

Technology and Journalism: Conflict and Convergence at the Production Level

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Introduction

At a time when new technologies are developing rapidly, the use of the term journalism has undergone various changes. The Internet allows information to “travel” in huge packs and the only restriction lies in the speed of electrons or electromagnetic waves (Osborn, 2001: 1). The Internet has transformed the journalistic profession but technology alone is not enough to further address the significance of these changes. The role of journalism in democracy, political participation, and social integration must be redefined within the framework of a society whose main feature tends to be individualization.

Technology is the first step towards change. Traditional methods can now be combined to create new distribution channels. Despite the fact that similarities can be found between the alternative and dominant media, the extent of the phenomenon has taken on huge dimensions and cannot be ignored on this basis. The production conditions of journalism are changing in order to facilitate the recording of events and their subsequent distribution. Furthermore, access to initial information is now feasible for most citizens, who have become not only recipients but also providers of information. At the same time, new news sources have emerged, which have come to compete with dominant media.

Various issues arise through this combination of technology and journalism. One of these is trust, which, on the one hand, may be the bottom line, but, on the other hand, is extremely difficult to achieve within the new world order. Furthermore, agenda setting and the role of the gatekeeper cannot be excluded from the discussion. Moreover, issues relating to corporate dominance and the method of determining economic factors also raise questions.

Within this framework, we will try to make an extensive analysis of the role of technology in the present day, the changes journalism has undergone during its transition

to the Internet, and the active participation of citizens, as well as looking at the basic characteristics of traditional media that have been maintained during their transition to alternative media. The analysis consists of two parts. The first part relates to online journalism and its main aspects: first, to the traditional role of the gatekeeper, which is challenged, since users have more power in their hands; and second, to the agenda-setting process, which has been affected as people now have access to the initial material and professional journalists share control of news production with users. Next, corporate dominance is examined as it is of great importance as far as democratic participation is concerned. The last sub-section of the first part discusses citizen journalism, its extent, the groups involved, and its use by dominant media.

The second part looks at the example of Television Without Frontiers (TVXS) from the Greek market. TVXS is a news medium in which the aforementioned factors co-exist. Its suitability lies also in its hybrid nature, which, with the help of technology, combines the journalistic schemes of traditional media with the potential of users' contributions.

The analysis of empirical data and further discussion are carried out on the basis of a collaboration between the developers, who explain the technology's limitations and capabilities, and the owner and founder of the portal, who explains its journalistic and corporate function. This conjunction aims at identifying and highlighting the mutual relationship between technology and journalism in daily life, as well as recreating the conditions of production of a participatory news portal.

Online Journalism

According to Hernandez (2010), there must be a differentiation between the terms "journalism online" and "online journalism." In the first case, he refers to traditional media products (newspaper articles, radio and television programs) being available on the web. In the second case, he refers to the exploitation of the latest technology and of the opportunities offered only by the Internet for the improvement and distribution of narration and journalism.

The categorization of online journalism into four forms, as described by Deuze (2003), is one further step to better understanding the route it has followed. The most widespread forms are the dominant media sites. Their content is divided into two categories. The first category includes what has been created exclusively for the web, while the second includes material that pre-existed in a traditional medium and was posted on the Internet. Users' participation in this form is limited and filtered. The second category consists of the index and category sites. In this case, journalists provide links, which refer to other news sites. Usually, they do not comprise original content, but, sometimes, they include discussion forums or areas of news and links exchange. Subsequently, another form comprises the meta- and comment sites, which are sites concerning news media and whose content includes general issues about the media. The contents consist, mainly, of comments relating to the content of other sites on the web. In addition, in most of them, the posting of users' stories is allowed, on the basis of which they can be considered participatory. The last form of online journalism is none other than share and

discussion sites. In this case, one can exploit the possibility offered by the Internet to allow contact between distant people, in real time, in order to exchange ideas and stories.

The Role of the Gatekeeper

Within this environment, the situation for journalists and the roles they are asked to play can change. A role of major importance in the communication process is that of the “gatekeeper.” The mass communicator, in the conceptual model of Westley and Maclean, plays the channel role (McQuail and Windahl, 2001: 68) and selects, on the basis of the public’s needs, those events to be published. The gatekeeper acts similarly in White’s model, which was the starting point for a more thorough study on the way the selection or rejection of relevant issues takes place. It should be noted at this point that White was the one who started the research on the role of gatekeepers in journalism, when he studied the rejection process of news by the editor of a provincial American newspaper and the consequent importance of his decisions.

The first impression is that the role of the gatekeeper ceases to exist on the Internet. Users are able to find the information they want and, furthermore, they have no need for someone else to choose what is important and what is not. Nevertheless, no one can argue that this is entirely valid (Singer, 2006).

