Electronic Markets on the media industry

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Dear readers of Electronic Markets,

It is a truism that information technology (IT) is transforming the media industry. In fact, a brief Google search on the words “media industry” AND “transformation” AND “information technology” at the end of 2016 yielded a total of about 294,000 results. This link between the media and the IT industry has not always been obvious as the case of the well-known example of Apple Music and Apple Computer illustrates. In 1991, Apple Computer reached an agreement with the music label Apple Corps “not to get in the music business” (Anonymous 2006). Since the latter company was founded by the Beatles, songs from this band were not available on iTunes for years and both companies only settled the case after long legal disputes. The story highlights that “digitization of music means that today a song is just another computer file [...] and] to say that a company is “in the record business” just because it sells a certain type of file is mindset out of the eight-track age.” (Anonymous 2006). Although the music and the computing industry have been separate for a long time, both industries have converged not only sweeping away renowned publishers (e.g. Encyclopedia Britannica) or book retailers (e.g. Borders), but also pressurizing existing companies (e.g. Elsevier, Sony, Springer, Wiley) and giving way to numerous new players, such as Amazon, Ebsco, Facebook, Netflix, Proquest, Researchgate, Spotify or Twitter.

Media types

While this development might only be an example of “creative destruction” and of companies’ failure to claim an inherent right to a certain industry, it underlines the specifics of the information-based media business: as soon as the content is digitally available, the well-known dynamics of “bits versus atoms” (Negroponte 1995, 14) are applicable: “A bit has no color, size, or weight, and it can travel at light speed”. With the advances of IT over the years, it has become possible to digitally represent all relevant media types in the industry (see Table 1): Whether it is audio, video or text and pictures in various formats, the physical elements from the analog world (e.g. tapes, film, paper as data carriers) may be replaced by digital forms. Although some of the latter still have a physical carrier (e.g. the CD or DVD disc), the physical component has been reduced to IT equipment, such as eBook readers, PCs or mobile devices, in many instances.

It was in 2002 that the amount of information available in digital form exceeded the analog counterpart (Hilbert and López 2011). Important drivers of this development were the growing use of IT, especially personal computers, that allowed to directly create and use digital content, as well as the evolution of the Internet that comprised the publishing and linking of content (Web 1.0), but also the easy creation and sharing of user generated content (Web 2.0). Although, this made every Internet user at least a potential producer of content, these Web 2.0 “websites are designed to be read by people, not machines” (Colomo-Palacios et al. 2013, 89). Semantic web technologies were a profound driver in removing this limitation and are recognized as the basis of the Web 3.0 (Gogoulos et al. 2014). By providing formalized languages to model the meaning of content, they enabled computers to interpret and also to create content themselves. In combination with artificial intelligence (AI) technologies that received a renaissance in the big data movement

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Table 1 Differences of analog and digital media types

Media types	Representation	
	Analog	Digital
Audio	Tape	CD, MP3, streaming
Video	Film	DVD, MPEG/MP4, streaming
Text - news	Newspaper	News platforms
Text - articles	Magazin, Journal	PDF, digital libraries
Text - stories	Book	E-Books, digital libraries
Picture	Slide, Photoprint, Painting	JPEG, TIFF

and scenarios like “When the editor is a machine” (Herbst 2016) following the idea of “robot reporters” as well as the fact that “it is now possible to conceive of future journalism without journalists” (Cohen 2015, 110), have become a reality.

Media process

With the majority of information now being available in digital instead of analog representation, transformations of the media industry are a logical corollary. This becomes clearer when looking at the generic process chain in the media industry, which comprises the four steps “investigation” (i.e. the gathering of necessary information to create content), “creation” (i.e. the generation of media content), “bundling” (i.e. the combination of various elements in product) and “distribution” (i.e. the sale of content and purchase by consumers). A fifth step, termed “usage” could arguably be added since the consumption of content increasingly defines the (once) earlier process steps. In contrast to the analog world, where mainly the sale of titles determines their success, the way digital content is used leaves traces that serve as indicators for creating and bundling content that is offered to consumers in the future. Electronic (market) platforms act as important enablers in this development. As the examples in Fig. 1 suggest, social media (or UGC) platforms, portals as well as streaming, library or news platform businesses are ingredients of the digital media process in the digital environment. Among

their advantages is the fact that content from many sources is made available in individualized combinations to many consumers and that additional (shared) services may be offered via the respective platforms.

