

# Crowdsourcing in Media

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## Abstract

This paper is a preliminary review of the role and importance of crowdsourcing in contemporary media, especially in the context of journalism. Following Howe (2008), we distinguish between four crowdsourcing strategies: 1) Crowd Wisdom, 2) Crowd Creation, 3) Crowd Voting, and 4) Crowd Funding. Based on the literature, we describe the origin and the rise of crowdsourcing. We also present and discuss approaches and experiences in crowdsourcing.

**Keywords:** Crowdsourcing, Networks, User generated Content, Citizen Journalism, Prosumers

## 1 INTRODUCTION

Mohamed Bouazizi, a 26-year-old Tunisian, set himself on fire on December 17th 2010 in protest of harassment and humiliation by a police official. Bouazizi's protest led to a chain of events. First, the act was captured on a mobile phone, then posted to a social networking site, which was picked by Sami Ben Gharbia – one of the many Tunisians living outside the country (as such sites are blocked in Tunisia) - and further uploaded on a website called [www.nawaat.org](http://www.nawaat.org). Al Jazeera, a Doha based news channel got the video from [nawaat.org](http://www.nawaat.org) and broadcast it back to Tunisia informing Tunisians of the unfolding story. Bouazizi's protest snowballed into a full-blown revolution in Tunisia and redefined the role of the crowd as a 'networked source' for news organizations. While Tunisia is just a case in point, there have been other instances during the Arab Spring or revolutions in the Middle East, where the 'crowd' (armed with social media tools) have played a key role in disseminating news, thereby reiterating the significance of 'crowdsourcing' in global media.

Crowdsourcing in the context of journalism is seen as a model for distributing reporting function across many people (i.e., crowd) (Kelly 2009, p.18). It is also considered a

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sourcing strategy that bridges the divide between an organization and highly capable crowds or by which an organization broadens its procurement channels through the careful integration of the crowd as a supplier. It is important, as news sourcing shapes whom journalists get their information from and the very nature of information they obtain (Carlson, 2009). To add to it, sources cited also ascribe meaning to events, shaping public perception and understanding. Journalists usually rely on institutional actors perceived as authoritative sources, (police and bureaucrats), marginalizing alternative voices that are seen as deviant. The widespread presence of crowds and their ability to report developments either directly on social media or to news organizations makes them an indispensable resource. Blogs and micro-blogs rise to prominence as news disseminators on occasions when access to mainstream news is restricted or blocked (Papacharissi, 2009). For instance, protests over the contested Iranian Election results of 2009 were live blogged on Twitter, once the Iranian government restricted access to mainstream media, independent journalists, mobile telephony and other communication technologies. This flood of User Generated Content or UGC is perhaps why crowdsourcing is said to be blurring the lines between journalists as reporters and citizens as consumers (Muthukumaraswamy, 2010). The conventional definition of a consumer as described by Jay Rosen (2006) ‘people formerly known as the audience’ is beginning to change. It looks like futurist Alvin Toffler nailed it when he predicted that consumers would come to exercise much more control over the creation of the products they consumed, in a word - ‘prosumers’. This paper aims to dissect how these prosumers are changing the course of work in global media organizations, becoming an intrinsic part of their functioning and creating sound debates about crowdsourcing.

## **2 THE ORIGIN AND RISE OF CROWDSOURCING**

Crowdsourcing was originally defined by the Wired journalist and Northeastern University journalism professor Jeff Howe (2006) as “the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined (and generally large) network of people in the form of an open call.” That is not to say that crowdsourcing is a recent phenomenon. Howe in his book ‘Crowdsourcing - How the Power of the Crowd is Driving the Future of Business’ (2008) (pp. 146-147) notes that the roots of crowdsourcing dates back to the 18th century and lies in crowd-casting – a phenomenon to broadcast a problem to the widest possible audience hoping someone somewhere will come up with a solution. He elaborates with an example - the British in 1714 established a commission offering 20000 pounds (roughly 12 million dollars) to anyone who could invent a way to determine ‘longitude’ on a sailing vessel. While top scientific minds of that time failed to develop a device, John Harrison, an uneducated cabinet-maker from Yorkshire created a clock that operated with superb accuracy, even during the rigors of an overseas voyage and was thus awarded the Longitude Prize, re-emphasizing the importance of crowd-casting – dubbed today as crowdsourcing in many industries or as open innovation in some. Julian Loren (2012 pp 5) explains open innovation as ‘a flow of ideas into and out of an organization.’ It means, ‘valuable ideas can come from inside or outside the company and can go to market from inside or outside the company as well’. Large corporations have cashed in on this philosophy. For

