



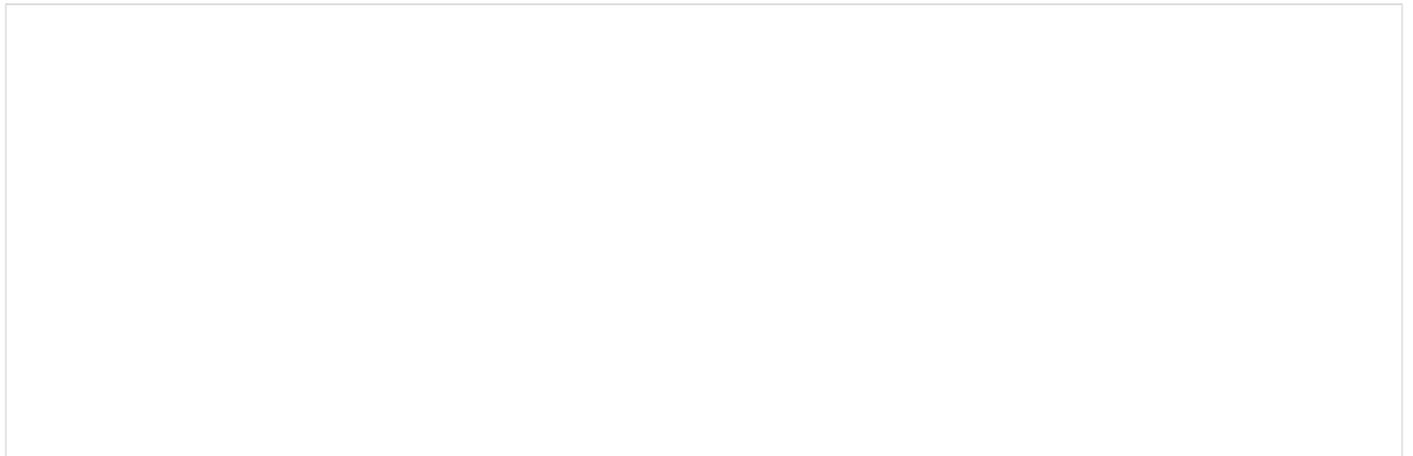
Will Big Data Drive Proliferation of Smart Home Technology?

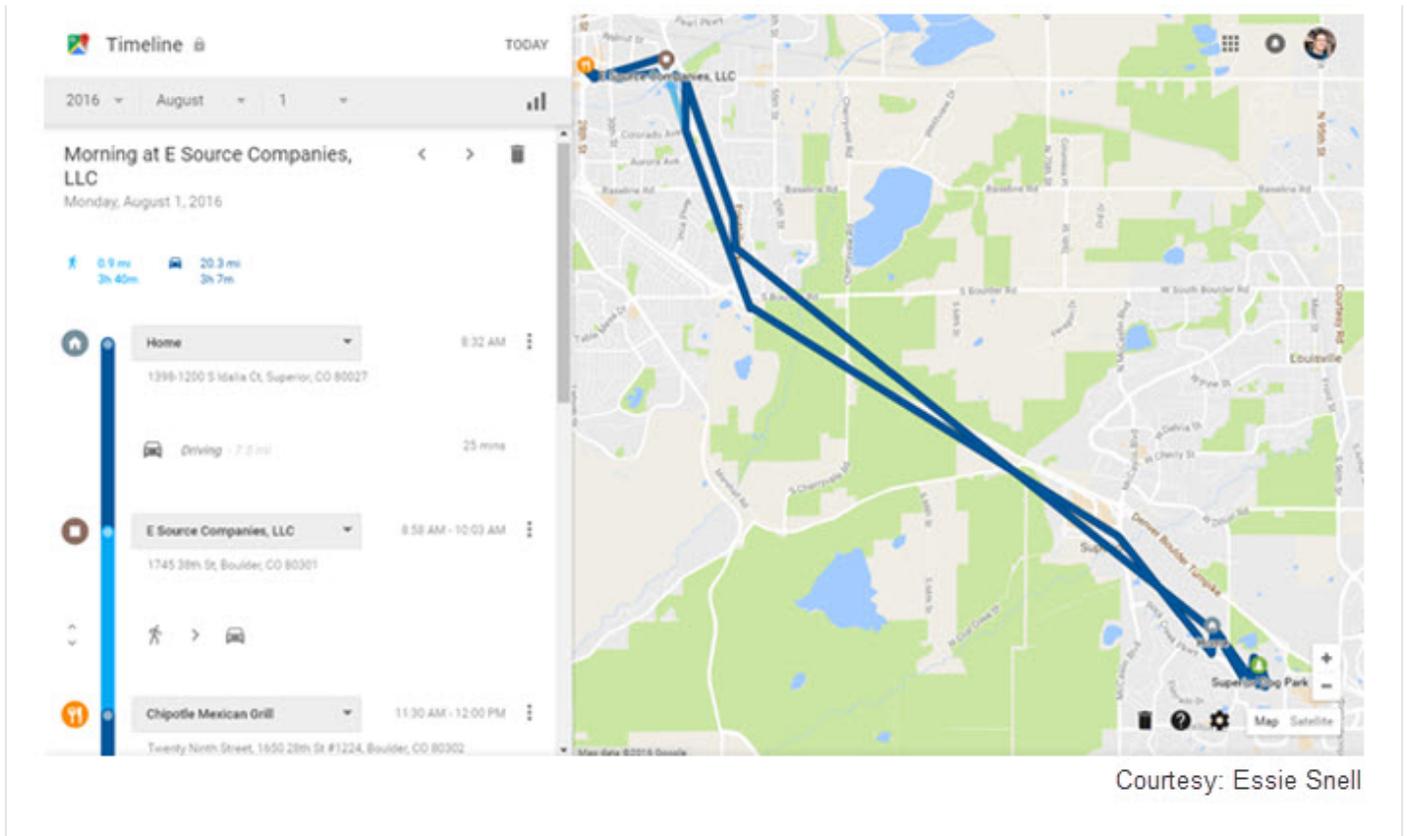
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It's easy to forget just how much data companies like Google, Facebook, Apple, Microsoft, Amazon, and others collect every hour of every day to facilitate things like targeted marketing, in-depth market and demographics research, and sophisticated "big data" approaches to business management.

