Analytic processing of big data promises benefits for individuals and for society. Large, varied data sets, gathered from diverse sources and processed using powerful algorithms hold the potential to address issues health care, science research, development, government services, climate change, education and energy distribution and conservation. In some cases big data analytics does not involve data about individuals and raises no privacy questions. But where it does, it may require the use of sensitive data, and yield deep and powerful insights about individuals. In doing so, it can raise significant privacy concerns.

To reap the benefits of big data, Intel believes that it will be necessary to adopt an approach to governance that promotes data use that is both ethical and innovative. We will need to avoid the false choice between privacy and the progress big data analytics can promote.

We believe that to achieve this dual goal, fair information practice principles remain important and relevant, and continue to provide the best, most reliable guidance about a company’s obligations and responsibilities related to data. They have reflected our values about data, and the individual’s relationship to it, for nearly 50 years. But big data analytics significantly challenges our traditional ideas about how to apply those principles. We believe that all of the fair information practices as articulated in the OECD Guidelines are important, but that if they are to continue to serve as an effective, workable tool for data protection, we must determine how best to apply them to big data and analytic processing.

Doing so requires that we examine at each of the principles and ask hard questions. What is required to provide transparency in an eco-system of ubiquitous data collection and real time processing? When is access to data appropriate, and how can companies provide it in a way that serves consumers and is not unduly burdensome? When is consent needed? Should we begin a public discussion about prohibited and approved uses? If data is collected for one express purpose, what criteria should guide companies’ decisions about using it for another?

In the context of big data, fair information practice principles may need to be viewed as a discipline or a system. The fair information practice principles may be seen as a series of levers to be pulled and adjusted, or requirements to be given the weight necessary to provide the best protection possible in the context of big data analytics.

The principle of accountability, therefore, takes on an enhanced role. Accountability requires companies to establish policies to protect the individual’s privacy that is linked to law, best practices and established guidance. It asks companies to implement programs and processes that ensure that their data protection obligations are met.
Accountability also involves implementing “privacy by design” for big data – asking questions throughout the analytic process about, e.g., what kinds of data are used; the sources and quality of the data and whether it is appropriate for its intended use; the quality of the algorithm; and potential unintended consequences that may flow from the processing. It also involves asking whether and to what extent shortcomings can be addressed, and if not, whether processing should proceed at all. The heightened focus on accountability places greater burden on companies to make thoughtful, judicious decisions about how best to apply FIPPs in a way that practically yields effective protections.

For accountability to work in a big data eco-system, it will be important for policymakers and industry to identify risks companies will need to evaluate. While some risks are well established – risk of financial loss or bodily harm for example – others may be more difficult to articulate. It will also be necessary to evaluate the risks raised by not using the data and potentially denying individuals or society at large benefits analytic processing of big data may yield.

Finally, while much analytic processing will not implicate privacy and sensitive data, in some cases it will reveal deep, powerful insights that can have far reach consequences for individuals and society. Companies may determine that such data uses are legal and may be able to apply fair information practice principles. But these same uses potentially may be highly sensitive, suggesting the need for an approach to data protection that involves promoting data ethics. Intel encourages the ongoing work on guidance for ethical analytics.

The possibilities for big data and how it can change lives for the better is limited only by our imagination. Intel is committed to advancing this vision, and the privacy solutions that will help make it a reality. We are encouraged by the work on questions related to risk, methodologies for ethical review, privacy by design, and accountability that are going on in the North America, Europe and around the world. It will take our collective expertise, insights and creativity to realize the progress and the privacy we all value.