The Evolution of Media Communication

Edited by Beatriz Pe√±a Acu√±a

THE EVOLUTION OF MEDIA COMMUNICATION

Edited by **Beatriz Peña Acuña**

The Evolution of Media Communication
http://dx.doi.org/10.5772/65166
Edited by Beatriz Peña Acuña

Contributors

Ján Višňovský, Jana Radošinská, Donna Farland-Smith, Dennis Moot, Ainara Larrondo, Irati Agirreazkuenaga, Saodah Wok, José Jesús Vargas Delgado

Notice

Statements and opinions expressed in the chapters are these of the individual contributors and not necessarily those of the editors or publisher. No responsibility is accepted for the accuracy of information contained in the published chapters. The publisher assumes no responsibility for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained in the book.

We are IntechOpen,
the world's leading publisher of
Open Access books
Built by scientists, for scientists

3,650+
Open access books available

114,000+
International authors and editors

118M+
Downloads

151
Countries delivered to

Our authors are among the
Top 1%
most cited scientists

12.2%
Contributors from top 500 universities

Interested in publishing with us?
Contact book.department@intechopen.com

Numbers displayed above are based on latest data collected.
For more information visit www.intechopen.com

Meet the editor

Beatriz Peña-Acuña is an associate professor (permanent) accredited by Spanish Quality Agency ANECA (2015). She teaches in the Department of Business Administration and Management to Grades and master's and postgraduate degrees at UCAM (Murcia, Spain) in Multidisciplinary Formation: Hispanic Philology, Diploma in Religious Studies and Journalism. She leads several doctoral theses and was awarded Extraordinary Doctorate Award (2012). She leads a validated international and multidisciplinary research group called 'Personal Development'. Scientific production is prolific such as *Communication Management and Management Skills* (Dykinson), *Politic Communication* (ACCI), *Research Journalism* (ACCI) and *Specialized Journalism* (two volumes, ACCI). She directs several collections of books in international publishing houses. She has visited several international universities and gives international conferences. She has been awarded the President's Lifetime Achievement Award (2015).

Contents

Preface

Media communication is a young discipline, if we compare it with others. It has been studied scientifically from the last century in social sciences. This topic, as it is a human process, is complex and it is changing because of new technologies. It transforms our society too. It is recognised that we are in a communication society. The management of knowledge is settled in business area too. Communication skills are recognised as competences in education for preparing future citizens. Media communication feeds from different disciplines and it keeps their attention. This book is an attempt to provide theoretical and empirical framework to better understand media communication from different point of views and channels in various contexts.

A report on Global Internet access (2015) or AIB Spain (2016) tell, there is an evolution and trend of media´s more consume through Internet and its formats: platforms, nets, forums and traditional media. So there is a need to review this new panorama because this transformation is affecting the kind of citizens' participation in society, the references and models of education and business communication behaviour and strategies. It is also affecting consumers' behaviour and satisfaction.

The last ECM 2016 focuses on the use of big data useful for business opportunity. Big data can be understood as mass quantities of stored data that provide new insights that were previously not available, variety of multiple data types from internal and external sources, fast stream of data (data in motion) and their constant processing. A majority of communicators believe that big data will change their profession. Big data analytics are mainly used to plan overall strategies, justify activities and guide day-to-day actions (e.g. targeting publics with specialised content, content adaptation, etc.). The communicators perceived the most important strategic issues: first, coping with the digital evolution and the social web; second, linking business strategy and communication; third, dealing with sustainable development and social responsibility; fourth, building and maintaining trust and, fifth, dealing with the demand for more transparency and active audiences.

The international authors are specialised on the issues that appear in this volume. They cover a wide range of updated issues. They span from deepening about behaviour of media or trends to national cases related to social net and to new phenomena—as it is mindfulness applied to creativity. So in this book, two sections are presented. The first section focuses on the behaviour of media by Višňovský and Jana Radošinská, media applied in education field looking for creativity by Jose Jesus Vargas Delgado and reception research by Farland-Smith too. The second section provides case studies about Internet: platforms and social nets developed and applied to different publics in Malaysia (Asia) by Saodah Wok and Shafizan

Mohamed, in Spain (Europe) by Ainara Larrondo and Irati Agirreazkuenaga and in Ghana by Dennis Moot (Africa).

The book is addressed to the public that is interested in the various disciplines of the social sciences and in particular communication. Therefore, it is addressed to communicators, educators, entrepreneurs, sociologists, social psychologists, anthropologists, thinkers and students. The texts give rise to debate and research. They also will discover through the text the interesting context of media communication and its force as an agent in social transformation and human processes.

<div align="right">

Beatriz Peña Acuña
Associate Professor
Department of Education, Department of Business Administration,
Catholic University Saint Anthony
Murcia, Spain

</div>

Theoretical Approach

Online Journalism: Current Trends and Challenges

Ján Višňovský and Jana Radošinská

Additional information is available at the end of the chapter

Abstract

In the past 25 years, the journalistic sphere has gone through radical changes and transformations, progressively adapting to the contemporary global trends in news-making. Traditional understanding of journalism as a profession has changed significantly, mostly due to the fact that digital media environment has brought new opportunities but also challenges related to the journalistic practice. The text aims to offer a theoretical reflection on the issue of online journalism. At the same time, the chapter discusses specific forms of Internet-delivered journalistic production and professional requirements placed on journalists who specialise in online news-making, taking into consideration the current development tendencies of digital communication forms. The authors work with a basic assumption that many aspects related to form and content of online news need to be discussed in the light of much needed terminological and paradigmatic revisions related to both the general theory of journalism and our practical understanding of journalism as a continual, creative and highly professional, publicly performed activity.

Keywords: innovation in journalism, journalism, mobile applications, mobile journalism, news websites, online journalism, social media

1. Introduction

It is generally accepted that the 'traditional' press and online journalism have coexisted for more than two decades. This time period has been marked by publishers' scepticism towards the digital media and pessimist visions of the newspapers' future significantly. The predictions by many media professionals claiming that 'the digital turn' would result in decreasing readership of the press, or even in 'total extinction' of the print newspapers, have appeared repeatedly. It is therefore no surprise that publishers have been forced to take various steps leading to preservation of their then-existing readership bases. However, the current situation does not suggest that the state of matters will change radically in the near future. On

the contrary, it is rather reasonable to expect (at least in terms of Slovak media market and Central European region) further decrease in sales of daily newspapers. Paradoxically, some print newspapers and magazines published in the United States and in the countries of Asia and North Africa are—slowly but steadily—increasing their circulation. Despite this development online news portals will most probably strengthen their contemporary market position of highly profitable information sources. Development of journalism in the sphere of social media and digital applications will, undoubtedly, expand further as well.

