

Big Data, Big Problems: The Challenges of Big Data Ethics & Digital Privacy

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Digital technologies, the Internet and Big Data offer innovative products and services that create increased efficiencies for enterprises and value for consumers. But they also create serious ethical challenges that must be anticipated, dealt with and, in many cases, regulated appropriately. As technology evolves and becomes more pervasive, the use of this data becomes more complex and potentially dangerous.

With Big Data comes big problems – ethical problems. One of the most pressing challenges we face today is the ethical implications of Big Data. The ethical issues are diverse but perhaps what’s most alarming to the general public is the threat that Big Data poses to individual privacy. “Any data on human subjects inevitably raise privacy issues, the real risks of abuse of such data are difficult to quantify” (Berry, 2011). As with prior technological advancements, the innovation curve of Big Data is moving much faster than the regulation curve, and we continue to discover new and potentially dangerous applications of this technology.

The emergence of new technologies such as ‘The Cloud’, enterprise data storage and analytics, super-computing, interconnected ‘smart’ devices and the ubiquitous digitization of massive quantities of all kinds of information creates vulnerabilities to individual freedoms, specifically the freedom to privacy of one’s own personal information. This increased vulnerability requires increased responsibility of those parties that deal with Big Data (i.e. those that collect, store, manage and analyze it). But who, specifically, is responsible? The logistical question of who

will be responsible for implementing this framework is very salient to the study of how digital technologies are changing the landscape of ethics, business and culture.

The purpose of this study is to critically analyze and evaluate the current perceptions and state of digital privacy in a world of Big Data. We also provide a systematic ethical reflection on how to balance and regulate the powerful opportunities of this technology while also minimizing harm and preserving basic individual rights such as privacy. Using interviews and surveys, this study investigates individuals and managers perceptions on privacy, data ownership, responsibility and innovation. With these findings we begin to formulate and propose a new ethical framework for negotiating the ethically murky circumstances that arise within the emerging and ever-pervasive digital ecosphere.

This study examines the importance of ethics in Big Data and argues that the key is to understand the larger context of data in society and address the ethical implications in order to preserve individual freedom and privacy. Our findings express that safeguarding privacy will be the driving force in determining the ethics for Big Data. We believe that information and technology ethics should be based in traditional core philosophical principles that seek to widen the scope of human freedom, respect the dignity of individuals and to minimize undue harm to individuals. This should guide the users of Big Data to remain rational regarding the ethical impact of this new technology. These ethical pillars are of paramount importance in this ‘information age’ we find ourselves immersed in. Today more than ever, knowledge is power, but knowledge is also meaningless without action. Although this paper is academic in nature, it is the intention of the authors that conclusions and arguments proposed may be used as a blueprint for ethical action and not merely intellectual investigation within the dynamic world of Big Data.