

THE E-CITIZEN IN THE CYBERSPACE – A JOURNALISM ASPECT

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1. Introduction

In the last thirty years we have witnessed a tremendous growth in Information and Communication Technologies (ICTs). The most significant outcome of this growth is considered to be the Internet along with its services. The invention of the Internet has affected almost all aspects of human activities. The media industry as well as the journalism profession has been altered considerable (Veglis, 2009). In now days the journalist is expected to have the ability to exploit many tools in order to be informed about the current events. He must also be capable to use a variety of tools and platforms in order to prepare and deliver news. The 24 cycle of producing news does not exist anymore. News stories are produced and disseminated 24 hours per day. They are also updated in regular intervals in order to include all the latest developments (Veglis, 2010a).

As a result today's internet user can be characterized as e-citizen - that is a person that resides in Cyberspace. In the Cyberspace, which is the electronic medium of computer networks, in which online communication takes place (The American Heritage Science Dictionary, 2005), e-citizens interact, exchange ideas, share information, provide social support, conduct business, direct actions, create artistic media, play games, engage in political discussion with various information, services, etc. But the information available in the cyberspace is not properly organized and of course there are other problems that relate to various illegal activities (that constitute the electronic or cyber crime).

Every e-citizen acts as a receiver of information but he can also become a transmitter of information by generating and disseminating content. Social media are perhaps the most popular service of cyberspace today. Facebook, a social networking service, is considered to be the best representative of social media. The main characteristic of social media is that they offer to every e-citizen the ability to add content in the cyberspace, and thus contribute to participatory journalism. Participatory journalism can be defined as the concept of members of the public playing an active role in the process of collecting, reporting, analyzing and disseminating news and information (Bowman and Willis, 2003).

Through social media every e-citizen can publish / disseminate content that he has created / reproduced or discovered. This paper attempts to give an overview of the previous mentioned issues, and to highlight legal issues that may arise through the use of social media. It also discusses methods that can be employed in order to alleviate any side-effects that the rapid adoption of social media has created.

The rest of the paper is organized as follows: Section II discusses the concept of the information space. Social media and in particular social networking are discussed in section III. Section IV defines participatory journalism. The types of participatory journalism are briefly discussed in the following section. Section VI addresses legal

issues that may arise from the utilization of participatory journalism. Section VII presents the methods that can be employed in order to alleviate such problems. Concluding remarks and future extensions of this work can be found in the last section.

2. The information space

The introduction of ICTs in the media industry resulting in its complete digitalization, has changed considerable the work process but it has also offered new paths for delivering and creating content. For a long time, media organizations were occupied only with the distribution of their products through one delivery channel. But over the past twenty years while the readership of traditional print newspapers has declined rapidly, the consumption of news over the Internet has increased significantly. 2009 was the first year in which the Internet topped the newspapers for readership. Surveys indicate that people are shifting from traditional media (printed newspapers, traditional TV and radio broadcasts) to the internet as their main source for staying informed. Internet newspapers and magazines, web-TVs, web-radios, news-portals, social media, as well as news meta-search engines are only some examples internet-based information delivery. And this tendency is expected to continue. Thus, trends in the worldwide media industry have clearly shown that in order to guarantee long-term success with audience in the future, it will be vital to change from a single product oriented to a multimedia, content and user-oriented approach.

The citizen of today is expected to stay connected continuously via a variety of devices. Various types of computers, varying from desktop to netbooks, tablets and smartphones can be employed in order to achieve this constant interconnectivity. Mobile telephone networks but also Wi-Fi networks can be utilized for sustaining data communication. This continuous interconnectivity can guarantee the steady flow of news information. The later can be accomplished via a variety of delivering paths, services and tools that can range from web page, to RSS feeds to a tweet or to posts in a social network.

3. Social Media – Social Networking

There is a growing trend of people shifting from the traditional media (newspaper, TV, Radio) to social media in order to stay informed. Social media has often scooped traditional media in reporting current events. Although the majority of original reporting is still generated by traditional journalists, social media make it increasingly possible for an attentive audience to tap into breaking news (An et al., 2011).

Social media can be defined as Internet-based applications that belong to Web 2.0 (Spyridou et al., 2011), which support the creation and exchange of user-generated content. They include web-based and mobile based technologies which are used to turn communication into interactive dialogue between organizations, communities, and individuals (Kaplan and Haenlein, 2010). Social media technologies take on many different forms including magazines, Internet forums, weblogs, social blogs, microblogging, wikis, podcasts, photographs or pictures, video, rating and social bookmarking (http://en.wikipedia.org/wiki/Social_media).

