




Forms of Media Convergence and Multimedia Content – A Romanian Perspective

Formas de la convergencia de medios y contenidos multimedia: Una perspectiva rumana

 Dr. Georgeta Drulă is Associate Professor in the Faculty of Journalism and Communication Studies at University of Bucharest (Romania) (gdrula@yahoo.com).

ABSTRACT

This paper addresses two types of technological media convergence: media convergence based on mobile technology, and also convergence based on the unification between IT and media industry. These forms are influenced by the multimedia aspects of the content. The research interest in this study is related to media landscape in Romania and its state. Even if many academics and practitioners consider media convergence only at the content level from journalistic perspective, this topic has many more detail aspects and trends. Thus, media convergence in terms of content can be now interpreted together with the user's content and takes into consideration the unification between paid, owned, shared and earned content. This paper proposes a theoretical and practical perspective for the relationship between convergence and multimedia for online media products. This perspective belongs both to media producers and to online consumers of information. The paper is interesting in that it reveals the challenges facing the media industries, and shows approaches of convergence that are related to multimedia for media products. The methodological framework uses the content analysis and the hierarchical cluster analysis to discover different forms of convergence in online media. The main conclusion of this study shows that due to various technologies and their partnerships, convergence can be directed both from the users to the media industry, and conversely.

RESUMEN

Este artículo se centra en dos tipos de convergencia tecnológica de medios: la basada en tecnología móvil, y la convergencia basada en la unificación de las tecnologías de la información y la industria mediática. Estas formas están influidas por los aspectos multimedia del contenido. El interés de la investigación de este estudio se centra en el panorama mediático en Rumanía y en su estado actual. Aunque muchos académicos y profesionales evalúan la convergencia de medios por el contenido desde una perspectiva periodística, existen otros muchos aspectos y tendencias a tener en cuenta. Así, la convergencia de medios en términos de contenido puede ser interpretada junto al contenido del usuario y considera la unificación del contenido pagado, poseído, compartido y adquirido. Este artículo propone una perspectiva teórica y práctica para la relación entre convergencia y multimedia en cuanto a los productos mediáticos on-line. Esta perspectiva se refiere a los productores y a los consumidores de la información. El interés del artículo reside en tanto que identifica los retos de la industria mediática y establece enfoques acerca de la convergencia multimedia para los productos mediáticos. La metodología consiste en el análisis de contenido y en el agrupamiento jerárquico con el objetivo de descubrir diferentes formas de convergencia de medios on-line. La conclusión establece que, gracias a varias tecnologías y sus asociaciones, la convergencia puede dirigirse desde el usuario a la industria y viceversa.

KEYWORDS | PALABRAS CLAVE

Media convergence, mobile media convergence, multimedia journalism, cross-media products.
Convergencia de los medios, convergencia de medios móviles, periodismo multimedia, productos multiplataforma.

1. Introduction and state of the question

This paper shows the mobile convergence and other forms of convergence in Romanian media landscape. The objective of this study is to identify possibilities and limits for convergence in multimedia journalism. It considers both theoretical and practical perspectives for the relationships between convergence and multimedia that addressed the online media. This approach belongs both to media producers, and online consumers of information. The research questions addressed by this study are: Which are the actual forms of convergence in Romanian online media?

Both convergence and multimedia are basically defined as processes of unification. Convergence considers the unification of several media channels through technology in the form of the Internet or mobile technology, while multimedia considers the combined use of several media in the same computer application or document (<http://goo.gl/ml167p>). Generally, it manifests two forms of convergence: one between IT and media channels convergence, and mobile convergence. Defining «media convergence», Jenkins (2001) identifies five separate aspects of it: technological, organic, economic, cultural and global convergence. Many of these aspects are handled on the border between multimedia and convergence.

1.1. Different perspectives and meanings to media convergence

Kopecka-Piech (2012:78) describes in detail the evolution of the concept of media convergence, and mentions the well-known convergence theories generated by Fagerjord, Storsul, Jenkins, Liestøl and Murray. She also mentions the theories related to convergence and multimedia, referred as cross-media / multiple platforms / transmedia / intermedia production theories, and suggested by Aarseth, Appelgren, Bechmann Petersen, Bolin, Brooker, Dena, or Scolari, or the theories of the creative industry, with their creators Deuze and Hartley. But the description and definition of «media convergence» is related to issues considered by this concept.

