Let’s face it – decisions are being made every day in our world by folks working with data. Indeed, you might have heard terms like big data, data science, and the “data deluge” in passing, or even seen them on the cover of a magazine (The Economist 2010, as an example). In this talk, we’ll examine decisions and suggestions made with data that are relevant on a mostly individual level, to discuss the statistical ideas behind them in layman’s terms. For example, how does a spam filter “know” which emails are spam and which are not? How does Pandora know which song to play next based on your previous likes and dislikes? How do Amazon and Netflix come up with recommendations for you? How does Target decide which coupons to print for you? These decisions are all relevant to us as individuals, but the statistical ideas behind them are very powerful, and can be applied to even more difficult (and more scholarly) problems, such as determining the most likely author of an anonymous text based on a collection of works by several likely authors.