

## **Media Websites Services and Users Subscription Models for Online Journalism**

NIKOS ANTONOPOULOS, EVANGELOS LAMPROU, MATINA KIOUREXIDOU,  
AGISILAOS KONIDARIS, & SPYROS POLYKALAS  
Ionian University, Greece

A crucial question that has arisen is whether the involvement of Web users can be extended to the funding of news organizations aimed at their financial independence from traditional funding practices. The evolution of multimodal media websites, the media crisis and the growing dissatisfaction of the citizens, create the conditions for online journalism to work with citizens, and through emerging journalistic practices such as crowdsourcing. This concept is a form of collective online activity in which a person or a group of people volunteer to engage in work that always involves mutual benefit to both sides. The main research question of this paper concerns the analysis of the current situation regarding crowdfunding and the adoption of best practices on the technological features, services, and tools used by websites around the world. Very few media have tried to apply even nowadays, the proposed model of journalism, which this study is going to research. The results of the study shape new perspectives and practices for participation, journalism, and democracy.

**Keywords:** Media sustainability, media websites, online publishing, crowdfunding, participation

The human-computer interaction (HCI) or human-machine is a term established since the early 1980s (Abowd et al., 2004). The Association of Computational Systems defines human-computer interaction as “Science dealing with the design, assessment, and application of interactive computing systems for human use, as well as the study of significant phenomena surrounding them” (Hewett et al., 2009). Human-centered design and modeling require a prediction and categorization of users’ needs with an emphasis on usability and system quality and can provide answers to what users want. The human-centered design of the systems is based on the satisfaction of users or individuals with common elements, which should be studied in-depth, so that information systems respond to their requirements (Antonopoulos & Veglis, 2012, 2013, 2016). This design applies to media, websites, and social media and provides online journalism—a worldwide audience and interaction with their online readers/users (Antonopoulos & Veglis, 2012).

Furthermore, journalists in media websites use new ways to gather information, keep in touch with their audience, find ideas for stories, and breaking news, especially from social media (Weaver & Willnat, 2016). Also, editors and publishers from the traditional media (newspapers, radio, and television stations) with the use of media websites and social media reach out to more viewers/readers and return a financial profit on their media investment by advertising products and services. Online readers/users hate ads

---

Correspondence to: Nikos Antonopoulos, Department of Digital Media and Communication, Ionian University, Antoni Tritsi 1, Kefalonia, 28100, Greece.

(Hsu, 2019). However, they consume media products. For this reason, media companies try new subscription models for their products (articles, videos, etc.) with the creation of user accounts, personalize content, and new multimodal services (Lee, 2007). This subscription model may apply for different types of media consumption, but with two basic limitations are period and pay per use (Lee, 2007).

## Is Alternative Funding for Digital Journalism Possible?

Today's essential but insufficiently studied part of the above process is the online media and how it can be met the response to the requirements of the new digital interactive era, the wishes of the users, and the social role of the media (Antonopoulos et al., 2015). The Web 2.0 era marked user participation in news and information production (Deuze, 2007). An important question that has arisen today is whether the involvement of users can be extended to the part of the funding of news organizations with a view to their economic independence from traditional forms of financing and thus the emergence of new forms of journalism geared to the public interest. The ability to interact with the Internet has brought journalists, information agencies, and researchers into a different reality where the collection, production, distribution, and consumption of news and information have become immediate and interactive.

The research interest is now focused on removing the separation between the publisher/entrepreneur and the journalist/user with the ultimate goal of active citizenship, not only in the journalistic process but also in the viability options of the medium itself. In simple terms, this means that journalists may now have the opportunity to work for themselves and be publishers of themselves acquiring alternative ways of revenue. The crowd and its financial participation is the crucial question and answer to this hypothesis. This new communication model, characterized by the principles of two-way communication between receiver and transmitter (Boczkowski, 2004), allows for an ever-increasing interaction between the two sides.

Today, user-generated content (UGC) has expanded significantly (Hermida & Thurman, 2008), and the media use it in various ways (Antonopoulos & Veglis, 2013). Citizen journalism is doing round across the globe. Citizen journalism in India is performing well in the country. Apart from urban regions, such a form of journalism, a form of user-generated content, is considered as a possible means of alternative journalism that is serving in rural areas (Biswal, 2019). Citizen journalism has its presence in Bhutan (Rai, Pedersen, & Smith, 2019). Often it is found that social media is being used as a tool in gathering and transmitting news among broadcast journalists in South-East Nigeria (Agbo & Chukwuma, 2016). This is also an indication of citizen journalism (Agbo & Chukwuma, 2016). However, despite increasing users' participation in an expanding participative digital culture (Deuze et al., 2007), research has shown that this participation is limited to specific tools of low influence on the journalistic content. It is thematically selective and usually comes from individuals as citizens with a considerable interest in politics. These findings, coupled with the credibility of the media and the growing dissatisfaction of citizens seeking detailed and useful information, bring to the fore the issue of user participation in the financial viability of the media to be independent of advertising and to redefine the values and their practices towards transparency, accountability, and pluralism.