Thus, Murdock (2000: 36) defines the convergence in the media, determined by the digital evolution, on three levels: technological level (communication systems), the content level (cultural forms) and the economic level (related to companies, employers and the media market). Jenkins (2001; 2006) defines «media convergence», integrated to «convergence culture», as an interaction between new and traditional media. He considers not only the technological shift in convergence, but also its effects on the media industry

and its audiences. As a consequence, convergence is a continuous process and the media product is considered to be subject to permanent change.

Herkman (2012) considers media convergence, from the point of view of inter-media relationships, and underlines that a consequence of the economic convergence is the flow of cross-media products. Thus, convergence means many media products, linked not only «through intertextually», but also in the production, distribution and marketing processes. Lawson-Borders (2006) gives a perspective on convergence in organizations. Thurman and Lupton (2008) refer to multimedia storytelling for news sites as a convergent process, and Thorstern and Singer (2009) refer to content production and convergence. Islas (2009) says that the same content can be found across different media, and considers that convergence is linked to media ecology. He shows that «convergence has imposed deep changes in media companies», due to the way in which the information is consumed.

«Media convergence» is faced with new issues related to Web 2.0, such as user-generated content (UGC). News sites increasingly use this content on different platforms. Deuze (2008), particularly, considers that the actual level of media convergence is the convergence of the «citizen-consumer», which is also the creator of news. This new approach is determined by the changing media consumption habits due to usage of the new technologies.

«Media convergence» described in relation with users/consumer, and in terms of UGC, considers new categories of content. Thus, Schepke (2012) addresses a new form of convergence as a combination of paid, owned, and earned content. This form of convergence combines at least two or more channels of communication, and is characterized by a «consistent storyline, look and feel» (Owyang, 2012).

In any sense we understand media convergence it is based on a technological solution. Current solution is Web Content Management Systems (CMS). This solution has fully harnessed the multimedia content generated by users. CMSs are frequently found as open / free platforms. They are used by an increasing number of news sites, and are oriented to users' necessities. CMS offers all-in-one tools that can be used to combine various technologies, and assure cross-platform and cross-channel compatibilities. CMSs facilitate the collaborative activities. For example, Schulz (2013) shows the open source project called MythTV, which is a multimedia management system that works in client-server architecture, and

allows video streamed sequences or movies to be viewed on various technologies, such as: computers, tablets and smart phones. This system offers a cross-platform solution for multimedia content.

As a consequence of technological convergence, many forms of content convergence have appeared. A common form is based on the relation between news sites, live broadcasts / journals, and social media platforms. This relationship also offers cross-platform content. Thus, social media platforms promote multimedia stories from news sites, and also continue with users' comments and discussions. This new trend is referred as «social media convergence» (Stan-chak, 2010). Social media platforms often used by news sites are Facebook or YouTube, where the convergence between video-sharing, and television sites is encountered.

1.2. Multimedia journalism - Content and media production in convergence

Multimedia journalism is based on media convergence, and is characterized by «interactivity», «collaboration» and «participation» (Deuze, 2004). These aspects of content production and consumption involve all categories of actors, including users. In these conditions, it is talking about «social production». Social production is generally a form of non-commercial production, and can generate convergent products. Also, there are other aspects of media convergence in multimedia journalism, from professionals' perspective. For instance, journalists must write for multiple digital channels, because the multimedia story as a form of convergence is suitable for multiple channels. Quinn (2005), Bull (2010) and Luckie (2012) make references to reporting practices in multimedia journalism, and show how to work across multiple media platforms, by creating and using video, audio, text and pictures for news. Moreover, multimedia content accepts the collaborative activities for writing news.

From the perspective of media product, in order to overcome competition and maintain their audience, the news sites have appealed to increasing amounts of multimedia content, and to social platforms. This content that must address the usability criteria and the users' interests is operated by many platforms and

devices in order to be captured, edited, saved and distributed.

In the opinion of many theorists and practitioners, neither convergence, nor multimedia replace the rules of good journalism. Multimedia and convergence are related in another context that is the evolution of professional practices and job market. Thus, Kolodzy (2006) considers that the style of writing stories is altered by the various multimedia formats, and also by the news distribution on many platforms such as: online,

«Media convergence» faced with new issues related to Web 2.0, such as user-generated content (UGC). News sites increasingly more use this content on different platforms. Deuze, particularly, considers that the actual level of media convergence is the convergence of the «citizen-consumer», which is also the creator of news. This new approach is determined by the changing media consumption habits due to usage of the new technologies.

television, print. Multimedia writing must be adapted to usability rules required by the technological support.

Convergence sustains interactive multimedia storytelling in journalism through multiple types of content. Multimedia stories can be easily shared and distributed on many different platforms with the aim of capturing an audience.