In traditional media, as mentioned previously, the gatekeepers are the ones who decide which issues should be known to the public and which should not. According to Galtung and Ruge (McQuail and Windahl, 2001: 225) there are additional factors related to the news, which are considered at the same time by the gatekeepers, and these determine to some extent whether an issue will pass the gates and will be published or not. What is particularly interesting is that, as Cecay supports, some of these gatekeeper roles are also maintained in online journalism (Harper, 2008: 5). More specifically:

- The *principle of intensity*, according to which an event that is very important is more likely to be published.
- An *unexpected* event is able to attract interest.
- The *socio-cultural values* both of society and the gatekeeper.
- If an event has concerned media once, it is most likely that it will concern them again, a process called *continuity*.
- The *cultural affinity or importance* of an event, which indicates that, if it falls under the public’s interests, then its chances of emerging in the media agenda are increased.

Another perspective is that of Bruns (2004), who states clearly that the process of gatekeeping has been supplemented or in some cases replaced by the gatewatching process. This means in practice that the balance shifts from the disclosure of important information to the disclosure of any content available on the web and the subsequent evaluation of this material (Bruns, 2004: 2). The Internet “hits” the idea of a gateway and the journalist who can or should have limited the information passing through it. At the same time, the volume of information provided, in conjunction with the variety,

in terms of quality, makes stronger the need for the existence of a person who will make the choice and will lend credibility (Singer, 2005: 3). People need help in order to identify those sources that have some legitimacy. Consequently, the role of the gatekeeper remains vital despite technological changes.

Agenda Setting

Apart from those aspects of the role of the gatekeeper that seem to apply also to the Internet, it seems that there are other similarities to traditional media. Agenda setting or topic setting explains why in a democratic society the public is provided with information on certain issues instead of others (Dearing and Rogers, 2005: 20). The three main components of the agenda-setting process are media topics, public topics, and political topics, which are interdependent. The public depends on the media to learn about some events without having direct contact with the same initial incident. When, however, the debate concerns the Internet, things change. People can now have access to the initial material and can seek information from different sources to the extent that they are interested in a topic. Nevertheless, as Pew surveys show (Pew Research Center Publications, 2008), even when people seek news online they turn to a large extent to dominant media. Furthermore, a Messner and Distaso (2008) survey confirms the influence of traditional media on the blogosphere. Blogs seem to rely to a large extent on traditional media for collecting necessary information. On the other hand, it should be noted that, according to the same survey, the influence of blogs on journalism is gradually increasing. These, in turn, are also able to create buzz and to attract the media's attention in this way.

An interesting aspect of the way topic setting is affected by the Internet results from the surveys of Althaus and Tewksbury (2002) and Schönbach, de Waal, and Lauf (2005). Herewith, we will list in brief some newspapers characteristics, since these surveys were carried out in printed and online versions of this medium.

The structure of traditional newspapers is linear and articles are placed on the basis of their importance. This structure leads readers to browse through the newspaper in order to identify that news that is of interest to them. The result is that they often read a story even if they are not interested in it. This is more likely to happen when this news story is in the headlines. On the contrary, the position of news in online newspapers is formed in such a way that the user can refer directly to the publication he/she is interested in. News is divided into groups (politics, international, environment, etc.) and the linear structure gives its position to the structure/order in levels (layers). Moreover, a large volume of information must now fit on the screen and this leaves no room for long titles or lengthy text.

Althaus and Tewksbury's survey has examined whether these differences between printed and online newspapers can lead to a different prioritization of important public issues by the public. The relevant results confirmed this hypothesis. The readers of printed newspapers were able to recall more current affairs topics in more detail than readers of online versions. In a context where users can choose what to read, through a variety of thematic categories, there is the risk of creating personalized information

environments that will isolate the individual from the flow of public topics in society (Althaus and Tewksbury, 2002: 197). However, as people still largely rely on offline media in order to be informed, this risk remains limited.

According to Schönbach, de Waal, and Lauf, it is possible that traditional newspapers will be gradually replaced by the online versions. Their main advantages are that most of them do not charge for content, they are updated throughout the day, and they are easily accessible and visited (Schönbach, de Waal, and Lauf, 2005). Their research hypothesis is that the online versions of newspapers do not inform citizens on such a wide range of public issues as the printed ones and the relevant results confirmed this. The use of an online newspaper can enrich a person's knowledge about current important events, without, however, really broadening the acquired topics. However, the data depict an interesting exception. People of high education level are informed about public issues through systematic reading of online newspapers. The conclusion is that printed newspapers serve an important function in the setting of public topics: they broaden the horizons of people with limited interests. In contrast, online newspapers serve an elite, they form public's topics in different ways and affect different groups.

Corporate Dominance

Online journalism and communication on the Internet have been treated as elements for strengthening/reinforcing democracy and citizens' democratic participation. At the core of a democratic society it is now deemed necessary to have a field within which different views on everyday issues will be presented and the relevant debate will take place. In this framework, Dahlberg (2005) highlights as necessary the independence from the governmental power which is absent from parts of the mass media. Another factor that should be necessarily taken into account in this process is the economic one and especially funding. The combination of these two factors led in the past to the marginalization of views less powerful but still very important.