instance, companies like Boeing, DuPont and P&G post their most unruly scientific problems on a website called InnoCentive (which has a vast network of experts and scientists) and allow anyone from within the company or outside to try and solve the problem. The companies also pay \$10000 – \$100000 dollars per solution. Netflix too sought help from the crowd to solve a non-recurring challenge (to improve the accuracy of predictions about how much someone is going to enjoy a movie based on their movie preference) and awarded a ‘Netflix Prize’ to the team that came up with a solution. Such open innovation or crowdsourcing initiatives help companies gain a competitive edge over others. McGonigal (2011) describes crowdsourcing as “a way to do collectively, faster, better, and more cheaply what might otherwise be impossible for a single organization to do alone.” It couldn’t be more apt for an industry like media, which faces the challenge of keeping tabs on varied happenings and staying ahead of the curve.

Increasingly, media organizations (across sectors) are beginning to repose trust in the sensibilities of the crowd, as it is a win-win situation for the firm and the public (society) at large. Both benefit from an endless growth of information and meaningful interpretation of this information in a world characterized by ‘informed bewilderment’ (Haak et al., 2012). What boosts the accessibility is the advancement in technology. It is being said that digital media has altered the way traditional news outlets receive their information and how consumers get their news. For instance, in the case of news organizations, before the proliferation of digital tools, news media outlets followed the “we write, you read” principle (Jönsson and Örnebring, 2012) – a top-down approach from officials to reporters to the audience or from media owner to publisher to editor to reporter. A small group of professional journalists produced the news and transmitted it to mass audiences, which consumed it. But the advent of digitalization and popularity of social media has created new relations that “potentially disrupt hierarchical structures and erode the traditional distinction between producer and consumer of news and information,” (Hermida et al., 2012). However, this networked journalism of the digital age is not considered a threat to the independence and quality of professional journalism, but rather a liberation from strict corporate control (Haak et al., 2012).

Digitalization and globalization (considered to have a cause-and-effect relationship) play key roles in shaping the functioning of media industry. One of the fallouts of their lethal combination is crowdsourcing, which is increasingly considered as a problem solving approach that taps the knowledge, energy, and creativity of a global, online community. Companies like eBay and MySpace that grew up in the Internet age have built profitable businesses that couldn’t exist without the contributions of users. Another interesting example is that of iStockphoto, a free image-sharing exchange used by a group of graphic designers, which grew by creating a marketplace for the work of amateur photographers. This company took advantage of an imbalance that emerged in the digital economy (photo agencies treated high resolution images as a scarce resource when in fact they were available in plenty), crowdsourced their product, undercut their competitors and made a hefty profit in the process (Howe, 2008 pp.24).

The story is similar with news media organizations. Acceleration of news cycle and corresponding shortening of publication cycle, have affected sourcing, with greater reliance on secondhand sources, such as news agency content or already published news stories (Boczkowski, 2010). It was in the early 1990s that the idea of involving citizens in newsgathering process grew from isolated instances to a more conscious effort by media

organizations (Glaser, 2006). An unfortunate catalyst came in the form of September 11 attacks. News organizations used pictures clicked and videos shot by citizens - of the plane crashing into World Trade Centre Towers (Gillmor, 2004, p. 49). Similarly, in the wake of London train bombings in 2005, the most powerful photos came from cell phone cameras of crowd present on scene. According to The State of the News Media report (2007), "*Citizen journalism is becoming less something that is dismissed as the amateur hour before the professionals take stage and more [as] something that enriches the conversation.*" Journalism scholars like Gillmor agree and believe that "readers (or views or listeners) collectively know more than media professionals do," and hence the news industry should make use of their expertise (2004, p. 111). Moreover, as the data ocean expands and information becomes more complex, professional journalists will increasingly need to collaborate with both a variety of other professionals and citizen journalists to perform better (Haak et al., 2012).

Afuah and Tucci (2012) point out that firms have three alternative approaches to sourcing: 'Internal' sourcing (within company); 'out'-sourcing (external news agencies) and 'crowd'-sourcing (people or the crowd at large). Any firm that chooses a 'go it alone' approach and ignores ideas from its external constituents risks missing good ideas that can accelerate growth and differentiation (Sloane, 2012). Thus most organizations are trying to inculcate a culture that encourages looking to the outside for ideas and opportunities (Hrudicka et al. 2012 in Sloane, P. (ed)). But is there a 'right' way to do this? Well, there clearly isn't. Jeff Howe (2008, pp. 280) notes that crowdsourcing isn't a single strategy. He explains four strategies that broadly make up crowdsourcing.