There are thus specialized platforms for materials collection from users, and also social media platforms, such as Facebook and Twitter, for information diffusion. Perrin (2012) says that a successful online multimedia storytelling depends on three factors: writing for multiple channels, working in teams (collaboration) and finding emergent solutions. Writing for many channels is a challenge and a demand for multimedia journalists and refers to convergence aspects. They must know the current technologies and how to use them in storytelling. Perrin (2012: 392) considers that «media convergent journalism is not for the lone fighters» because a multimedia story is non-linear and complex. The information in such a story has a background, a context, and also a path to be read, depending on the users' interests.

In fact, the Web 2.0 opportunities make the border between multimedia and convergence to be very thin. Moreover, the multimedia formats can bring pollution with useless information through information overload, false and redundant information. In order to reduce the effects of these phenomena, users should rely on the journalists' or editor's choices and opinions.

1.3. Relations between media convergence and multimedia

Jinglei (2012) addresses process of unification in convergence as a fusion process. He considers that the

Media convergence represents the unification of various technologies and content of different types. At the same time, multimedia storytelling itself represents a form of convergence between text, audio, photo and video sequences. But multimedia is more than that. It also means a hypertext structure of information and a graphical / visual representation on a screen.

new forms of convergence can be addressed as «multimedia fusion», and they are most closely implicated in editorial guidance, editorial planning and creativity processes. In the media development, Jinglei (2012) identifies five levels of «mature media» which are newspapers, broadcast, television, Internet, and 3G as the representative of mobile media. Each of the five levels is characterized by categories of multimedia information that are combined in a new form that is called «fusion». Fusion has various forms, such as: fusion between TV and magazines, between TV and newspapers, between newspapers and magazines, or mobile newspapers. In fact, the «fusion» processes between information assures the growth of knowledge and the information propagation through various media platforms (Jinglei, 2012). Thus, media convergence based on «fusion processes» generates products which are cross-platform or multi-platforms.

Media convergence represents the unification of various technologies and content of different types. At the same time, multimedia storytelling itself represents a form of convergence between text, audio, photo and

video sequences. But multimedia is more than that. It also means a hypertext structure of information and a graphical / visual representation on a screen. These characteristics require new approaches in terms of journalistic practices, especially for writing multimedia stories. To create interactivity in a story, journalists must do the hypertext structure and multimedia content in a very intuitive way for the users. Thus, journalists must imagine the structure of information, adapt to the phases of multimedia production, and use many platforms to distribute multimedia news. Opgenhaffen (2011) identifies six such pieces of information and formats of online news: text, picture, video, sound, embedded picture slideshows, and embedded info graphics.

Convergence could be considered the «macro» level of «media fusion», and multimedia aspects, at the «micro level». Thus, the following directions of unification or fusion in convergence, and in multimedia could be presented:

- Convergence involves the economic and technological matters which are situated at «macro» level. Multimedia aspects are addressed more at the content level of a journalistic story.
- Convergence brings into discussion the media companies, and their decisions to create media products. Multimedia brings into attention, the producers and the consumers, and the way they produce, or access the information.
- The convergent journalistic product works across many and various platforms, and has multimedia content.
- News and multimedia stories are created on sites and news portals, and then presented in other forms at television broadcasts and in print; either they are found as text, or as video sequences on the Web, as convergent forms. Thus, people can consume the same news, in different periods of time and using different platforms (Internet, television broadcasts or in newspapers).

Online media reflects the relationships between multimedia and convergence. Consequently, the visual aspect, layout, and structure of information on Web must be considered. So, multimedia information has specific characteristics, but the layout tends to be in accordance with the platform of distribution. Structure of information for a media product is also a

form of convergence with multimedia aspects. The hypermedia structure links parts of various multimedia stories, and different pieces of information coming from different platforms. However, users need information with a constant structure, and interactivity for reading the news. These demands are more difficult to be approached for cross-platform products, because users can have problems to cross or to understand various formats and platforms at the same time.

2. Material and methods

Two methods were considered for this study: hierarchical cluster analysis (HCA) and mobile sites content analysis. This study refers to mobile convergence and also to other forms of convergence in media.

2.1. Mobile media convergence and multimedia

The mobile convergence is approached by the Hierarchical Cluster Analysis (HCA) method. The subject of research is mobile sites, created as a consequence of the convergence based on mobile technologies. The clusters obtained in this method were subjected to a content analysis method to determine the convergent issues.

