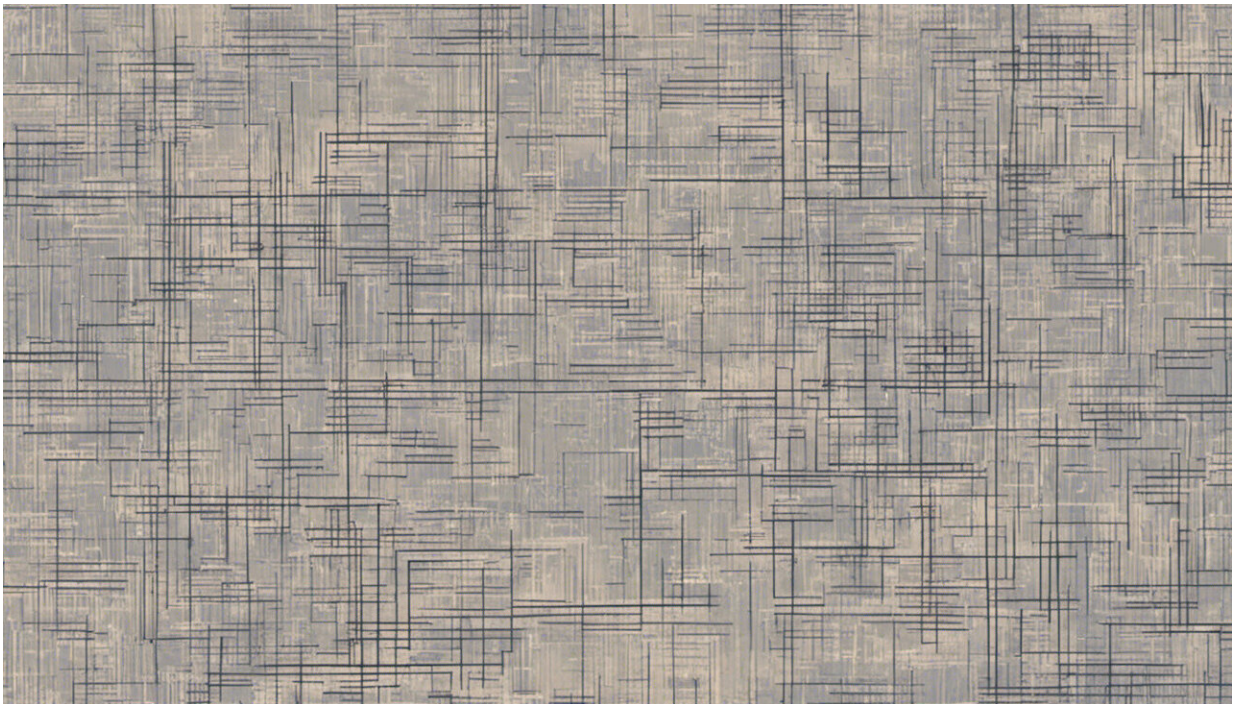


Think twice before trusting a digital assistant to do the shopping

December 16 2016



Credit: AI-generated image ([disclaimer](#))

Online shopping for Christmas is likely to be very different in the not too distant future. While today we use search engines for information, in the years ahead we will increasingly rely on digital personal assistants, voice-activated digital helpers and our smart phones. These digital helpers will aid our shopping experience and reduce our search time. But

these benefits may come at a cost.

New research by law professors at the University of Oxford and University of Tennessee carries a warning about these seemingly helpful shoppers. In their new book, *Virtual Competition: The Promise and Perils of the Algorithm-Driven Economy*, Professor Ariel Ezrachi, an expert in EU competition law, and Maurice E Stucke, an expert in US anti-trust law, examine the welfare implications of our increasing reliance on [online shopping](#) and online platforms, and the way they may be used to distort competition and lead to price discrimination.

In their research, Ezrachi and Stucke explore the rise of personal digital helpers and how they may change the dynamics of competition, so our privacy and our ability to identify true competitive prices become a thing of the past. Online shopping is becoming an increasingly personalised experience, which the authors argue increases the risk of a biased, distorted environment in which we, as users, are manipulated. Such an environment can pave the way for behavioural discrimination, meaning it enables sellers to induce us to buy things at the highest price we are willing to pay, says the book.

Professors Ezrachi and Stucke show that the key to the sustainability of online behavioural discrimination is the presence of data-driven network effects. Already today, many of us are unknowingly subjected to different levels of manipulations. Our online search results may be ordered in a way that leads to us buying at higher price. Our favourite online retailer may charge us a higher price, knowing that because we have used them many times before, we are less likely to search for outside options. Some websites may discriminate in pricing based on our postcode, search history, and other information. The more people shop on the online platform for different items, the more data the platform collects on them and the more opportunities it has to observe individual behaviour and push up price, discriminating against those who can pay

more according to the data it has gathered already.

With the introduction of more advanced versions of digital helpers such as Apple's Siri, Amazon's Alexa and Echo, Facebook's M, or Google's Assistant, we are likely to increase our reliance on recommendations made to us by these helpers, giving them greater control over our online environment and the information to which we are exposed.

Professor Ezrachi, Slaughter and May Professor of Competition Law at the University of Oxford, comments: 'We should be aware that search engines, computer bots and digital helpers are not really working for the customer. Their true masters are the platform, advertisers and sponsors on the other side. The main beneficiary, of course, is the one who controls the ecosystem. Likewise, some online markets may appear to be subject to ordinary free market forces but we have no idea about how, and the extent to which, we are being exploited by the digital environment because we are not seeing the whole unbiased market.'

Professor Stucke concludes: 'The internet, big data and big analytics provide us with valuable benefits that can often promote a competitive [online](#) environment. However, we cannot uncritically assume that the consumer will always benefit. When we examine the complex algorithm-driven environment, we can see new market realities that are less competitive than one might expect. While the new market dynamic has characteristics of competition as we know it, it could be manipulated – creating an impression of competition – but in fact we could be shopping in a controlled environment where "real" options and [competition](#) do not even appear.'

Provided by University of Oxford

Citation: Think twice before trusting a digital assistant to do the shopping (2016, December 16)

retrieved 26 April 2024 from <https://phys.org/news/2016-12-digital.html>

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