

# Chapter 13

## An Overview of Main IoT Trends Applied to Business and Marketing

**Jorge Remondes**

*Instituto Superior de Entre Douro e Vouga, Portugal*

**Carolina Afonso**

*ISEG – Lisbon School of Economics and Management, University of Lisbon, Portugal*

### ABSTRACT

*Currently there are more devices connected to internet than people in the world and industrial sensors and robots are also increasing. Not only organizations but also individuals are obtaining data from internet of things (IoT) devices and automating them. The aim of this chapter is to investigate and analyze this context and to identify the main trends of IoT for business and management, as well as potential organizational marketing strategies. Based on the literature review, six business trends in the IoT era are identified: personalization, interaction, integration, analytics, monitoring, and protection. These trends have implications to consider not only in future organizational marketing strategies but also in the present.*

### INTRODUCTION

The development of the present book chapter about IoT and its impact on business and marketing aims to address specific academic needs but also the challenges that businesses are facing.

In the current IoT era, the internet is not limited to the use of desktops, laptops or smartphones and it implies also the use of interlinked objects on an ecosystem such as smart automobiles, watches, jewelry, glasses, among others. According to Thierer (2015) and Misugi, Freitas & Efig (2016), the term “smart” is used to qualify objects, smartphones, smart TV, but also to characterize an integrated system of objects and people, such as “smart buildings, smart appliances, smart health, smart mobility, smart cities” (p. 10), among others. These authors called IoT to this new generation of objects that involve a connection through sensitive, automated and integrated functions.

DOI: 10.4018/978-1-5225-5763-0.ch013

This chapter aims to identify and analyze some of the main trends of IoT. Secondary data as previous studies, scientific articles and recent theses have been accessed to provide a comprehensive understanding of the phenomenon. The purpose is to provide with a solid theoretical basis that can be used by scholars and business practioners.

According to Kotler, Kartajata & Setiawan (2017), business and marketing are facing a shift from traditional to digital and within this scope it is crucial to understand which challenges IoT is posing to management. The IoT trends are numerous and our aim is not present all the trends exhaustively but to select the ones that have more consensus in the literature as major trends and that in our perspective better contribute a better understanding about how business and marketing can benefit from this ecosystem. The main trends presented in this chapter can be observed in figure 1 and include personalization, interaction, protection, monitorization, integration and analytics.

In the following section the detailed description of these trends is presented. At the end, the main conclusions of this study are presented and an analysis about its implications for business marketing strategies, limitations and suggestions for future studies of trends in IoT is provided.

## BACKGROUND

The advance in IoT is fostering the development of personalization. For instance, recognition capabilities of the devices can be processed in order to create a personalized advertisement. The personalization opportunities enabled by IoT devices create a new area for marketers to explore. As the relation between users IoT evolve, interaction becomes critical. Within this context social IoT as emerged and poses great challenges into the communication relationship with the client that tends to be optimized and allow real-time interaction in networks.

*Figure 1. IoT trends*



18 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/an-overview-of-main-iot-trends-applied-to-business-and-marketing/208516](http://www.igi-global.com/chapter/an-overview-of-main-iot-trends-applied-to-business-and-marketing/208516)

## Related Content

---

### DNS-Based Allocation of Multicast Addresses

Mihály Orosz, Gábor Hosszú and Ferenc Kovács (2008). *Encyclopedia of Internet Technologies and Applications* (pp. 157-164).

[www.irma-international.org/chapter/dns-based-allocation-multicast-addresses/16848](http://www.irma-international.org/chapter/dns-based-allocation-multicast-addresses/16848)

### Big Data Analytics: Educational Data Classification Using Hadoop-Inspired MapReduce Framework

Pratiyush Guleria and Manu Sood (2019). *Predictive Intelligence Using Big Data and the Internet of Things* (pp. 77-108).

[www.irma-international.org/chapter/big-data-analytics/219118](http://www.irma-international.org/chapter/big-data-analytics/219118)

### The Open Source Community Choice: Automate or Die!

Morgan Richomme (2019). *Emerging Automation Techniques for the Future Internet* (pp. 299-321).

[www.irma-international.org/chapter/the-open-source-community-choice/214438](http://www.irma-international.org/chapter/the-open-source-community-choice/214438)

### Client-Side Handheld Computing and Programming

Wen-Chen Hu (2009). *Internet-Enabled Handheld Devices, Computing, and Programming: Mobile Commerce and Personal Data Applications* (pp. 261-285).

[www.irma-international.org/chapter/client-side-handheld-computing-programming/24706](http://www.irma-international.org/chapter/client-side-handheld-computing-programming/24706)

### Social Media Analytics: Opportunities and Challenges for Cultural Tourism Destinations

aslav Kalini and Miroslav D. Vujii (2022). *Handbook of Research on Digital Communications, Internet of Things, and the Future of Cultural Tourism* (pp. 385-410).

[www.irma-international.org/chapter/social-media-analytics/295514](http://www.irma-international.org/chapter/social-media-analytics/295514)