A classification scheme for different social media types includes six types (Kaplan and Haenlein, 2010):

- collaborative projects,
- blogs and microblogs,
- content communities,

- social networking sites,
- virtual game worlds,
- virtual social worlds.

One of the most widely used types of social media is social networking. A social networking service is a website that facilitates the building of social networks or social relations among internet users that share similar interests, activities, backgrounds, or real-life connections (http://en.wikipedia.org/wiki/Social_networking_service). They are web-based services that allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection, and view and traverse their list of connections and those made by others within the system (Boyd and Ellison, 2008). Many newspapers and other media companies have established a presence in the most popular social networks (for example Facebook) in order to publish their news articles and attract other members of the social network to their web site. They have also integrated social media links in their web articles in order for users to link to them through their social network profiles. Users have also the ability to interact with the media companies by leaving comments (Veglis, 2012). The most well known and employed social network is Facebook. The latest data indicate that the number of Facebook users is above 800 million (<http://www.internetworldstats.com/facebook.htm>) and is expected to reach 1 billion in 2012 (http://www.purdueexponent.org/features/article_8815d757-8b7c-566f-8fbe-49528d4d8037.html).

Although it appeared later than Facebook, Twitter is another example of social media that became quickly very popular among users (An et al., 2011). Twitter is a social networking and micro-blogging service that enables its users to send and read other users' updates, known as tweets. Twitter is often described as the "SMS of Internet", in that the site provides the back-end functionality to other desktop and web-based applications to send and receive short text messages, often obscuring the actual website itself. Tweets are text-based posts of up to 140 characters in length. Updates are displayed on the user's profile page and delivered to other users who have signed up to receive them. Users can send and receive updates via the Twitter website, SMS, RSS (receive only), or through applications. The service is free to use over the web, but using SMS may incur phone services provider fees. Many media companies are using twitter in order to alert their readers about breaking news (Veglis, 2012).

4. Participatory journalism

The concept of participatory (or citizen) journalism derives from public citizens playing an active role in the process of collecting, reporting, analyzing, and disseminating news and information (Bowman and Willis, 2003). Other term used is "user-generated content" (Singer et al., 2011). ICTs (social networking, media-sharing websites and smartphones) have made citizen journalism more accessible to people all over the world, thus enabling them to often report breaking news much faster than professional journalists. Notable examples are the Arab Spring and the Occupy movement. But it also worth noting the unregulated nature of participatory journalism has drawn criticism from professional journalists for being too subjective, amateurish, and haphazard in quality and coverage (http://en.wikipedia.org/wiki/Citizen_journalism).

Bowman and Willis (2003) characterize participatory journalism as "a bottom-up, emergent phenomenon in which there is little or no editorial oversight or formal

journalistic workflow dictating the decisions of a staff’. As a substitute there are various concurrent conversations on social networks, as depicted in figure 1.



Figure 1: Participatory journalism (Bowman and Willis, 2003).

The problem is that in the traditional media journalists are responsible for the news. They decide the stories to cover, the sources to use, they write the text and choose the appropriate photographs. Thus they act as gatekeepers, deciding what the public shall receive (White, 1950). But being gatekeepers constitute them responsible for the quality of the news content. The new media gives journalists the possibility to provide vast quantities of information in various formats. But journalists are responsible not only for how much information and in what form they include in the news stories but for how truthful the information is (Singer et al., 2011).

In the case of participatory journalism journalists contribute only part of a news story. Thus they feel responsible for users’ contributions and they attempt to check the validity of the user generated content. But that is not an easy task, especially in the case that they receive a substantial volume of information from users (Singer et al., 2011).

5. Types of participatory journalism

The participatory journalism can be achieved with the variety of tools and services, namely: discussion groups, user generated content, weblog, collaborative publishing, Peer-to-Peer, XML Syndication (Bowman and Willis, 2003). The format for the user participation may vary and in the majority of the cases is under some kind of moderation by professional journalists (Hermid and Thurman, 2008). Table I includes the formats as well as a small description of the content and the conditions under which these formats are employed by users.

