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CASE STUDY

Creating a business value in immersive journalism

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The litmus test for all new gadgets and technologies is the market: whether, or not, consumers buy and use them. A meaningful innovation is really created only along market success. In all immersive technologies the path from the early steps of the technology to success in the market has been slow in coming. There is anticipation of a revolution in how entertainment and media content are delivered and consumed (Watson 2017), but the revolution has yet to come.

The value of immersive technology to journalism is clear, as it provides means for creating more engaging experiences as well as the possibility to create more engaging content. More engagement with the users or the "audience" means more business opportunities in a market that is as a whole changing in terms of value creation and business logics (Dowling 2016). However, to provide sustainable business opportunities, immersive journalism needs a critical mass of users along with an understanding of the variety of value the technology helps create (Cook & Sirkkunen 2013; Dowling 2016; Watson 2017). The whole financing scheme of journalism is changing (Küng 2017), and the emergence of immersive technologies can facilitate this change, or at least benefit from the changes already taking place.

The mass markets can be reached by mobile VR applications. The limited technological capabilities, however, limit the business potential of the mobile VR for immersive journalism. On the other hand, high-quality production that takes into account these limitations already has much potential, but is often still very expensive. Therefore, immersive journalism needs to find a balance between the content production costs and content quality. One example of how to handle this balance comes from *The New York Times* (NYT) and their VR application NYTVR, which mainly consists of branded content, i.e., VR advertisements in a journalistic storytelling form. This content is paid for by NYT's enterprise customers. However, at the same time it works as a learning platform for journalistic VR content and offers more engaging content for their subscribers.

This chapter explains the business value aspects of immersive journalism production with a case study of NYTVR. It analyzes how journalistic enterprises can create, deliver, and capture value with immersive journalism, and what novel business opportunities the technologies and their interactive nature can enable. The chapter also explores what business partners, activities, and resources exist that could be used to leverage immersive technology-related business models in journalism. The chapter concludes by suggesting business models for immersive journalism such as subscription fees for special content, customized Virtual Reality advertising, and sponsored content/content marketing. In addition, it discusses what supporting activities journalistic enterprises should undertake to ensure successful immersive productization.

Value creation viewpoints to digitalization

A classical value creation process is a flow where the need for a product is identified, then the product is purchased, implemented, and thus utilized (Helander & Vuori 2017). In the field of media industry the customer has traditionally been quite passive in this process. The media content creators have taken care of identifying needs (deciding what the readers/viewers are likely to be interested in) and, even in the cases where the consumers themselves paid for the content, they did that by long-term subscriptions. Purchase was thus not done for individual products, but for the general collection of products the media creator offered. Although the modern media consumer also pays through subscriptions, the duration of the subscription may heavily depend on individual content on offer (such as HBO subscriptions plummeting between the second-to-last and last seasons of the streaming series *Game of Thrones*, despite the amount of other content available; consumers were not prepared to pay the monthly fee for over a year while waiting for the next season to start). In the case of traditional media products, the implementation phase is not really relevant; a traditional newspaper, for example, is a ready-to-use product without the need of actual implementation or installation. Usage is also a fairly short phase in the value creation process: once the paper is read, it is discarded.

Another classical way to look at value is to examine different value functions. The most often recognized value functions are the direct ones: profit, volume, and safeguard (Walter et al. 2001). It is good to note that these describe how the customer creates value for the creator. When a customer gets the product, they are willing to pay for it, so the provider makes financial profit. The provider strives to increase the volume of business both in terms of the number of customers as well as the amount of revenue from each customer. Lastly the provider aims to safeguard business with a commitment from the customer to keep on doing business with them, i.e., so that the provider will have a positive publication circulation.

