# Algorithms in our Midst: Information, Power and Choice when Software is Everywhere

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**Abstract**

Our personal, financial and civic interactions are increasingly digitally mediated, and more and more objects come embedded with chips and sensors. As a result, a new layer of power has arisen: that of the algorithm. Software—human-constructed, often invisible and progressively pervasive—not only mediates our lives, it is increasingly used to make decisions in a diverse group areas ranging from sociality to employment to health to relationships. While automation's social, political and economic impacts have long been debated, there is now a new layer that requires consideration: algorithms, often aided by big data, now make decisions in subjective realms where there is no right decision, and no anchor with which to judge outcomes. What is good? What is relevant? What is important? Who is right? What is desirable? What is valuable? These questions with philosophical roots that go to beginning of civilization are now turned over to algorithms that bring about a new set of structural biases and issues. This new phase in pervasive computing raises significant questions and challenges, and important areas of research.

**ACM Classification**

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**Short Bio**

Zeynep Tufekci is an assistant professor at the University of North Carolina, Chapel Hill at the School of Information (SILS) with an affiliate appointment in the Department of Sociology. She's also a faculty associate at the Harvard Berkman Center for Internet and Society.

Zeynep was previously:

- a fellow at the Center for Information Technology Policy at Princeton University and I taught at the Woodrow Wilson School of Public Policy and International Affairs.

- a fellow at the Berkman Center for Internet and Society at Harvard University.

- an assistant professor of sociology at the University of Maryland, Baltimore County

Her research revolves around the interaction between technology and social, cultural and political dynamics with particular interested in collective action, civics, algorithms and big data, surveillance, privacy, and sociality. Zeynep believes that academic knowledge is crucial to significant issues facing us and besides carrying out her academic research, she tries to write at the intersection of academic knowledge and accessible and relevant content.