An EPSRC-funded PhD student at the University of Cambridge laid the foundations for what has become the UK’s biggest pure software company and a world leader in allowing computers to harness the full richness of human information.

Computers are traditionally good at dealing with the structured information found in the rows and columns of a database, but not with the unstructured material such as texts, email, voice and video that makes up so much of our interaction. Dr Mike Lynch founded Autonomy Corporation plc in 1996 after completion of his PhD in mathematical computing, with the goal of making computers better at interpreting this vast sea of data.

**Impact on the IT Industry and Organisations**

* Human information has traditionally had to be reduced before computers could process it; for example, distilling a feature-length video into a short, searchable, text summary. Autonomy turns that on its head, allowing computers to harness the full richness of human information. Called ‘Meaning Based Computing’, this is a fundamental shift in the IT industry.

* Autonomy brings meaning to data and automates operations. For the first time, organisations can truly penetrate their information silos, derive maximum value from their corporate assets and dramatically boost productivity while managing risk.

* Today, numerous world-leading companies from virtually every sector embed Autonomy’s technology into their own software solutions to enable them to process unstructured information.

**More intelligent computers**

Throughout the history of the IT industry, computers have been able to deal with information in rows and columns – that is, ‘structured’ information. But human beings naturally communicate using the ‘unstructured’ information that is contained in every phone call, email or video. And you can’t put that sort of information into rows and columns without losing a great deal of meaning and richness.

There’s a very simple idea at the heart of it: computers should adapt to our world rather than the other way around. Type in the word ‘dog’ for example, and the computer can easily go away and find every mention of that word, but it doesn’t understand that a dog is an animal or that it’s man’s best friend. When you have that conceptual understanding, it becomes possible to actually process the information and do useful things with it, rather than simply search it.

But because people are used to dealing with computers in the traditional way, the challenge for Autonomy is to show those in the IT industry that there is a different and more productive way of getting more useful information out of the world’s computers.

With over 40 new pieces of legislation that dictate how companies should handle their information, those companies now need to be able to manage, retrieve and harness all their information, wherever it resides. Autonomy now helps some 20,000 customers across the globe to do just that with industry first solutions such as Information Governance.

For more information about EPSRC and the impact it is making visit www.epsrc.ac.uk
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