Table I: Formats for User participation (Hermida and Thurman, 2008)

Format	Description
Citizen blog	Users' Blogs hosted on the media website.
Citizen multimedia material	Photos, videos and other multimedia material submitted by users (usually checked by journalists)
Citizen stories	Users written submission on topical issues, suggestions for news stories (selected or/and edited by journalists and published on the media website)
Collective interviews	Chats or interviews contacted by journalists, with questions submitted by users (after moderation)
Comments	Views on a story submitted by users (by filling a form on the bottom of the web page)
Content ranking	News stories ranked by users (for example the most read, or the most emailed news story)
Forums	a) Discussions controlled by journalists, with topical questions posed by the newsroom and submissions either fully or reactively moderated (usually available for a limited number of days. b) Forums where users are able to engage in threaded online conversations on debates (usually available for long periods-weeks or even months). The users are given the freedom to initiate these forum topics.
Journalists blogs	Also known as j-blogs, include journalists' posts on specific topics and are open to user comments.
Polls	Topical questions related to major issues, with users asked to make a multiple choice of binary response. They are able to provide instant and quantifiable results to users
Social networking	Distribution of links to stories through social platforms, for example Facebook and Twitter.

6. Legal issues

There is a great concern about legal issues that may arise from user generated content. But the overall conclusion is that the introduction of participatory journalism in media organization has resulted in a cost, related to the need of moderation of the content and very little to legal fees. If we try to outline the basic areas from which problems may arise concerning user generated content we can identify (Singer, 2011):

- **Defamation:** Defamation (or libel for written, broadcast, or otherwise published words) is the communication of a statement that makes a claim, expressly stated or implied to be factual, that may give an individual, business, product, group, government, or nation a negative image (<http://en.wikipedia.org/wiki/Defamation>).
- **Hate speech:** is any, outside the law, communication that vilifies a person or a group on the basis of race, color, ethnicity, gender, disability, sexual orientation, nationality, religion, or other characteristic (Nockleby, 2000).
- **Intellectual property:** It refers to creations of the mind: inventions; literary and artistic works; and symbols, names and images used in commerce. Intellectual property is divided into two categories: Industrial Property that includes patents for inventions, trademarks, industrial designs and geographical indications, and Copyright that covers literary works (novels, poems and plays), films, music, artistic works (drawings, paintings, photographs and sculptures) and architectural design (WIPO – World Intellectual Property Organization - http://www.wipo.int/freepublications/en/intproperty/450/wipo_pub_450.pdf).

Although all the previous mentioned areas are considered to be of the same importance, the most usual problems that are uncounted in user generated content fall in the third category, the intellectual property. This can be explained by the fact that the digitization of information makes very easy the process of copy-paste and thus resulting in violation of intellectual properties.

Based on the type of participation included in table I, we present in table II the degree of probability of legal issues that may arise with the incorporation of each type of participative journalism.

Table II: Types of participative journalism versus probability of legal issues.

Type of participative journalism	Probability of legal issues that may arise
Citizen blog	high
Citizen multimedia material	Medium - high
Citizen stories	high
Collective interviews	high
Comments	medium
Content ranking	small
Forums	Medium - high
Journalists blogs	medium
Polls	small
Social networking	small

It is obvious that some types of participative journalism may cause very small legal issues (for example polling, social networking or content ranking) and other types may be prone to high possibility of legal issues (for example citizen stories and citizen multimedia material). Thus a media company may choose to implement, at least initially, only the types of participative journalism that appear to attract less legal problems. The types of participative journalism that a media company may choose to implement are related to many parameters, many of which are outside the scope of this study.

7. Mechanisms for avoiding legal issues

As far as the methods that can be employed in order to deal with the above legal issues, are concerned, these can be summarized in user identification and moderation or other oversight of user material that can guarantee a certain degree of quality (Singer, 2011).

User registration

User registration involves the procedure in which the user provides his credentials, effectively proving his identity upon accessing a website. Every user can become a registered user by providing some credentials, usually in the form of a username (or email) and password. After the registration of the user, he can access information and privileges unavailable to non-registered users, usually referred to simply as guests. The action of providing the proper credentials for a website is called logging in, or signing in (http://en.wikipedia.org/wiki/Registered_user). Figure 2 includes a typical user registration window.

Registration

Name:	<input type="text"/>	*
Username:	<input type="text"/>	*
E-mail:	<input type="text"/>	*
Password:	<input type="text"/>	*
Verify Password:	<input type="text"/>	*

Fields marked with an asterisk (*) are required.

Figure 2: A typical user registration window http://docs.joomla.org/Help17:Menus_Menu_Item_User_Registration).