Companies all over the world are continually searching for innovative services to be competitive. The internet provides such an environment for media companies. Because of this fact, all traditional media (newspapers, radio stations, and television stations) have established a web presence (Antonopoulos & Veglis, 2013).

Though the traditional business models in journalism are in transformation as subscription revenues are falling in print, online revenues from paywalls can't match the deficit, and online advertising is not as profitable as in the print era (Aitamurto, 2015). This causes revenue deregulation, which is combined with a general journalism crisis.

## Journalism and Mediascape under Crisis: Business and Revenue Models Deregulation

Traditional journalism faces crucial challenges. The decline of the news industry is rooted in a vicious circle of financial leveraging leading to capacity cuts, and then to reductions in quality of content, credibility, audiences, and revenue streams. The crisis in journalism seems to be more profound. It mainly concerns traditional business models for print and broadcast journalism. Since people can now choose to get the information they want from multiple sources, many of which are free, they opt less automatically and less frequently for newspapers and network television, and more often for online news, satellite, cable, radio, and their smartphones (Haak Van der et al., 2012). According to international literature, the revenue crisis for journalism worldwide can be portrayed and summarized in the following facts:

- (i) A steep drop in newspaper circulation numbers and advertising revenues (both classified and print) that has been accentuated by the economic downturn since the global financial crisis of 2008;
- (ii) A dramatic fall in share prices for commercial media businesses, many of which acquired high levels of debt in the 2000s, and which appear to be struggling to develop new business models for the internet economy;
- (iii) A shift in the "attention economy" of media users, who deal with media proliferation by seeking multi-media combinations, and spending less time consuming any single media product or service;
- (iv) A crisis of authority for professional journalism arising from the shift from the 'high modernist' era of crusading investigative journalism and one-off features towards the 24-hour news cycle and the need to reproduce news around familiar themes and formats continuously;
- (v) A growing public distrust of journalists who are increasingly being seen as the conduits for material provided to them by well-funded political, business, and other special interests (Flew, 2009).

All these facts can also be tracked in the Greek-Cypriot media reality.

Therefore, today's increasingly expanded, fragmented, and digital mediascape is marked by continuous change. There are reconfigurations of legacy media such as newspapers as well as how information and communication technologies (ICTs) are developed and used. Citizens of this information age are provided with a plethora of opportunities not only for accessing information such as news but also for producing and sharing such information themselves. This led to the beginning of the participatory journalism era. Participatory journalism is any type of news work which professional journalists and amateurs/citizens collaborate each other and produce news. Deuze, Bruns and Neuberger (2007) write about participatory news: "the networked environment makes possible a new modality of organizing production: radically decentralized, collaborative, and non-proprietary; based on sharing resources and outputs among widely distributed, loosely connected individuals who cooperate without relying on either market signals or managerial commands." Many people now-a-days have access to updated news in any

place and at any time, since some sort of medium or ICT is seldom further than an arm's length away. Consequently, many citizens have diverted their attention and media spend away from legacy media such as newspapers. The strong uptake of online news has not only fueled readership but also threatened the business models of newspapers (Westlund, 2013).

## Crowdfunding and Crowdfunded Journalism

From the media economics perspective, crowd-funded journalism is a meaningful alternative business model for at least two reasons. First, because the model relies on grassroots funding of small amounts of money collected from ordinary people, it potentially liberates journalists from the pressure of advertisers so that they can focus on producing public interest reporting. Second, although reader-supported news reporting (e.g., the public broadcasting service) has existed for many years, crowdfunded journalism is fundamentally different. In this latter model, donors select and fund individual stories, not the organization that produces the stories. Therefore, the ultimate power to decide which stories are worth publishing is given to the readers, not the editors or producers. Crowdfunded journalism is part of a trend in which consumers play an increasingly active role in the production of news (Jian & Shin, 2015). Crowdfunding, as a term, is highly related to crowdsourcing.

Crowdsourcing is not a brand new term. Jeff Howe proposed in June 2006 the term crowdsourcing by combining crowd and outsourcing. Howe explains that the evolution of technology has led to a marked reduction in the distance between professionals and amateurs (Howe, 2006; Howe et al., 2018).