The move to platforms in the media industry obviously raises many questions, such as regarding the business models (e.g. usage-based models), the future value chain (e.g. new actors), the ethics of content (e.g. quality, credibility of content), the production strategies (e.g. mass customization, outsourcing) or the perspectives for new media products (e.g. augmented reality or wearable books). For an academic journal like *Electronic Markets* this has two implications, which represent risks and potentials at the same time. First, the sector of academic publishing itself is subject to being transformed itself. Some focused aspects on the academic publishing industry were already discussed in past EM editorials (i.e. self-archiving (Alt et al. 2016a), reviewing (Alt et al. 2015) and the impact factor (Alt et al. 2016b)) and the digital transformation of academic education (Alt and Zimmermann 2016). In addition, a special issue organized by Stefan Klein, Diego Ponte and Bozena Mierzejewska is under way. It addresses the transition of scholarly journal publishing towards open access and analyzes the possibility of social peer reviews as well as the availability of research output on academic social networks. Second, the transformation of the media industry promises interesting research for a journal that focuses on understanding the role and the future configuration of electronic platforms. In this direction Thomas

Legend: AI: Artificial Intelligence, UGC: User-generated content

Fig. 1 Differences of analog/digital technologies in the media industry process

Hess and Ioanna Constantiou are planning a special issue on the transformation of the media industry that aims to present research on distribution channels for newspapers and business models for content providers. It extends the research that is included in the present issue on this topic.

Articles of present issue

The current issue focusses on the information system research in the media industry. Here, Artur Lugmayr assembled a set of three papers, which were originally presented at the MindTrek conference. His special issue includes two research papers, an invited paper and a preface (Lugmayr 2017), where the guest editor points at the importance of emphasizing the media industry within the agenda of information systems research. In this context the three special contributions are introduced in detail.

In addition, the present issue includes three general research papers. First, the paper titled „SMEs’ online channel expansion: value creating activities” by John Jeansson, Shahrokh Nikou, Siw Lundqvist, Leif Marcusson, Anna Sell and Pirkko Walden (Jeansson et al. 2017) discusses the need for small and medium-sized enterprises to adopt their business models. The authors conclude that the combination of value creating activities offered via an online channel is path-dependent and changes over time.

Second, the paper of Oliver Francis Koch and Alexander Benlian studies „The effect of free sampling strategies on freemium conversion rates” (Koch and Benlian 2017). It comprises an analysis of two common free trial strategies (Freefirst

and Premiumfirst) on consumers’ conversion likelihood based on an online experiment with 225 subjects. Among the results is that Premiumfirst is more advantageous “when the premium and free version are more similar”.

Finally, the article „Profit earning and monetary loss bidding in online entertainment shopping: the impacts of bidding patterns and characteristics” by Jin Li, Kwok Fai Tso and Fangtao Liu (Li et al. 2017) introduces online entertainment shopping as an innovative business model. The authors conducted an empirical study among 5650 players from an entertainment shopping website and analyzed the relationship between players’ bidding performance with bidding patterns and characteristics. They conclude that online shopping providers should “pay more attention to loyal players and strategically limit players that are good bidding”.

We hope you enjoy reading these articles and would like to thank all authors for their effort in revising their manuscripts. This in turn would not have been possible without the valuable work of our editors and reviewers. We would like to thank Artur Lugmayr as guest editor of this special issue as well as all of the editors and reviewers that were involved. In addition, a complete list of all reviewers that actively contributed with their time and advice to EM in 2016 is attached below. Please expect the announcement for the winners of the reviewer of the year and the paper of the year award in the forthcoming editorial after all 2016 activities are terminated. Here, we also look forward to presenting to you the new editors and editorial board members that were elected during the last annual editorial board meeting in Dublin, Ireland.

Best regards from Leipzig and St. Gallen,
Your EM-Team

Electronic Markets’ reviewers in 2016:

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