Chapter 7
Reflecting on Analytics Impacts on Information Architecture Contexts as a Source of Business Modelling for Healthcare Services

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ABSTRACT

This chapter approaches the context of healthcare, observing how information system conceptual background can help to comprehend the evolution and adoption of emerging technologies on the applicable solutions. As a critical sector, both from economic and life quality points of view, healthcare is an excellent environment to observe how these tools and its associated infrastructure make it possible for new business organizations to be proposed. The chapter is aimed to develop a theoretical and practical comprehension around concepts through isolated and integrated analysis.

INTRODUCTION

Information architecture can be regarded as a rich conceptual background that complements information management principles and studies, allowing best opportunities for practical applications. Its intrinsic fundamentals offer possibilities to propose efficient business models, permitting them to be simple, effective and optimized. In this chapter, it is our objective to understand how analytics brings innovation

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for a sector where information and knowledge are intensively produced and consumed – Healthcare services – specifically on how it can promote new business models to be strategic positioned, as a competitive advantage.

Information architecture is defined as a set of concepts that orient the design for planning, proposition and management of informational processes in organizations (IA Institute, 2014). Its comprehension impacts and relate to several scientific and practical areas, involving technology, design, interface projects, data and information sciences approaches, among others. Its "mapping" and "design" capabilities, which will deserve more deep attention in the theoretical development in the following sections, result in versatile and flexible specifications that can help any organization to understand information impacts on its activities, may it be programmed, planned or even risk-oriented, sudden reactions. As for SAS (2017), analytics is a way to produce knowledge from continuous analysis over information coherently and homogeneously produced and treated. These concepts, in the purpose of this chapter based on a previous research, perform a new context to understand how information management can produce organizational alternatives, both for actions and structures.

The relationship of the main concepts of information and architecture is challenging to study, if any researcher does not focus on the specific objectives. It is now more relevant when we face the situation of a massive data generation age with the introduction of "app-based" service, mobile services, internet of things and the immense diffusion of social media platforms. Cited by Richard Saul Wurman, IA sets a perspective for the "series of systems", "systemic design" and "performance criteria" definitions which will allow treating information, and its complex inter-related context, producing design artifacts for this purpose. This way, analytics can present a new systematic path to logically connect ideas on how information can be produced from data, adding content for this potential knowledge provision.

It is our purpose, in this chapter review, to introduce the analytics background as a contributive theme like a valid update on the original approach. This chapter develops a contextual reflection around IA concept adding the impacts of analytics trends over information architecture, again evaluating on how these new definitions potentialize benefits or challenges for healthcare business models.

This chapter intends to develop this multifaceted conceptual relationship, adding the consideration about analytics, observing some of its potential aspects, and then study it on the arena of business models for healthcare services. This area always offered perspectives for Information Science and other multidisciplinary researchers and professionals, especially because it is a major producer and consumer of data, information and knowledge for various tasks and levels of decision – reaching from merely operational to critical ones.

The first section presents a discussion of theoretical background, relating information architecture, analytics and business model concepts, also approaching some of the supporting conceptual definitions which allow the understanding of this new research context. After, a perspective of conceptual integration is worked, with the study of the continuity of analytics, as an information management phenomenon, producing a potential definition for new business models. As the last section, a discussion on how analytics promote an information architecture which possibly defines a business model for healthcare is approached, resulting in a practical, oriented result of this study.