Estellés-Arolas and Ladron-de-Guevara (2012) assert, "Crowdsourcing is a form of collective online activity in which a person or an institution or a nonprofit organization or a company proposes, through an open invitation, to voluntarily take up a job. In taking up work, the crowd must engage in personal work or money or knowledge or experience, and always involves mutual benefit to both sides. Users are satisfied with their needs, and the developer of the initiative acquires and uses for the benefit of the user what the user has contributed to the task, which depends on the activity undertaken by the user." Jeff Howe has distinguished four types of strategies for crowdsourcing—Crowdfunding (fundraising), Crowd creation, Crowd voting (collective vote), and Crowd wisdom (collective intelligence).

Crowdfunding might be defined as the process related to funding projects or companies using the network to make an open call and receive funds from the crowd (Carvajal, García-Avilés, and González, 2012). Crowdfunding has been in existence since before the rise of the Web. The idea is that through small donations from the crowd, large projects that no ordinary individual could fund on his or her own can be started. A famous example is the community-funded American football team, Green Bay Packers. Recently, crowdfunding became a popular way to raise money for various creative projects (Jian & Usher, 2013). Crowdfunding models are generally broken down into four types: donation, reward-based funding, lending, and equity. In a donation model, donors do not receive any explicit financial returns, e.g., donors choose). In a reward-based model, the reward can be anything from the product to a letter of appreciation from the project creator (e.g., Kickstarter). In a lending model, individuals expect their loans to be repaid, either with interest (e.g., Prosper) or without (e.g., Kiva). Last, an equity model allows contributors to acquire company equity and receive a share of the profits (Jian & Chin, 2015).

Crowdfunding platforms such as Kickstarter, Indiegogo, Beacon, and Spot.Us have enabled crowdfunding for journalistic stories, which cover a vast array of topics and geographic locations. As a more recent trend, combinations of crowdfunding and

crowdsourcing information for journalistic stories have started to appear, such as The Guardian-backed Contributoria - a platform for crowdsourcing, co-creation, and crowdfunding in journalism. Moreover, crowdfunding has been increasingly used to fund entirely new journalistic platforms and publications, like Krautreporter in Germany and deCorrespondent in the Netherlands (Aitamurto, 2015).

According to Olson (2017), the major platforms in the crowdfunding market for the year 2017 are Kickstarter, Indiegogo, and Circle up. Kickstarter is the most well-known name in crowdfunding and arguably the most robust platform raising over \$2 billion since its launch in 2009. On a typical day, the Kickstarter community pledges over \$1.5 million. Kickstarter's most significant project was Pebble Time's smartwatch, which generated over \$20 million in March 2015, with a million of that pledged within the first hour. Parent company Pebble Technology got its start with a record-breaking campaign on the platform in 2012, in which it raised more than \$10 million. Kickstarter does not accept charity or humanitarian projects or other personal use projects that other platforms allow. It's also an all-or-nothing deal – if a project doesn't reach its goal, no money will be collected, so there's a bit of a risk involved. Kickstarter also keeps 5% of every successful project (Olson, 2017). Although crowdsourcing seems thriving worldwide as a funding practice in general with multipurpose platforms such as Kickstarter, Indiegogo, Circleup, and others, this appears to be no reality for specialized journalistic crowdfunding platforms. Spot.Us, then Contributoria, and recently Beacon (2016), three of the most iconic dedicated journalistic crowdfunding platforms, all have ended their activities since the start of 2015-16, joining Emphas.is, Vourno, and Indie Voices as unsuccessful experiments in journalism-specific crowdfunding (De Jarnette, 2016).

While it is essential to understand the types of crowdfunding in general, as discussed in the previous section, to analyze the impact of crowdfunding, it is also necessary to view the role that crowdfunding serves in journalism. Therefore, we introduce here a novel framework with which crowdfunding in journalism can be analyzed. The typology has four categories, and the types indicate the role of crowdfunding in journalism. The categories are as follows: fundraising for a single story; fundraising for continuous coverage/beat; fundraising for a new platform/publication; and fundraising for a service that supports journalism (Aitamurto, 2015).

Crowdfunded journalism offers a channel in which news consumers express their preferences for local news that they deem essential to their own lives. Such news is necessary for thousands of local communities to have their voices heard in the media. In this regard, citizens and consumers are actively defining what they deem as important public affairs news (Jian & Usher, 2013).

