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Cross Media Communication In Newspaper Organizations

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Abstract

Today Information and Communication Technologies have penetrated every aspect of the media industry. In the case of newspaper organizations new channels for reaching the readers have been deployed. These channels process different characteristics and target diverse groups of readers. Although these channels may seem to be independent they communicate and have the ability to guide users from one channel to another. This paper models cross media communication in newspaper organizations. More precisely it presents a detailed model that can describe the communication that can be implemented between the different channels that may be employed in a cross media scheme

Keywords: *Cross Media Communication, Cross Media Publishing, Model*

1 INTRODUCTION

The introduction of Information and Communication Technologies (ICTs) in the print media industry has changed considerable the work process but it has also offered new paths for delivering its content. For a long time, newspaper organizations were occupied only with the distribution of print newspapers. But as technology for the distribution of journalistic information in various forms has become more easily available, and with the introduction of the Internet into companies and households, the tendency has been for the media organizations to have several publishing channels at their disposal (Sabelström 2000).

The publishing channel is an information carrier or infrastructure used for distribution of information to an end user. The majority of these channels is related to some Internet service or is employing wireless technology (Veglis 2008a).

Initially many researchers regarded internet as a threat for the newspaper industry. Other researchers considered it an opportunity. Neither of these opinions was proven true. In reality during the last fifteen years many newspapers world wide have created a web edition. The basic reason for this move was an attempt to reverse declining circulation (and profits) by building a new base of readers, and more specifically of young and computer-literate readers (Spyridou et al. 2003). The problem is that recent studies indicate that internet advertising growth cannot compensate continuous declining of advertising revenues from the paper editions (http://www.followthemedia.com).

Except the WWW newspaper organization started experiment with other services in order to relay their news to their readers. These services were mainly based on the internet but some of them exploited the mobile phone network. All the above have led newspaper organizations to offer many alternative publishing channel to their readers.

At the beginning these channels were treated as independent delivery paths. But later it was understood that these channels are related to each other and thus they could be function as complementary to one another. Thus the term cross media communication appeared.

Cross-media communication is communication in which the storyline (in our case the news) will invite the receiver (reader) to cross-over from one medium to the next. In that way it is possible to transform from one-dimensional communication (sender → receiver(s), newspaper → reader(s)) to multi-dimensional communication (sender(s) ←→ receiver(s), newspaper ←→reader(s)) (Wikipedia 2009).

Good cross-media communication has the capacity to enhance the value of communication between the newspapers and their readers. The level and depth of news will be more personal and therefore

more relevant and powerful. Advantages from financial profits can be gained through equal or decreasing costs for the same or better communication effects with single publication channel communication. It is also possible to shift costs for communicating from the newspaper to the reader if the news are attractive enough for the reader to want to interact with them (Wikipedia 2009).

This paper attempts to describe a model for cross media communication among the different publishing channels that may be employed by a newspaper organization. More precisely it studies the paths that can link one publication channel to another in order for the newspaper to achieve valuable cross-media communication. Based on the proposed model a newspaper can choose to implement a cross media strategy that will suit best the profile of its potential readers.

2 CROSS MEDIA

Cross media is defined as any content (news, music, text, and images) published in multiple media/channels. The content is posted once and it is available on other channels. Multiple media has been another term widely used to specify the area of inter-platform or inter-device possibilities. Multiple media means that the same content is delivered to end-users in more than one medium (Veglis 2008b).

Let us examine the available publishing channels that can be employed in a cross media scheme. We must note that these channels do not represent different categories of technology but simply various methods for publishing news. These channels are the ways that the news is published by newspaper around the world. The channels are WWW, Webcasting, PDA, TabletPC, e-mail, SMS, PDF, WAP, RSS, Twitter, and Wi-Fi. Next we briefly present the publishing channels (Veglis 2008a):

WWW: The main advantage of WWW is the transportation of information over great distances, and the possibility of continuous updating (Negroponte 1995). Surveys indicate that it is the first alternative publishing channel that newspapers adopt (Veglis 2007).