The advent of the Internet has triggered a more optimistic perspective. New technology, the change of the role of gatekeepers, citizens' participation, pluralism, and the possibility of having access to a wealth of information at national, international, and global level are some of the features on the basis of which optimism about democratic culture has been developed/cultivated. However, the biggest threat lies in the *corporate colonization* of cyberspace (Dahlberg, 2005: 162). The increasing ownership of content, software, and bandwidth permits the possibility of corporate control of online communication. At the same time, there is the risk, despite the free expression of views, of this type of communication being sidelined/marginalized by the competition for attracting users' attention.

Initially, upon observing the situation, it seems that the variety of sources available on the Internet leads to pluralism. However, when one examines the issue in depth, another dimension arises that shows this is not valid. Many of the news published, emerges, as mentioned above, from dominant sources, which include well-known media corporations. This practice not only limits users' access to different views but also leads content to the point where it was before the Internet.

In order to restrict this practice, companies like Google implemented an algorithm searching more than 4500 sources on the web. This service seems to provide the requested diversity; however, a large number of these sources depend on dominant western commercial media (Dahlberg, 2005: 166). This, of course, does not mean that if one makes a search one cannot find a wealth of alternative sources.

Another reason for the dominance of dominant media is simply that they are preferred by many users. An obvious answer for this phenomenon lies in pre-existing familiarity and trust, and sites are designed and planned in such a way that they exude professionalism and objectivity. Building confidence is a process taking place gradually, over time, not instantaneously.

Moreover, corporate dominance often leads to the treatment of people as individual consumers rather than as intelligent citizens (Dahlberg, 2005: 170). The reader is often part of the target audience, a practice which largely remained unchanged during the transition from traditional to online media. Advertising, as one of the basic funding sources, is dominant on many sites and apart from the fact that, in many cases, it occupies a significant space, it often appears in pop-up form, covering the text until the user closes the window. Despite the importance given to advertising revenues, these have failed to return the expected profit. Consequently, many online news media proceed to charging for their services. In this context, another question arising is whether the products resulting from users' participation can be a source of profit for the sites. Despite the fact that in some cases editors have tried to take advantage of this, the commercialization process is rather problematic.

Citizens' Journalism

Since the beginning of the use of the photocopier, McLuhan (Bruns, 2004: 1) had already noticed that everyone could become a publisher. Indeed, if not everyone, at least some had made use of this possibility. Today, with the web, this possibility has been multiplied.

According to Tilley and Cokley (2008), in order to better understand the dispute between journalists, academics, and citizens regarding the term "citizen journalism," it is important to make a separate analysis of the groups involved. The first group is the "professional" journalists, whose role is changing, given that their primary work has shifted from searching for a story to narrating a story. Another group are the publishers, mainly those companies responsible for the distribution of information worldwide. Moreover, there are citizen-journalists who have the technical means of digital production and distribution and therefore undermine existing media monopolies. It is assumed that some of them, apart from their desire to contribute to the information process, are people who want to pass from alternative to dominant media and to become journalists (Tilley and Cokley, 2008: 106). We cannot leave academics out of the debate, who have a new field to explore in citizen journalism. Finally, there are the advocates of freedom of expression, who enter the public debate as independent voices, in order to support freedom of speech.

The number of citizens who provide material from events with which editors or journalists do not have direct contact is increasing daily and, in many cases, these

sources override the information that can be provided by a journalist (Tilley and Cokley, 2008). Through the creation of blogs, the power of the public to publish and receive information has increased even more. Today it is estimated that there are millions of blogs and their number continues to grow daily. Blogs take various forms. Some are personal diaries, others are discussion forums, while more still operate as sources of links to other sites of interest. In some cases, they combine all of these three aforementioned functions (Ward, 2006). In addition, blogs are the best known port of call used by writers in order to begin an online discussion with their readers, who have the ability to send in their comments (Thurman, 2008: 145). The phenomenon's dimensions and the importance that both citizens and professionals have attached not only to citizen journalists but also to their product has gradually led to the widely accepted term "citizen journalism."

Can everyone, though, be called a journalist? What are the characteristics that define who is a journalist and who is not? Someone who becomes a witness at an event and records it with his mobile does not automatically become a journalist, but, on the other hand, his/her contribution should be taken into account. Moreover, a number of issues arise such as the user's identity, often anonymous, his potential immaturity and the protection of intellectual property rights, which have a negative impact on the practice of journalism as far as its reliability is concerned. However, the increase of traffic that user-generated content can provoke in conjunction with the possibility of new information sources, which will form the basis for new stories, is one of the key motives for mainstream media to try to ensure citizens' participation.

Major news organizations like the BBC have staffed special sections to manage the material sent by users. In the framework of the increased need to maintain credibility, the first step is the verification of authenticity, accuracy, and legitimacy of the incoming material. As such, what is sought after, in this context, is to avoid misinformation. A lot of time and work is needed in order to study the material in question and ultimately to take the decision of what should be published and what should not. Furthermore, there is a belief that, in some cases, the material coming from users must be subject to elaboration and adapted to the profession's standards.

