Shifting Technology Paradigm for the Film and Entertainment Industry: Interface Modalities

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ABSTRACT

As technology evolves, so does the use of technology in the film and entertainment industry. The purpose of this research is to examine and analyze the use of different technology modalities and how they interface with the various stakeholders in the film and entertainment industry. Since this is a dynamic environment, the models will reflect the most up-to-date information about technology in the industry and show how the shifting technology paradigm is affecting the industry, both currently and predictively in the future. New technological interfaces with stakeholders such as distributors and customers will be a focus of this research. These interactions are changing and the authors will demonstrate how they are already affecting processes and business strategies in the industry in a profound way.

Keywords: technology, film and entertainment industry, ambient media, digital, internet, stakeholders

INTRODUCTION

"Change is inevitable. Change is constant" (Blake, 1998, 53). For firms who are in these constantly changing and uncertain business environments, the "most innovative firms achieved the best industry performance" (Aragon-Correa & Sharma, 2003, 71). Since there have been major changes occurring in the film and entertainment industry, particularly affected by the technology transformations going on in the industry over the past decade, firms need to take a proactive stance towards change.

LITERATURE REVIEW

Stakeholders in the Film and Entertainment Industry

In the Film and Entertainment industry, the stakeholders are numerous. Of course, the audience or customer is one of the major participant groups as they are the end users of the products and services in the industry. There are a number of stakeholders who can be described in general as "distributors" including domestic distributors (US), international territories (overseas distributors), retailers and licensed media, distributor subcontractors and ancillary media/licensees. "Retail and licensed media" is a huge area encompassing a number of

distribution windows including electronic games, books, theatre circuits, home entertainment (rental, internet streaming, DVD/Blu Ray with extra features), the video on demand segment (VOD, digital rental and retail from companies like Apple iTunes and Microsoft Xbox Live Marketplace), premium cable, network TV and syndicated TV. Distributor subcontractors (manufacturers of CD, DVD, or Blu-ray, media planning and buying agents, sales and licensing specialists) and ancillary media/licenses (licensed rights for games, publishing, merchandising, sound tracks and clothing, media such as in flight movies, education, and prison) are also major distributors (Lee and Gillen, 2011, 14-16).

For some films, the "major consumer brand" area includes company products being used in a particular film (James Bond -007 using Mercedes Benz sports car) or use of a brand's name of a picture to promote its name or products in print or TV ads (i.e. fast food chain like McDonald's selling Star Wars figures with kid's meal) (Lee & Gillen, 75-76). Three categories of critical participants are the producer, talent with their representatives, and the financing partners, who can make or break a picture. Lastly, there are governments (local, state, federal, international) who are involved in the film and entertainment industry through nationalistic protectionist programs, tax credits, incentives and regulations.

Types of Technology

Ambient Media – "Human computer Interaction, covers experience design, media management and media studies", includes "search and retrieval, interactive interfaces, designing experiences, applying new interaction concepts, the design of experiences, educational issues "(Lugmayr, Stockleben, Risse, Serral and Stojmenova, 2014, 1)
Hardware technology - Holograph technology, Silicon technology, RFID radio freq identification,
Mass hardware storage, high definition digital TV-ubiquitous displays
Wireless connectivity
Low cost polymer electronics/printable electronics
Many of the technologies – computing processing power, data storage density, wireless connectivity and advanced displays.

Although we all agree there is greater digitalization of content, the courts have yet to catch up to these technological changes in the area of copyright protection. "No enterprise has felt more threatened by these online technological advances than the music and film industries (Heidmiller, 2002, 1)

Impact of Technology on Stakeholders

Ambient technology affects most of the stakeholders, but more particularly affects the "consumer and enterprise space" (Lugmayr et al, 2014, 4). This means that audiences, distributors, producers and international territories are most impacted. As Payne and Macdonald (2004, 129) describe ambient technology or as they call it "ubiquitous computing" – it "creates ways that you are connected all the time" and is an "invisible pervasive environment", the technology readily can impact all stakeholders in the industry.

New big data mining technology is being used to track the internet media for talent. With this information, talent can show how well known and how successful they are, which in turn impacts their interactions with fans, agencies, producers, merchant distributors and other film participants (Trappey, Trappey, Chang, Lee, Hsieh & Chao, 2012)

Digital technology is impacting all of the stakeholders in the film and entertainment industry but in different ways. For example, when a picture is sold to international markets, the "consumer-perceived cultural content embedded in the product" and the "general cultural environment of the foreign market" play a mediating role to the technology advances. Although the international venue can easily get the digitalized film over the internet and have the technology to show it in "big screen" theatres, the consumers may not demand the product due to cultural environmental issues.

Although "peer to peer" digital copying and file sharing is present in the digital world, the courts have been aimed at the internet provider firms rather than individual customers to stop "mass infringement of copyright" (Heidmiller, 2002, 1). They expect the internet firms to police their customers by kicking them off their services when there is repeated copyright infringement by their customers. Thus digital technology has directly impacted the stakeholders in the customer, anciliary media, licensees, and distributor spaces the most with indirect impacts in industry stakeholders such as the producer and international territories.

