Your Digital Twin: Personal Software Agents and the Values-Mapped Web

By the end of this decade, many technologists expect natural language understanding on our leading software platforms to provide us with an increasingly values mapped web, and with agent-based interfaces that have crude statistical models of our values, preferences, intentions, and digital histories. I call such agents "digital twins" and began writing about them in 2003.

We've barely begun to think about the positive and negative implications of digital versions of ourselves, which will rapidly grow in their agency abilities in coming years. Such twins will increasingly advise us in what to read, watch, buy, and even vote on, and we'll interact with them conversationally, training them in our preferences and enabling them to do more for us every year. As they grow in capacity, initiative politics, mass actions, and other bottom-up forms of democracy seem likely to greatly increase. Governments may enact new laws and regulations on these systems to prevent "mobocracy" (rule by the crowd) and the nature and granularity of representation in representative democracy in advanced industrial societies seems very likely to change. There are many other legal and ethical issues regarding the future of agents as well, a few of which are touched on in the links below.

I'm presently writing a book about digital twins, interviewing leading technologists, futurists, and policymakers who have written about the future of software agents. A chapter length version of the book will be coming out in 2015 in a collection *Augmented Intelligence*, edited by Daniel Araya, PhD, Lead Researcher, Leadership and Policy, National Center for Professional and Research Ethics, University of Illinois at Urbana-Champaign and Satya Nitta at IBM Research.

You can find more of my writing and thoughts on the topic of digital twins at the links below.

Two brief recent interviews I've done;

http://www.businessinsider.com/within-5-years-digital-twins-could-start-making-decisions-for-us-2014-9 http://www.metro.us/lifestyle/ready-for-the-future-futurist-john-smart-says-we-ll-have-digital-twins-in-five-years/z sJnju---yOXlyDaV1Nrgw/

Two early articles I've done on the topic: <u>http://www.accelerationwatch.com/lui.html</u> (2003) <u>http://www.accelerating.org/articles/hpe2032army.html</u> (2004)

I'll be happy to turn this into a formal abstract if you think its a good fit for your 2015 conference.