Citizens' involvement in the journalism procedure is inevitable. What should be done is to find the best possible method of integration. According to a survey conducted in 2005 at 10 sites of dominant media in the UK, regarding user-generated content, seven basic format of users' participation were depicted: "polls," "have your says," "chat rooms," "Q&As," "blogs with comments enabled," "pre-moderated message boards," and "post-moderated message boards" (Thurman, 2008: 140). Moreover, according to a survey by Paulussen and Ugile (2008), journalists recognize the complementary importance of user-generated content but it seems that they admit that in everyday life they make limited use of the alternatives offered by technology.

Of course, it should be noted that it is not possible for a site to publish all received messages and this can sometimes work at its expense. Furthermore, in some cases the issue of reward for participation arises, which may be a motive for users. It is worth mentioning the OhmyNews.com case in South Korea, which attracted a large following, despite the fact that the remuneration offered for anyone writing (whether it be 10 or 100 pages) is very small (about 85 cents) (Thurman, 2008: 148).

Television Without Frontiers (TVXS)

Online journalistic production is influenced by the technological traits of its field. There are a number of tools available to both journalists and the public, which can be used in the process of journalistic production. Due to technological convergence, readers in an online media environment become viewers and listeners (Picone, 2007: 110). We will now attempt to outline and analyze these characteristics.

The first characteristic is hypertextuality, which makes the connection of one story to other relevant stories, archives, or sources possible, through the use of hyperlinks. The second one is interactivity, which allows the participation of the audience. Interactivity is not exclusively affiliated to the Internet, since there have also been other media of a more or less interactive nature. Multimediality is a factor that we cannot overlook, since it is what allows journalists to choose which format best suits the content at hand. The introduction of technology in a news organization is not so much a matter of applying technological advancements as it is an incentive for the understanding of its potential impact on the formation of journalistic culture (Carr, 2002, as quoted in Deuze, 2003: 213). Finally, another characteristic is the customization of content, which follows the individual interests of the users (Bardoel and Deuze, 2001).

An online medium, in order to find its place in the market, needs to follow well-designed principles and a thought-through financial plan. TVXS was officially launched in November 2008. Its promotion in the then immature Greek online journalism landscape constituted a risky endeavor. Its main goal was the construction of an independent medium for news distribution, which would welcome the public's contribution to news production. Additionally, good use of the interactive nature of the medium was one of the main targets in order to bring forth citizen journalism.

Thirteen to 15 people work on the project – their number varies since approximately 5% of the staff are volunteers. Apart from the volunteers, the group is staffed by professional journalists and technicians. It should be noted that, given its nature, a web site operates 24/7. However, as is also the case with traditional electronic media, for a number of hours every day its operation is limited to simple monitoring or the coverage of breaking news.

According to Pavlik (in Osborn, 2001: 6) the content of online news has so far passed through three stages. The first stage has to do with content deriving from a traditional medium; the second one is about the creation of original content that is enriched with hyperlinks, while during the third stage the content is designed from scratch, intended for the web, which is considered a new medium serving an online community. According to this categorization, TVXS seems to be at the third stage given that it allows interaction between the public and journalists on the basis of hypertextuality, technological convergence, and content customization. These three fundamental characteristics lead to a combination of the professional skills of journalists with the ability of the public to contribute to online journalism.

As far as the financial goals set by TVXS are concerned, these have always been and still are focused on the viability of the site. They have remained the same, although, due to the general financial crisis, some downsizing was inevitable. TVXS is a private media

enterprise and the fact that it was initially backed by equity capital contributes to the independence of the organization. Nevertheless, operational expenses cannot be covered by its profits. An essential source of income, as it is for every other traditional medium, is advertising, which at times reaches or even surpasses 80% of the revenue. Apart from advertising, some extra money comes from selling goods – mainly DVDs of special productions – as well as from small donations and subscriptions from a category of TVXS users, the so-called “members without frontiers,” who are even able to publish their own articles.

The financial data presented above indicate an imbalance in the accounting parameters and the medium is not in the position to cover its operational costs. What this means technically is that given today’s financial crisis, we cannot consider TVXS as a “financially viable” business, but in a medium-term perspective, these data may change thus ensuring its viability. Regardless of its current state, TVXS has not considered so far the possibility of charging for access to its content. This of course does not preclude re-examination in the future, in case new conditions allow the large-scale production of exclusive original content. In addition, the technological parameters should be taken under consideration, since in the existing infrastructure there have been no provisions for charges to access the web site’s content. Important parameters such as the safety of transactions are not compatible with the ease and directness one would wish for low-cost transactions, such as the ones involved in providing online content. Financial restrictions such as these determine a medium’s longevity and their impact on the choices made concerning technological infrastructure lead, in a broad sense, to its success or failure.

Backend technology

The thesis for the instrumental role of technology in the production process of media is widespread and in general consistent with common perceptions on the use of machines in modern industrial societies. In transition periods, however, such as the time needed for the integration of digital technology in media and especially the use of the web as a key distribution channel, the instrumental role weakens and technology has a much more decisive influence on the production process, leading to conflict phenomena with traditional methods (Küng, Picard, and Towse, 2008). At the operational management level, addressing these conflicts leads either to a positive solution, converging good practices, or no resolution is achieved, which in turn has adverse effects on productivity and, hence, competitiveness, and ultimately the viability of the medium. At the core of these processes lies the backend technology of content production, which, in the case of media produced and distributed exclusively online, assumes a decisive role.

