



Executive Summary: The Arts and Humanities in the Internet of Things

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Overview

The Internet of Things (IoT) will be greatly enhanced by contributions from the researchers in the Arts and Humanities. This is a key finding of our research into REACT Objects Sandbox, a three-month R&D process comprising six cross-sector collaborative projects exploring the future of internet-connected objects. This paper outlines the many ways in which Arts and Humanities input can drive the creation of a broader, richly enabling and more adaptive products and services in the IoT. We suggest that supporting this kind of work will require renewed efforts to forge and sustainable cultures of development between diverse sectors, and involve a deeper exploration of the collaborative and educational practices best suited to supporting such cross-sector work.

About this paper

REACT was established in 2011 and funds collaborations between Arts and Humanities researchers and creative companies to produce innovative prototype products and services. In March 2014, REACT launched Objects Sandbox, a three month R&D process that supported six collaborative projects in exploring the future of the Internet of Things (IoT). The IoT paradigm speaks to the pervasive presence of internet-connected objects in the environment that can interact with each other to support new forms of connectivity between data, objects and people. The Sandbox focused in particular on the role these new networked devices might play in shaping how people encounter, experience, and interact with the world. This paper reports on a research process we instigated into how intellectual approaches common to arts and humanities disciplines can shape the conception and creation of internet-connected objects.

About this research

In the paper, we argue for a new approach to understanding the IoT, one underpinned by a deeper reflection and analysis of our relationship with objects and the lived, social and cultural realities they support. We show that for an emerging IoT to fulfil its potential, perspectives not just from technology, business and governance, but also from the arts and humanities must be drawn into the wider conversation. Through these diverse voices, a broader, richly enabling and more adaptive IoT lies ahead.

To make this argument, the research explored the following questions:

- What is a suitable conceptual model for understanding the IoT?
- Where can a productive interaction emerge through an engagement with the arts and humanities?
- What do we learn from such interactions, and how can they be encouraged in the future?

A broad approach was taken to gather data, consisting of unstructured observation and informal conversation during Sandbox workshop events, and a total of fourteen semi-structured interviews. These interviews lasted between one to one and a half hours and were conducted with individuals or small groups drawn from the project teams. Wide-ranging in nature, the conversations addressed a number of core themes including: project design, personal and professional motivations, collaborative processes, and thoughts on the shape and future of the IoT.

Core Findings

We found that the projects commissioned by REACT for the Objects Sandbox reveal the extent to which diverse arts and humanities perspectives can drive a broader, more encompassing IoT through stimulating the development of new forms of networked object. We have found that this occurs in four key ways.

- 1) by providing comprehensive understanding around the aesthetic, historical, cultural and social contexts in which networked objects can operate
- 2) by revealing the wider scope of possible networked devices that can be conceived, and the distinctive ways in which they can network people, objects and data
- 3) by expanding notions of what 'user experience' in the IoT might be, so opening up new roles for networked objects in relation to more complex interactive, social and cultural activities, those through which we apprehend and articulate the conditions of our lives
- 4) by exposing the breadth, impact and interconnection of valuing practices that can shape the creation of networked objects, practices that extend beyond the money economy to encompass education, innovation, well-being and creative citizenship

Core Recommendations

In fulfilling the potential of a broadly-conceived and adaptive IoT, renewed attention is needed to promote cross-sector collaboration that includes the arts and humanities. This will require:

- forging and sustaining cultures of development between diverse sectors, which will lay a foundation for discussing and contesting an emergent IoT
- promoting collaborative frameworks that can both mobilize and support the plurality of opinions at play in the IoT
- exploring educational approaches that can equip future designers, researchers and scholars with both the specialised and cross-disciplinary knowledge required to work in this area.