

Find out how much privacy you compromise with every click

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Credit: EPFL / Alain Herzog

Does clicking on a link or liking a product have an impact on your privacy and your personal information? An EPFL researcher has come up with a way to browse the internet without revealing too much about yourself and without having to forgo the convenience of online product recommendations.

Nowadays it is common for people to buy a book or other product that was recommended to them based on their online profile. But these recommendations, which are powered by past shopping behavior, raise a number of questions about data protection. The potential buyer often faces a dilemma: should I click without knowing exactly what I'm revealing about myself or how this [information](#) will be used? Or should I not click and forgo a useful product or service?

Mahsa Taziki, an EPFL researcher, has developed a system that makes this decision easy. Using an algorithm, she can determine in [real time](#) the amount of information revealed by clicking to rate an item. "80% of the clicks provide a utility-[privacy](#) tradeoff for the [users](#)," she says. "Some clicks are very useful and don't compromise your privacy, while others are just the opposite. My objective is to compute accurately the utility and privacy effects of the user's clicks. The users can decide what to click on, and the service providers can also use it to improve the experience of their users."

A fair trade-off?

Unlike ad blockers, which are largely indiscriminate, Taziki's algorithm does not affect information or ads that users don't mind seeing. The algorithm sizes up every potential click, assessing the quantity of data that will be sent, the potential effect on privacy and what the user stands to gain from clicking. The results are presented in a color-coded "click advisor" that the user can use to quickly decide whether or not to go ahead. Thanks to this little guide, users determine whether or not the trade-off is worth it.

Taziki plans to continue developing her system, which is now patented. This will include creating a browser extension that would immediately warn users when a website is taking too many liberties with their [personal information](#). "In the end, we want users to be able to enjoy the

benefits of online recommendations while maintaining maximum control over their privacy and the data they share," she concludes.

More information: Rachid Guerraoui et al. The Utility and Privacy Effects of a Click, *Proceedings of the 40th International ACM SIGIR Conference on Research and Development in Information Retrieval - SIGIR '17* (2017). [DOI: 10.1145/3077136.3080783](https://doi.org/10.1145/3077136.3080783)

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