1. Crowd Wisdom – uses crowd's knowledge for specific themes
2. Crowd Creation – uses crowd's creative energy to develop plotlines and concepts
3. Crowd Voting – uses crowd's judgment to organize vast quantities of information
4. Crowd Funding – uses crowd's collective pocketbook for projects

While all the mentioned arms of crowdsourcing are important, in the recent past, crowd funding has found a huge following. It is used to fund journalism projects and decide on an agenda for news when funding is limited. Two leading American examples are Spot.Us, a website for community-funded reporting, and Kickstarter.com, a more broad-based community funding site. Israel's 'Scoop' websites, inspired by South Korea's 'OhmyNews' are two very popular nation-wide citizen journalism websites that draws substantial traffic. Others like *emphas.is* and *Vournno* are platforms designed for crowd-funded photojournalism and video journalism respectively and aim to create a new financial model in the twenty-first century. Most media firms are experimenting with a combination of strategies to get the best results. The current trial and error phase is expected to eventually lead to a tailor-made crowdsourcing pattern for every media outlet operating in the digital reality.

### **3 CREATING A CROWDSOURCING CULTURE**

To get a deeper understanding of the different crowdsourcing capabilities, it is im-

portant to know the layers of actors involved in the process – 1. **Client layer** – a company that has a task that needs to be fulfilled, sometimes referred to as “the seeker” 2. **Crowd layer** – individuals who are willing and able to perform the specific task as defined by the client company and 3. **Platform layer** – an Internet-based marketplace through which tasks are announced to the crowd. The platform is either operated directly by the client company, or moderated by a third party. Take for instance Finland based photo crowdsourcing service company Scoopshot. The four-year-old company through its mobile application platform allows news agencies to send specific photography tasks to the crowd of known events (e.g., coverage of a live concert), usually in return of a small financial reward. It’s a small price to pay, as crowdsourcing is a cost-cutting measure for media organizations, because open calls announced through the Internet make the search for participants virtually free. While the classic form of crowdsourcing employs the audiences’ eyes and ears by urging people to recount their daily observations; improvised crowdsourcing channels the expertise of readers in reporting specialized topics through an open call. It is thus considered a collaborative effort between a news organization and its audience, one where the roles of citizen contributors are clearly defined.

This defined collaboration is categorized as types of open innovation (Philips, 2012 pp. 22-36) (Figure 1) and used both by corporate companies and media firms.

1. **Suggestive/Participative** – this format encourages anyone with an idea to submit it and review and rank from others.  
**E.g.:** Yle Svenska regularly welcomes varied ideas or pitches for shows to be telecast on the channel
2. **Suggestive/Invitational** – this (usually) event or campaign based initiative invites specific individuals or teams to submit ideas of their choice (on chosen topics).  
**E.g.:** Al Jazeera invites documentary filmmakers to submit stories or films focusing on certain themes (environment, activism etc.)  
 IBM’s IdeaJam periodically invites chosen people to submit ideas and this list of chosen individuals keeps getting updated
3. **Directed/Invitational** – the firm builds a web of selected individuals/partners to participate in innovation  
**E.g.:** P&G’s Connect + Develop programme allows firms to partner with P&G in innovation activities
4. **Directed/Participative** – a sponsor directs a group to address a specific topic/problem or opportunity  
**E.g.:** Journalists from a news firm use social media to connect with the crowd and source news for a particular happening/event as depicted below pictorially.

Regardless of the type of crowdsourcing or open innovation mechanisms media companies opt for, the tools they use to reach the crowd are largely digital in nature. News organizations integrate user-generated content in ways more than one. BBC established a

user-generated content “hub” in 2005, to sift through unsolicited contributions. The hub worked overtime during London bombings, as thousands of citizens emailed photographs and videos of the carnage. Al Jazeera works closely with user-generated content as well. During the 2009 conflict between Israel and the Palestinians in Gaza, Al Jazeera invited viewers to upload their own photos and videos of the Israeli attacks on Gaza and offered the footage free of charge with a Creative Commons license to provide a crowd-sourced Arab alternative to the well-funded and top-down media strategy of Israel. NOS, the Dutch public broadcaster runs NOS Net, a network of people who share their knowledge and experience with the journalists at NOS.