In the recent years, online journalism has entered and occupied places where Internet users spend a lot of their free time, e.g. social networks. Online media have also made their mark within development of various dimensions of alternative news dissemination and so-called citizen journalism [1]. Reacting to the current situation in the field of professional news production and distribution, Gant notes that the century which preceded the emergence of the Internet—a period dominated by large news organisations, increasingly controlled by profit-oriented corporations—appears to have supported an artificial distinction between journalists and everyone else: 'In a sense, we are returning to where we started. The institutional press no longer possesses the exclusive means of reaching the public. Anyone can disseminate information to the rest of the world' [2]. The emergence of specialised production practices and new tools for disseminating journalistic information indicates that the publishing houses' and editorial offices' primal distrust of the Internet, so typical for the second half of the 1990s, has slowly vanished, mostly due to the quick technological improvements and possibilities offered by the online environment. The Internet has become a good partner but also a strong competitor of the 'traditional' media. It is currently securing its position of an extremely popular communication means bound to young and middle-aged generations of media audiences. It also functions as a particularly important tool for improving education, as a space for conducting a wide spectrum of work, business and marketing activities. The traditional media are very well aware that they cannot ignore these aspects. Reacting to the trends in digital communication, the conventional ways of producing journalistic content are trying to use the Internet's many advantages for their own benefit.

Ongoing transformations of the journalistic profession are obvious also in the case of emerging digital actors who identify themselves as journalists even though they often lack the 'standard' professional training and institutional background completely. Eldridge sees this new kind of news producers as those who, through pursuing journalistic work, 'have irritated and blurred the traditional boundaries of the journalistic field'. However, it has to be acknowledged that this type of digital journalists may, despite their occasionally controversial public image, directly or indirectly cooperate with the mainstream media (e.g. renowned daily newspapers may use and thoroughly investigate materials published by *WikiLeaks*) [3]. According to Gant, they often work 'at the leading edge of innovative journalism' and take full advantage of 'an expanse of digital approaches to share news and information online' ([2], p. 34). Knight and Cook also point out that the individual journalist has become much more visible and the traditional media landscape is fragmented, and that is why the voice of the individual becomes clearer in a social media landscape. Journalists—those working inside media organisations as well as those operating 'outside' the mainstream media industry—are able to establish direct contact with audiences, and they also have more options as to where to search for (and publish) their news stories [4].

Even though there is no generally accepted consensus that would explain how exactly the Internet has changed the ways we produce, disseminate and access news, scholars focusing on journalism and professional journalists agree that we are witnessing many shifts in the field of professional production of news and information. The speed of these ongoing transformation processes is, however, the reason why journalistic practices, along with the theory of journalism, are hardly able to cope with them. Regardless of whether the newspapers are available in 'traditional' or online forms, the factor deciding on efficiency of their public impact and acceptance is bound to attracting and holding the recipients' attention [5]. On the other hand, the attention media audiences pay to specific content projects itself into economic imperatives related to the press and thus create a secondary media market (advertising market). According to Mendelová, the media market may be perceived as a business sector consisting of two different fields—a consumer segment (where products are offered to customers) and an advertising market (where advertisers buy advertising space in order to publicly present their goods) [6].

The situation print journalism finds itself in is a result of several factors and circumstances. As we have mentioned above, the recipients are able to access increasing amounts of information. Moreover, the Internet, television and even radio spread news much faster than the traditional press. Using new information technologies (such as smart phones, tablets or 'intelligent', i.e. Internet-connected televisions) has become a common part of the everyday reality, especially for young and middle-aged people. Decreasing circulation of the press proves that, generally speaking, people read the newspapers much less than in the past. However, they spend more time working and playing with the computers. Another fact worth mentioning is that the need for information related to reading newspapers has changed significantly as well (for further information, see Ref. [5]). Few recipients actually pay attention to political or economic life of the society; the readers are interested in tabloid journalism instead, preferring entertainment over information values. Roubal discusses the 'society of experience' and states that 'a world of unlimited opportunities is a world that also provides unlimited resources in terms of experiences and entertainment' [7].

During the last decade, the Internet has become widely available in terms of both access and prices. While in 2007 only 55% of households in the European Union were equipped by Internet connection, 81% of EU households could access the Internet in 2014. Widespread and financially available broadband Internet connection (the most common form of accessing the Internet in EU, in 2014 used by 78% of households) has become one of the pillars of the information society or rather the knowledge society. The highest proportion (96%) of households with Internet access was recorded in Luxemburg and the Netherlands; nine out of ten households could access the Internet also in Denmark, Finland, Sweden and the United Kingdom. The lowest proportion of households with Internet access among EU member states, 57%, was in Bulgaria [8].

The topics we aim to discuss in the following parts of the chapter refer to contemporary trends in online journalism, its products and practices. Russell notes that these practices 'give new relevance to long-standing questions at the heart of what used to be called journalistic profession: How is truth defined and by whom? Which forms of practices of journalism yield

the most credible product? How do consumers measure value among, on the one hand, elite media institutions, with their gatekeepers, resources, and professional codes and training, and, on the other, the bloggers and wiki-ists and emailers, with their editorial independence, collaborative structures, and merit-based popularity?' [9]. The problems Russell positions as crucial only confirm that the current questions of journalism and online journalism are hard to address and answer thoroughly. Nevertheless, we offer our view on the issues by taking into account the most recent developments in the given field of media production.

2. The sphere of online journalism and its development

The term 'online journalism' means publishing journalistic content and news stories—in all their sorts—on the Internet. *Oxford Dictionary of Journalism* by Harcup specifies that 'online journalism' includes various kinds of news that are disseminated via websites, social media, RSS channels, e-mails, newsletters and other forms of online communication. Online journalism, being in sharp contrast with the more traditional ways of journalistic information dissemination related to the press, allows the producers to present news in a non-linear way; the recipients are able to choose when and how they want to receive the news [10]. Russell favours the term 'networked journalism' and observes that it is 'about more than journalists using a digitally equipped public as a kind of new hyper-source. It is also about a shift in the balance of power between news providers and news consumers. Digital publishing tools and powerful mobile devices are matched by cultural developments such as increased scepticism towards traditional sources of journalistic authority' ([9], p. 2).

The electronic or rather digital form of publishing and offering journalistic products through the Internet thus can be seen as a basic attribute which allows us to distinguish between 'traditional' and 'new' journalism. However, we cannot ignore the fact that the creative principles of journalism, which result in specific activities of processing and shaping information in order to create journalistic products, are—very much like in the case of 'traditional' journalism—associated with employment of strictly determined procedures (for more information, see Ref. [5]). The overall framework of creative activities related to products of online journalism as well as its final forms is, however, different from the 'traditional' outcomes of journalistic work, often to a great extent.

Closely associated with dynamic commercial expansion of the Internet, the very beginnings of online journalism can be dated back to the first half of the 1990s. The most essential steps towards emergence of a new and highly important communication form were taken by the National Science Foundation Network (NSFNET) in 1991. Following this development, the US Congress pushed a legal act declaring the free worldwide use of this emerging network. With regard to Central Europe, Slovak Republic's strategic geographic location helped spread the Internet in the Central European region. The Slovak elite daily newspaper *SME* started to publish journalistic contents on the Web introduced by the Slovak Academy of Sciences (via project 'Logos') in 1994. Its own domain www.sme.sk was established in 1996, functioning as a pioneer and ground-breaking venture—the newspaper 'entered' the online environment

among the first ones in Central Europe. The daily's editorial office later partnered with Slovak magazine *CD Tip*, and together they offered CD-ROMs providing monthly archives of digital data and texts published online. In 1999, the page was transformed into a fully functioning news portal with daily updates. *SME*'s expanded online activity was quickly followed by similar measures taken by its closest competitors, dailies *Pravda* and *Hospodárske noviny*.

