

### Person of interest

Jarville is by no means alone in questioning the value of an individual's data. Mathematica and Wolfram/Alpha founder, Stephen Wolfram, shares the view.

Wolfram has a legitimate claim to having the largest collection of personal data in the world. He has logs of his emails, keystrokes, calendar events, phone calls and physical activity dating as far back as 1989. His data-collection objectives started as relatively straightforward and short-term: he logged his keystrokes to ensure he wouldn't lose data if his computer crashed; he logged his emails so he could easily find interactions he'd had with people in the past. "Then I got to the point where I realised it's pretty easy to collect lots of data, so I set systems up to do it," he says.

But Wolfram didn't analyse the vast amounts of data he had collected until relatively recently. A blog post from 2012 ([bit.ly/1j8ONlq](http://bit.ly/1j8ONlq)) describes what he learned from conducting his own personal analytics. He was able

to plot graphs of what he called his 'average daily rhythms', and used these to understand the patterns of, for example, when he tends to conduct meetings and work collaboratively, versus when he tends to work alone. He could see when he began discussing new concepts over email, and how his habits of using different computers and applications had changed over time. He says that he finds this information incredibly interesting, and admits he regrets not starting to collect it earlier. But he still doesn't believe it holds any commercial value.

"The value of an individual's data record is not going to be terribly high. It only gets interesting when you've got millions and millions of these things, and I think, perhaps, people would be disappointed with the amount it's worth to have their individual data," Wolfram says.

As a result, he questions the likelihood of an economy emerging in which people sell their data. But he unequivocally believes that people will choose to make use of



Federico Zannier

## MY DATA AND ME

Two views on how personal data will benefit individuals in the future

### Stephen Wolfram (right) on pre-emptive information delivery

"This is one of the things I've been interested in for a long time: how do you provide people with information that is useful in a particular situation that they're in, completely automatically, without them asking for it? That's where being able to use personal analytics – and being able to use lots of historical data you've collected on yourself – is really useful. For example, if I'm supposed to call someone at a certain time, I can see the whole story of how I'm connected to this person, all delivered pre-emptively, so to speak. That's clearly a useful thing, but – to be able to do that – you have to have stored lots of information about the particular individual who's being supplied the information.

You've got to know their history, otherwise you can't deliver what they want to know."

### Try it now

Google Now scours Gmail and Google Calendar, as well as relevant online third-party sources, to supply information it thinks a person will find useful. It can, for example, tell you that a flight you're due to take has been delayed, without you having told it your schedule or proactively looking for updated flight information ([google.co.uk/landing/now/](http://google.co.uk/landing/now/)). Also: Tempo AI – a smart calendar – provides information on people you're scheduled to meet ([tempo.ai](http://tempo.ai)).

### Andreas Weigend on personal monitoring

"Where do I think that data refineries will make a huge

difference? Work – the future of work, and knowing what someone is good at, what they really want to be good at, what they enjoy doing and where they suck. Employees who agree to be constantly monitored could charge more by the hour, but if they slack off, they get less. Your employer could take screenshots of you working at regular intervals – and if you don't allow that, you get paid a lower rate. Another area where it will make a difference is in insurance: if you allow your car to be constantly monitored, you pay less for your premium."

### Try it now

Drive Like A Girl fits a data-collection box in the car of insured drivers. The box records various aspects of driving, including speed, braking and acceleration.



Driving smoothly – and keeping to a sensible speed – results in discounts on insurance premiums ([drivelikeagirl.com/how-drive-girl-works.html](http://drivelikeagirl.com/how-drive-girl-works.html)).



82

Andreas Weigend



► their own data in other ways in the future. Wolfram's computational knowledge engine, Wolfram|Alpha, already offers a tool for one such alternative purpose.

By connecting to a Facebook profile via the Wolfram|Alpha site, the service can provide visualisations of what times of day you use Facebook; the clusters within your friend networks; maps of your friends'

“midata encourages, but doesn't force, UK businesses to allow consumers access to data they hold on them”

locations; the global reach of your network; how popular your friends are and what they're discussing; and much more besides. The resulting report can be shared with friends... on Facebook, naturally.

### Self-regarding

While it doesn't require any specialist knowledge, Wolfram's offering may appeal more to data enthusiasts than to the everyday consumer that the World Economic Forum insists needs to be engaged. But that doesn't mean regular people aren't beginning to find value in their own data. There's one particular area of self-analysis that has seen a huge uptake in recent years, even among the less technologically savvy: health.

From high-profile products such as Fitbit and Nike+ FuelBand – which track fitness efforts – to apps that monitor heart rate, sleeping, and calorific intake, this is a fast-growing market.

Technology market-intelligence firm ABI Research predicts that 90m wearable computing devices will be shipped in 2014, driven by sports, health and fitness. At least in this lifestyle area, consumers seem to be buying into the idea that data itself – and not just the service they

are receiving in exchange for it – can be useful.

So perhaps a more achievable vision of consumer empowerment is not people making money from selling their data, but people gaining value from their data in other ways. This ties in with the UK government's midata initiative, established in 2011 and backed by major brands such as Google, RBS, British Gas, Visa and Mastercard.

Midata encourages – but, currently, doesn't force – UK businesses to allow consumers access to the personal data they hold on them. The idea is that – by releasing this data – some of the value within it can be accessed by individuals, thus redressing some of the perceived asymmetry in the current data exchange.

But the initiative has hit a stumbling block, with relatively low uptake from industry. During a recent parliamentary debate, Labour MP Stella Creasy claimed that the midata scheme had failed to have any sizeable impact – because companies have little motivation to release commercial data that may convince a customer to go with a competitor. A review of the adoption of the midata scheme is currently under way, and is due to report shortly. Part of that review will focus on whether the scheme should be made a requirement.