Webcasting: Webcasting can be broadly defined as the delivery of media content on the Web (Veglis 2007). Websites can be used for Webcasting audio and video content.

PDA: PDAs (Personal Digital Assistants) are light, portable devices which they include small screens that support true color and also offer wireless connection through the mobile phone's network. Because these devices have small screens and a limited storage capacity, publishers can provide only a small portion of the content found in their printed editions.

TabletPC: TabletPCs are pen based portable PCs that include wireless connection to the Internet. These devices offer relatively large high resolution displays and an extensive storage capacity that allow publishers to provide readers with visually rich content in a fixed format that can retain each publication's established brand identity (Wearden et al. 2001).

E-mail: E-mail is employed by newspapers in order to alert their readers about breaking news, relay them the headlines of the main stories (with links to the entire articles included in an online version of the newspaper), or send them the entire edition in a PDF file (Schiff 2003).

PDF: It is a file format. PDF files are portable, platform-independent and highly compressed. They are also searchable and can include features for interactive document use. That is why many newspapers have used this format to deliver exact copies of their printed edition (Schiff 2003).

SMS: It is a service offered by network providers that allows customers to send text messages over their mobile phones. Many newspapers are employing SMS in order to send their readers the main headlines or to alert them about breaking news (Gillmor 2004).

WAP: Wireless Application Protocol, is a secure specification that allows users to access information instantly via handheld wireless devices such as mobile phones, pagers, two-way radios, smartphones

and communicators (Van der Heijden et al. 2000). Many newspapers are offering a WAP edition that usually includes the headlines and a small summary of each article.

RSS: It is a method of describing news or other Web content that is available for feeding from an online publisher to Web users. Today many newspapers are employing RSS in order to alert their readers about the news headlines (Veglis 2007).

Wi-Fi: Wi-Fi allows mobile devices to connect to local area networks when they are located near one of the network's access points. Newspapers have created hotspots for downloading electronic versions of their printed editions.

Blogs: A blog is a website where entries are written in chronological order and displayed in reverse chronological order. An important feature of the blogs it the ability for readers to leave comments. That is the reason why newspapers have included blogs as a supplement to their web editions, thus giving their journalists the opportunity to comment onto current events and to their readers the ability to interact with them (Veglis 2007).

Twitter: Twitter is a social networking and micro-blogging service that enables its users to send and read other users' updates known as tweets. Twitter is often described as the "SMS of Internet", in that the site provides the back-end functionality to other desktop and web-based applications to send and receive short text messages, often obscuring the actual website itself. Tweets are text-based posts of up to 140 characters in length. Updates are displayed on the user's profile page and delivered to other users who have signed up to receive them. Users can send and receive updates via the Twitter website, SMS, RSS (receive only), or through applications (Wikipedia.org 2009). The service is free to use over the web, but using SMS may incur phone services provider fees. Many newspapers are using twitter in order to alert their readers about breaking news.

Although we have included tabletPC in our original description of cross media channels we will not considered them any more in this paper due to the fact that it is usually not employed be newspaper organization. More precisely a recent study found that none of the top US dailies produces a TabletPC version of its edition (Veglis 2008b).

3 CHANNEL CATEGORIZATION BASED ON THE NETWORK CARRIER

The alternative channels, described in the previews section differ a lot. But we have included them in this form in our study because they are employed in order to publish news by the newspapers.

The majority of the channels belong to the internet category. Others are services of the mobile telephone network (SMS, WAP). Some of them can be included in both internet and the mobile telephone network. One of them is WAP because although it is implemented over a mobile network it is actually used in order to access the internet. The second one is twitter which in some cases can employ SMS messages.

Wi-Fi is considered to be a network technology and can be employed in order to connect the user to the internet services. Thus we do not distinguish it from the internet network. Finally PDF is a file format. Of course in order for the user to access a PDF file he must employ an internet service such as WWW, or e-mail.

Based on the above we can conclude that cross media publishing is implemented over two main network caries: the internet and the mobile telephone network.