The most visible aspects of this form of journalism include websites of the 'traditional' media (e.g. www.nytimes.com, www.sme.sk, www.rtvs.sk) but also media existing exclusively on the Internet (often called 'e-zines'). Online journalism uses various multimedia and interactive elements containing texts, photographs, videos, hyperlinks and users' comments that are often simultaneously published on social networks in order to be exposed to for larger groups of target audiences. Czech publicist and sociologist Bednář determines the following features of Internet journalism: real-time access, interactivity, instant comparison with competition, interconnection of information through hypertext and blending formats [11].

It is quite obvious that each new medium has, at least to a certain extent, adopted and modified previously existing genres in order to expand its own possibilities of processing and disseminating information. Understandably, genres of online journalism are based on genre typology used in the press. On the other hand, the presence of audio-visual content and other graphic, multimedia and interactive aspects on the Internet functions as a framework for creation and establishment of specific genres which are typical for the online environment (e.g. online interview, online discussion or online reportage). Considering the changes in genres of journalism in relation to the Internet and its quick emergence, Osvaldová states that the freedom of publishing on the Web is one of the basic attributes of this medium. However, preservation of the essential rules of 'journalistic writing' seems to be beneficial, at least for now—for the authors and the recipients alike [12]. The Internet's influence on journalistic content, its types and its formats is much smaller than its ability to provide yet unseen types of information access. However, the current practice suggests that online contents published in textual, audible or audio-visual forms are similarly presented in the 'traditional' media as well. Online journalism is no exception to this general rule—many journalistic texts published on the Internet are also available and, in the exact same form, in the press.

Online publishing's influence on content is a significant factor of Internet journalists' work and thus determines activities of the online news media as such. Besides taking into account its own topics and formal specifics, online journalism also complies with economic imperatives, as it is possible to rather precisely define the target audiences and thus present advertisements quite effectively. Another economic strength of the online journalism is related to minimising costs of printing and distribution. However, as noted by van der Wurff, costs associated with creation of any new product (a newspaper, a magazine, a television show, etc.) are still considerably high [13]. Production of a new piece designed to be published on the Internet is as expensive as if it was to be published in the press.

Once again it is necessary to stress out that the Internet has brought a significant breakthrough in terms of accessing information. It would be hardly deniable that the users are now able to choose from a plethora of information from all spheres of social life, including public institutions, state authorities and government, business entities, etc. As of the news media, their

key objective is to select events of the social reality and process them into the form of media contents, to give them certain added value. The journalistic practice has shown clearly that media has been rather reluctant to take into account the ongoing transformation processes of the online environment. One of the reasons causing this quite low primal trust towards the Internet is the fact that media organisations have had a lot of trouble finding optimal business models able to provide additional profit from Internet content (advertising revenues, premium services, etc.). Paradoxically, unspecified prejudices of the 'traditional' media towards the Internet have played their part as well.

Considering the influence of the Internet on the press, i.e. on those media that process information and publish news in textual forms predominantly, it is, on the one hand, visible in the sphere of reception activities related to accessing information; on the other hand, the Web also significantly determines the ways today's journalists and editorial staffs do their work. Media convergence and economic issues of the press, mostly those associated with circulation and advertising revenues, lead to 'rationalisation' of specific creative activities. Such 'rationalisation' inevitably leads to reduction of costs in the area of human resources and therefore to merging various (previously clearly distinguishable) professions involved in the editorial activities. Allan summarises the issue very thoroughly: 'While managers talk of "reorganisation," "downsizing," "layoffs," "cutbacks," "concessions" and the like (while striving to avoid the word "bankruptcy"), news and editorial posts are being "concentrated," with remaining staffs members compelled to "multi-task" as they adopt greater "flexibility" with regard to their salary and working conditions. "Converged" content is being "repacked," a polite way of saying that its quantity—and, too often, quality—is shrinking as "efficiencies" are imposed' [14].

Traditional and time-tested routines in the journalistic practice are thus, under the influence of 'multimedialisation', becoming weaker, which leads to blurring the boundaries between two once strictly separate platforms—the editorial office of a newspaper and the editorial office of an online news portal. After all, the notable changes are visible in terms of the journalistic profession itself; nowadays it is not enough to be a highly skilled writer; one must also be able to effectively work with the Internet, 'smart' devices, video cameras, editing software, etc. Moreover, it is necessary to admit that the academic discourse is just at the beginning of conceptualisation of journalism in the new contexts related to digital technology and its use. Heinrich offers a thorough reflection on the issue: 'A multi-platform structure of journalism is evolving in which boundaries between the traditional media outlets of print, radio and television are blurring. Print, audio and video are increasingly merging online as the lines between formerly distinct media platforms are becoming indistinct. Network technologies have triggered processes of convergence impacting the management of cross-platform news flow processes in day-to-day news production. Journalistic outlets in Western societies are affected by these developments and acquire new notions of journalistic practice as well as reconfigured perception of our journalistic cultures' [15]. Similarly, Czech journalist Čuřík discusses this matter in terms of profession of 'a multimedia journalist' and other changes in the traditional journalistic routines. Maybe the most significant positive features of the Internet in relation to the press are inevitable creation of new ways of distributing content to the readers, new forms of this content's processing and the use of hypertext [16].

Compared to media such as radio or television, the press is far less demanding in terms of the use of digital technologies; the Web was, after all, primarily created in order to record and transfer textual information. Moreover, computers are not the only devices providing Internet access. The Internet is also available via television screens, tablets and mobile phones. The most significant positive attributes of the Internet in the context of its 'relationship' with the press are the possibility of updating information in real-time and standard publication of audio-visual materials but also providing access to digital archives and interactivity (the readers' reactions may be received through e-mails or in the form of discussion contributions placed below the published materials).

3. News available everywhere: emerging trends in mobile journalism

'Mobile journalism' is a specific type of journalistic production where news in various forms (text, audio-visual recording and the like) are disseminated through the Internet and displayed on screens of portable devices, mostly mobile phones and tablets. Increasing importance of mobile journalism is associated with development of the mobile Web and innovative products offered by global telecommunication operators. According to Westlund, publishing news through mobile phones involves various ways of distributing journalistic content—from alerts sent through SMS and MMS, through web portals of the news media, to specialised mobile applications [17].

The emergence of mobile journalism is related to development and the wide public use of the mobile Internet and wireless network connection, respectively. Data by Eurostat show that in 2012, 36% of EU residents aged 16–74 were able to access the mobile Internet, while 2 years later, it was already 51%. The most frequently used Internet-connected portable communication devices include mobile phones or rather smart phones, laptops of all sizes and tablets. In 2014, the mobile Web was most used in the Nordic countries (Sweden, Denmark) and in the United Kingdom—by approximately 75% of residents aged 16–74. In contrast, in the Balkan countries (Bulgaria, Romania) and Italy, only 28% of residents were able to access the Internet outside their homes or workplaces in 2014 [8].

Reacting to the new trends in mobile publishing, Murár states that there are significant differences between designing a 'traditional' and a mobile Web—these result from technological specifications of mobile devices and take into account the ways of using portable means of communication. The decisive criterion here is simplicity, in terms of data visualisation, navigation and the content itself. The visual processing of the mobile Web is predominantly determined by displays of portable devices which are significantly smaller than desktop monitors and laptop screens of the standard size of 15.4 inches. The mobile Web also demands special forms of navigation as the readers are not able to use computer hardware such as mice. Another notable change brought by the mobile Web is the utter end of 'paper folding' that is so typical for the daily press [18]. We are nowadays unable to unambiguously identify the 'priority' Web content, since it is impossible to predict whether the users will read the news via desktops, notebooks, mobile phones or tablets. Moreover, it is also hard to estimate what type of document orientation ('landscape' or 'portrait') a specific user of a mobile device prefers.