### Superstores

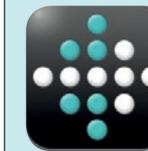
Whatever the future for midata, there are companies that have embraced its vision of empowerment through data. Mydex is one example: a cloud-based, personal-data store that allows users to store online information – such as their usernames, passwords, bookmarking data, browsing history and address books – as well as a record of services they have signed up to, and what they've shared with each one.

This data can be synchronised with other services and other devices, but – because the store is encrypted, ►

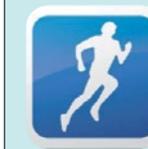
## I TRACK, THEREFORE I AM

Essential tools of the quantified-self movement

If you want to start tracking your online and offline behaviours, the following apps are essential.



**Fitbit**  
A small device (there are now several iterations available) that tracks physical activity and sleep. Data collected can be uploaded – or automatically synced to a smartphone – and made into visualisations on Fitbit's website or on the mobile app. [fitbit.com](http://fitbit.com)



**RunKeeper**  
Android and iPhone app, designed to track runs using GPS. Information includes distance, duration, speed and calories consumed. Mobile interface shows a list of runs, while the website has fitness reports with visualisations of runs. [runkeeper.com](http://runkeeper.com)



**Klout**  
Your Klout score is a metric for overall online influence. Klout connects with Facebook and Twitter to measure True Reach (size of engaged audience); Amplification Probability (likelihood that content will be commented on or retweeted), and Network Score (influence level of engaged audience). Klout users can gain access to products, discounts, and VIP access if they hold influence in certain areas. [klout.com](http://klout.com)



**Momento**  
An iPhone journal app that allows users to make entries using text or photos, as well as tagging people from address books, GPS locations and category tags. It can also incorporate events from web services such as Twitter, Facebook and Flickr. [momentoapp.com](http://momentoapp.com)



**Sleep Cycle**  
An iPhone alarm-clock app that uses the iPhone's accelerometer to analyse users' sleep patterns, and wake them during the lightest sleep phase. The app produces sleep graphs showing the progression of sleep during the night. [sleepcycle.com](http://sleepcycle.com)

3

Dominic Javille



Mydex claims, users can be confident their data is not being shared beyond what they have explicitly agreed to.

The idea is that users can analyse this data themselves, or pass it on to third parties, such as market research firms.

For chief executive and co-founder of Mydex, David Alexander, the benefits of the system are not primarily to allow people to monetise their data – though he does see that as a possible strategic outcome of individuals becoming more empowered.

Alexander's primary goal, he says, is to make life easier by allowing users to integrate their lives, without having to rely on the wannabe 'universal logins' offered by Google or Facebook.

"Each of the different elements of my life have different interest areas and different services that I need to register for, but they are all independent of each other," he says.

"I want to integrate my life for myself, but I don't really want Google understanding everything about me,

and then selling it to other people without me saying it's OK."

Mydex also acts as a portal for users to connect with their banks, utility companies, local authorities, and anyone else who might hold data on them, to gain access to that data in a way that suits them.

### Power struggle

The appearance of mechanisms such as Mydex and Handshake – as well as the increasingly politicised nature of the personal data debate – strongly indicate that we're moving towards a time of greater consumer empowerment with regard to data.

But what form will it take? Can people really make money from their data, or will the supposed imbalance be redressed in other ways?

There seems to be little agreement on that front. What most agree on is that there is value to be found for everyone in the mass of data that's out there. While the question of who will benefit most remains to be answered, the power of data, like oil, is undeniable. ■

## END NOTES

Research Now's Simon Beedell and Michael Murray round off this special report with some final food for thought

As this special report makes clear, people are becoming more aware of the value of their personal data – even if they aren't yet fully able to get the maximum value out of it.

But what might this greater awareness mean for market researchers? Will people be less willing to become survey respondents if they don't see a direct monetary value in doing so? Will we find ourselves having to haggle over incentives?

Our view is no – at least, not yet. Although incentivisation is, and will remain, an important lever for encouraging people to take part in research projects, many consumers are motivated more by the desire to make the best use of their limited time than they are by trying to make money from trading their data.

As the popularity of social media makes clear, people love to

have their say on matters of personal, political and professional interest. They like to contribute, and they will devote substantial time to websites and social networks that provide an enjoyable, interactive experience, within which they can share their points of view.

So this is the real challenge to researchers: to make research a rewarding process in, and of, itself. Measures should be in place to create respondent satisfaction.

For permission-based data collection companies such as ours, we need to make sure we are deeply profiling our panellists in order to send out appropriately targeted surveys and minimise screen-outs.

By providing a seamless and positive experience throughout the survey process, this should translate to positive respondent

satisfaction. And, by employing a permission-based approach to using personal data to match the right surveys to the right people, we're able to prove that – not only do we value their information – but we value their time as well.

Respondent experience and incentivisation go hand in hand. If we only focus on the financial side of the relationship, we risk taking respondents for granted.

Therefore, it is important to work collaboratively with clients from the start of a project, to clearly define the business and research objectives to avoid asking respondents unnecessary questions. Questions that are irrelevant or repetitive will undermine respondent engagement, and may lead to incoherent, poorly considered responses and compromised data.

We also need to consider survey

mode. People now possess greater options when it comes to devices (from tablets to mobile phones to desktop PCs). Couple this with their limited free time outside of work – and myriad personal commitments – and it is ever more important to reach people on their time, and on their terms. This is one of the reasons we have seen a shift from telephone research to online and mobile.

But perhaps the surest advice to offer is always to put ourselves in the shoes of our respondents. "Would I be willing to take this survey? To share this information?" If the answer is 'no', we shouldn't expect someone else to do it.

Simon Beedell is division director EMEA – Healthcare, and Michael Murray is head of project consultancy for Research Now