Credible sources

Greater information overload moves our focus from simply accessing data to including the source of the insight to distinguish what we trust.

As connectivity increases and the information being generated around the world rises, many of us will be faced with ever more data, insight and comment that we will have to try to make sense of. As was highlighted repeatedly in the Future Agenda programme, 'the biggest challenge is simply to manage the huge amount of data out there'. Many see that we already have too much data, are too dependent on information and this prevents us making decisions:

"Too much reliance on data to guide our views has meant that we have lost intuition. Going forward we need to rise above the mass of information so that once again we can make more focused decisions."

As a result, many organisations are seeking to help make sense of the information available. As pointed out by D. J. Collins at Google in his initial view of the future of data: 'Companies such as IBM, Oracle and SAS are making strides in data mining and database management. Their research shows that intelligent systems will become increasingly prevalent. Other organisations, like Amazon, Sun and even Google, are demonstrating the amazing benefits in scale and interoperability that come through moving data storage into the cloud.' The direction of travel is clear and many are focused on delivering the best answer ahead of the competition. However, there are numerous concerns over the impact this shift will have on how we use information.

"In many areas, knowledge is already a commodity – Wikipedia is one obvious example. If this trend increases, then where is the power? One could ask whether access to information really does empower the individual. I would say only if the recipient knows what to do with it. In the future we will move increasingly to wanting 'data we choose' to receive rather than just access to hard data. This could lead to a narrowing of opinions too early but clearly the successful recombination of the data received will lead to increased influence."

Many see that this information–power balance is currently in a state of flux and over the next decade could move significantly.

At a structural level, the migration of computer applications from the desktop to the web, the so-called shift to 'cloud' computing, will imply that more of our personal and professional lives will be spent using our web browsers. That means browsers will have to be stable, powerful and, above all, secure. In the initial view on the future of data, it was suggested that 'if we consider what has been achieved in the past ten years, over the next decade we have the opportunity to give more power to users. In the world of ubiquitous and uniform access, intelligent agents and the semantic web, we have the potential to enable even greater shifts in transparency and access to data than previous generations could have ever imagined.' From Google's perspective: 'If people are comfortable sharing their search history with us,

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we can use that as a valuable signal to provide them more relevant information more quickly.'

Within the next decade, some people see that there will be so much information shared and freely available that we will be able to create totally new information infrastructures. 'If, for example, we take the data sets associated with the human genome, then we can in principle create a complete world family tree – we can have a search engine of the world's DNA and we will be able to see how we are all individually related and so, as a consequence, how we seek to behave towards each other may change.' Greater sharing of data is seen by many as inevitable.

However, others disagree with this: 'We need more efficiency and greater relevance incorporated into the system as we focus on information not knowledge. Efficiency, timeliness and relevance are critical and having a sea of data is without value. We need more than search engine technology and to focus on information arbitration.' Or, in other words:

"The future will be about more efficient data use. If 90% of what we get from current search engines is useless, relevance is clearly a challenge. Therefore we have to apply more intelligent criteria to filter our information – and this is all to do with redundancy of information."

In effect, it is not that we need more information but that we need more credible information. To address this issue, those who are driving the web forward anticipate that it will be more powerful, flexible and useful in the years to come. 'The much-touted "semantic web" – in which the relationships between pieces of information will be both apparent and useable – may not be imminent, but it's certainly within sight. Its advent will drive further research, and it will also make the web more useful to people around the world.' Wouldn't it be good to have a system that asks questions as well as answers them? Others concurred with this: 'The semantic web will play a significant role in helping to align the key combinations of data we need to gain really useful information. Over the next ten years, semantic search engines will shift the intelligence behind search to a far higher level. The challenge will be in making the search engines more intuitive.'

One issue here is our increasing dependence on a single source of information – namely, the leading global search engine run by Google: 'If we are looking to capture more information, we need multiple sources, not just a single one. For real insights on the world we cannot trust just one search engine.' As Diane Coyle pointed out in the initial view on the future of authenticity:

"The most effective way to counteract falsehoods in the future will probably come from the pooling of many messages and reports so the people can see where there is a consistent story. The aggregation of different stories could be a powerful tool for verification."

However, some see that the growing gap between the wisdom of the crowd and the ignorance of the

mob will increasingly create the demand for greater differentiation between believable views and more noise in the online world. Just having multiple sources is not enough: what people see as more important are credible sources, ones in which we have full confidence. 'We need to have trust in the medium as well as the data. We need to recognise the difference between fact and opinion – and so be able to see the credible from the incredible. The credibility of information is based on the profile of the person offering it and going forward this will become more significant. In addition, we need to be cognisant of the drivers of trust such as governance, stewardship and openness.' A complementary view was that 'opinion is of little value until you can authenticate it – so the challenge will be to identify credible (authentic) information. The definition of what is credible may have to change – in the future, credibility may be delivered through a ranking system based on trust.' Another added:

"With increased connectivity and sharing of data, we will need more trusted intermediaries. Choice agents will need to be trusted more and there will be a currency of trust appearing. Sources of information will be as significant as the information itself."

For many of us, decisions are emotionally driven, not data driven. Data are there to provide context and allow us to make informed judgements. Some see that 'if we are to be loaded with more data in the future, it will lead to slower judgement without

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depth of rigor. With too much data to process, we are increasingly being shallow and broad in our views rather than deep and narrow.' What people believe, who they trust and what they see as credible are judgements based on what information is available. This will increasingly be not just the information that companies and organisations put out into the media maelstrom, but also what people say about them.

In the parallel world of reliable sources for journalists, those who are seen as offering the most credible information will rise to the top of the stack of trusted brands, media organisations and individual commentators. Their opinions will be the most valued and the most used to inform decisions. The problem here is, however, that there is also a big question over the business models that will be able to work in the world of ubiquitous cheap data. As yet, it is unclear how the infrastructure will actually be financed over the next decade and whether people will be willing to pay for better information.

"We are increasingly accustomed to free access to free information and so shifting back to a pay-to-access approach will be no easy move – particularly for the younger generation. The question is, should access to information be monetised and, if so, by whom?"

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