The most typical feature of the mobile Web is the possibility of using mobile applications. These are specific parts of software designed to comply with operation and the use of mobile devices such as smart phones and tablets. A mobile application is typically downloaded and installed by a device's user. Mobile applications of newspapers and news portals are, in terms of typology, called 'mobile Web apps'. Their content is—in sharp contrast with the traditional press—multimedia and often also interactive; besides, the readers may filter the news in accordance with their own preferences. Access to the newest information is therefore instant and continual.

We point out in our previous work [5] that general trends in mobile publishing (and the very existence of digital applications designed to browse and read online newspapers via smart phones, tablets and similar devices) are linked to two basic issues that must be addressed by the content providers (media producers):

1. The first issue is associated with selection of textual and audio-visual information. These pieces of news are meant to be published online, and thus their effective organisation in the communication space is required; in other words, they have to be positioned appropriately on the displays used by the readers (e.g. computer screens, displays of smart phones or tablets). This 'information design' is basically a set of functional editing possibilities that reshape and process information used to create compact journalistic products.

2. The second issue is to create special kinds of applications that will correspond with the technical features and limitations of communication devices used to mediate the journalistic content. Focusing on interactivity and comfort of the readers (users) should be one of the publishers' priorities. In this case, we take into account mainly technological design of communication devices; it is necessary to make sure they are available to a wide spectrum of users, even to those coping with various kinds of impairment [5].

In accordance with the two categories stated above, we define the 'information design' as a general approach to content arrangement and presentation of information; its aim is to always communicate particular ideas and information clearly and effectively. Originally developed to improve the usefulness and visual attractiveness of print books and manuals, it is now just as likely to be found in the processes of production of online news published on websites [19]. The main objective of the information design—effective communication—is achieved through focusing on the information's recipient thoroughly. The given arguments suggest that information design is mostly bound to the communication content that can be processed by using questions starting with 'who', 'what' and 'how'. 'Designing information' is a process of effective presentation of visual, audio or audio-visual components in compact, integrated ways. This process minds the clear differences between using graphic elements to arrange the texts and choosing appropriate visual components (e.g. photographs) that complete the textual information (for more information, see Refs. [5, 20]).

It is obvious that the use of mobile phones has influenced the editorial practice and journalistic work significantly. In relation to this matter, Harcup observes that a mobile phone is a journalist's work tool of high importance, just as a pen and later a portable computer used

to be important in the case of previous generations of journalists. The journalistic practice employs mobile phones in relation to many everyday activities, mostly to search for information sources, record interviews and videos, create photographs as well as edit and send them. Of course, the effective use of mobile devices in the journalistic production requires new media competences: mainly the ability to seek and verify information online; editing skills associated with processing photographs, recorded sounds and videos; knowledge of online social networks and their functions and, last but not least, experience with web copywriting ([10], p. 180). However, these trends are influencing not only journalistic production but also distribution and reception of news content as well. As shown by the last year's issue of European Communication Monitor, the most comprehensive research in the field worldwide, several significant changes in contemporary communication activities related to mobile devices are occurring. The research results are based on responses by 2710 communication professionals from 43 different European countries. Apart from other essential topics associated with public information dissemination, the research report also presents a set of information and data on 'perceived importance for addressing stakeholders, gatekeepers and audiences today and in 3 years', i.e. a comparison of the current importance of modes of audience address and its perspectives or rather changes in the near future [21]. Even though face-to-face communication is currently identified as the most important with 77.6% and its importance will slightly increase to 77.9% in 2019, there are other categories to consider as progressively influential. These include online communication via websites, e-mail, intranets (now 76.9 and 82.9% in 2019), social media and social networks (76.2% in 2016, 88.9% in 3 years). However, the most significant shift in the importance of communication channels and instruments is related to category of mobile communication (phone/tablet apps, mobile websites)—from today's slightly above-average value 63.7% to the leading value of 91.2% in 2019. It is also necessary to consider the fact that the category 'press and media relations with print newspapers/magazines' is quickly losing its traditionally prominent position in the sphere of public communication (from 64.1% in 2016 to much lower value of 30.2% in 2019) ([21], p. 61). Such predictions state clearly that media professionals and organisations aiming to engage in public communication need to reconsider their current production practices and the ways they address their target audiences. It seems that some of the previously most important modes of audience address may become less effective or even unsuitable for dissemination of certain types of journalistic products towards certain segments of media audiences.

The trends of increasing amount of mobile phone users and the portable devices' general popularity have led newsrooms and editorial staffs towards developing their own mobile applications. The emergence and widespread use of 'intelligent' mobile phones have also influenced the current forms of 'citizen journalism'. As the mobile devices are equipped by modern operating systems (e.g. Windows, Android, iOS), recording technologies and Internet-connected applications, their users are capable of creating photographs and audio-visual contents of high quality that may be later used by media professionals smoothly and easily. People witnessing various kinds of events regularly send photographs and videos straight to newsrooms and news agencies, facilitating much quicker information dissemination. The reports by 'eye witnesses' thus may provide almost complete news material, which helps the journalists to make the news cheaper.

The initial emergence of content created by amateur, Internet-based journalists (i.e. user-generated content) is occasionally associated with the events of 9/11 in New York, USA, but more often in the context of publishing information about 2004 Indian Ocean earthquake and devastating series of tsunami that resulted in killing 230,000–280,000 people across 14 coastal countries. The British elite newspaper *The Guardian* first acknowledged the meaning of mobile communication as a way of obtaining information in 2002, by starting its service *Mobile Alerts* designed to inform interested readers via short text messages (SMS) related to breaking news from politics or sports. In November 2005, website of the elite British newspaper *Daily Telegraph* started to offer a project involving audio recordings of the most important daily events (prepared and read by professional journalists), becoming the first news portal to do so in the United Kingdom. The content was provided for free and its length was between 25 and 30 min. The data could be downloaded and listened to via computers, iPods or MP3 players. To expand its mobile and online services, a year later (in 2006), the renowned British news portal associated with the daily newspaper *The Guardian* decided to develop a project of publishing analyses and commentaries related to recent news and events on their website. The aim was to offer the readers as wide spectrums of opinions as possible. More than 100 commentators and experts from all fields of social life were involved. Moreover, www.theguardian.com started to offer a service named *GuardianWitness* in April 2013, providing its users with a space for publishing their own audio-visual content related to eye-witnessing experience. Another example of publishing user-generated media content is the platform *YouTube Direct* operated by the streaming giant www.youtube.com. This service allows professional editorial offices to browse, obtain and—after receiving owners' agreements—also publish user-generated videos and other audio-visual materials. The users are no more perceived as ordinary recipients; many of them are turning into reporters or photographers instead.