US-based The Huffington Post has been a phenomenal success in the United States for crowdsourcing content. It is an online news aggregator that mainly covers issues related to politics, business, entertainment, environment, technology, media, lifestyle, culture, comedy, health and women’s interests, where the bulk of the content comes from the audience. Citizen Journalist (Digital) is Network18 media group’s first user-generated news content portal in India, where the audience contributes content either online through a website [www.ibncj.com](http://www.ibncj.com) or through the company’s mobile phone apps, Facebook page and Twitter account. In the Philippines, the Sun.Star website at [www.sustar.com.ph](http://www.sustar.com.ph) has a section called tell it to Sun.Star at <http://specials.sunstar.com.ph/tellittosunstar/>, where it publishes contributions from concerned citizens. ABC Local Radio in Canberra Australia too is creating ripples for its crowdsourced weekly programme called ‘The Emporium’. The producers of the show resort to social media and connect with the audience to brainstorm programme ideas and the results have been widely appreciated. While these are just a few examples to highlight the importance of crowdsourcing to media companies, it makes it amply clear that the firms’ dependence on social media tools is on the rise.

Hermida (2010) has described the flows of news and information on Twitter as ambient journalism. This form of journalism frames Twitter as a social awareness system that delivers a fragmented mix of information, enlightenment, entertainment and engagement from a range of sources. As Gillmor (quoted in Farhi, 2009) argues, journalists should view Twitter as a collective intelligence system that provides early warnings about trends, people and news. In its short lifespan, Twitter has attracted attention for its role in the reporting of major events, such as the terrorist attacks in Mumbai in November 2008, the earthquake in Haiti in 2010, and uprisings in Middle East (Bruno, 2011). Even though only about 5% of Twitter content is devoted to news, mainstream news networks frequently poll the twitterverse for public opinion, independent bloggers use it to promote their or other content, and journalists use it to supplement their own reporting. CNN, CNN Breaking News, The New York Times, Breaking News, The Onion, Time, and People magazine are within the top 100 most followed accounts on Twitter (twitaholic.com, May 2011). It can thus be said that Twitter has been promptly adopted in newsrooms as a mechanism for user-generated content. UK-based Sky News appointed a Twitter correspondent in March 2009 to scour Twitter for stories and tweeting to give Sky News a presence in the Twittersphere. During the Arab Spring, most journalists reported live on Twitter and TV simultaneously or interchangeably. Reports of Osama Bin Laden were first leaked via the Twitter accounts of prominent journalists, seconds before they were leaked on TV, and of course several minutes before President Obama’s address (Papacharissi and Oliveira, 2011). But riding on the digital wave is not always smooth. Journalists using Twitter frequently experience confusion between their roles as reporters, editors, critics, or independent individuals, leading them to use twitter

in a way that supplements their traditional role as information disseminators and prompting news agencies to issue guidelines regarding the use of social media (Ahmad, 2010).

#### **4 CHALLENGES OF CROWDSOURCING**

On 27 May 2013, BBC published a photograph on the front page of its main online site under the headline '*Syria massacre in Houla condemned as outrage grows*'. The image showed a young Iraqi child jumping over dozens of white body bags containing skeletons found south of Baghdad. The caption said the photograph was provided by an activist group and could not be independently verified. But the photograph was actually taken a decade earlier. The BBC removed the image from its site about 90 minutes after the error was discovered. But the damage to its credibility had been done. Verifying credibility from the flood of information is one of the biggest pitfalls of crowdsourcing. The others include possibility of online sources remaining anonymous or using a fake identity, potential conflicts of interests of online sources and the potential of compromising accuracy due to involvement with nonprofessionals (Muthukumaraswamy, 2010).

To combat this problem, the role of journalists has been modified to that of a curator who filters, selects and contextualizes copious amounts of real-time information on the fly (Bruno, 2011). During the Iranian election protests, the reported volume of tweets mentioning Iran peaked at 221,774 in one hour, from a flow of between 10,000 and 50,000 an hour. News organizations are making a note of this. The GuardianWitness platform (launched in 2013 by Guardian) is an example of news organizations curating user-generated content. CNN's iReport too curates by categorizing videos either with a label as "Not vetted by CNN" or by using a logo with a red letter "I," suggesting CNN's stamp of approval. FOX News is not far behind. Its similar feature named 'uReport' watermarks or stamps logo in the upper left hand corner of the online content received to differentiate it as crowdsourced material. BBC too has a 'user-generated content desk', which verifies reports from social media for use by BBC reporters.