4 MODES OF CHANNELS

All the publishing channels are consisted of content elements (Veglis 2008a). Content elements can be categorized into static and dynamic elements. Textual matter, still images and graphics are considered to be static content elements that can be created and edited independently of each other and later

compiled and logically connected in an article. Video and sound are characterized as dynamic content elements. These elements are sequentially built up. The majority of the publishing channels employ a combination of content elements (Sabelström 1998). These elements can be considered as modes. For example the WWW can be considered as a multi-modal channel since it can employ text, images, video and audio (Dena 2004). In Table I we categorize channels as mono-modal and multi-modal channels.

Monomodal	Multimodal
E-mail	WWW
SMS	Blogs
Twitter	Webcasting
RSS	PDA
	TabletPC
	PDF
	WAP
	Wi-Fi

Table I

5 NAVIGATION BETWEEN MEDIA

The requirement for movement between channels is a vital characteristic of cross media. However we must also distinguish the activity within a channel. A cross media work involves different channels that are based on the internet or the mobile telephone network (Dena 2004). WWW for example can be considered as a confluent channel though that offers text, video, audio, and virtual environments. There may be within a given cross media work many websites, and of these websites many modes (image, text, audio). In order to capture the usage of these sites and modes, and to appropriately design for these they need to be recognised in the bounds of cross media. Thus we can distinguish four different types of media navigation in a model that is based on the types proposed by Dena (2004):

- Cross channel: between channels that belong to the same network;
- Cross network: between channels that belong to different networks
- Inter-channel: within a channel (single-channel), between modes (multi-modal);
- Intra-channel: single-channel, mono-modal;

5.1 Cross channel

Cross channel navigation occurs when the user has to navigate to another channel that belongs to the same network. For example the user receives an email that notifies him for breaking news, and the user follows the link and access the webpage describing the news.

5.2 Cross network

Cross network navigation occurs when a user has to navigate to a channel that belongs to a different network. For example the user receives an SMS that alerts him for breaking news, and the user uses his computer to access the webpage describing the news.

5.3 Inter-channel

This navigation occurs within the same channel, for example WWW. An example is a website that has a hyperlink to another. Inter-channel navigation involves the movement within a channel and between modes. For example, moving from a text-based webpage to a video.

5.4 Intra-channel

Intra-channel navigation occurs within the same channel and within the same mode. An example would be fast-scrolling through the text of a webpage. Although these modal distinctions may seem meaningless for identifying a cross media work, they are nevertheless helpful in establishing the wide expanse of a cross media work and in recognising the complexity in choosing channel and modal elements for design (Dena 2004).

6 TIME

One other parameter that plays an important role in cross media communication is time. The content of each channel requires different time in order to be produced. The first channels that relay the headlines news to the readers are SMS, Twitter, and RSS. These channels can be characterized as info-alerts (Sabelström 2001). The idea of the info-alerts is to make the user aware of content available in different publishing channels. The RSS and the twitter link directly to the newspaper's web edition and the SMSs tempt the receiver to seek another publication channel in order to obtain more information (Veglis 2008a).

The following channels that relay the news are e-mails and WWW (running headlines). The e-mails can also be categorized as info-alerts since they can be received by mobile devises (PDAs, smartphones, etc.) or they can attract reader's attention when special software is employed (for example e-mail notifiers). In the case of WWW we refer only to running headlines that just announce the news, without giving more details (Veglis 2008b).

Next short story descriptions are available via voice or video webcasting. This is the equivalent to the voice or video correspondence of the radio and TV channels.

The full story is available first in webpages (WWW for PCs, and WAP) and later in the form of PDF files sent via e-mails. Usually this story is edited in more detail and it presents the facts with many details. This is due to the fact that this content has more time to be prepared. The webpages can include both static and dynamic elements. In the same category we can includ blogs. Blogs are usually updated later than the WWW edition of the newspaper, since they include journalists' comments on the main news (Veglis 2008a).

Finally we got the printed version of the story. Except the printed versions all other editions of the news are usually updated several times during the day. Of course in the case of an important event a newspaper organization may decide to produce a second or even a third print edition.