Slovak media have explored possibilities of mobile journalism and user-generated content thoroughly as well. A mobile application of the Slovak daily *SME* started to function in 2011. Other popular elements of mobile journalism are the citizen journalism platforms *Som reportér* [I Am a Reporter] developed by the nationwide commercial television channel *TV Markíza* and *Tip od vás* [*A Tip from You*] operated by the most read Slovak tabloid, the daily newspaper *Nový čas*. However, while news applications for mobile phones and tablets are not so special and innovative anymore, other publishing segments (e.g. academic and scholarly publishing) seem to implement such innovations quite rarely. However, the renowned academic journal from the field of media studies titled *Communication Today* seems to be an exception, the journal published by the University of SS. Cyril and Methodius in Trnava, more specifically by the Faculty of Mass Media Communication, is the first Central European academic periodical that publishes its issues also via mobile applications for iOS and Android. The journal's editor-in-chief Martin Solík explains: 'We are the first scientific journal in Slovakia or Czech Republic to publish digitally, via 'tablets' as such. The first day of being available on the App Store brought exactly 30 downloads. Our expectations had been, in fact, quite modest, as we were aware that as an academic journal, we attracted a much narrower target group than any lifestyle magazine' [22]. The application is nowadays used by more than 1500 unique readers and remains the only one of its kind, at least in terms of Central European scientific periodicals.

4. Social media as news sources

Development of online social networks was marked by technological advancements and employment of Web 2.0 in 2004. This new dynamic type of providing Web content allowed the users to create their own products and thus became very attractive also in relation to business activities. At present, a wide spectrum of social networks is available. These media 'unite' their users on basis of different communication platforms. As a general rule, we may talk about 'universal' social networks without any specific thematic (content) orientation that provide communication among individual users: *Facebook, Google+, Twitter, Instagram* or Slovak *Pokec* [*Small Talk*] may be categorised here. However, there are also various specialised social media that integrate users in accordance with their common interests and hobbies. For example, *LinkedIn* offers communication activities related to professional growth, human resources and doing business.

According to Velšic's research report, in 2012 the Slovak Institute for Public Affairs conducted a research regarding the use of social networks, related communication activities and levels of digital literacy their users reach. The research sample consisted of 1135 respondents. The highest percentage of social network users was in the group of people aged 14–24 (more than 90% of the surveyed respondents). For comparison, only 45% of respondents aged 45–54 and not more than 8% of seniors used online social media. Of course, geographic and socio-economic differences between Slovak regions played a certain role there—a lot more users of social networks lived in cities and towns than in villages and rural areas. In terms of economic activity, Slovak social media users were predominantly students (90%) but also employed people (75%), businessmen and women on maternity leave [23]. A more up-to-date statistics claims that in October 2014, *Facebook* was used by 2.2 million Slovaks, of which 1.16 million were women; moreover, 2/3 of all users were younger than 35 years old. Social media such as *Facebook* and *Instagram* were identified as a very essential part of younger generations' social life and cultural activities (almost 100% of young people used their own social media accounts) [24].

Research data originating in other EU countries clearly show that the situation there is similar to Slovakia. Spending time on social networks is one of the most frequent online activities. According to Eurostat, 46% of EU residents aged 16–74 use the Internet in order to visit social networks, mostly *Facebook* or *Twitter*. Social networks are used by at least six out of ten people in Denmark, Sweden, Hungary, Luxemburg, the United Kingdom, Island and Norway; data from the Netherlands suggest that in this country, social networks are also used widely (by 59% of Dutch respondents) [8].

Trying to understand the ways Internet users search for news and information while on social networks, Hermida states that audience behaviour varies from platform to platform, particularly between the two more important networks for news—*Facebook* and *Twitter*. On *Facebook*, he explains, news exposure and consumption are more of a by-product of spending time on the service. The incidental news exposure on *Facebook* contrasts with more purposeful news-seeking on *Twitter*. *Instagram, Tumblr* and *Snapchat* tend to attract younger users than *Facebook* or *Twitter*, although *Facebook*, *YouTube* and *Twitter* are the most important online sources for

news overall [25]. Newman, Fletcher, Levy and Nielsen interpret results of the recent study commissioned by the Reuters Institute for the Study of Journalism that aims to better understand how the news is being consumed in a range of countries (26 countries all over the world):

1. Across the entire sample, more than half of respondents (51%) say they use social media as a source of news each week. Around one in ten (12%) says it is their main source. *Facebook* is by far the most important network for finding, reading, watching and sharing news.

2. Social media are significantly more important for women (who are also less likely to go directly to a news website or app) and for the young people. More than a quarter of people aged 18–24 (28%) say social media are their main source of news—more than television (24%) for the first time.

3. Although publishers and technology platforms are pushing online news video hard for commercial reasons, the research data provide evidence that most consumers are still resistant. More than 3/4 of the respondents (78%) say they still mostly rely on text. When pressed, the main reasons people give for not using more video are that they find reading news quicker and more convenient (41%) and the annoyance of pre-roll advertisements (35%) [26].

Besides offering personal profiles of individual users, social networks also include accounts operated by commercial subjects and public institutions, firms and associations, e.g. universities. Even in the sector of education, it is crucial to employ appropriate forms of marketing communication in order to 'stay in touch' with the target audiences (see, e.g. Ref. [27]). Naturally, the 'traditional' media outlets—the press, radio stations or television channels—are no exceptions, either. The daily newspaper *SME* established its official account on *Facebook* in 2008 to provide hypertext references to the most interesting topics published on www.sme.sk and in the press version. As the communication via social media is highly interactive, the users are able to evaluate shared contributions through 'likes' and disseminate them further by 'sharing' and thus adding the content to their personal profiles. *SME*'s account on *Facebook* is watched by almost 110,000 users [28]. For comparison, the account of the daily newspaper *Pravda* is 'liked' by approximately 44,000 users [29].

The fact that social media may be defined as tools for interaction between journalists and recipients was also confirmed by research findings. Murár claims that research data gathered from 20 professional journalists show an interesting shift in the preferred forms of feedback. The 'traditional' forms of feedback (e.g. letters, phone calls) have been replaced by SMS, e-mails and reactions received through *Facebook* or *Twitter*. The social media also positively influence the overall quality of the published content as it is closely watched by the public and media producers are very well aware of that. The tendency mostly leads towards further development of journalistic reporting style and thus aims to better meet the readers' expectations and preferences, e.g. by creation of attractive headlines, shorter sentences, interesting subheads, etc. [30]. However, it is still very important to offer added value of the published news in relation to the reader—this added value decides whether a specific contribution will be discussed further or not. After all, *The Guardian*'s digital chief Aron Pilhofer says: 'I feel

very strongly that digital journalism needs to be a conversation with readers. This is one, if not the most important area of emphasis that traditional newsrooms are actually ignoring. You see site after site killing comments and moving away from community—that's a monumental mistake. Any site that moves away from comments is a plus for sites like ours. Readers need and deserve a voice. They should be a core part of your journalism' [31].

The virtual environment created by online social media is also special because of the ways it encourages people to 'join in', to participate in various activities bound to the social network. Albinsson and Perera see this issue from the perspective of consumer activism: 'The virtual world has undeniably revolutionised consumer activism. Not only is there a vast amount of information at the tip of one's fingers, there is also the capacity to send out mass e-mails, share videos and sign petitions with the click of a button. Thus, with the advent of template e-mails and the 'share' or 'forward' buttons, consumer action has become much less costly in terms of resources, including time, money, and thought' [32]. These facts must be acknowledged by companies selling their products through social networks but also by those who financially rely on additional dissemination of their contents thanks to massive 'sharing'. Follrichová observes that online advertisers, knowing what pages are visited by their target audiences most often and thus able to obtain geographical 'coordinates' of their customers, may address the customers in more individualised and accurate ways. However, this kind of information is often gathered not by the content producers but rather by commercial IT companies [33].