I recently stumbled across a feature squirreled away in Google Maps called Timeline that can provide a detailed record of every place you've been, how long you were there, and what type of transportation you used to get there. It apparently prefers to collect real-time GPS data from your phone to do this, but if you turn GPS off, it can also track the various Wi-Fi networks your phone passes through over the course of a day to pinpoint your general location. For me, this revelation was both creepy and a little cool (I immediately went back to see all the places I visited on a recent vacation), and it got me thinking about the seemingly inevitable moment when home devices start working alongside web browsers and smartphones to collect and share user data.





Given its massive potential to drive profits, the use of big data is now booming, and data-gathering tactics are getting increasingly competitive and arguably more invasive. Though there have certainly been occasional stories that highlight the potential to infringe on personal privacy. For example, the 2012 New York Times article [How Companies Learn Your Secrets](#) described how Target was able to statistically determine that a teenage girl was pregnant before her father knew, and mailed to her home tailored marketing around products for new mothers. Nonetheless, the potential benefits for companies that successfully utilize big data generally seem to far outweigh the risks. Google is among the most obvious examples (virtually all of its revenues stem from the user data it collects), but many other businesses also increasingly rely on big data. For example, the 2013 McKinsey report [How Retailers Can Keep Up with Consumers](#) says that “35 percent of what consumers purchase on Amazon and 75 percent of what they watch on Netflix come from product recommendations based on [big-data] algorithms.” Even more-traditional retailers like Nordstrom are now looking at ways they too can leverage user data to improve sales and overall customer experience.

Where smart home technology is concerned, the lure of big data may also drive manufacturers to produce more connected devices going forward. Data related to who customers are, where they travel, and how they use the Internet in their day-to-day lives is now abundantly available to many companies. But comparatively little in-depth data has been collected or made available about how people act when they’re in the privacy of their own homes. For retailers like Amazon or more-marketing-centric organizations like Google, this type of data could be invaluable for increasing sales and opening up new revenue streams. And with wireless chip prices continually coming down, there’s little reason for manufacturers *not* to add wireless connectivity to

home devices, even when they may offer relatively little incremental near-term value to the end user. The fact that the manufacturer or distributor stands to gain significantly from their connectivity means that these devices could be sold without even advertising their “smart” new features or upselling the customer, and it may still be worth it to these companies to upgrade their product designs.

For utilities, the intersection of big data and smart home technology may offer a range of opportunities to build new mid- or upstream incentive programs, collect more-in-depth data on how users actually consume energy (potentially allowing for real-time measurement and verification), and open up new communication channels. At the very least, it provides yet another indicator that the smart home market will continue to grow, and—as an area that is increasingly facilitating more-sophisticated residential demand-management and energy-efficiency strategies—will warrant increased utility attention.

Want to know how you can better leverage smart home technology? E Source members can access comprehensive reports on the smart home, such as [Combating Industry Disruption with Smart Home Technology](#) (available to *Customer Strategy Council* members) and [Home Energy Management Is Coming: Are You Ready?](#) (available to *Technology Assessment* and *Demand-Side Management Service* members), at any time. Better yet, join us September 13–16 at the annual [E Source Forum](#); in particular, check out our “Join the Smart Home Revolution” session. Hope to see you there!