

# An Internet of Things reality check

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Connecting different kinds of devices, not just computers and communications devices, to the Internet could lead to new ways of working with a wide range of machinery, sensors, domestic and other appliances. Writing in the International Journal of Innovation and Learning, suggest that we are on the verge of a another technological revolution but practicalities and legal obstacles may stymie the development of the so-called Internet of Things if they are not addressed quickly.

Aelita Skaržauskiene and Marius Kalinauskas of the Mykolas Romeris University (MRU) in Lithuania explain that, "Applying things, which are connected in networks, could revolutionise many industry and service sectors thus creating new service provisions and administration methods based on information technology." They point out that The International Telecommunication Union (ITU) predicts that by the end of 2015 there will be more than 6.5 billion devices connected to the internet, including many [smart devices](#) that have not previously been considered as network-connected. Three quarters of the global population will have internet access in some form or another and this, the team says offers many new opportunities for public and business sectors to close the gap between end users and service providers to mutual benefit; applications and an improved quality of life for the former and improved profits for the latter, one might add.

A grid of "smart" objects connected together dates back to Mark Weiser's 1991 conception of "ubiquitous computing" an idea that was extended to a world of devices communicating directly with each other

without the need for human interaction. The classic examples from this era are the refrigerator that automatically orders food before you run out of milk and butter, for instance, and the smart smoke alarm that sends you a text alert if there's an incendiary problem when you're from home. The IoT is a concept much broader than that today and perhaps always was, with the possibility of networking national and even international infrastructure for improved transport, weather forecasting, earthquake prediction and response, disease tracking and control and many other applications.

The MRU team has looked at various practical cases and found that in reality, the applicability of the IoT although wide might ultimately be limited by the available technology and its implementation, legal regulations, privacy concerns, costs, and perhaps most importantly, the value of such system to the end-user. These points must all be discussed and addressed so that we can better understand the pros and cons of the Internet of Things. The researchers suggest that, "The technological, social, and managerial approaches should represent the main pillars on which the future of IoT is based." Adding that interdisciplinary studies among scientists and business representatives are now needed to help create the new services and technologies to allow the growing IoT to exceed expectations.

**More information:** Skaržauskiene, A. and Kalinauskas, M. (2015) 'The internet of things: when reality meets expectations', *Int. J. Innovation and Learning*, Vol. 17, No. 2, pp.262–274.

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