Material Futures Past:
Digital Materiality of The Internet of Things

G. Briscoe[1]

[1]*Royal College of Art, London, United Kingdom*
E-mail: gerard.briscoe@rca.ac.uk

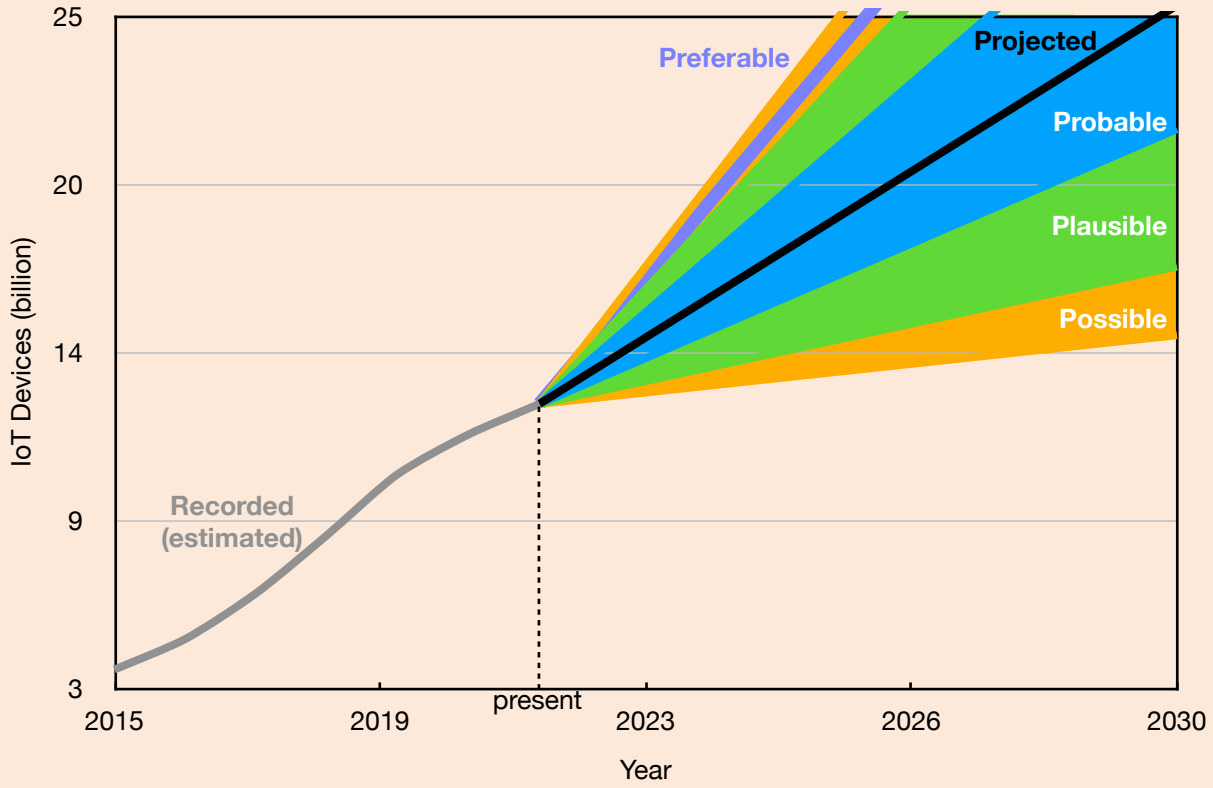
Abstract

One of the enduring propositions of technology futures is the crafting of material artefacts with Internet connectivity, allowing for the embodiment of a congruent digital shadow as exemplified in Figure 1.

Figure 1: Tate's Sideshows - explicit demonstration of congruent digital shadows.

Such propositions have a long history, dating back to the 1990s, which saw the rise of the Internet and the ongoing miniaturisation of transistors for the rise of mobile phones. It was envisaged that these resources could be successfully combined to achieve the complexity and scale required for the Internet of Things (IoT). Also, this provides such propositions with the opportunity to evolve with our cultural aspirations, while reflecting on the current state of

perceived technological development. So, we consider to what extent past technology futures of digital materiality for the IoT have been realised, including hybrid artefacts that are transcendent across the physical and the digital, between the material and the immaterial. While these 'technology futures' have been proffered through many media depictions, seemingly heading towards everyday environments, the vast majority never arrive. We therefore propose a model for understanding, from a speculative design approach, the pathways of how emerging technologies become realised in real-world applications and technology-related imaginaries, as well as how they ‘could’ be realised in credible near-futures. We also suggest reasons why these future visions of the IoT in everyday environments so often fail to be realised, and how to present more plausible depictions. This includes understanding failed propositions focused on utilitarian artefacts, and better understanding material culture for the ubiquitous embodiment of digital materiality in plausible depictions. We conclude by considering what is required for credible, engaging and critical speculations on understanding digital materiality for the IoT, including potentially preferable futures of connecting all human-made objects in the world to the Internet, as summarised in Graph 1.



Graph 1: Futures of IoT Devices

Keywords

digital; materiality; futures; internet