To realize the potential of crowdfunding and utilize the benefits of the funding mechanism, it has to be understood that crowdfunding doesn't replace the legacy business models for journalism. It is not, and it won't be, a similar revenue model that used to be the mainstream model journalism: either paid staff or freelancers paid by the story so that a salary or a payment from the news organization was the primary source for revenue for the journalist. Crowdfunding can typically provide partial support to a journalist. It includes support for some stories or some beats, and for most journalists, it is and will be, one revenue source, among others. Gaining continuous revenue by crowdfunding is particularly challenging for journalists, who do lower-profile coverage, rather than for reporters, who engage in spectacle-like reporting trips overseas or new investigations and who have built their brand already (Aitamurto, 2015).

## The Case in Greece and Cyprus

This study aims to search whether and to what extent, news media websites use independently crowdfunding and paid subscription strategies to support themselves financially and to monetize created value. The current economic, political, and social crisis in Greece and Cyprus has resulted in a dramatic loss of advertising revenue and other subsidies. At the same time, massive layoffs and precarious labor became the norm. At the same time, credibility and trust levels for the traditional media collapsed (80 percent for television, 65 percent for newspapers, rendering online news media brands the most trusted and read outlets (Saridou et al., 2017)

In Greece and Cyprus, very few research attempts have been made as far as news media sites, crowdfunding strategies are concerned. A comparison between international news websites and those mostly visited in Greece and Cyprus in terms of crowdfunding methods and approach is attempted in this paper.

The study focuses on top 500 international news media websites based on the traffic ranking of Alexa.com as defined in (<https://www.alexa.com/topsites/category/Top/News>), on top 500 ranking websites in Greece (<https://www.alexa.com/topsites/countries/GR>) and 500 top ranking sites in Cyprus (<https://www.alexa.com/topsites/countries/CY>). We have to mention here that due to the non-specialized character of the Greek and Cypriot top 500 lists, the sample for Greece and Cyprus was significantly smaller.

Researchers visited the websites with the use of the Google Chrome browser between 28 May 2018 and 30 June 2018. The evaluation of media websites was performed by the walkthrough method, which has been used in a lot of studies until today for revealing features and characteristics of applications and media websites (Antonopoulos & Veglis, 2013; Allendoerfer et al., 2005; Mahatody, Sagar & Kolski, 2010; Light, Burgess & Duguay, 2018; Karyotakis et al., 2010).

## The GDPR –A New Factor for News Media Websites

General Data Protection Regulation (GDPR 2019) concerns the protection of natural persons concerning the processing of personal data and on the free movement of such data <https://eur-lex.europa.eu/eli/reg/2016/679/oj>. Also, due to recent limitations concerning the new EU GDPR, this factor is examined. “The GDPR not only applies to organizations located within the EU but also applies to organizations located outside of the EU if they offer goods or services to, or monitor the behavior of, EU data subjects. It applies to all companies processing and holding the personal data of data subjects residing in the European Union, regardless of the company’s location” (Wolford, 2020).

## International News Media Websites

Empirical research was conducted, based on the ranking of Alexa.com, as mentioned above. According to empirical data analysis, a significant number of websites such as news.google.com or pinterest.com were excluded due to this research does not concern aggregators or similar sites. As a result, the initial sample of N=500 news media international websites was reduced to N=441. Furthermore, reduction followed as a significant number of international news media websites was not accessible due to recent GDPR limitations. This means that the final global sample was further reduced to 353 news media websites. The sample consists of news media websites of different types such as

newspapers, portals, magazines, TV stations, and mass media from all over the world. The walkthrough method was performed for the evaluation of media websites services which reveal features and characteristics of applications and media websites (Antonopoulos & Veglis, 2013; Allendoerfer et al., 2005; Mahatody, Sagar, & Kolski, 2010; Light, Burgess & Duguay, 2018; Karyotakis et al., 2010).

## Most Visited News Media Websites in Greece

According to the scope of the study, one main objective of the research is to portray the Greek web media landscape in terms of sustainability, monetization, and crowdfunding strategies in comparison to world practices. Though, as mentioned above, due to the non-specialized character of the Greek Alexa top 500 lists (it contains the 500 highest visit rank sites of all content in Greece and not exclusively news sites), the sample for Greece is significantly smaller. Although that there was not GDPR limitation in this case, the empirical analysis yielded a total of 175 news media websites of different types such as newspapers, portals, magazines, TV stations, and mass media from Greece and from all over the world.

## Most Visited Media Websites in Cyprus

The sample has more or less the same characteristics for Cyprus. The non-specialized character of the Cypriot Alexa top 500 lists (it contains the 500 highest visit rank sites of all content in Cyprus and not exclusively news sites) means that the sample is even smaller  $N=128$ . We also do not have a GDPR limitation for the case of Cyprus as well. The sample consists of different types of media categories such as newspapers, portals, magazines, TV stations, and mass media from Greece, Cyprus, and from all over the world. What is notable here is a significant presence of Turkish web media in both Turkish and English languages.