New digital technologies change where the profit to content creators comes from. Advertiser-funded media content as a dominant finance logic is giving way to a subscription-based way of operation and it also builds the grounds for view-based advertising in online media (Stroud et al. 2016). One motivation for media content subscriptions (such as Spotify, and various tv-streaming service providers such as Ruutu+ in Finland) is to let people avoid advertisements. The user thus pays for the opportunity to not be distracted. This option is visible also in gaming, where gamers can opt to play for free and see ads, or pay for the game and avoid the ads. The flow of money is thus changing from coming from advertisers and long-time subscribers to short-time subscribers who make their buying decisions based on currently available content and additional attractions such as fan events, as well as targeted advertisement income (Küng 2017). Wide, and fairly steady, streams of income are thus transforming into many smaller trickles, which are more difficult to predict. In value creation terms, the safeguard that value creators receive is decreasing. This is why new forms of financing, for example crowdfunding (Aitamurto 2015), have entered into the field. One challenge thus is to locate the parties that are willing to pay for the creation of the immersive content (Westlund 2015). Because the immersive technologies naturally create a loosely coupled network of technology providers, network providers, content creators, and supporting actors, it is necessary to understand that the revenue may come from multiple sources in the complex network. There may be multiple motivations to participate in content co-creation and surprising sources of income.

The content can be co-created, which brings more actors into the picture of the network. Good immersive content requires not only journalism and storytelling skills, but technological and audiovisual skills as well. Thus the creation is most likely done in collaboration by multiple actors of different professions who have their individual motivations for entering the network. While some may strive for increasing direct profits, others may be after other kinds of benefits altogether. This is why, in addition to the direct value functions, also indirect ones should be discussed. These functions are, for example, innovation, market, access, and scout (Walter et al. 2001). These functions enable the creation of new innovations or innovative ways of operation, or creation of possible new market opportunities. An indirect value can also take the form of access to new potential customers or an opportunity to gain new information by scouting, for example, consumer behaviors. Although their worth is difficult to measure in direct monetary terms, they can be immensely valuable for business in the long term, even if immediate monetary profit is not gained. In the case of immersive journalism, since high production costs make it difficult for the content creator to gain direct profit from the content, identifying as many indirect value opportunities as possible is important.

To understand value creation in the setting of immersive journalism, one can look at value creation in fields that rely on digital technologies in general. The emergence of digital technologies is transforming business and value creation processes in many fields. Often the technology provides, for example, cost and time savings, and transforms the way end-users experience various products (Nelson & Ryan 2017). The entry of immersive technologies to journalism is certainly transforming the way consumers experience journalism content, but one key obstacle in the way of success is that it is not doing that by decreasing costs from the point of view of the journalism content creator. This is why a wider view of the value network around the technologies is needed to analyze the business value potential created by the technologies.

Digitalization also changes the way in which the end-value that the consumer receives is created. The consumer is no longer a passive end-receiver of the product (Lewis & Westlund 2015; Lee & Hsiang 2014); instead, they are an active participant (Grönroos & Voima 2013). This is especially true in the case of immersive technologies, where the immersion is partly caused by the fact that the consumer can be active and interact with the content, or, at least, they can make decisions of where to look and in what order to take in things. The experience of consuming the media content is thus partly created by the consumer. It also poses challenges for the way the content is created, since the content needs to be constructed from modules that are not dependent on their order of appearance.

One challenge that digitalization poses for news and other journalism products is the pace of communication. Because a bulk of the income in the journalism field comes from advertising, gaining as much visibility and as quick visibility as possible is vital for beating competition (Newman 2016). The emphasis on a fast pace of communication and the "publish first and then dig for more information" (ING 2014) mindset runs contrary to the demands of creating high-quality immersive content, which takes time.

In addition to the value process and function perspectives, we can summarize the business value of immersive technologies by dividing it into four different themes: 1) engagement and experiences, 2) eliminated complexity and improved user experience, 3) reduced costs, and 4) better communication and collaboration (Vanhalakka 2018). We can identify how these themes also apply in immersive journalism and to tools already in use, such as 360-degree videos. 360-degree videos can connect audiences from their homes to the other side of the world, providing more realistic and more engaging journalistic scenes than traditional mediums (Prat 2018). With a headset, the 360-degree view can easily be controlled by natural movements such as gestures of the hand or moving the head, therefore making experiences such as navigating in a landscape easier than on a surface display of a webpage. While the technology is still suffering from some limitations, with enough raw material 360-degree can be a very cost-efficient way to reproduce physical environments. It's also in some contexts a better way to communicate with audiences due to its realistic nature.