The period of TVXS launching and the first period of its operation coincides with just such a time of transition for Greek journalism, when both production and content distribution begin to be carried out exclusively online. The participation of authors with the development and support team of the content management system of the medium under discussion, allows inside observation and the formulation of views on the role of technology in the journalistic content, which, although they are limited in this case study and cannot be generalized, are hopefully useful starting points for the relevant scientific debate.

It is clear that extensive content on the web, with a satisfactory update rate, which in the case of journalistic content can be multiple updates within a few hours, can only be produced with the use of dynamic technologies, such as primarily server-side scripting languages, and with the support of relational database management systems. The combined use of these technologies has given impetus to the widespread development of content management systems, which are now the key tool for managing web sites with journalistic content, and, in general, every web site with a large amount of information requiring classification and management. Given that during the development of TVXS plenty of good quality multipurpose content management systems already existed, either commercial or open source and free, the first dilemma to be resolved was the choice between an already existing content management system and the development of a customized system, rigorously tailor-made for the purposes of this medium. The initial choice of the latter option has proven beneficial for the development of the medium in a very clear way: it coped with the difficulties faced by journalists (content producers) in the best possible way. The difficulties in question concern the transition from traditional ways of operating to direct online development and management of content, which means much more work for editors and other members of the editorial team who, through content management systems, assume the role of gatekeepers. In all these cases, the transition from a model of “produce once – consume many” to a process of continual editing and updating, caused unexpected conflicts, which were mediated to a decisive extent by the backend technology.

The main advantage of the tailored system was that the interface of the administration area was designed to ensure as much common ground as possible between the way content producers worked up to then and the way they had to deal with the new exclusively online medium. Those who had satisfactory technological experience, who at the time under discussion made up the vast majority of employees, were familiar with windows environments and WYSIWYG (what you see is what you get) interfaces. This fact is a common component for most of the so-called power-users and is one finding taken into account by the developers of content management systems. On the other hand, the efficient use of any software of the content management system type requires a cost in time and training services to allow satisfactory familiarity with the particular environment. The relationship between the features of a content management system and complexity of the options offered (and therefore of the interface itself) is directly proportional. Therefore, the primary method for addressing the conflicts that content producers face at the technological level is to make the management environment as simple as possible, which has visible effects on the speed of journalism practiced online. Creating a custom management environment for TVXS that was adequately simplified in terms of usability was the successful solution to such conflicts during the first period of its operation. This in turn allowed the gradual upgrade to a larger and more complex content management system when the key editors had acquired the necessary familiarity with this kind of working environment. The combination of a high degree of usability of the administrative interface and the in-house support from the team of developers enabled smooth operation of the medium by journalists during the transitional period without technological barriers, and supported the instrumental role of the technological infrastructure over any conflicts arising from either inconvenient environments or the

limited experience of the journalists, who are understandably committed to producing content rather than dealing with the technicalities of management environments.

Apart from the dominant issue of the administrative interface, technology also has an impact on content distribution. This impact is not detected in functionality or in the software but rather in the structure of content and was mainly due to the native hypertextuality of the web and the new distribution channels that Web 2.0 introduced. TVXS, like other media at the time, made extensive use of syndication technologies, with emphasis on RSS feeds and other advanced techniques for sharing in social media and content aggregators.

The effect of this factor on the journalistic content comes from the out-of-context presentation of publications, as happens when the new building block of content, call it post or story, is distributed via syndication in environments with very different contexts from the original, both in terms of text and in terms of aesthetics. In any non-hypertextual medium, the journalist has a standard approach to the content environment into which his or her story will be incorporated. When online journalism is exercised in a hypertextual manner and sharing culture, the production of journalistic work is differentiated and acquires an independent character so as to be adaptable to multiple, yet unknown to the journalist, environments with different contexts.

The impact of the technological factor on the content, to the point that it exceeds its instrumental role, was distinct in the present case study; it offers an explanation of the conflicts caused in a purely online environment, and focuses on production, as far as production in the administrative interface is concerned, and on distribution, as far as the hypertextuality of the medium is concerned. The experience under discussion shows that gradual progress from simpler to more complex interfaces and the familiarity gained by journalists in producing journalistic work with hypertext features allow the resolution of conflicts and the more efficient use of technological tools at the production level.

Production

As far as content production is concerned, investigative journalism maintains a strong primacy at TVXS, given its staff's prior experience in traditional media as well as the firm position of its founder on the subject. Nevertheless, in certain cases, the high cost of investigative journalism can be a discouraging factor. The content offered online is up to 60% original. A further 30% comes from secondary sources; these are cases of syndication or composition of material from various sources. The last 10% is the product of volunteer work. There are approximately 70 to 90 posts daily, many of which are updated during the day. Every post consists of text accompanied by photographs, while approximately 5% of the posts also contain video.