## GDPR Regulations Affect International News Websites Research

There was a significant concern for the researchers as the new GDPR Regulations brought further limitations to the research. It was expected that due to new GDPR, some news sites, especially those from the United States and others, might not be accessible for research in Europe.

The research revealed that GDPR limitations apply only for International news media websites sample at a significant scale. On the contrary, GDPR limitations were not expected in Greece and Cyprus samples. More particularly, almost 20% (19.5%) of International media websites were not accessible in an EU country, Greece, during the period, the empirical study was conducted (28 May 2018 to 30 June 2018). That means some news sites, especially those from the United States, and some other mostly Asian countries such as India were not accessible, a significant finding that strongly affects our research. Though, these findings do not apply for Greece (N2) and Cyprus (N3) samples where no significant GDPR limitations were found.

## Paid Subscription Models in Greece, Cyprus, and the Worldwide

This research scoped to reveal that international news sites have a more advanced monetizing paid subscription model than those in Greece and Cyprus. More particularly,

due to everyday experience, it was assumed that the standard practices of crowdfunding and subscription model are more common and advanced than those in the news media sites visited in Greece and Cyprus.

What the research found is that there is a very significant difference among international news media websites and news websites visited in Greece and Cyprus in terms of the paywall/crowdfunding subscription model. This term is also found as a paywall in literature. More specifically, a percentage of 46.18% of International news media websites follow the paid subscription model, asking money and financial support in different ways from their visitors to provide access to their produced journalistic content. Furthermore, as we can see below, a significant percentage of international news media websites offer as free a basic or limited content. In contrast, premium advanced or printed material is provided only under subscription.

On the contrary, 9.1% in Greece visited news media websites; also, 9.1% from the Cyprus sample visited news media websites and used the paid subscription model to allow access to their journalistic content. Thus, we can say that there is a massive gap between the Greek and Cypriot samples and the international one.

## Direct Donation as a Support Method

One of the ways used by websites worldwide is a direct donation. Direct donation to news media websites is a less common monetizing method. Though this research tried to reveal that it is more common in international news websites than in the news media sites visited in Greece and Cyprus.

According to literature, crowdfunding is an inferior yet developing monetizing strategy. As we can see from results, just 10.2% of international media websites use the direct donation method as a reward for their content but also as a token of their independence. As for media websites visited in Greece, the direct donation method is almost nonexistent, yielding a 1.1% percentage in this research. The case is similar for Cyprus visited media websites, where the analysis also generates a 1.1% score. Thus, it is evident that the direct donation strategy in Greek and Cypriot news media websites is almost non-existent. On the contrary, internationally, the percentage is much more significant and developing.

## Cause Donations

Furthermore, besides direct donation news, media websites might ask independently for an event or cause donations. Crowdfunding strategies could be used not only for media sustainability but for other causes, especially humanitarian ones or others. However, the research proves that this is not the case. It is a monetizing strategy for some mostly independent media, though, this is not a common practice. For international media websites, only 2.3% of media ask for cause or event donations. The percentage is even lower for media websites visited in Greece and Cyprus, where the score for cause or event donation is 1.1% and 1.1%, respectively.

## News Media Websites: “Subscribe to Support Us”?

News websites sometimes make calls for support subscriptions to remain independent and produce quality news content. This is a similar crowdfunding strategy to those mentioned above. For international news media websites, the results of the empirical

research yielded a percentage of 9.07% quite identical to that of direct donation (10.2%) to news media websites. This minor difference gives us evidence that support subscriptions and direct contributions to a news media website are almost similar crowdfunding strategies. However, 9.07% is a low percentage to confirm support subscriptions as a significant practice.

For Greece and Cyprus visited news media sites sample, we have similar results. The empirical research yielded percentages of 1.1% and 1.1%, respectively. This result is also identical to direct donations for Greece and Cyprus, a fact that strengthens the implication that direct donation calls and calls for support subscriptions are similar crowdfunding strategies. However, as mentioned above, 1.1% is a meager percentage to confirm a significant practice.

## Paid Citizen Journalism

Certain news media websites such as “Daily Mail” and “The Sun” use on their websites the slogan “we pay cash for videos” (Daily Mail, 2020; The Sun, 2017). This is mainly a crowdsourcing strategy based on citizen journalism practice. News websites pay their visitors to contribute to high quality or unique news content, especially photographs and videos of rare or significant events. It is based on a call promising that news websites may pay in cash their visitors to contribute with high quality or exceptional news content. However, our empirical research showed that not only is this an uncommon practice, but it can hardly be found in the data researched in all three samples international, Greece, and Cyprus. This is an aggressive, innovative strategy, which, however, is not a common practice in any way.