Although the value of immersive technology is becoming better understood every year, the technologies have not yet made a substantial breakthrough in the field of journalism. Immersive journalistic solutions are still mostly explorative (Watson 2017). Creating high-quality content can be expensive and, while it's possible to create immersive experiences more affordably, compromising quality for costs can often lead to bad experiences, such as simulator sickness, which can turn away users from the mobile VR (Habig 2016). However, despite its challenges, major investments into the technologies by large news agencies such as *The New York Times*, *USA Today Network*, *Die Welt*, *Blick*, *Dagens Nyheter*, ARTE, *The Guardian*, Sky, and *Euronews* (Watson 2017), and the formation of the more recent journalistic consortiums such as Journalism 360 (Medium.com 2018) signal a strong belief in the technologies' large potential to become the next journalistic medium. While these investments and consortiums do not prove that VR/AR (virtual reality/augmented reality) will definitely become the next big thing in journalism, there are some success stories such as NYTVR that prove it is possible to both explore the technologies of VR/AR and create profit, despite the costs of high-quality production.

Case of NYTVR

The New York Times' NYTVR was one of the first journalistic applications on the VR/360-degree market (Watson 2017). It's a platform for high-quality VR/360-degree experiences for mobile VR headset audiences. What makes the NYTVR case interesting is that, when many other news mediums were still only exploring the technologies without considering profits, NYTVR had a clear business plan from the start: to monetize their high-quality VR/360-degree content creation in NYTVR using branded content (i.e., advertisements) (Hall 2016).

In this chapter we use the business model canvas (BMC) (Osterwalder & Pigneur 2010) to analyze and illustrate the complex elements of value in the chosen case of NYTVR. The canvas model is usually drawn as a graphical illustration of different value fields. These fields are: *Value propositions*, *Customer relationships*, *Channels*, *Customer segments*, *Revenue streams*, *Key activities*, *Key resources, Key partners*, and *Cost structure*. In the illustration the customer-related elements are grouped to the right-hand side and the partner-related elements to the left-hand side of the canvas, with the driving element, the value proposition, shown in the middle. The business model of NYTVR is presented below in Figure 10.1 with the help of the BMC canvas. In the following some of the value elements have been grouped together for ease of following the analysis.

Value propositions and customer segments: In the case of NYTVR two value propositions can be identified. The first value proposition of the NYTVR business model is high-quality immersive VR/360-degree content for mobile devices. High quality in this case means best possible technical quality and high production value. Since value is subjective, it is good to link to a specific customer segment. With this value proposition, the customer segment is all mobile VR users; to visualize the connection, all blocks related to this specific value proposition and customer segment are colored white.

The second value proposition of NYTVR is the ability to engage audiences, which refers to offering an engaging interactive platform for content delivery that attracts audiences. This is directed toward *The New York Times*' corporate customers, i.e., companies/enterprises with global brands. This value proposition is represented by gray blocks.

Channels: the main channel for delivering the first value proposition (white blocks) is *The New York Times*' NYTVR application. Other ways to access the