CAPTCHA

Another mechanism applied in tools for participatory journalism is CAPTCHA. It is an acronym based on the word "capture" and standing for "Completely Automated Public Turing test to tell Computers and Humans Apart" (Grossman, 2005). It is a type of challenge-response test used in computing as an attempt to ensure that the response is generated by a person. The process usually involves a computer asking a user to complete a simple test which the computer is able to grade. These tests are designed to be easy for a computer to generate, but difficult for a computer to solve, so that if a correct solution is received, it can be presumed to have been entered by a human. A common type of CAPTCHA requires the user to type letters or digits from a distorted image that appears on the screen, and such tests are commonly used to prevent unwanted internet bots from accessing websites (<http://en.wikipedia.org/wiki/CAPTCHA>; <http://www.captcha.net>). This is especially useful in case of comments from unregistered users to blogs, forums, etc. The CAPTCHA technology is widely used in media websites but sometimes the images that the user is called to identify is much distorted thus resulting in frustration on the part of the user.

CAPTCHA is usually employed in the process of user's registration and in the cases that unregistered users are allowed to post comments or upload user generated content in the media web site.



Figure 3: Captcha identification procedure (depicted from Facebook registration process) (<http://www.register-facebook.com>)

Moderation

A moderation mechanism is the method where the webmaster of a media web site chooses to sort contributions which are irrelevant, obscene, illegal, or insulting with regards to useful or informative contributions. Depending on the site's content and intended audience, the webmaster will decide what kind of user comments is appropriate, and then delegate the responsibility of sifting through comments to lesser moderators. The purpose of the moderation mechanism is to attempt to eliminate trolling, spamming, or flaming, although this varies widely from site to site (http://en.wikipedia.org/wiki/Moderation_system).

The moderation can vary depending on the material and on the country. It can involve pre-moderation (that is the content is checked before publishing) that can result in a substantial reduction of the amount (40% to 50%) of user generated content. Another method is to publish the user generated content and moderate it within the next 24 hours. The later method may result in problems due to the fact that non appropriate content will be published for a limited period of time. Some media companies use both methods of moderations and others outsourced moderation, by enlisting journalists to moderate the vast amount of comments the user post on various services (blogs etc) offered by the media companies. In many media companies the approach is to over-moderate the user generated content in order to avoid being criticized for trying to manipulating the conversation on various subjects. (Singer, 2011).

Based on the methods of moderation previously presented, we propose a mixed approach. This mixed moderation method could involve both pre-moderation and post moderation methods. More precisely users will be obliged to register to the media web site in order to add user generated content. In case that a user has a record of good quality user generated content, its contributed content can be assigned for post – moderation since there is a high probability that his content is of adequate quality. In the case that the user has no prior history of good quality user generated content or has submitted in the past inappropriate content, its contribution is published only

after it has passed the moderation process. The hybrid moderation process is depicted in figure 4.