## Is Advertising Revenue Still the King?

Advertising revenue model used to be the most common monetizing strategy worldwide and provide free content to news media websites’ visitors. The mainstream advertising revenue model remains robust during the media crisis. Though, according to our research, for international news media websites, things start to change. The empirical research yielded a percentage of 57.22% using the free content strategy. However, this depicts half the truth. Almost 43% (42.78) of international news media websites use the “freemium” or subscription model. Freemium is a combination of “free” and “premium,” and has become a popular business model among companies with websites and mobile applications. Viewers/readers/users get basic features free and can access more services or content for a subscription fee (Kumar, 2012). That means that they offer a basic or limited content to all visitors, but a premium or print edition while premium or advanced editions are provided only under subscription.

However, for Greece and Cyprus samples, the results are different. Free content yields percentages of 87% and 87%, respectively highlighting the dominant character of advertising monetizing model in Greek and Cypriot news media websites market. The exact similarity of percentages gives us also the certainty to claim that Greek and Cypriot news media website markets have been built under the same principles and strategies. Thus, advertising revenue remains significant; however, international websites display a strong trend towards paid content strategies.

## Newspaper Websites Dominate Paid Subscriptions

Print newspapers for centuries were sold as products to clients or subscribers. Newspapers or similar news websites follow the subscription paid model for their electronic print editions, and this means that the paid subscription percentage comes mostly from newspapers. Though, lots of print newspapers follow the free press strategy.

According to our research expectations, percentage (%) *paid subscription = print or e-edition subscription*. According to our findings in the international news media websites sample, the hypothesis is confirmed. Print and e-print subscriptions yield almost the same percentages as generally paid subscriptions. Percentages of paid subscription = newspaper print or e-print edition subscription. For international news media websites, this is obvious as newspaper print or e-print edition subscription percentage is almost equal to paid subscription percentage, 46.18% to 41.4%, respectively.

For websites in Greece, the case is reverse. The percentages are also almost equal; however, the subscription percentage of newspapers e-edition or print edition has a higher percentage than paid subscriptions. This implies that certain free press newspapers ask for a subscription for free for their print or e-edition. The percentages are 9% (paid subscription) and 12% print or e-edition subscription, respectively. Furthermore, in the Cyprus table, the percentages are the same 10% paid subscription and 10% print or e-edition subscription, respectively.

One of the findings of this paper from the international sample is that the newspaper company Guardian has an innovation strategy for the official website. The Guardian strategy consists of allowing access to limited devices for subscribers. This is differentiation in comparison to the industry strategy.

This research found that news media websites allow subscribers to access content through unlimited devices. The empirical study showed that in all three different samples, International, Greece, and Cyprus, there was barely a device number access restriction. One notable and innovative case is one of "The Guardian," which allows no more than (ten) 10 devices per subscriber to have access to the website's content.

### Conclusion

There is no doubt that the world media economic environment faces crucial challenges. Income from the audience in all its forms (including subscription paywall form) is upcoming revenue strategies that, according to our research, cannot completely replace traditional revenue models such as the advertising one. What we have to mention is that in many cases, crowdfunding calls and calls for subscription support have the same roots and cannot be distinguished clearly. News media websites ask for financial help from their readers/users in a lot of different ways to remain alive, active, independent, and trustworthy. Subscription calls in many cases are not a typical sell/buy procedure but an appeal to readers to understand that quality and independent journalism has to be supported.

Due to this, things start to change internationally. According to our research results, almost half of international news media websites ask one way or another financial support from their readers/users. In contrast, half of them depend on advertising revenue. There is no doubt that financial support from readers either as clear crowdsourcing either as a support subscription appeal is fundamental for news media websites in order initially to survive and to produce quality and trustworthy journalistic content.

A lot of innovative methods for the crowd to participate financially have been introduced, but we will have to see in the future whether they will be successful or not. On the contrary, in Greece and Cyprus, the advertising revenue model is more than dominant. Most news media websites offer their content for free, and there are few examples of the paid subscription model, crowdfunding, cause donations, or direct donations. Though, it is evident that Greece and Cyprus news industries follow international trends with significant delay. What is for sure to be mentioned is that given the financial and structural crisis for journalism in Greece and Cyprus, a shift in the business model followed seems more than necessary.