It is worth noting that mono-modal channels are the channels that relay news first. Multi-modal channels follow. Thus we can conclude that although multi-modal channels tend to be more attractive to the readers, since they include more multimedia material, mono-modal channels are the first to inform them about breaking news. This can be explained by the short time it takes to create them, because they are usually text based.

7 MODELING CROSS MEDIA COMMUNICATION

Based on the above we are now able to reach some conclusions that will guide us in forming the model for cross media communication. There are four different navigations between the various channels and also up to four different navigations in one channel (inter-channel) as described in section 5. We must also take into account the time parameter due to the fact that the content of different channels requires various time periods to be prepared (see section 6).

We must note that some publishing channels appear to overlap. For example SMS, twitter and RSS are the fastest channels that relay text messages. This might tempt us to conclude that newspapers may

choose to implement one of them. But this not true, because each channel targets a different group of readers (Veglis 2008b).

Based on the above we can start constructing the cross media communication model that is presented in figure 1.

Figure 1: Model for cross media communication

We have divided the channels into three groups depending on the time of their appearance. The first group includes the info alert channels, namely RSS, SMS, Twitter and WWW headlines. The second group, called main channels, includes, WWW, webcasting, PDF, blogs, and the WAP channel. These channels are considered to be the channels that give the actual detailed description of the news events. Finally in the last group we have included the print channel and we have named it laggard channel, due to the fact that it is the last channel that gives information to the users caused by the time it takes to be produced and distributed.

In figure 1 we have also included a variety of possible navigation between the various channels. These navigations can be one-way or two-way, cross-network, cross-channel or intra channel. It is obvious that WWW is the channels to which most other channels relay their users. This can be explained by the fact that it is a multi-modal channel with (in theory) unlimited capacity to offer information. That is the reason why surveys have indicated that WWW is the first alternative channel that newspaper organizations implement (Spyridou et al. 2003, Veglis 2007). We must also note that the WWW channel also relays to a significant number of other alternative channels. Based on the above we can conclude that the WWW is considered to be the center of every cross media communication scheme.

By studying figure 1 we can also distinguish the importance of the info-alert channels. Their role is very crucial for guiding the users to the main channels. As we have mentioned in section 6 the time parameter is very important. When a sudden event occurs newspapers may choose to alert their readers by using the info alert channels. But because the story may still be under development the content of the other channels (for example WWW, webcasting, blogs, WAP) may not be ready, or it may need to be revised many times. Thus the info-alert channels may be employed for a second (or third, or even more) time for the same event.

The laggard channel seems to play a supplemental, role showing the traditional readers (of the print edition) the available wealth of information of the main channels. That is why we can come across many cross media implementations that do not include a printed edition, due to the fact that they are actually the evolution of another media organization (not newspaper), for example a news agency.

Finally it is worth mentioning that the possible navigations that we have included in figure 1, may be in an actual implementation too many or too few. In this model we have tried to demonstrate all the possibilities offered by the available channels.

8 CONCLUSION

Many newspapers world wide are utilizing cross media publishing. A recent study found that all top 10 U.S. dailies employ alternative publishing channels (Veglis 2007). Nevertheless there has been no indication that this effort is based on a predetermined model that exploits cross media communication. In most cases newspapers are experimenting with new publishing channels in order to reach new groups of readers. Now that cross media publishing is becoming a dominant trend, ideas are begging to emerge in order to exploit cross media communication.

In this paper we have proposed a model that describes cross media communication. The model includes three groups of channels (info alerts, main channels, and laggard channel). We have also described a variety of possible navigations between the channels. Additional study is required in order to determine

the exact strategies that a media organization may implement in order to attract its readers. Further more the relation between the various publishing channels, defined as cross media communication, needs to be clarified in every detail.

The above model describes a one-dimensional communication from the media organization to the reader. In a future extension of this model we must include the communication from the reader to the media organization, thus modeling the multi-dimensional communication structure that will include both the newspaper organizations and the users.

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