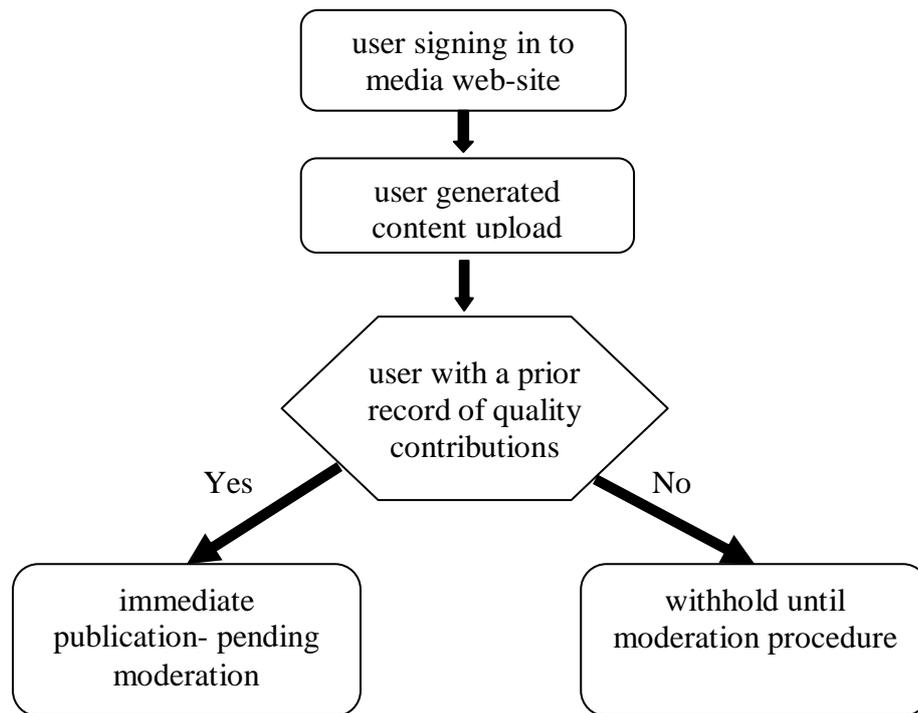


Figure 4: Hybrid moderation procedure.

Distributed moderation

One other type of moderation is Distributed moderation. This is a form of comment moderation that allows users that participate in the process of participatory journalism to moderate each other. Distributed moderation comes in two types: *User Moderation* and *Spontaneous Moderation* (Lampe and Resnick, 2004).

User moderation allows any user to moderate any other user's contributions. This method works fine in web sites with large active population (for example Slashdot). More precisely each moderator is given a limited number of "mod points," each of which can be used to moderate an individual comment up or down by one point. Comments thus accumulate a score, which is additionally bounded to the range of -1 to 5 points. When viewing the site, a threshold can be chosen from the same scale, and only posts meeting or exceeding that threshold will be displayed (http://en.wikipedia.org/wiki/Moderation_system).

In the case of *spontaneous moderation* no official moderation scheme exists. Users spontaneously moderate their peers through posting their own comments about others' comments. One variation of spontaneous moderation is meta-moderation. This method enables any user to judge (moderate) the evaluation (voting) of another user (Momeni, 2012).

It is obvious that moderation is a complicated issue. Media companies usually employ various types of moderation depending on the type of user participation. Table III includes the type of participative journalism versus the moderation type that can be employed. It is worth noting that in types of participative journalism in which the probability of arising legal issues is high, pre-moderation and hybrid moderation in some cases are the ideal types of moderation. On the other hand in types of participatory journalism that do not usually arise legal issues, distributed moderation

can be applied. In any case it is worth noting that all types of distributed moderation can be applied in case that the media web site has a large active population of users (Momeni, 2012).

Table III: Types of participative journalism versus type of moderation.

Type of participative journalism	Type of moderation
Citizen blog	Distributed moderation or post moderation
Citizen multimedia material	Pre-moderation or hybrid moderation
Citizen stories	Pre-moderation or hybrid moderation
Collective interviews	Pre-moderation
Comments	Distributed moderation
Content ranking	Spontaneous moderation
Forums	Pre-moderation or hybrid moderation
Journalists blogs	Pre-moderation or hybrid moderation
Polls	Spontaneous moderation
Social networking	Not applicable*

*any comments that may accompany a link to a news article can be moderated only by the social network. Usually social network moderate user content only after a user's complaint.

8. Conclusions and future extensions.

The modern ICTs have changed considerably journalism. Participatory journalism is one of the most profound changes that have occurred. Every user has now the ability to become content producer. There is a great variety of tools that can be employed in participatory journalism. Of course this new type of journalism has many negative issues that raise many concerns (defamation, hate speech, intellectual property). The solution to these problems is the control of the user generated material. This can be achieved with the registration of the users that contribute material and with the moderation of the user generated material. The registration process is a well known process to the users, since it has been employed for many years in many internet services (for example, e-mail services, social networks, etc.). On the other hand moderation can be very time consuming and the media company may have to dedicate many human resources to this task. Of course there are many different types of moderation (post-moderation, distributed moderation, or even the proposed hybrid moderation) that may alleviate to some extent this problem.

There is no doubt that participative journalism is an issue that no media company can choose to adopt or disregard without great consideration. As usual the solution to this problem is a compromise. The media company chooses to implement some type of citizen participation, usually gradually by imposing strict moderation in order to prevent legal issues. Of course this means that a great deal of user generated material that may be rejected will be of good quality, but will be rejected just in case it might produce legal problems for the media company, thus resulting in a negative effect on its credibility.

One solution to this problem is the training of the users that contribute in participative journalism, in order to act as responsible e-citizens. One other proposal involves the careful selection of the issues that are being developed with user generated content. Future extension of this work will involve the detail study of the moderation mechanism employed in participative journalism in order to locate steps in the process that may be improved.

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