Newman discusses the emerging trends in news dissemination through social networks by mentioning various new features and elements employed by the world's most successful social networks. In 2015, the author mentions, *Snapchat Discover* led the charge in January by inviting publishers to create 'native' and mobile experiences on their platform. *Facebook* was quick to follow with *Instant Articles* designed to create a faster experience and promised publishers greater reach along with up to 100% of advertising revenues. Furthermore, the relaunched *Apple News* also required media companies to publish content directly into their platform. However, *Twitter Moments* is mostly about creating native experiences but interestingly involves reverse publishing that content within news sites to attract more people to *Twitter* [34]. As Newman remarks, for publishers, these moves raise huge dilemmas—if more consumption moves to platforms like *Facebook*, *Twitter* or *Snapchat*, it will be 'harder to build direct relationships with users and monetise content' ([34], p. 4). But, on the other hand, if they do nothing, it will be almost impossible to engage mainstream audiences who are spending more time with these platforms.

These new ventures are only a few examples of how the social networks compete to attract other media producers, advertisers and, most importantly, media audiences deciding whether to look for news and opinions related to the current affairs predominantly on *Facebook, Twitter, Snapchat* or other popular social networks. It is beyond any doubts that the online media and Internet-connected communication forms are transforming the traditional patterns of journalistic production bound to the press and information offered by radio or television. The evolution of media and technologies they use is taking a huge part in the emergence of new forms of arranging and disseminating the media content. Considering today's communication tendencies, it is no surprise that many users of the online social networks are able to 'keep up' with the latest information regarding domestic and foreign affairs without buying one issue of a newspaper or visiting a single online news portal.

5. On innovation in journalism

Innovation is nowadays perceived as one of the most crucial tools for social and economic development of the society. Implementation of specific innovations is anchored in many strategic documents, national and international alike (see, e.g. Ref. [35]). Innovations in terms of journalism are related, on the one hand, to the use of the Internet in the processes of creating, distributing and searching for the journalistic content; on the other hand, innovation activities also involve organisational measures associated with journalistic work, management of human resources and new business models implemented by publishing houses and editors. Heinrich points out that these innovations 'not only alter journalistic practice as such, but challenge journalism to incorporate cross-platform networks in various stages of the process of news production' ([15], p. 2). A multiplatform structure of journalism is evolving. Pavlik reminds that journalism and the media as such are surrounded by many changes and shifts in media logic determined by technological advancements and economic uncertainty on a global scale. Innovation, according to the author, is the key factor influencing 'vitality' of the media, and it builds upon four basic principles:

1. Research and development

2. Freedom of expression

3. Objective and impartial news-making

4. Complying with ethical codes and normative frameworks [36]

As of innovations in terms of journalism, it seems that the shifts are manifesting themselves predominantly within the sector of online journalism, especially mobile applications (e.g. the use of interactive design elements and the responsive Web, thanks to which the content easily adjusts itself to the device that is used to access information). Online news portals are following these trends as well, for instance, by adapting their structure and composition to the technological means of communication in order to wholly use their advantages and make the content easier to access. Arrangement of texts in the online issues is very different in comparison with the traditional press but also with 'newspapers' designed to mobile phones and tablets. Nielsen's long-term research on the issues related to reading web pages claims that the processes of reception on the Internet significantly differ from those bound to reading the press. The results of the author's 'eye-tracking' study involving 232 individual users suggest that an 'F-shaped' strategy is employed here:

• Users start to 'scan' the page through horizontal eye movements, generally at the top.

• They focus on the middle part of the content.

• At last they move their eyes vertically, top to bottom.

According to Nielsen, the users of the Web tend to 'scan' information (79%) instead of reading them (16%), focusing on the first and last letters in the individual words [37].

Implementation of strategic innovation in journalism has encountered serious problems as well, since business activities bound to journalism often aim to achieve rather short-term objectives. Even today's print newspapers (and the print media in general) place emphasis on meeting deadlines (these are based on predetermined production cycles) and fulfilling strategic plans related to advertising sales. It means that many innovation activities are only short-lived. On the other hand, some innovative production procedures have resulted in many shifts and changes in editorial practices. These include optimisation of work, new publication strategies associated with the Internet and mobile devices ('mobile first'), content creation that corresponds with demands of the used media or employment of *Snapchat* in terms of journalistic work. As Eldridge summarises, it does not matter whether we are discussing journalistic bloggers on 'J-blogs', journalists' use of social media, interactive live blogs or the work of more activist-oriented interloper media such as *WikiLeaks*; the work of new digital journalists is increasingly commonplace and very visible ([3], p. 45).

Quandt and Singer suggest that 'journalism in the future is both distinct from other forms of digital content and integrated with those forms to a far greater extent than in either the past or the present'. The authors also remind that the mainstream news organisations 'still wield enormous power through both the collective capabilities of their staffs and their own economic heft within their communities—professional and commercial power that individuals simply do not possess and, as individuals, will not possess in the foreseeable future' [38].

6. Conclusion

Focusing on journalism and its place in the globalised society of the twenty-first century, we have to conclude that the processes of making news and publishing opinions on public affairs are transforming radically. McNair notes that the dominant model of journalism of the twentieth century, which used to be embodied by the professional journalists producing objective and reliable information, is currently fragmented due to the influence of new media and technologies [39]. Despite many pessimistic visions proposed by other authors, McNair does not worry about the future of journalism itself: 'Journalism will not die out in this environment, because it is so needed on so many social, political and cultural levels. Journalism has a future. It will evolve, as it has evolved already, from the antique styles of the early newsbooks to the gloss and sheen of the modern prime time news bulletin… But how will it change and will the change be for the better, or for the worse?' ([39], p. 21). However, other forms of journalism, e.g. those related to the so-called citizen journalism, have changed as well. It seems that almost anyone who is able to access the Internet is also free to publish and share their opinions and may thus provide a certain (critical) alternative to the dominant mainstream media. Many Internet users belonging to younger and middle-aged generations have adopted the products of citizen journalism as their key and regular information sources.

We are witnessing the evolution of new media outlets; these development tendencies are manifesting themselves across all spheres of the industrial segment of journalism, on a global scale. Worldwide economic indicators associated with the press market—most of all newspaper

circulation and advertising sales—suggest that the crisis scenarios, according to which the traditional press will cease to exist completely, are most likely exaggerative. However, we have to accept the fact that the dominant position of newspapers as the most prominent information sources is gone forever. Along with analysing the technical and technological shifts in news-making, it is also necessary to constantly reconsider the readers' preferences. While the traditional press is still popular with the middle-aged and older generations of media recipients, the young people seem to abandon the long-existing means of mass communication in favour of small screens of their mobile phones or tablets; almost all of them watch or follow digital information sources and accounts of the mainstream (and often also alternative or citizen) media producers available via social networks. Online communication's importance is growing significantly. This development tendency will only intensify in the near future—the previously mentioned research data by European Communication Monitor 2016 predicting future development of communication trends claim mobile communication is to become the most important form of audience address in 2019, closely followed by social media and social networks, online communication via websites, e-mail, intranets and press and media relations with online newspapers/magazines ([21], p. 61). Sociocultural factors, rituals and habits of the readers are also of high importance. We may state that the key to economic success and popularity—regardless of which kind of media or distribution channels we are talking about—always lies in understanding the audiences and their behavioural patterns, expectations and needs.