What our research highlights are the need for the business model transformation change to be accelerated. Greek and Cypriot news media websites seem to follow the old recipe for advertising revenue. Journalism, however, is not a simple matter. The financial Independence of journalists assures objective research, reporting, and reliability. On the other hand, relying on advertising solely, or even worse on state funding, enhances dangers for truth and democracy.

Limitations : Limitations for the current research, are that the media websites were found from the rankings of Alexa.com so that some media might be absent from this paper. Also, due to GDPR, a significant number of international news media websites were not accessible. More detailed research with more research hypotheses about crowdsourcing concerning all the media websites may be conducted in the future.

## References

- Abowd, D., Beale, R., Dix, J., & Finlay, E. (2004). *Human-Computer Interaction*. Madrid: Prentice-Hall.
- Agbo, B. O., & Chukwuma, O. (2016). Social Media Usage in Gathering and Transmission of News among Broadcast Journalists in South-East Nigeria. *Media Watch*, 7(3), 315-330. DOI: 10.15655/mw/2016/v7i3/48546
- Aitamurto, T. (2015). Crowdsourcing as a Knowledge-Search Method in Digital Journalism. *Digital Journalism*, 4(2), 280-297.
- Allendoerfer, K., Aluker, S., Panjwani, G., Proctor, J., Sturtz, D., Vukovic, M., & Chen, C. (2005). Adapting the cognitive walkthrough method to assess the usability of a knowledge domain visualization. *Proceedings of the IEEE Symposium on Information Visualization*, Minneapolis, 195-202.
- Antonopoulos, N., & Veglis, A. (2012). Technological characteristics and tools for web media companies in Greece. *Proceedings of 16th Panhellenic Conference on Informatics*, IEEE, PCI, Athens, 44-50.
- Antonopoulos, N., & Veglis, A. (2013). The evolution of the technological characteristics of media websites. *Proceedings of the Asian Conference on Media and Mass Communication*, 130-146.
- Antonopoulos, N., Veglis, A., Gardikiotis, A., Kotsakis, R., & Kalliris, G. (2014). Web Third-person effect in structural aspects of the information on media websites. *Journal of Computers in Human Behavior*, 44, 48-58, <http://dx.doi.org/10.1016/j.chb.2014.11.022>.
- Antonopoulos, N., Veglis, A., & Emmanouloudis, A. (2016). Media websites and their visitors' choices on cookies. *European Conference on Media, Communication & Film*, Brighton, 61-71.
- Antonopoulos, N., & Veglis, A. (2012). Technological characteristics and tools for web media companies in Greece. *IEEE Proceedings of 16th Panhellenic Conference on Informatics*, 44-50.

- Antonopoulos, N., & Veglis, A. (2013). The evolution of the technological characteristics of media websites. *Asian Conference on Media and Mass Communication*, 130-146.
- Biswal, S. K. (2019). Exploring the role of citizen journalism in rural India. *Media Watch*, 10, 43-54. DOI: 10.15655/mw/2019/v10/Spl/49611
- Boczkowski, P. (2004). The Processes of Adopting Multimedia and Interactivity in Three Online Newsrooms. *Journal of Communication*, 54(2), 197-213.
- Carvajal, M., García-Avilés, J., & González, J. (2012). Crowdfunding and non-profit media. *Journalism Practice*, 6 (5-6), 638-647.
- Deuze, M., Bruns, A., & Neuberger, C. (2007). Preparing for an Age of Participatory News. *Journalism Practice*, 1(3), 322-338.
- Dailymail. (2020). *Submit Videos: We pay cash for videos*. Retrieved from <https://www.dailymail.co.uk/home/contactus/index.html>
- De Jarnette, B. (2016). *What Beacon's Failure Means for Crowdfunded Journalism*, *Mediashift.org*. Retrieved from: <http://mediashift.org/2016/10/beacons-failure-means-crowdfunded-journalism/>
- Estellés-Arolas, E., & González-Ladrón-de-Guevara, F. (2012). Towards an integrated crowdsourcing definition. *Journal of Information Science*, 38 (2), 189-200.
- Eur-lex.europa.eu. (2019). EUR-Lex - 32016R0679 - EN - EUR-Lex. Retrieved from <https://eur-lex.europa.eu/eli/reg/2016/679/oj>
- Flew, T. (2009) Democracy, participation, and convergent media: case studies in contemporary online news journalism in Australia. *Communication, Politics & Culture*, 42(2), 87-109.
- Haak, Van der B., Parks, M., & Castells, M. (2012). The Future of Journalism: Networked Journalism. *International Journal of Communication*, 6, 2923-2938.
- Hermida, A., & Thurman, N. (2008). A Clash of Cultures. *Journalism Practice*, 2(3), 343-356.
- Hewett, T., Baecker, R., Card, S., Carey, T., Gasen, J., Mantei, M., Perlman, G., Strong, G., & Verplank W. (1992). *ACM SIGCHI Curricula for Human-Computer Interaction*. Technical Report. New York: Association for Computing Machinery.
- Howe, J. (2008). *Crowdsourcing: how the power of the crowd is driving the future of business*. UK: Business Books.
- Howe, J., Howe, J., McKenna, M., Wood, M., Heffernan, V., Cohen, N., Meyerson, C., & McKenna, M. (2018). *The Rise of Crowdsourcing*. Retrieved from: <https://www.wired.com/2006/06/crowds>
- Hsu, T. (2019, October 28). *The Advertising Industry Has a Problem: People Hate Ads*. *New York Times*. Retrieved from <https://www.nytimes.com/2019/10/28/business/media/advertising-industry-research.html>
- Jian, L., & Shin, J. (2015). Motivations Behind Donors' Contributions to Crowdfunded Journalism. *Mass Communication and Society*, 18(2), 165-185.
- Jian, L., & Usher, N. (2013). Crowd-Funded Journalism. *Journal of Computer-Mediated Communication*, 19(2), 155-170.
- Karyotakis, M.-A., Lamprou, E., Kiourexidou, M., & Antonopoulos, N. (2019). SEO Practices: A Study about the Way News Websites Allow the Users to Comment on Their News Articles. *Future Internet*, 11, 188.
- Kumar, V. (2012, May). *Making "Freemium" Work*. Retrieved from <https://hbr.org/2014/05/making-freemium-work>
- Lee I. (2007). *E-Business Models, Services, and Communications*. Pennsylvania: IGI Global.