The Hierarchical Cluster Analysis (HCA), an exploratory method, is used to group the typologies of mobile sites. This method is suitable to identify various aspects of convergence found in the groups of mobile sites. HCA is most useful for a small number of objects, respectively the 28 cases of mobile news sites considered. Each mobile site is described and measured with a set of characteristics that help to create clusters. The solution of grouping used is based on furthest neighbour.

Mobile news sites were selected from the site *sati.ro*, which measures the Internet audience in Romanian virtual space, in August 2013. The mobile news sites are analyzed depending on their type, and are considered aspects of convergence with mobile technology. Thus, 11 mobile sites are designated to television channels and shows, 15 mobile sites are for online publications, and 2 cases are for news agencies or news portals. The coding scheme considers 14 variables that are related to: type of the site (TV, journal, news agency, news portal), category of the information (general news, entertainment, sport, etc), site's performance on market (number of visitors and views), users' reading habits, device access (desktop and mobile), reading mode (browser / apps), reading version (desktop or mobile), multimedia content (topics and format), layout, design and structure, interactivity, and users' participation. All characteristics refer to the

homepage for each mobile site. Groups of mobile sites are created based on similarities / dissimilarities evaluation between their characteristics. Each group reveals an aspect of the media convergence, which is also related to each type of mobile site.

2.2. Media convergence based on the unification between IT and media industry and multimedia

Forms of convergence are approached by the content analysis method. Criteria of coding scheme are: partnerships in the media and IT industries, characteristics of multimedia stories found on various platforms, users' content in news sites and in television shows. Analyzed cases are sites obtained as convergent solution between television news shows and the Internet, and can be exemplified by the *stirilePro TV* or *Antena 1* sites. Unit of analysis are Romanian news sites.

3. Analysis and results

Findings are presented on two types of convergence.

3.1. Mobile media convergence and multimedia

Relationship between convergence and multimedia is materialized in cross-platform products which are the mobile sites. Based on values of characteristics, groups of mobile sites with similar aspects, indicating the convergence based on the combination of platforms features, were established. Thus, convergent aspects of mobile sites were found in regards of site layout and design, multimedia content formats, users' content, users' participation, and traffic indicators.

It was found that mobile sites depend on market indicators such as number of views and number of visitors. Three groups of mobile sites were identified depending on market indicators. The biggest group consists of mobile sites from televisions and online publications. Within this group, the theme of the site is very important in terms of the possibilities of convergence. The second group includes mobile sites in sport (*sport.ro*, *gsp.ro* and *prosport.ro*), and, another group that consists of sites in entertainment (*wowbiz*, *libertatea*, *cancan*), and televisions news (*stirileprotv* and *realitatea.net*). It can be noticed that sport, entertainment and visual news are prone to mobile media convergence. These sites have important traffic indicators on Internet, and also on mobile devices. Therefore, it was shown that the audience migrates from one platform to another which is more comfortable to be read. Also, it can be noticed that news sites with high traffic, have many users on their mobile versions. Sport and tabloid (entertainment) categories of mobile sites have many users than the others. These catego-

ries are on top ranks.

The aspect of convergence which is the multimedia format of the mobile news is manifested in a content that consists more in texts and photos. The analysis found three groups of mobile sites. A group uses only text for the list of their mobile news; another group uses both texts and photos in the list of their news, and a special case, the mobile site of stirileprotv.ro where video sequences are also used, in addition to texts and photos.

The layout and design of the sites are also considered for the convergence analysis. Thus, the homepages in the mobile sites in terms of layout and design were analyzed. The largest group of cases is defined by a layout and a design with one column that has a photo to the left and text to the right (mobile sites: acasa, romaniatv, wowbiz, antena3, kanald, sport, libertatea, adevarul, hotnews, and cotidianul). The title of the mobile news is also the link (figure 1). A group has the same mobile layout on tablet as the desktop version of the site (cancan, zf, gandul, descopera, gsp, prosport, mediafax). Two very small groups, one consists of mobile sites stirileprotv and procinema, has more than two columns; and another group that consists of mobile sites primatv, capital and jurnalul which have only one column with texts and links, and no photos (figure 2).

The structure of the mobile site refers to the number of items (mobile news – content provided by pro-



Figure 1. Layout with photo, text – title as link.

fessionals) on homepage. Based on this criterion, it was identified that mobile sites consist of 10 to 30 items per page.