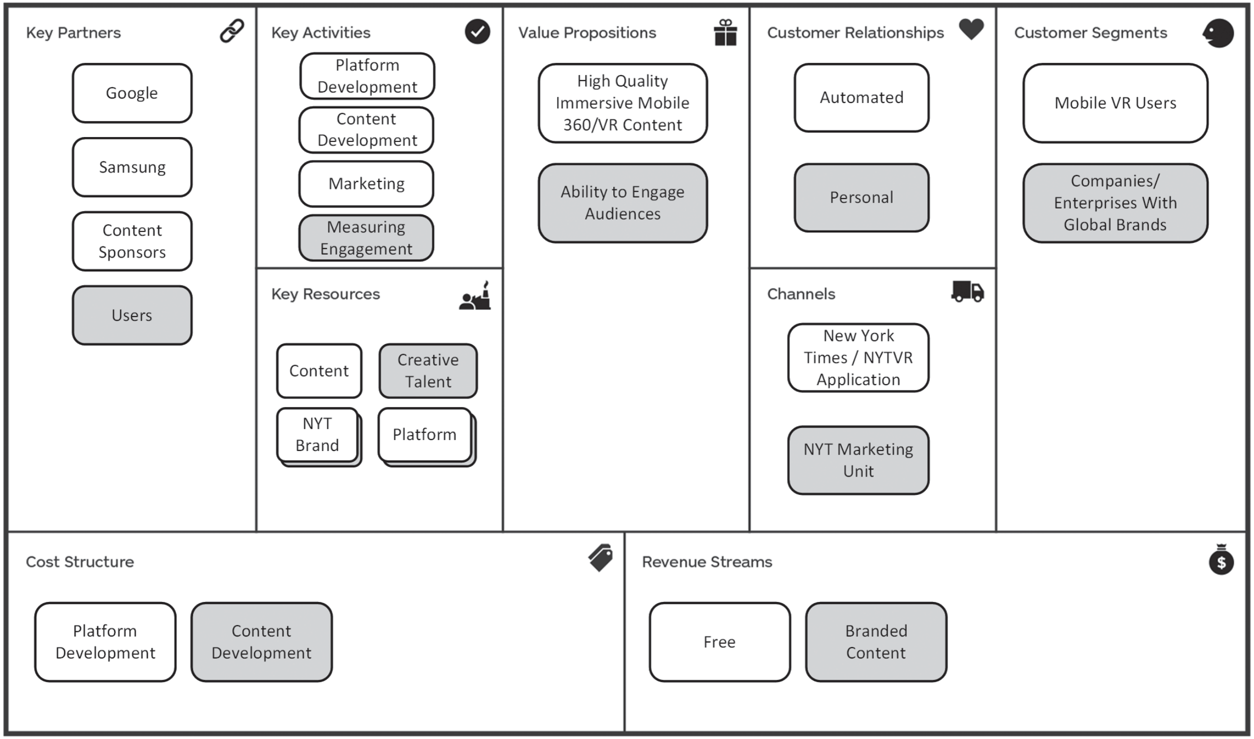

FIGURE 10.1 NYTVR Business Model (adapted from Vanhalakka 2018 and based on the model by Strategyzer 2018, image template used under CC 3.0 license).

content are through Youtube or Samsung VR applications. It is important to note that in order to fully experience NYTVR, a mobile VR headset is required. When NYTVR was initially launched, *The New York Times* partnered with Google and gave their subscribers free Google Cardboard headsets (Robertson 2016), thereby creating more users and hype for their platform. More recently mobile headsets have become more common and there are even specialized phones for mobile VR.

The second value proposition (grey blocks) is delivered by *The New York Times*' marketing unit, T Brand Studio, that uses *The New York Times*' branded journalistic approach, multidisciplinary knowledge, and new technologies to create branded content/advertisements for their corporate customers (T Brand 2017).

Customer relationships: NYTVR is a mobile application, therefore the relationship between the content consumers (white blocks) is mostly automated. The relationship between *The New York Times*' corporate customers (grey blocks) is more personal, since the content is created as a collaborative effort between *The New York Times* and their client companies.

Revenue streams: the NYTVR application is free to use, therefore the content consumers do not provide direct revenue. The platform is monetized through its content; almost all production inside the NYTVR application is branded content, i.e., advertisements with an element of journalistic storytelling, that have been created together with NYTVR's corporate customers (grey blocks), and thus the revenue comes from them as advertisement payments. The potential of NYTVR to attract new NYT subscribers is acknowledged with a dashed white block, which indicates potential future revenue for NYT as a whole, or a motivation for a person to stay as a subscriber.

Key partners: for the first value proposition (white blocks) there are three key partners: Google, Samsung, and content sponsors. The partners enable NYTVR to reach potential consumers, as well as provide Google and Samsung with a way to offer more content for their appliances. The third key partners for the first value proposition are the content sponsors as they sponsor more content for the platform, making it more compelling for users, and mostly cover the content development costs.

For the second value proposition the key partners are the users of the platform, since they are the audience for the branded content. Due to the engaging nature of VR/360-degree production, the users are more prone to sharing their experiences (Habig 2016) and thus become a key partner for the content sponsors in increasing awareness of the advertised brands.

Key activities: key activities for the first value proposition (white blocks) are platform development, content development, and marketing. The platform needs to develop simultaneously with the devices and software. At the same time, NYTVR needs to continue developing content, in order to retain or bring users back to their platform by offering them new enticing content. The final key activity for the first value proposition is marketing, since by attracting more users *The New York Times* makes their platform also more attractive for enterprises and companies.

For the second value proposition (grey blocks) the most important activity is measuring engagement, i.e., collecting metrics. These metrics can provide proof of concept about the different aspects of VR/360: for example, whether the videos attract more engagement than the more traditional methods of branded content.