To illustrate the originality of the work done by the TVXS staff, let us offer a few examples of news stories that were first and exclusively presented on TVXS and were afterwards reproduced by other media: on January 3, 2009 the "old lady of Asklipiou street" (original video footage from the beating of an old lady by men of the police force (<http://tvxs.gr/node/2801>), on June 18, 2010 the video of the civilians with their faces covered under hoodies at the Exarcheia Police Department (<http://tvxs.gr/node/1919>), which generated an official discussion at Parliament, the arrest of Dimitris

Papachristou, on September 26, 2009 – the broadcaster during the 1973 uprising at the National Technical University of Athens against Junta (<http://tvxs.gr/node/21645>), as well as the violent confrontations at the National Opera House that took place on February 26, 2009 between members of the orchestra and gay activists (<http://tvxs.gr/node/6604>).

Many factors contribute to the agenda setting at TVXS. Agenda setting is of great importance since it is considered to play a role in the way public opinion is formed in respect to certain crucial matters (Demertzis, 2002: 103). The medium's profile, defined by the TVXS producers' past, basically dictates the agenda. The agenda also conforms to the policy announced when the medium was originally launched and is still molded by everyday practice. Furthermore, it is also based upon factors such as content availability and relevant copyright restrictions. The aspiration and effort of TVXS creators to provide space for young people to publish their work is yet another factor in the agenda-setting process. As far as the site's popularity is concerned, let us first note that ratings play an extremely important role in the media world and especially in agenda setting. However, their credibility – in terms of scientific precision – has often been questioned and allegations of unfair competition have been made on the basis of inaccurate data being presented to the public (Downing, 2003: 634). New and rapidly developing mechanisms that measure and analyze web traffic can be useful in remedying some of the “illnesses” endemic in traditional media measurements, even though in certain cases technology may still fail us. In the case of TVXS, it should be noted that the site is identified with the person who founded it, Stelios Kouloglou, a journalist with a long and successful career in the traditional media, which has earned him the respect of the public. His well-established credibility has served as an asset for TVXS; this comes as no surprise, as, according to research conducted by Pew (Pew Research Center Publications, 2008), the public seeking information online usually resort to the sites of known media brands. It is easier for the public to trust a medium with a long history and with which they are familiar, than a “newcomer” whose work they know nothing of. Let us now take a look at some data concerning the portal's popularity.

Users' participation and journalists

TVXS publicizes traffic metrics recorded by the Google Analytics service, which tends to become the industry standard for online traffic measurements and its credibility is assured by Google's prestige. As far as the measuring technology employed is concerned, using cookies and javascript data almost always gives lower numbers, especially in comparison with recording raw logs. This is mainly due to the fact that Google Analytics focuses on the content requests made by human visitors of the web site, whereas server-side logs record every request for content either from humans or web bots (e.g. search engine crawlers, content aggregators, etc).

According to Google Analytics, TVXS has a high traffic rate, with a low variance in 18 months of operation, and its viewers usually spend a considerable amount of time on it. More specifically, the average number of daily hits easily surpasses 20 000 (maximum: 67 000), while the average number of daily page views reaches about 80 000 (maximum: 308 000). The figures mentioned above refer to the whole period of time that the site

has been in operation, reflecting a steady course, without the expected seasonal ups and downs in media consumption (e.g. during the summer months). In periods of greater public thirst for journalistic content, TVXS recorded a much higher number of visits. For example, the average numbers for the last four months of 2009, which was an election period, were about 30 000 hits and 120 000 page views daily. It is worth mentioning that almost one-third of the visits can be traced back to links on referring sites; this can be attributed not only to TVXS's content but also to technological factors, given that the site has adopted a content sharing policy based on the latest technologies (embed code, RSS feeds according to content type).

A quantitative comparison of TVXS with other Greek news portals in terms of page hits or number of visitors is not straightforward, since Google Analytics data or raw log data are not publicly available for other web sites. Using third-party publicly available information (e.g. Alexa rankings or PageRank) for the comparison is not always valid, since such tools analyze data from specific users (e.g. those who have installed the Alexa Toolbar on their browsers) or base their ranking on third-party links that point to the web site and can easily be biased (Du, Shi, and Zhao, 2007).

What differentiates TVXS from other news portals on the Greek web is the active participation of its users who provide new sources of information, send in videos, and, in several cases, contribute to publishing a new story. However, this discussion raises ethical issues concerning the media profession, as rumors and lack of primary research can put credibility at stake. Copyrights and ownership apply to the web as well and it is unethical to have a news story republished without mentioning its original source, even if the time of its republishing is clearly stated (Kelly, 2000 as quoted in Osborn, 2001: 5).

There is a shift of power between those providing the information and those receiving it, whilst the relationship of the journalist with the public is drastically altered. We now experience a horizontal form of communication, between peers, whereas it used to be vertical, beginning at the source, flowing through the media, and ending up with the public. Now the source becomes the publisher, the same individuals may seek and deliver information at the same time and the public is in the position to compare between the original material and the news broadcast. Furthermore, the relationship between the writer and the reader is altered, since they now have the opportunity to communicate with each other, and also comment on the news, and start an interaction between even more users (Trench and Quinn, 2003).