The need for creating and implementing innovations and innovative processes is one of the most essential perspectives bound to today's journalistic production. The issue of universal design of communication devices is being discussed very often; it is true that journalistic products should be disseminated via user-friendly platforms and interfaces so that all people, including those suffering from serious physical or mental impairments, would be able to access them easily. Contemporary journalism needs to implement innovations very quickly; online versions of the press and mobile applications have to closely watch all emerging trends in digital communication in order to maintain their competitiveness. It seems that social media are one of the most important communication spaces of today. Their future development will—most likely—determine new forms and variations of journalism, whether those bound to trained professionals or those created and disseminated by other types of producers (e.g. citizen journalists and the like). As noted by Pravdová, the first places in the script—regardless of how and where the journalistic contents are published—seem to be reserved for topics which are more entertaining or shocking for the readers, i.e. those which contain more tabloid than serious traits. The authors seldom have the ambition to offer traditional journalistic 'bonuses' (clarification of causes, consequences, relations and connections); instead, they tend to base the production and interpretation framework of the acquired information on specific types of information-entertainment hybrids. That is why the academic discourse on the related topics has been rather critical and sometimes even unable to address the ongoing changes objectively [40]. According to Eldridge, the emphasis on novelty and revolution 'lent itself to descriptive writing, and technological shifts and radical change were discussed from this 'novelty' perspective'. The author perceives this focus as misleading and insufficient for assessing the impact on journalism and journalism studies that accompanied 'the digital turn' ([3], p. 46).

Today's practices employed by Slovak newsrooms and editorial teams suggest that the ever-growing portfolio of online activities is very demanding in terms of human resources—'multimedia journalists' and highly media literate professionals are needed urgently. However, the current economic situation of the newspaper publishers does not favour the traditional press, and many skilled journalists abandon their hard-won editorial positions to succeed in different and more financially interesting professions (e.g. they become PR managers, spokesmen or even politicians). Editorial offices therefore strive to find an optimal set of economic and personal interconnections between their print and online redactions, mostly with regard to publishing houses' priorities and economic imperatives. Since this transformation is continual and may take long years, only the future will show whether their current solutions are adequate and prospective or not.

Acknowledgements

Author details

Ján Višňovský* and Jana Radošinská

*Address all correspondence to: jan.visnovsky@ucm.sk

Faculty of Mass Media Communication, University of SS. Cyril and Methodius in Trnava, Trnava, Slovak Republic

References

[1] Radošinská, J. Alternatívna, teda v širokom zmysle iná ako mainstreamová tlač. In: Vojtek, J, Višňovský, J, Radošinská, J, Mirvajová, V, editors. Teoreticko-historické aspekty typológie moderných britských novín. 1st ed. Trnava: Fakulta masmediálnej komunikácie UCM; 2015. pp. 141–184. 9788081057328.ch14

[2] Gant, S. We're All Journalists Now: The Transformation of the Press and Reshaping of the Law in the Internet Age. 1st ed. New York: Free Press; 2007. 256 p. 9780743299275

[3] Eldridge II, SA. The digital journalist: The journalistic field, boundaries, and disquieting change. In: Eldridge II, SA, Franklin, B, editors. The Routledge Companion to Digital Journalism Studies. 1st ed. New York: Routledge; 2017. pp. 44–54. 9781138887961.ch4

[4]   Knight, M, Cook, C. Social Media for Journalists: Principles and Practice. 1st ed. London: Sage Publications; 2013. 288 p. 9781446211137

[5]   Višňovský, J. Print journalism in the era of electronic media. Mediterranean Journal of Social Sciences. 2015;**6**(**6 suppl**. **2**):48–54. s2039–9340

[6]   Mendelová, D. Inovácie v mediálnom prostredí. In: Gibarti, J, editor. Otázky médií dnešní doby. 1st ed. Ostrava: Anagram; 2015. pp. 81–105. 9788073422820

[7]   Roubal, O. Dictatorship of fast-running time within the society of experience. Communication Today. 2014;**5**(**1**):86–91. s1338–130X

[8]   Eurostat. Štatistika Informačnej Spoločnosti – Domácnosti a Jednotlivci. [Internet]. 2015. Available from: http://ec.europa.eu/eurostat/statistics-explained/index.php/Information_society_statistics_-_households_and_individuals/sk [Accessed: 10 December 2016]

[9]   Russell, A. Networked: A Contemporary History of News in Transition. 1st ed. Cambridge: Polity Press; 2013. 216 p. 9780745649528

[10]   Harcup, T. Oxford Dictionary of Journalism. Oxford: Oxford University Press; 2014. 355 p. 9780199646241

[11]   Bednář, V. Internetová publicistika. 1st ed. Praha: Grada Publishing; 2011. 216 p. 9788024734521

[12]   Osvaldová, B. Změnil internet žurnalistické standardy a žánry? In: Osvaldová, B, Tejkalová, A, editors. Žurnalistika v informační společnosti: Digitalizace a internetizace žurnalistiky. 1st ed. Praha: Karolinum; 2009. p. 105–112. 9788024616841.ch7

[13]   Van der Wurff, R. The impact of the internet on media content. In: Küng, L, Picard, RG, Towse, R, editors. The Internet and the Mass Media. 1st ed. London: Sage Publications; 2008. p. 65–85. 9781412947350.ch4

[14]   Allan, S. Introduction: Recrafting news and journalism. In: Allan, S, editor. Routledge Companion to News and Journalism. 1st ed. Abingdon: Routledge; 2010. p. XXV–XLVII. 9780415669535.ch1

[15]   Heinrich, A. Network Journalism: Journalistic Practice in Interactive Spheres. 1st ed. New York: Routledge; 2011. 284 p. 9781138806474

[16]   Čuřík, J. Multimediální novinář v redakcích *SME* a *Mladé fronty Dnes*. Otázky Žurnalistiky. 2014;**57**(**1-2**):28–46. s0322–7049

[17]   Westlund, O. Mobile news. A review and model of journalism in an age of mobile media. Digital Journalism. 2013;**1**(**1**):6–26. s2167–0811

[18]   Murár, P. Mobilný web a jeho vplyv na internetovú žurnalistiku. In: Magál, S, Mikuš, T, Petranová, D, editors. Limity mediálnej internetovej komunikácie. 1st ed. Trnava: Fakulta masmediálnej komunikácie UCM; 2011. pp. 31–52. 9788081052545

[19]   Jones, S, editor. Encyclopedia of New Media. London: Sage Publications; 2003. 532 p. 9780761923829

[20] Višňovský, J. Aktuálne otázky teórie a praxe žurnalistiky v ére internetu. 1st ed. Trnava: Fakulta masmediálnej komunikácie UCM; 2015. 349 p. 9788081057427

[21] Zerfass, A, Verhoeven, P, Moreno, A, Tench, R, Verčič, D. European Communication Monitor 2016. Exploring Trends in Big Data, Stakeholder Engagement and Strategic Communication. Results of a Survey in 43 Countries. Brussels: EACD/EUPRERA, Quadriga Media Berlin. [Internet]. 2016. Available from: http://www.zerfass.de/ECM-WEBSITE/media/ECM2016-Results-ChartVersion.pdf [Accessed: 16 February 2017]