Users' content needs also to be considered in media convergence. In this regard, mobile sites were analyzed in terms of user interactions and participation. Most mobile sites have chosen the same forms to have connections with the audience. In terms of these characteristics, there are no relationships between the type of the mobile sites and their connectivity with the audience. Mobile sites were also analyzed in terms of interaction with the users. One group of mobile sites uses on homepage only links to navigate through the site (mobile sites: realitatea, stirileprotv, wowbiz, acasatv, primatv, sport, libertatea, adevarul, click, jurnalul, descopera, cotidianul). Another group also introduces several interactive elements, such as a search box (mobile sites: procinema, al, money, evz, romanialibera and hotnews), and the third group enjoys many interactive elements (gsp, prosport, cancan, gandul, zf, mediafax).

In terms of user's participation in mobile media convergence, four groups were identified with an almost equal number of mobile sites. All of them allow participation on Facebook platform with likes and comments. Mobile sites (money, zf, cotidianul, hotnews, antena3, click, capital, acasatv, primatv) allow interactions with users through Facebook and Twitter platforms. The group of mobile sites consisting of procinema, descopera, wowbiz, romaniatv, kanald, realitatea, stirileprotv, allows users' comments for mobile news, directly on site and on Facebook platform. Some cases offer all forms of participation, others none.

Topics in the homepages of mobile sites are also considered for analyzing convergence aspects. Thus, it was found that most mobile sites have from 9 to 12 categories of topics (mobile sites: hotnews, mediafax, stirileprotv, gsp, prosport, romaniatv,



Figure 2. Layout with text – title as link.

money, romanialibera, adevarul, evz, gandul). Another group of mobile sites contains from 5 to 8 categories of topics (mobile sites: realitatea, kanald, procinema, descopera, libertatea, click, wowbiz, a1, cancan), and the last group of mobile sites (zf, capital, acasa and primatv) has from 15 to 20 categories of topics.

It can be noticed that groups of mobile sites created, based on different aspects of convergence between different media channels and mobile technology, respect more the usability rules and the users' needs, thus losing the specificity of the media channel. These groups do not depend on the type of media site (television, online publication, news portal) and are more oriented to facilitate the reading of news. Thus, the convergence is directed from media industry to users. But the participatory characteristics of groups of mobile sites involve also the users in convergence processes by providing content.

3.2. Media convergence based on the unification between IT and media industry and multimedia

Considering the first criterion of analysis, it was found that in Romanian media, different industries share the same content on different platforms. Many partnerships have been put in place between media and IT industries, such as Yahoo or Google. Therefore, the site Yahoo News Romania is a provider for most important sites con-

taining general or specialized news, such as realitatea.net, adevarul.ro, hotnews.ro, stirileprotv.ro, or zf.ro. This site also shares links with Facebook pages.

The most cases of media convergence and cross-platform product are identified between television broadcasts and the Internet. Many multimedia stories are found on these two platforms. Here is an example from the news site stirileProTV.ro (<http://goo.gl/G-G667n>) that uses the television news: «The news about weather warnings is found on the stirileprotv.ro site as content registered from television broadcast. This content, when it is used on both technological platforms, can reach more users, in this form of convergence».

Table 1. Mobile sites in different groups of characteristics

	Mobile sites on media types (TV shows and channels / online publications / news agencies and news portals)	Category of information	Market Indicators	Layout and design	Interaction	Participation	Topics	Multimedia format
1	realitatea.mobi	General News	2	1	1	3	2	1
2	m.stirileprotv.ro	General News	2	2	1	3	1	3
3	m.wowbiz.ro	Tabloid	2	1	1	3	2	1
4	m.romaniatv.net	General News	1	1	1	3	1	1
5	m.antena3.ro	General News	1	1	1	1	2	1
6	m.acasatv.ro	Science&Entertainment	1	1	1	1	3	1
7	m.kanald.ro	Science&Entertainment	1	1	1	3	2	1
8	m.procinema.ro	Science&Entertainment	1	2	3	3	2	1
9	m.a1.ro	Science&Entertainment	1	1	3	1	2	1
10	m.money.ro	Economic&Financial	1	1	3	1	1	1
11	primatv.mobi	Science&Entertainment	1	1	1	1	3	2
12	m.sport.ro	Sport	3	1	1	1	1	1
13	m.gssp.ro	Sport	3	2	2	2	1	2
14	m.prosport.ro	Sport	3	2	2	2	1	2
15	m.cancan.ro	Tabloid	2	2	2	2	2	2
16	m.libertatea.ro	Tabloid	2	1	1	1	2	1
17	m.gandul.info	General News	2	2	2	2	1	2
18	m.adevarul.ro	General News	1	1	1	1	1	1
19	m.evz.ro	General News	1	1	3	-	1	1
20	m.click.ro	Tabloid	1	1	1	1	2	1
21	m.zf.ro	Economic&Financial	1	2	1	1	3	2
22	m.jurnalul.ro	General News	1	1	2	2	1	2
23	m.descopera.ro	Science&Entertainment	1	2	1	3	2	2
24	mobile.romanialibera.ro	General News	1	1	1	2	1	1
25	m.capital.ro	Economic&Financial	1	1	3	1	3	2
26	m.cotidianul.ro	General News	1	1	3	1	3	1
27	m.hotnews.ro	General News	1	1	1	1	1	1
28	m.mediafax.ro	General News	1	2	2	2	1	2
	1,2,3 groups of mobile sites with similar values for a characteristic 1 – The largest group.							

