

The primary reason for this declining demand according to the author was that increased automation and operationalization of business processes will not require the technical skills of the data scientist. Obviously, my initial reaction was emotional with my first reaction being to completely ignore this opinion but the more rational part of my nature aroused my curiosity in not what was being said but why it was being said. The “what is being said” does present an opinion which is based on his perspective. But it is this perspective that must be understood if we are to obtain a better sense of this viewpoint.

This perspective can be better understood by knowledge of this individual’s background and experience. For the writer in question, the background is IT or computer science/systems development and not data science in the truest sense. The IT practitioner, here, does have some understanding of data science but not as a true practitioner of the discipline. Both IT and the data scientists do develop business solutions. But the types of solutions are different. IT individuals steeped in the more traditional computer science discipline are trained and developed to focus their skills on developing solution that streamline business processes. In most cases, this is about operationalizing or automating a given business process.

Meanwhile, the data scientist focuses their efforts on developing analytics solutions that solve a specific and unique business problem. In most cases, these data science solutions when initially built, are customized to solve the problem at hand. The need for automation or operationalization is not paramount at least initially in the data scientist’s mind.

With Big Data and big data analytics, the need for analytics and more customized type solutions is experiencing exponential growth. Methods and approaches in employing analytics need to be quicker and more flexible which require I/T support for more operationalization and automation.

Potential Hurdles Limiting the Internet of Things



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Image The hype surrounding the Internet of Things (IoT) is immense. The basic premise behind the IoT is to connect everyday objects to the internet through tiny sensors, allowing them to communicate with businesses, consumers, and each other. The potential for innovation is certainly there, and startups and major corporations have already come up with some intriguing ideas from internet-connected refrigerators to app-controlled light fixtures to smart clothing. A lot of people see the Internet of Things as the next great frontier of technology and consumer products, but just because many are predicting it doesn’t make it inevitable.

Internet Availability

The Internet of Things sounds good in principle, giving consumers unparalleled convenience and access to the latest technology, but there is one requirement that can’t be ignored: the internet. Without an actual internet connection, the IoT can’t function. While that may not be a problem for the majority of people, there are still many places in the world without an internet connection. Many companies, including Google, are trying to rectify this issue, but any solutions are still years away. Even countries that do have high connectivity to the internet, like the United States, will often have spots where that connection is spotty or even non-existent. Worldwide internet connections have to happen for the IoT to become a fully functioning reality.

Significant Expenses

It’s one thing to embed a sensor in a new consumer product; it’s another thing to place them on items and structures that are already widely dispersed throughout the world. One idea for the Internet of Things is to place sensors on roads, traffic lights, utility grids, and buildings, but doing so represents an expensive venture. Many companies, while optimistic about the potential of the IoT, have yet to be convinced it’s an investment worth making on such a large scale. Progress has been made concerning the expenses of the IoT, particularly in the creation of cheaper sensors, but more progress is needed before organizations truly embrace using them in everything.

Privacy and Security

In the wake of major security breaches at Home Depot and Target, along with the recent iCloud celebrity photo scandal, privacy and security are clearly on the minds of businesses and individuals. For now, the IoT only appears to raise those concerns exponentially. When everything from a toaster to a shirt is connected to the web, what does that mean for personal privacy and sensitive data? Companies will need to show they can protect customer information if consumers will ever trust wearing shoes that keep track of where they go and how many steps they take.

Data Surge

It’s estimated that by 2020, around 26 billion items and objects will be part of the Internet of Things. With that increase in internet-connected items will come a surge of new data being generated. As of right now, many companies aren’t prepared to handle the amount of data that needs to be collected to make the IoT function well. There are many things businesses need to do to prepare their organizations for these new demands. New storage capabilities are needed, which can be done through in-house storage options or through cloud storage

Consumer Awareness

While businesses may talk excitedly about the Internet of Things, consumers are largely unaware of it. In a recent survey of 2,000 people, 87% of consumers said they had never even heard of the IoT. While hearing about the Internet of Things doesn’t necessarily signify a consumer would not use an item connected to the IoT, the survey results show a lack of awareness and understanding about what can be gained from it. If this lack of knowledge about the IoT leads to lack of interest, a major driving force for widespread adoption will be missing.