Impact of Artificial Intelligence on Media Value Chains: Learning from Media Startups

Abstract

Research has well documented that technological advances intermingling with socio-cultural change disrupt established media business models and offer opportunities to create new ones (e.g., Christensen et al., 2012; Rothmann & Koch, 2014; Øiestad & Bugge, 2014; Cosgrove & Gomaa, 2014). But traditional media companies often merely adjust their existing business model by reaching out to their customers through additional distribution channels. Disruptive innovations may come more likely from players outside of traditional media industries.

This can currently be seen in the case of data related technologies and, in particular, artificial intelligence (AI). They are emerging as a promising source of innovation, allowing companies to create value at much faster rates (e.g., Loebbecke & Picot, 2015; OECD, 2015; Newman, 2017). In the media industry, application areas for AI are manifold, but incorporating AI into media business processes also comes with substantial challenges (Chan-Olmsted, 2019). This underlines the need for understanding better how AI should be adopted to grasp the value it can provide.

In the case of AI, incumbents often lack the data management competencies and even more profoundly the metrics and processes to fully integrate or activate data derived from their products and processes (e.g., Küng, L., 2017; Schlesinger & Doyle, 2014; Sathi, 2012). Thus, asking incumbent companies about the specific impact or the potential in general of such technologies may be of limited informative value. However, it has been shown that media startups are taking advantage of technological progress, lower entry barriers, as well as reduced equipment costs and are positioned to disrupt (e.g. Loebbecke & Picot, 2015).

Therefore, to shed light on new ways that AI can create value in media companies, we focus on startups in the media industry. We conduct an analysis based on data from a content analysis of the startup data base AngelList. To classify their products and services, we develop a scheme of value creation (e.g., Wirtz 2019) for different media industries being relevant in this context as well as discernable categories of AI applications. Additionally, by exploring investment data, we can identify organizations that are funding ventures. The final sample consists of 101 companies which base their value creation on the use of AI-supported applications.

The study shows that bots, comprehension of speech, deep as well as machine learning, natural language processing, and the like are incorporated for value creation in the studied startups. However, there are clear differences with respect to the steps of value creation that are challenged most in traditional media companies by new players or are given opportunities to innovate. Furthermore, established companies (some of them only indirectly linked to media – e.g., automotive firms) can be found increasingly as investors for specific AI applications.

Abstract topic: Entrepreneurship within media sectors

Keywords: Artificial intelligence, media industries, value creation, startups, innovation