

Innovations are needed if Big Data is to boost jobs, says new research

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Credit: Engineering and Physical Sciences Research Council

Phenomenal quantities of valuable data are now being collected and

created by UK businesses but much of its commercial potential remains untapped.

Fears of data leaks and of losing control are the key reasons why companies are hoarding data rather than sharing or trading it openly and transparently or turning it into profitable information-based products and services.

These are the key findings from an investigation carried out by Imperial College Business School with funding from the Engineering and Physical Sciences Research Council (EPSRC) and the Economic and Social Research Council (ESRC). The team has worked closely with organisations such as the Office for National Statistics (ONS), Ofcom, IBM and the BBC.

On average, data-based capital contributed just 0.015 per cent to UK GDP each year over the period studied by the team, even though investment in data-based assets in the UK reached US\$7 billion in 2013—which equates to around 40 per cent of the amount invested in R&D.

Turning data into a widely traded, growth-boosting commodity similar to oil, for example, would require (i) a clearer regulatory framework and (ii) low-cost trading mechanisms enabling data to be exchanged in vibrant digital market-places without sensitive information about its originators being revealed.

Professor Aija Leiponen, Associate Professor at Imperial College Business School who led the work, says: "The world is increasingly awash with data and the key objective must be to ensure that it can be turned into growth, prosperity and jobs. Currently, however, data is still at the very early stages of commercialisation. It can't really be legally owned and that makes companies very protective and secretive where

their data assets are concerned. Moreover, even anonymised data can be collated to reveal sensitive information about the organisations where it originates.

"What's needed is the development of new trading technologies—technologies like the emerging 'blockchains' that incorporate protection against tampering or unauthorised use and could potentially enable anonymous trading of relatively high-value data assets. Alternatively, data assets can be commercialised as part of other digital products and services, though this can require significant R&D. However, data is unlikely ever to become formal intellectual property in the same way as patented inventions or copyrighted content are."

The aim is for the findings to be taken forward by government, the IT sector and wider industry to help create the legal/regulatory framework and technical capabilities needed to release the full commercial potential of the 'big data' revolution.

The results from this research are being presented today (May 18, 2016) at a workshop hosted by Imperial College London.

More information: wwwf.imperial.ac.uk/business-s...e-value-of-big-data/

Provided by Engineering and Physical Sciences Research Council

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