Moreover, media companies use the users' content on their news sites, or in television shows. The platform called videonews.ro, associated with television channel Antena3 and site antena3.ro offers videos shown in the news edition of the TV channel. Also, the TV channel uses videos given by users on videonews.ro.

Regarding features of the multimedia stories found on various platforms, it was noticed that it is more difficult to upload video sequences than text or images. This situation can be a limiting context to convergence. A media-sharing platform linked to news site is the solution that has arisen in Romanian online media.

Here are several examples of media convergence based on users' content embodied in the platforms: videonews.ro site (from antena3.ro); «Martor ocular page (from realitatea.net); «Stirile tale» page (stirileproTV.ro); «Hotreporter» section (from Hotnews.ro).

Convergence between news sites and blogs are embodied in platforms such as voxpublica.ro site and pandoras.ro site (from realitatea.net), special section for blogs, called «Adevarul» blogs (from adevarul.ro), or «Puterea Gândului» (from gandul.info) that is a collection of editorials, articles and news items that may be found in the posts of users' blogs.

Convergence between online platforms, and newspapers or magazines is materialized in different news sites and it is reflected by several figures and statistics collected in September 2013. Thus, there are 3,880 registered online publications according to the site reviste.ro, and 285 central online newspapers according to e-ziare.ro site. There are 32 sites viewed under the category of «general news», 13 sites under the category of «local news», 46 sites under the category of «entertainment and tabloids», 10 sites under the category of «sport» and 19 sites under the category of «economic/financial» according to sati.ro site, the Romanian Internet audience site. There are more than 500 online publications, according to zelist.ro site, a Romanian aggregator in online media.

The result of the convergence of online content with television broadcasts can be illustrated by the following figures. The site tvronline.com, a directory of online televisions, has registered live television channels on the Internet. The site has 24 national television channels, and 35 local televisions, in Romanian, with different specialized channels, such as sport, documentary, cartoons and films.

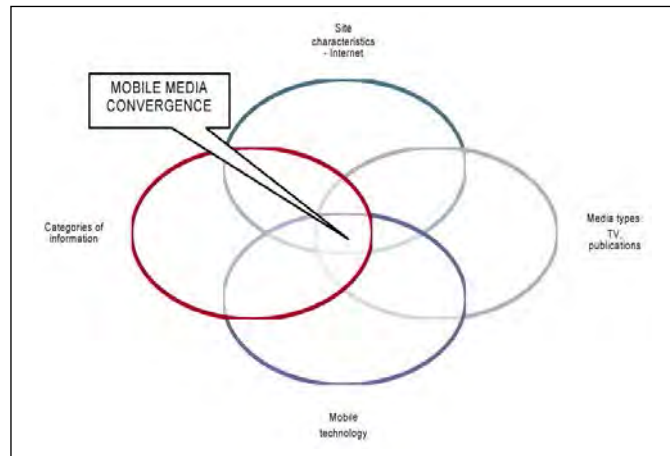


Figure 3. Mobile media convergence.

4. Discussions and conclusions

This study discovers the actual forms of convergence in Romanian online media that manifest as mobile convergence, and IT – media channels convergence. It can be noticed, as a general conclusion that all forms of convergence, even if they have diversified and taken into account other aspects or actors, put together the users' needs for a multimedia content as a unifying element.

The main conclusion of this study shows that due to various technologies and their partnerships, convergence can have very different aspects which are correlated both with content given by media industry and with users' reactions to this content.