Twitter has emerged as part of the change in the flow of communication; it serves as a key medium in news distribution, since it allows a large number of people to have real-time communication with each other (Hermida, 2010). An example of the way Twitter, as well as other social networking sites, like Facebook and MySpace, operate in Greece are the events of December 2008, when a police officer shot to death a 15-year-old student. This event initially circulated through the alternative media and the demonstrations that followed were to a large extent organized through the use of these media (Lam, 2008).

As far as TVXS is concerned, the contribution of the public to its operation consists of sending e-mails, making phone calls, but basically of posting comments, an opportunity that has attracted users since the launching of the web site and has led to the formation of a virtual community with more than 20 000 registered members with the site itself as

a point of reference. There is a noteworthy average number of comments posted by users, which exceeds 500 daily, in the whole period of time that TVXS has been in operation; there have also been times when more than 1300 comments were posted on a daily basis (one per every minute of the day). However, it should be pointed out that, according to the data collected from the TVXS operation so far, the opportunity of “expression of the public’s opinion” is often reduced to a wording of dogmatic statements in the form of repetition without reasoning.

While the journalistic organizations on the one hand open their doors to the public, at the same time they retain the traditional role of journalists as gatekeepers (Hermida and Thurman, 2008: 12). It is obvious that when the public gets direct access to the original piece of information the role of the gatekeeper must change. The exclusive privilege of the journalist–gatekeeper comes to an end (Bardoel and Deuze, 2001: 98) when the public, supported by technology, can even create channels of news distribution adapted to their own personal interests. This is accomplished through the use of RSS technology, which allows the user to adjust the RSS feeds in such a way that they gather the information he or she wishes to obtain without him/her having to visit a number of different web pages (Briggs, 2007: 16). RSS feeds contain information for the content in question such as the title, date, author, and a brief summary. This facilitates the distribution of titles or a brief summary of content produced by one editor, and at the same time the aggregation of feeds from multiple sources and its republishing without any harm to either party. This process serves a dual purpose; not only it is a form of free publicity, but it also facilitates the circulation of ideas over the Internet (Gill, 2005).

The tools offered to users by technology do not reduce the importance of the role of journalists. According to research conducted by Singer, journalists still consider themselves as interpreters and not as simple distributors of information (Singer, 2006: 1). Furthermore, as pointed out by Bas, the most crucial part of the mission of the gatekeeper takes place within the news organization, and consists of two stages: the first one involves the gathering and the second one the processing of the news. The second stage requires editing and a synthesis of the information in order to achieve an outcome that can be characterized as a “whole product,” suitable to be delivered to the audience (McQuail and Windahl, 2001: 222). Although the first stage involves a process, that of news gathering, which is potentially open to anyone, the editing on the other hand, even on the Internet, remains a process carried out by professional journalists. We shouldn’t overlook the fact that in many cases the online media content is provided by journalists who are already well-known from their work in traditional media, and this serves as a positive factor for the appeal and credibility of the online media. Within today’s social system and the undisputable technological convergence, the quest for credibility and objectivity falls on the shoulders of the gatekeepers (Osborn, 2001: 7). It is with these responsibilities in mind that the gatekeepers at TVXS handle news, in an effort to always provide the public with a high-quality product.

The research

The results of a statistical analysis conducted by Giannakoulopoulos and Varlamis (2009), which considered articles by professional journalists on the one hand and comments

posted by the users on the other in view of major national and international events, indicate the existence of an internal connection between social upheaval and the public's commitment to journalism.

Citizen journalism plays an important role within the operational framework of modern media. Journalists themselves have come to trust it much more today than they used to in the past (Cassidy, 2007). Moreover, interactions between the users indicate the level of trust achieved between the medium and its users. During TVXS's first year of operation, a number of serious events were recorded, such as riots, elections, and natural disasters in Greece as well as internationally. These events triggered numerous online articles on which users then commented. The data available for every article are its main topic, its author, the number of hits, and the number of positive votes it received as well as the number of times it was e-mailed by users to their contacts.

The research studied five main topics, three of which fall under the most popular sections of politics, foreign politics, and local news, and were active all through the period of time that the site was in operation, while the other two – national and European elections – attracted the attention of the public, but only for a limited amount of time. The results show that national events generate an immediate rise in the number of articles. Special mention is made of the rise in the number of articles posted during December 2008, following the fatal shooting of a student by a police officer. After the shooting and for almost one month the outburst of riots was the first topic on the agenda.

The research then examined the impact the topics had on the users. The users' interest in a topic is expressed through various actions like reading an article, voting for it, sending it via e-mail to a friend, or commenting on it. Commenting offers users the chance to freely express themselves while at the same time it makes the medium socially cooperative. Statistics showed that the input of the public was much higher during the December 2008 events in comparison with the elections period. Moreover, the difference as far as peaks are concerned shows a larger deviation for users than for journalists. This indicates that the interests of professional journalists and media authors do not always coincide with the public's; this finding reflects on the choice of topics made by a medium and the public, as well as the interaction between the two parties. The analysis of the data also indicates that factors such as conflict and unexpectedness, as described by Galtung and Ruge, concerning news selection (McQuail and Windahl, 2001), lead to an immediate response by the public.

