THE SUNLIGHT SOCIETY

Dedicated to detecting, studying and exposing new technologies that threaten democracy and human freedom

An initiative of the American Institute for Behavioral Research and Technology (AIBRT)

> "Algorithms can lead to a distortion of our perception; they can shrink our expanse of information." –Angela Merkel (2016)

> "How people get their information, *what they believe, what they don't,* is the project for the next decade." –Eric Schmidt (2016)

> "Sunlight is said to be the best of disinfectants."
> –Justice Louis Brandeis (1913)

Background. It has come to light in recent years that emerging internet-based technologies have made possible new means of manipulating human opinions, beliefs, and behavior on a massive scale, often without people's knowledge. Randomized, controlled research conducted in multiple countries by AIBRT researchers has shown, for example, that search rankings favoring one political candidate can rapidly shift the voting preferences of undecided voters toward that candidate by up to 80 percent in some demographic groups. New research shows that opinions can also be shifted by manipulating search suggestions ("autocomplete"), and multiple concerns have been raised in recent months about how social media might have shifted large blocks of votes in the 2016 US presidential election by filtering news feeds, personalizing content, spreading fake news stories and other means.

The impact of such manipulations is far from trivial. Biased search rankings alone might currently be determining the outcomes of upwards of 25 percent of the national elections in the world, and one recent analysis suggests that if the leading Big Tech companies all supported the same political candidate, they would be able to shift 10 percent of a country's vote without anyone knowing they had done so.

Anti-trust investigations of the largest of these companies—Google, Inc.—by the US, Russia, India, and the EU have concluded that Google's search rankings are biased to favor its own products, but hard evidence has sometimes been lacking because much of Google's content, like the content of Facebook, Twitter, and other Big Tech companies, is *ephemeral*. It appears on a screen, has an impact on the user, and then *disappears*, with no record kept of that event. Even if we could access and decipher the secret algorithms that generate the content, we would still have no record of the unique online events people are experiencing every day.

A recent article in *The Guardian*, lamenting the loss of online information displayed to voters during the 2016 Brexit campaign, stated the problem plainly: *"That's gone. There's no record. It wasn't – couldn't be – captured. It can't be studied. We'll never know."*

Is human thinking and behavior, present and future, at the mercy of ephemeral internet content that cannot be monitored or preserved and that is controlled by a handful of corporate executives?

As internet penetration increases, as the internet becomes increasingly embedded into more devices—even clothing and appliances—and as technology continues to evolve in unpredictable ways, the potential for manipulating people worldwide will increase in coming years, undermining the free-and-fair election and abridging human freedom.

Sunlight. Beginning in early 2016, researchers at AIBRT successfully developed and deployed a passive, nationwide system for capturing and archiving the

search results displayed by Bing, Google and Yahoo on both the Chrome and Firefox browsers. Between May 19th and Election Day in the US (November 8th), they successfully captured 13,207 election-related searches conducted by a Nielsen-ratings-type network of anonymous confidants, as well as the 98,044 web pages to which these search results linked.

Among other findings: A pro-Clinton bias appeared in all 10 positions on the first page of search results for nearly six months prior to Election Day—perhaps enough to shift a large number of votes to Mrs. Clinton without anyone being aware of how this had occurred. The researchers also found different levels of bias for different search engines, as well as evidence of demographically-targeted bias. A detailed report of findings was presented at scientific conferences in early 2017, and *The Washington Post* and other media outlets published reports about the project in March.

Taming Big Tech. AIBRT's 2016 tracking project is important not just because of the data it preserved but because it is *a viable prototype for a worldwide ecosystem of passive monitoring software that can create a permanent record of a wide range of ephemeral online content*—a record that could, for the first time, force Big Tech companies to be accountable to the public, even in the absence of pertinent regulations, laws, court decisions and anti-trust actions.

To coordinate and expand on such efforts, AIBRT is developing a spinoff nonprofit organization called **The Sunlight Society** (landing page accessible at http://TheSunlightSociety.org), dedicated to "detecting, studying and exposing applications of new technologies that threaten democracy and human freedom." The project was launched by **Robert Epstein**, co-founder and senior research psychologist at AIBRT. A PhD of Harvard University, Dr. Epstein is also the founder and former executive director of the Cambridge Center for Behavioral Studies (http://behavior.org), the former editor-in-chief of *Psychology Today* magazine, the founding director of the annual Loebner Prize Competition in Artificial Intelligence, and the author or editor of 15 books on AI and other topics.

Other founding members of the society include **Dennis Allison**, Lecturer in Computer Science, Stanford University; **Henry Brighton**, Assistant Professor, Tilburg Center for Cognition & Communication, Tilburg University, The Netherlands; **Paul-Olivier Dehaye**, co-founder of PersonalData.IO, Switzerland; **R. David Dixon Jr.**, doctoral candidate in the Management Science and Engineering Department, Stanford University; **Paulo Sa Elias**, Professor of Law. University of Ribeirao Preto, Sao Paulo, Brazil; **David Farber**, Chaired Professor Emeritus. University of Pennsylvania School of Engineering; **Natalie Fenton**, Professor in Media and Communications, University of London; **Nicholas Grossman**, Assistant Professor of Political Science, University of Illinois; **Brian Schildt Laursen**, Chief Relationship Officer, Findx.com, Denmark; **Martin Moore**, Director, Centre for the Study of Media, Communication and Power, King's College London, author of *Tech Giants and Civil Power*; **Frank A. Pasquale**, Professor of Law, University of Maryland, author of *The Black Box Society*; **Jacob N. Shapiro**, Professor of Politics and International Affairs, Princeton University; **Ramesh Srinivasan**, Associate Professor of Information Studies, UCLA; **Damian Tambini**, Research Director of the Media and Communications Department, London School of Economics; **Siva Vaidhyanathan**, Robertson Professor of Media Studies and Law, University of Virginia, author of *The Googlization of Everything*; **Ben Wagner**, Senior Researcher, Centre for Internet & Human Rights, Europa-Universität Viadrina, Frankfurt, Germany; **Michael Weber**, Chairman, Initiative for a Competitive Online Marketplace (ICOMP). Advisors include **Nazli Choucri**, Professor of Political Science, MIT; **James Hendler**, Tetherless World Professor of Computer, Web and Cognitive Sciences, Rensselaer Polytechnic Institute; **Thomas R. Morgan**, Chief Scientist, Rensselaer Institute for Data Exploration and Applications; and others.

Founding opportunity. We are currently seeking seed funding of $10 million from one or more sources. Each donor will be identified in perpetuity as a Founding Benefactor of The Sunlight Society, an organization we believe will play an increasingly important role in preserving democracy and human freedom worldwide in the decades to come. For further information, please contact Dr. Epstein at re@aibrt.org.