Key resources: the most important key resource for the first value proposition (white blocks) is the content. The content is required to attract an audience. The most important key resource for the second value proposition (gray blocks) is the creative talent, i.e., content creators. *The New York Times*' marketing unit consists of multidisciplinary teams, combining the same talents who are responsible for their news content with marketing specialists (T Brand Studio 2017). This enables them to combine journalistic storytelling with branded content. The shared resources (white blocks overlapping with gray blocks) between both value propositions are NYT Brand and the NYTVR platform. *The New York Times* brand is known for high-quality branded content (Main 2017) and, as such, brings in customers for both value propositions. The NYTVR platform is a key resource, as it enables both value propositions and, from it, the company can collect metrics about the success of their content.

Cost structure: the main costs for the first value proposition (white blocks) come from the platform development. As mentioned before, the way mobile VR should be utilized is still exploratory, so the platform needs to be developed as the industry evolves. The main costs for the second value proposition come from the content development. It could be argued that the content development costs are a shared cost for both value propositions; however, in this case they is linked to the second value proposition for a reason. While the technologies of VR/360 have large potential for use in a journalistic context (Watson 2017), the problem is that creating high-quality VR/360 content is expensive. Instead of only exploring how to use this technology in The Daily 360 (the journalistic VR/360 channel of *The New York Times*), *The New York Times* is exploring this in their branded content too. This means that their clients, the global brands, are paying for the content development and at the same time *The New York Times* learns about the technology and also attracts more customers to its own platforms.

Key findings: the most important finding from the business model is the synergy NYTVR offers to *The New York Times*. Media companies often have advertisement-based business models. *The New York Times*, on the other hand, has a subscription-based business model and, for them, advertisements are low-margin (NYT 2020 Group Report 2017). To get subscribers, *The New York Times* needs to offer engaging content. The technologies of VR/360 offer a new possible platform for media, but the technologies are still at an exploratory stage and, as such, the methods still require resource-greedy development (Watson 2017). *The New York Times* is exploring how to use these new methods in creating their branded content, delegating the production costs to their corporate customers. While exploring and learning how to use the technology in their own journalistic context, they are creating more engaging content for their subscribers and potentially attracting new subscribers.

The BMC model offers an at-a-glance canvas that communicates the value creation elements. The two distinct value propositions presented in this analysis also well identify the two-directional nature of value creation: while the content consumers are receiving entertainment value from the content they are viewing, they are part of the value proposition to other actors present in the canvas. With multiple value propositions and multiple revenue streams, it becomes easier to identify the path for financial gains in the immersive technology field. The value functions introduced in the previous section can be useful in identifying the multiple value propositions and the key partners and activities of value creation. The BMC visualization is thus a way to highlight and summarize the value function analysis, which otherwise may sometimes be a little difficult to communicate.

Implications

The opportunities for new kinds of ways to experience journalism that the immersive technologies offer have also a potential to create business value. However, the capture of this value in terms of financial profits is not straightforward. Immersive technologies often offer cost savings as a substantial value proposition in different industries. Identifying different value functions and elements on the BMC helps to communicate the value that is created with the immersive journalism approach, and is a step toward identifying the financial gains from it. Content creation is expensive, and thus the avenue for direct cost savings is not viable in the field of journalism. The value function and BMC analysis tools help to identify other reasons why investing resources to create immersive content might be viable.

Examples from the field of digital journalism show that the overwhelmingly hectic pace of communication in news media has created a counter-movement in slow journalism (Dowling 2016). Immersive journalism has similar elements to the slow movement, with the emphasis on high-quality and thought-through development processes. A broad understanding of value reduces the significance of publication pace as an element of value.

Value analysis also helps journalism organizations to view consumers as key partners in the value creation process. Instead of being a mere recipient, the consumer becomes an active participant in the process of viewing the immersive content. This role can be further emphasized by engaging the consumers as ideators, promoters, and even creators of the immersive content. The role of the media company changes from content creator to content production coordinator, and at the same time the possibilities of value creation and monetization become more varied. Indirect value functions such as market, access, and scout can be important to point out, and lead the immersive branded content creation from being thought of as only marketing or advertising toward co-innovation with different actors.

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