October 29, 2014, 3:22 PM ET

The Internet of Things Is Not Like Baseball

By Thomas H. Davenport

The baseball World Series is finally wrapping up, and even though it's been a long season I will miss the sport over the winter. Perhaps that's because it's a slow, well-understood game with well-defined rules, roles, and metrics. In a chaotic, unpredictable world, baseball is so well-ordered and predictable. I find it so soothing that I do some of my best writing when a game is on. The only problem is that the World Series games typically last well past my bedtime.

The Internet of Things is not like baseball. This game has no rules, or perhaps too many rules (i.e., standards). It is fast-moving—in some ways, at least—and unpredictable. We don't know who the key players are yet. We aren't sure how to measure performance. All we know is that, unlike major league baseball, it is growing in popularity.

This week I was at the "2nd Annual Internet of Things Global Summit." This name suggests that it is the conference on the IoT, but that would be misleading. There is an IoT conference every week or so, and they are replete with titles like this one. I don't know how people get anything done in this field with all the conferences they are attending.

The IoT is rapidly approaching conceptual overload. There are more subfields of it than can be counted. As evidence of this problem, one website run by Libelium, an IoT vendor, set out to [rank the top]() "50 Sensor Applications for a Smarter World" and then lists 61 of them! We are probably at the stage where saying that you work with the IoT is like saying that you work with "big data." It means something different to everyone who engages with it.

Given all this confusion, it's difficult to write short overviews of the field. One can only make a few generalizations at a time, to wit:

- The real value of IoT in the early stages is coming primarily from prosaic applications. Cities are wiring up light poles and parking meters. Industrial equipment manufacturers are monitoring performance remotely. Utilities monitor energy or water use. None of it is terribly exciting, but it slowly makes the world a better place.

- Cities seem to be the social unit in which many interesting IoT applications are being developed. Peter Marx, the "Chief Innovation Technology Officer" for the city of Los Angeles, talked about a number of things that LA is working on. Barcelona, Singapore, and Amsterdam seem to be the other early leaders in the IoT-driven city race.

- Joe Bradley of Cisco's "Internet of Everything" group has come up with one of the many projections of the value of the IoT. Their number is $19 trillion, but my estimates say $18.73 trillion. Just kidding, of course—who has any real idea of the number? More interesting was Bradley's argument that 65% of that value will come from people and process changes, rather than sensors and telecom. Unfortunately very few people are focused on this people and process change.

- It's not even clear what telecommunications spectrum IoT devices should be using, or whether we have enough of it already. Some think this constitutes regulatory "flexibility," i.e., a good thing, but I would imagine that it's confusing for vendors and users.

- Borrowing an idea from Eric Openshaw at Deloitte, most companies implementing IoT applications are focused on better asset utilization, which doesn't typically provide long-term competitive advantage. More companies should develop strategies for how the IoT can provide increased revenue.

- I moderated a panel on IoT architecture for the conference, and I asked the panelists (from Texas Instruments, Camgian Microsystems, IBM, and the RAIN RFID consortium) if they thought that there was a need for the top-down architectures that had characterized previous technology environments. "Uh, no," they said, suggesting that the world had moved beyond such top-down efforts. Supposedly the IoT movement needs to be agile, but….

- …it doesn't seem very agile thus far. That tired old term "the smart grid" came up several times at this conference, and I wish I had a kilowatt for every time I'd heard it over the years. But the grid doesn't seem much smarter than it ever was. I am sure there are plenty of good reasons why utilities have been slow to adopt these capabilities, but the excuses are getting tiresome. Maybe the IoT has something in common with baseball after all.

- There were few if any detailed examples of fully-implemented IoT applications. Unfortunately, IoT conferences are still primarily about the potential of nodes and sensors, gateways, spectrum, standards, and the like. It would be really nice if we could get moving and turn potential into reality.

I don't know what the long-term future of baseball is, but it's had a pretty good run. It may be on the downslope now, and the IoT is clearly on the rise. Baseball could use a little more excitement and unpredictability, and the IoT could use a little less of both. Both could use a little more speed in execution. Maybe when the IoT technology stops changing so rapidly we can actually extract some real value out of it.

Thomas H. Davenport is a Distinguished Professor at Babson College, a Research Fellow at the Center for Digital Business, Director of Research at the International Institute for Analytics, and a Senior Advisor to Deloitte Analytics.