- Light, B., Burgess, J., & Duguay, S. (2018). The walkthrough method: An approach to the study of apps. *New media & society*, 20(3), 881-900.
- Mahatody, T., Sagar, M., & Kolski, C. (2010). State of the Art on the Cognitive Walkthrough Method, Its Variants, and Evolutions. *International Journal of Human-Computer Interaction*, 26, 741-785.
- Olson, S. (2017). *Top 3 Crowdfunding Platforms of 2017*. Retrieved from: <https://www.investopedia.com/small-business/top-crowdfunding-platforms/>
- Rai, N., Pedersen, S., & Smith, F. (2019). Citizen Journalism: An Analysis of News Representation in the Coverage of Bhutannewsservice.com. *Media Watch*, 10(2), 294-308. DOI: 10.15655/mw/2019/v10i2/49640
- Saridou, T., Spyridou, L., & Veglis, A. (2017). Churnalism on the Rise?. *Digital Journalism*, 5(8), 1006-1024.
- The Sun. (2017, July 25). *Sell your videos to The Sun, and we will pay you cash*. Retrieved from <https://www.thesun.co.uk/sellyourvideo/>
- Weaver, D. H., & Willnat, L. (2016). Changes in U.S. Journalism. *Journalism Practice*, 10(7). doi: 844-855.10.1080/17512786.2016.1171162
- Westlund, O. (2013). Mobile News. *Digital Journalism*, 1(1), 6-26.
- Wolford, B. (2020). *European Union's General Data Protection Regulation. Does the GDPR apply to companies outside of the EU?* Retrieved from <https://gdpr.eu/companies-outside-of-europe>

**Antonopoulos Nikos** (Post Doc, Ph.D., Aristotle University of Thessaloniki, Greece, 2015) is an Assistant Professor of Communication and New Technologies in the Department of Digital Media and Communication at Ionian University, Greece. He is Head of New Media Communication and Usability Lab (NeMeCU Lab). His research interests include digital communication, journalism and human computer-interaction.

**Evangelos D. Lamprou** is a Journalist and adjunct lecturer at the Department of Digital Media and Communication in Ionian University. His research focuses on the use of digital media, digital journalism and communication.

**Matina Kiourexidou** (Post Doc, Ph.D., Aristotle University of Thessaloniki, Greece, 2016) is an adjunct lecturer in the Department of Digital Media and Communication at Ionian University. Her research interests are in communication, multimedia content, human computer-interaction, virtual and augmented reality.

**Agisilaos Konidaris** (Ph.D., University of Patras, Greece, 2005) is an Assistant Professor in the Department of Digital Media and Communication at Ionian University. His research focuses on digital marketing and advertisement.

**Spyros Polykalas** (Ph.D., National Technical University of Athens, Greece, 1999) is a Professor in the Department of Digital Media and Communication at Ionian University. His main scientific interests are related to the framework of electronic communication services provision, regulation and competition in electronic communications markets.