Big Data

Imperfect information dims the vision of a digital utopia

Consumers believe they are empowered by data but have no time to assess their worth

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The work of Joseph Stiglitz and others shows the incentive to obscure and withhold information for the sake of profit is too great. Information asymmetry always reasserts itself © Reuters

YESTERDAY by Izabella Kaminska

Proponents of the digital economy have long argued that the best way to increase prosperity is to accelerate society's transition to an information age. The more data we provide, share, access and process, the better for all of us. Our informed market decisions will lead to greater competition and consumer empowerment — or so the proposition goes.

But the adage that information is power should never be far from our minds. Nor the fact that information is not the same thing as knowledge. In the battle to bring on the information economy, technologists and entrepreneurs eager to assert their market dominance may be overlooking more than 50 years of research into the economics of information. The result will be to the collective detriment of all of us. This becomes all the more concerning in light of what is now a well-established theory: more information does not necessarily breed more competition or social welfare.

In a new paper, Nobel-winning economist Joseph Stiglitz, building on decades of work on the economics of information, argues that the information paradigm being promoted by technologists could — if left unregulated by government — lead to the sort of market distortions that constrain welfare creation and innovation for the long term.

Fundamental to his assertion is the understanding that perfect information in and of itself is unachievable. Indeed, it might only ever be possible in a society where privacy is done away with entirely, or where, like the Borg in *Star Trek*, we all share a single, collectively fused consciousness. And yet the holy grail of "perfect competition" can only ever be achieved in a world where perfect information is a given. As the work of Mr Stiglitz and others shows, such a state is inherently susceptible to collapse. The incentive to obscure and withhold information for the sake of profit (alongside the disincentive to continue spending on unprofitable information retrieval) becomes too great. Information asymmetry always reasserts itself.

The phenomenon is well observed in financial markets, as Mr Stiglitz outlines, which are known for pursuing innovation on grounds of enhancing efficiency. In reality, the added complexity often reinforces the information asymmetries that deliver profits. "Many financial transactions seem designed more to increase complexity and the associated market power than to solve societal problems," he notes.

The consumer goods sector has also seen these adverse effects. It may appear to consumers that they have never had more access to information about products and services in the form of reviews, ratings and testimonials. But a lack of time to research, assess or authenticate the legitimacy of that information means they may not actually be being empowered.

The more consumers rely on third parties to filter, sort or tier this information on their behalf — we trust them to save our time — the greater the scale of information asymmetry reasserted. Information economics dictates such third parties — Google and Facebook being the most obvious examples — only have an incentive to help us sort our options if they get to exploit the information advantage generated. That can mean using it against their own customers, as they seek to extract more of each individual's surplus for themselves.

What is particularly pernicious about the current dominance of such third parties is not just their tendency to establish network monopolies but also their unique resistance to competitive disruption from aspiring rivals. This, according to Mr Stiglitz, is due to privileged access to large amounts of data that cannot easily be replicated.

The only corrective is entrusting governments to intervene whenever private returns to information are overly exceeding social returns. That means more regulatory intervention of the sort we are now seeing from EU antitrust authorities, not less.

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