THE MODEL

Shifting Technology Paradigm

As technology changes, so will the industry. What are some of the changes predicted for technology? In the next decade, technology will become more "ubiquitous" by reducing manufacturing costs, minitiarizing all parts of the products/process (making it more invisible), increasing the power of the process, creating more transparency between consumers and machines, and finding ways to decrease negative perceptions and resistance of the consumer (Payne & Macdonald, 2014, 129). This, in turn, will increase the technology convergence already happening in the film and entertainment industry. Lee and Gillen (2011, 61) call this "supermedia" and see five factors leading to this deep convergence: 1) mass migration to internet-connected devices; 2) bandwidth increases for downloads of movies and content to home/phone/computers; 3) wide number of devices that have internet connectivity; 4) traditional content being digitalized and 5) unique user devices to create new content.

As mentioned earlier, talent is profoundly affected by these changes. For example, talent agencies and the artists themselves are developing ways to use data mining of all internet sources to compare talent, measure brand, exposure and success due to big data technology advances (Trappe et al., 2012).

FINDINGS AND RESULTS

Strategic Implications for the Industry

Strategies: “In this market, there are some companies present with vertical integration from production through to exhibition or retail. One example is The Walt Disney Company, which produces motion pictures (including through its Marvel, Pixar and Lucasfilm brands), distributes DVDs to retailers and also sells through its own-brand Disney stores, as well as being a part-owner of the online streaming service, Hulu. In the United States and many other countries it is common for a company to operate in both production and distribution areas, distributing both its own films and those of other filmmaking concerns” (Movies…, 2015, 14).

Lee and Gillen (2011, 61) predict that distribution costs will decrease as more content is digitalized which will allow more “audience defined niche programming” and length of programing will be deregulated as consumers can watch on their own time and in their own way, much like they read a digital book today (on their kindle, phone, computer) pausing, rewinding, clicking on highlighted content with new information about the movie, and fast forwarding. In this new model, the consumer will control the length and quality of the interaction with the movie. However, this opens up a new production space for industry stakeholders who create the content and brings stronger consumer loyalty to programming.

By using data mining techniques, talent and their agents can now demonstrate the “value of artists” and “plan appropriate marketing strategies” to better promote them to producers and directors as well as position them for particular films enhancing their careers (Trappey et al., 2012, 274).

Even when technology is present, film and entertainment products retailing in international markets must also be cognizant of the different cultural environment. That is, in order to be successful overseas, the movies or shows produced must be more “universal” culturally in order to appeal to both domestic and international audiences (Moon & Song, 2015, 154).. The use of 3D or hologram helmets may also be limited in some international territories (due to lack of these technologies), which could change the product content. Given the huge increases in revenues coming from overseas territories (often 60-80% of domestic box office receipts), content in the industry is strongly impacted and must be localized.

CONCLUSIONS

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Appendix

Figure 1. Stakeholders in the Film and Entertainment Industry and the Interface with Technology

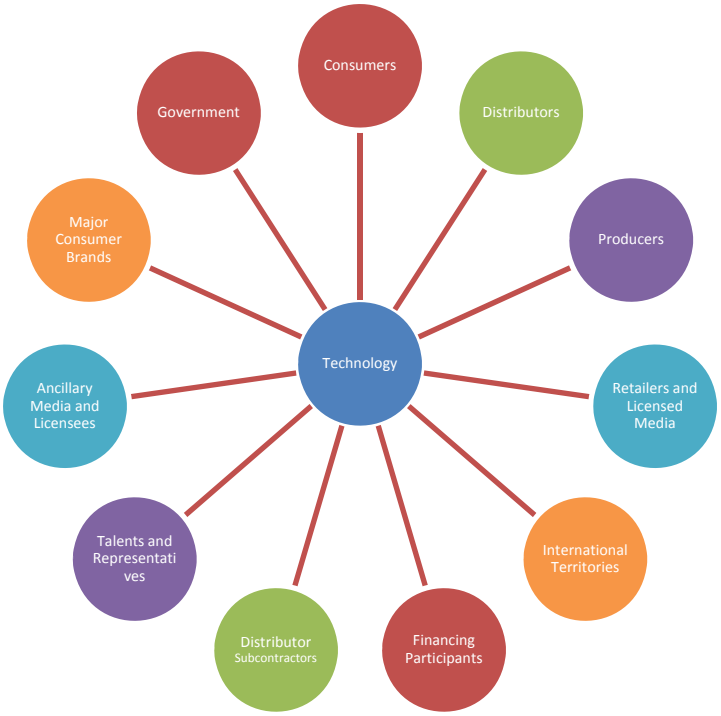

Figure 2. Technology Paradigm Shift Model in the Film and Entertainment Industry