But not all organizations have in-house arrangements for verification. They use external platforms such as Scoopshot and Storyful to carry out these responsibilities. Scoopshot developed a patent-pending technology that automatically analyses the authenticity of user-generated content and gives the 'who, when, where' of the photo or video taken using their app. This helps media companies focus on content not instead of spending time in authentication. Additionally, its mobile application automatically collects time and location stamps of each taken photo and allows news agencies to connect with the source for further investigation if/when needed. About 60 media companies use Scoopshot's services, including Metro international, WAZ Media group, the Daily Star, De Persgroep, Ebyline, MTV3 Finland, Expressen and Hürriyet. Storyful is a professional service staffed by journalists who track breaking news reports through social networks and help media companies verify them. As part of its service, Storyful had a private Twitter account called StoryfulPro, which collected and distributed breaking news reports from both its own team and the 'networked journalists' (professional journalists and citizens). NBC's project Breaking News, which started as a Twitter account, also has a growing team that curates and distributes real-time news it has verified. These measures are expected to strength the process of crowdsourcing, but are not nearly

enough. There are a few other areas that need to be tapped to ensure a productive outcome.

While connecting with the crowd is easy, keeping them involved is difficult. Crowds are willing to offer their services so long as news organizations can come up with workable methods to ‘ask’ them (Muthukumaraswamy, 2010). That then means companies have to walk an extra mile to involve the crowd. But it is easier said than done. Many firms lack a workable method for audience contribution or fail in rousing the crowds’ interest. For example, Levia, a producer of light-based technology aimed at healing the psoriasis disease, tried to crowdsource its advertising commercial; but flopped mainly due to its failure to generate interest among the crowd. Some companies also flounder in estimating the scope of audience responses. News-Press in Florida once asked residents to participate in the paper’s investigation into rising prices and they received about 6500 pieces of content in response, which was way above their expectations. It resulted in many responses being untapped due to lack of preparation.

But the problems in ensuring a sustained relationship between contributors and the company arise due to lapses on both ends. For instance, the audience lack interest in the subject matter and abstain from contributing to developments (Wired’s science blog did not succeed as anticipated due to lack of participation) or have sole interest in ‘breaking news’ stories and avoid getting involved in other research-based themes. The key then is to devise ways to indulge the crowd and extract the best out of them. Sloane (2012, pp.200) in his book on Open Innovation and Crowdsourcing highlights the need to have a multitude of ways in which an individual can participate in an initiative. He quotes the example of Facebook - some love to post (these would be submitters of ideas), others are inclined to ‘comment’ (these would be iterators, those who like to add, re-shape but not innovate) and others simply want to ‘like’ a notion (these are voters for ideas). It is thus important to understand the firms’ consumers, categorize them and accordingly involve them. Sloane emphasizes that each contribution has a real value but “allowing the crowd to decide how they will interact is most important.” The success of crowdsourcing is contingent upon media firms’ ability to motivate the crowd, ability to elicit the right contribution and the ability to retain and nurture this crowd. After all, if citizen participation is one of the main goals of crowdsourcing, audience attraction is a happy consequence (Muthukumaraswamy, 2010).

## **5 CONCLUSION**

Although widely popular, crowdsourcing is still in its nascent stage because the debate on harnessing power of the crowd in producing news continues to be divided. Reich (2008) categorizes the debate into three schools of thought. The Naysayers – who believe citizens are simply unqualified to produce original news content, The Well-wishers – who claim that ordinary citizens can and should produce news and The Mixed Camp – that is indirectly influenced by the most celebrated citizen site in the world, South Korea’s OhmyNews but hasn’t taken a side.

But the air is beginning to clear as media companies (particularly news organizations) realize that a little help from the ‘prosumers’ would only do them good. Professor John



Kelly from Oxford University proposes four ‘musts’ for those operating in the business of news: they must accept that a radical change has happened; must see the public (i.e., crowd) as more than a passive and receptive audience; must explore new ways to tell stories; and they must do all this on the “tilting deck” of today’s industry (Kelly 2009, p.2). Rightly so, news executives now acknowledge social media sources such as Twitter and Facebook as regular parts of the news ecology, serving as an early alert system, thereby cementing the place of prosumers in global media organizations. Neither citizen journalism nor traditional journalism can operate to its full ability without the other (Compton and Benedetti 2010), making it two sides of the same coin. Crowdsourcing has thus benefitted all sectors of media and added a new dimension to newsgathering and dissemination. It would then be apt to say that Mohamed Bouazizi’s death gave birth to a parallel system that supports the fourth pillar of democracy in covering the lengths and breadths of the expanding global arena.

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