4.1. Mobile media convergence and multimedia

The results of the analysis applied present various solutions for the unification of media channels through mobile technology. Due to technological convergence, the content found on the news sites is accessed on mobile devices in a device-specific approach, and in a traditional-desktop approach, or in combination. Media companies have chosen both convergent and cross-platform solutions for their online products. Some new sites adopted the cross-platform solution which is based on the desktop version of the news site for mobile devices, and other have news sites that have mobile versions that are appropriate for a convergent solution. In this case, different media channels (TV, publications, news agencies, and Web sites) are unified through the mobile technology in a specific mode. Science and entertainment mobile sites are more similar regarding layout and design, general news mobile sites are more similar regarding interaction and multimedia format, and sport mobile sites are

similar only through characteristic of topics. Similarities between mobile sites are more evident, based on the same type (television, publications or news portals). In this situation, it can be seen that mobile convergence is working, based on channel type, and characteristics of sites.

Aspects of convergence related to characteristics of mobile sites do not influence the number of views and visitors. But the multimedia stories created by the users are moderated by journalists. Thus the media product combines users' content in a professional format. It can be noticed that sites with many visitors and views on Internet also have visitors and views on mobile devices. Also, sport and entertainment, thematic categories of sites, are the most frequently read on mobile devices. Convergence based on mobile technologies is already implemented in the Romanian online media. But, this technology brings new requirements for multimedia content that must be adapted to a new platform. The Romanian perspective for mobile sites as convergent products shares both the Internet network possibilities and the offers of mobile technologies. This is materialized by the majority of news sites that allow access to the mobile versions of sites from the desktop, and conversely.

Mobile sites in the Romanian media vary a lot from case to case in terms of layout / design, news structure, multimedia format, and users' contributions. This conclusion shows that the convergence between online, traditional media channels and mobile technology is manifested varied. The interests for the convergent media are related with users' needs and their interaction with mobile devices. Thus, media industry and users are actors in the convergent process based on mobile technologies. Figure 3 illustrates as a conclusion, the way in which are created new forms of media convergence through the Internet and mobile technology.

4.2. Media convergence based on the unification between IT and media industry and multimedia

A conclusion has raised regarding media convergence and multimedia journalism in the partnership between IT and media industries in Romania. This conclusion is manifested towards two forms of convergence. One refers to convergence between news sites

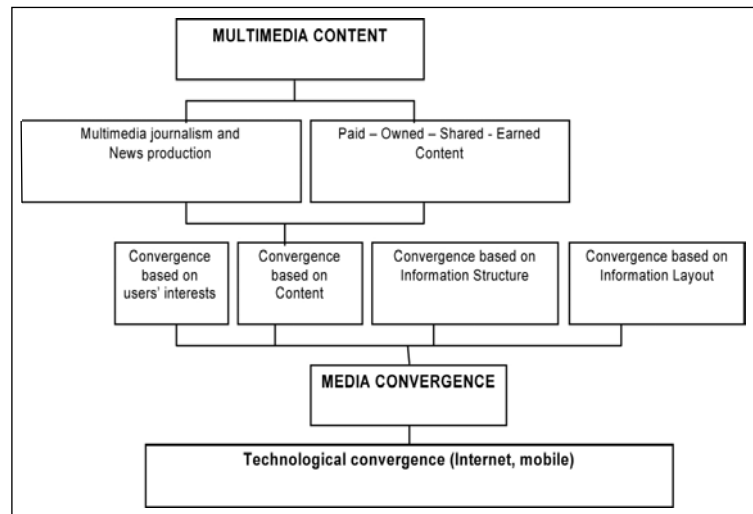


Figure 4. Relationships between media convergence and multimedia.

content, and live television broadcasts or social media platforms. The other form is based on user and professional content in terms of paid / owned and earned content. This partnership is materialized in the news section on Yahoo site in Romanian version, and also the same stories can be found both at televisions channels and on the Internet.

Convergence and multimedia content can be judged at different levels of implementation, and also in terms of journalistic practices, that refer more to solutions that attract audiences, and ensure a greater interactivity for the multimedia content. Developments of media products in terms of convergence are endless.

Aspects of the relationship between convergence and multimedia content accessed by users on cross-platform media products are shown in the figure 4.

Due to mobile technologies, and various partnerships between media and IT industries, convergence is directed from the users to the media industry, and conversely. Thus, in many cases, the multimedia stories created by the users are moderated by journalists and the media product combines users' content in a professional format.

As a final consideration that can generate further discussions and research, it can be said that convergence requires new considerations for the visual aspect and layout of information, structure, and writing for many channels and platforms, even if the usability principles are considered for each channel and platform separately.

References

BULL, A. (2010). *Multimedia Journalism: A Practical Guide*. Routledge.