According to Tilley and Cokley, the golden mean between professional journalism and the participation of citizens in the news reporting process is somewhere between the viewpoint that acknowledges only the work of professionals and the one that considers anything articulated as worth broadcasting. They describe a state where polyphony can be combined with the skills of news gathering, analysis, validity checking, and presentation of the information in order to offer audiences useful, quality news, that escapes what mainstream journalism dictates (Tilley and Cokley, 2008: 111).

The basic notion behind the audience's commenting on TVXS is to give the editors the chance to control the portal's structure and the content architecture while the audience retains its ability to express its opinion on matters of concern. The truth is that only registered members can comment on the articles. Every comment is attached to an article and the time it was posted, while the member id of the user who posted is also

available. Besides, users have the chance to publish text and hyperlinks, which may refer to TVXS or another web site, but they cannot upload html code or photos. The mechanism controlling the message board allows the free expression of opinion on the one hand, but provides the other users with the power to control the quality of the comments posted. It is important to note at this point, that the viability of this kind of media relies, apart from the financial sources aforementioned, on the participation of the audience in the whole process. The result is a sort of hybrid media where the characteristics of online communities coexist with traditional media operational models.

At this point we consider it essential to address the issue of competition with other online news media. Although TVXS was followed by a number of other similar attempts, which according to their format could fall under one category, that of news web sites, as far as competition is concerned (money flow, visit rates) TVXS has not experienced particular pressure. This could be attributed to two factors: the first one is internal and is closely linked to the uniqueness of TVXS, its special characteristics, its overall profile, the reputation and popularity of its founder, but also to its participatory character, which is maintained thanks to its large community of commentators. The second factor is connected to the advertising profits, the main area of media competition. However, given the current financial crisis, where the overall advertising expenditure on the web remains really low – despite its increase in comparison with the traditional media – the financial data available do not allow an evaluation from which one could draw safe conclusions.

The popularity of TVXS and the way it quickly found – and kept – its place in the online news world allows us to be optimistic as to its future, and counterbalances anxiety deriving from its inadequate financial efficacy, which is mainly attributed to the general financial crisis. This sense of optimism is combined with the dedication to the original goals set at the launch of this enterprise and, mainly, a dedication to preserving the credibility of the medium, to a continuous fight for an honest depiction of our everyday life and an operation dictated by the principles of independent investigative journalism in the multiparticipatory environment that the World Wide Web constitutes today.

Conclusion

New technologies relating to the web facilitate the recording of events on an unprecedented scale. Although there are similarities to the traditional media, the size of the phenomenon requires a separate discussion in the light of the technological factor, which redefines the conditions of production. The main advantages of this new medium are detected both in its innovation and the possibility of extending the body of users.

On this basis, the profession of journalism is changing, people are increasingly involved in content production, and the ability to think in online terms is the most important skill a journalist should exercise today. The Internet offers the professional a huge range of resources and technological capabilities to work with. However, if they themselves do not develop a digital culture, digital training alone is not sufficient (Briggs, 2007: 12).

At the intersection of technology and journalism some inherent problems are emerging, the most important of which is credibility maintenance. Absolute confidence in citizen journalists from both news organizations and the public is not considered

safe (Lam, 2008) and the process of gatekeeping is considered essential. There is no doubt that technology imposes restrictions on the operation of the gatekeepers, as described in the traditional models of communication. However, of particular interest is the fact that technology itself lifts the restrictions and facilitates the quest for alternative solutions.

The aforementioned theoretical analysis entails some enlightening approaches. However, examples from the real world are those which offer useful observations concerning the interrelation of technology and journalism, in order to define the parameters that lead to convergence or divergence. As a real-life example, TVXS contributes to a better understanding of the process as discussed on the basis of empirical data obtained at the production level.

The inadequacy of the new hybrid media business model makes it imperative to develop a different operating model that will overcome the contradictions between traditional and participatory media. In this context, within which advertising is looking for new publicity channels and the consumers are also becoming content producers, the new media can survive only if innovation becomes an integral part of their strategies (Lindqvist *et al.*, 2008). Technical solutions can be regarded as sufficient up to a degree, but many issues in online communities, such as trust, remain open for discussion and further research.

One of the conclusions of this analysis indicates economic factors as being of the utmost importance in terms of convergence or divergence of technology and journalism at the production level. This does not seem to be mere coincidence. However, it should be noted that economic factors may be decisive, but, on the other hand, the involvement and commitment of the user leads to optimistic predictions for this new form of social interaction.

At a time when societies are constantly suffering from fundamental problems, the crisis in human relations, both in the public and private sphere, is seen as inevitable. Trust is a concept that tends to be forgotten and journalism could not be left unscathed. In this context, the need to reverse the situation becomes imperative. Technology is always advancing, and if the technological possibilities are combined with the right practices, it may constitute the keystone for building a field in which citizens and professional journalists will work together to produce as comprehensive a journalistic product as possible.

Note

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