- DEUZE, M. (2004). What is Multimedia Journalism. *Journalism Studies* 5, 2, 139-152. (DOI: <http://doi.org/c76frk>).
- DEUZE, M. (2008). The Professional Identity of Journalists in the Context of Convergence Culture. *Observatorio (OBS) Journal* 7, 103-117. (<http://goo.gl/1Fm8cy>) (10-02-2013).
- HERKMAN, J. (2012). Convergence or Intermediality? Finnish Political Communication in the New Media Age. *Convergence: The International Journal of Research into New Media Technologies*, 18, 4, 369-384. (DOI: <http://doi.org/txk>).
- ISLAS, O. (2009). La convergencia cultural a través de la ecología de medios. *Comunicar*, 33, 25-33. (DOI: <http://dx.doi.org/10.3916/c33-2009-02-002>). (<http://goo.gl/1B4PBH>) (01-06-2014).
- JENKINS, H. (2001). Convergence? I Diverge. *Technology Review*, 104, 5, 93. (<http://goo.gl/RHZ27H>) (01-07-2012).
- JENKINS, H. (2006). *Convergence Culture: Where Old and New Media Collide*. New York: University Press.
- JINGLEI, N. (2012). Multimedia Fusion Era Editorial Role. *Physics Procedia*, 25, 733-736. Elsevier. International Conference on Solid State Devices and Materials Science, 1-2. Macao. (DOI: <http://dx.doi.org/10.1016/j.phpro.2012.03.150>). (<http://goo.gl/11YubJ>) (20-09-2012).
- KOLODZY, J. (2006). *Convergence Journalism: Writing and Reporting across the News Media*. Rowman & Littlefield.
- KOPECKA-PIECH, K. (2011). Media Convergence Concepts. *Studia Medioznawcze*, 46, 3. (<http://goo.gl/e7ZaVJ>) (22-02-2012).
- KOPECKA-PIECH, K. (2012). Converging Media Spaces: Introducing an Emergent Field of Studies. *Studia Humanistyczne AGH*, 11, 3, 77-91.
- LAWSON-BORDERS, G. (2006). *Media Organizations and Convergence: Case Studies of Media Convergence Pioneers*. Routledge.
- LUCKIE, M. S. (2012). The Digital Journalist's Handbook. CreateSpace Independent Publishing Platform.
- MURDOCK, G. (2000). Digital Futures: European Television in the Age of Convergence. In J. WIETEN, G. MURDOCK & P. DAHLGREN (Eds.), *Television across Europe. A Comparative Introduction*. London: Sage.
- OPGENHAFFEN, M. (2011). Multimedia, Interactive, and Hypertextual Features in Divergent Online News Platforms. An Exploratory Study of Flemish Online News. *First Monday*, 16(3). (<http://goo.gl/HNYEzD>) (10-07-2012).
- OWYANG, J. (2012). Altimeter Report: Paid + Owned + Earned = Converged Media. *Jeremiah Owyang's Blog*. (<http://goo.gl/AxUpR>) (01-02-2013).
- PERRIN, D. (2012). Shaping the Multimedia Mindset: Collaborative Writing in Journalism Education. In C. THAISS, G. BRÄUER, P. CARLINO, L. GANOBCSIK-WILLIAMS & A. SINHA (Eds.), *Writing Programs Worldwide: Profiles of Academic Writing in Many Places*. The WAC Clearinghouse and Parlor Press. (<http://goo.gl/mcmxGS>) (01-01-2013).
- QUINN, S. (2005). *Convergent Journalism: The Fundamentals of Multimedia Reporting*. New York: Peter Lang.
- SCHEPKE, J. (2012). Converged Media: Maximizing Consumer Engagement in a Digital World. *Searchenginewatch.com*. (<http://goo.gl/ErGFz>) (20-02-2013).
- SCHULZ, S. (2013). Collaborative Advantage: Open Source Leads Multimedia Convergence. *eeTimes.com*. (<http://goo.gl/M2t5QG>) (15-03-2013). (5-01-2014).
- STANCHAK, J. (2010). *Why 2011 will be the Year of Social-media Convergence*. (<http://goo.gl/TOLYo>) (15-12-2012).
- THORSTERN, O. & SINGER, J. (2009). Convergence and Cross-platform Content Production. In K. WAHL-JORGENSEN & T. HANITZSCH (Eds.), *The Handbook of Journalism Studies* (pp. 130-144). Routledge.
- THURMAN, N.J. & LUPTON, B. (2008). Convergence Calls: Multimedia Storytelling at British News Websites. *Convergence. The International Journal of Research into New Media*, 14, 4, 439-455. (DOI: <http://doi.org/b2kxsi>).