[22] Solík, M. iToday. In: Durková, K, Bobovnický, A, Zaušková, A, editors. Inovácie a vedo-mostná spoločnosť: Digitálny marketing – udržateľný rast a návrat investícií. 1st ed. Trnava: Fakulta masmediálnej komunikácie UCM; 2012. pp. 90–98. 9788081054549

[23] Velšic, M. Sociálne siete na slovensku. [Internet]. 2012. Available from: http://www.ivo. sk/buxus/docs//publikacie/subory/Socialne_siete_SR.pdf [Accessed: 10 December 2016]

[24] Effectix. Na sociálnych sietach stále prevládajú mladí. [Internet]. 2014. Available from: http://www.dobrenoviny.sk/c/36786/na-socialnych-sietach-stale-prevladaju-mladi [Accessed: 10 December 2016]

[25] Hermida, A. Social media and the news. In: Witschge, T, Anderson, CW, Domingo, D, Hermida, A, editors. Sage Handbook of Digital Journalism. 1st ed. London: Sage Publications; 2016. pp. 81–94. 9781473906532.ch6

[26] Newman, N, Fletcher, R, Levy, DAL, Nielsen, RK. Reuters Institute Digital News report 2016. [Internet]. 2016. Available from: https://reutersinstitute.politics.ox.ac.uk/sites/ default/files/Digital-News-Report-2016.pdf [Accessed: 14 January 2017]

[27] Čábyová, L, Ptačin, J. Benchmarking comparison of marketing communication of uni-versities in Slovakia. Communication Today. 2014;**5**(**1**):54–69. s1338–130X

[28] *SME*. [Internet]. 2017. Available from: https://www.facebook.com/sme.sk/?fref=ts [Accessed: 14 January 2017]

[29] *Pravda*. [Internet]. 2017. Available from: https://www.facebook.com/pravdask/?fref=ts [Accessed: 14 January 2017]

[30] Murár, P. Social media audience's influence on journalism. European Journal of Science and Theology. 2014;**10**(**suppl**. **1**):185–193. s1841–0464

[31] McNally, P. Guardian Digital Chief: Killing Off Comments 'a Monumental Mistake'. [Internet]. 2015. Available from: https://www.newsrewired.com/2015/02/03/guardian-digital-chief-killing-off-comments-a-monumental-mistake/ [Accessed: 11 January 2017]

[32] Albinsson, PA, Perera, BY. Consumer activism through social media. Carrots ver-sus sticks. In: Close, AG, editor. Online Consumer Behavior: Theory and Research in Social Media, Advertising and E-tail. 1st ed. New York: Routledge; 2012. pp. 101–131. 97818489698.ch5

[33] Follrichová, M. Printové médiá v digitálnom veku a vysokoškolská príprava žurnalistov. In: Horváth, M, editor. 60 rokov vysokoškolského štúdia žurnalistiky na Slovensku. 1st ed. Bratislava: Stimul; 2013. pp. 158–171. 9788081270901.ch8

[34] Newman, N. Journalism, Media and Technology Predictions 2016. [Internet]. 2016. Available from: https://reutersinstitute.politics.ox.ac.uk/sites/default/files/Journalism,%20media%20and%20technology%20predictions%202016.pdf [Accessed: 18 January 2017]

[35] Zaušková, A, Madleňák, A. Communication for Open Innovation: Towards Technology Transfer and Knowledge Diffusion. 1st ed. Łódz: Księży Młyn Dom Wydawniczy Michał Koliński; 118 p. 9788377292488

[36] Pavlik, JV. Innovation and the future of journalism. Digital Journalism. 2013;**1**(**2**):181–193. s2167–0811

[37] Nielsen, J. Designing Web Usability: The Practice of Simplicity. Indianapolis: New Riders Publishing; 1999. 432 p 9781562058104

[38] Quandt, T, Singer, JB. Convergence and cross-platform content production. In: Wahl-Jorgensen, K, Hanitzsch, T, editors. The Handbook of Journalism Studies. 1st ed. New York: Routledge; 2009. pp. 130–146. 978-0805863437.ch10

[39] McNair, B. The transformation of media and journalism in Central and Eastern Europe after 1989: From control to chaos? In: Jirák, J, Köpplová, B, Kollmanová, DK, editors. Médiá dvacet let poté. 1st ed. Praha: Portál; 2009. pp. 12–23. 9788073674465.ch2

[40] Pravdová, H. Post-democratic and post-journalistic tendencies in post-millennium era. European Journal of Science and Theology. 2014;**10**(**suppl**. **1**):71–80. s1841-0464

Mindfulness Based on the Perceptive Consciousness as Pedagogical Link Between Technology and Education

José Jesús Vargas Delgado

Additional information is available at the end of the chapter

Abstract

Our research is focused on the effects of an experimental study that examines in depth the discovery of a new methodological paradigm of teaching and esthetic-visual deconstruction, called Mindfulness Composition in Cervantes. Our research line is based, on the one hand, on the esthetic processes of contemporary art by Cervantes of persuasive graphic and visual communication. On the other hand, it is based on Mindfulness as a sophisticated method that allows us to find a way to calm and rescue the potential and maximize the value and effects of communicative and artistic compositions. Innovative analytical method of the communicative process of visual artistic communication establishes, and raises, in our chapter, a connection with sophisticated concepts of Mindfulness applied to visual and graphic composition, efficient, and its application to contemporary art in the theme of Cervantes.

Keywords: Mindfulness, perceptive research, meditation

1. Introduction

The result is an innovative teaching methodology that develops the fundamental conceptual keys to achieve serene, conscious, and profound processes in efficient communication with the receiver. Therefore, the objective of the chapter is positioned in the development of the main inferences and conclusions, qualitative and quantitative, of a transforming method of production of conscious production and its application in contemporary art. In the present study, the main keys of the composition Mindfulness in Cervantes are presented, based on the communicative efficiency and the parameters of creation, that try to connect with the perception of the authentic communicative parameters.

The four essential pillars of the conceptual temple of our investigation are:

1. Explanation of the research Mindfulness and conscience applied to Cervantes_MBCP.

2. Application of the MBCP program. Part of the MBSR program of Mindfulness-Based Stress Reduction Dr. Jon Kabat-Zinn of the University of Massachusetts Medical Center [1].

3. Purpose of application study: Svetlin Vassilev, Bulgarian illustrator who gives some inspiring illustrations of the work Don Quixote de Mancha [2].

4. Investigate the application of the MBCP program to the perceptive consciousness, and the comprehensive depth of the art inspired by Cervantes [3]. **Figure 1** shows an illustration of the effects of meditation. Prefrontal cortex lateral dorsum.

Figure 1. Effects of meditation. Prefrontal cortex lateral dorsum. Own elaboration.

2. Purpose of study

Our object of study for the application of our program MBCP is the illustrator Svetlin Vassilev. The illustrator was born on May 14, 1971, in Rouse, Bulgaria. He has illustrated more than 20 books. During his artistic trajectory, he has illustrated a wide variety of picture books, some of the classics and some of the modern authors. In 2004, he was awarded the State Child Honor Award for the illustration of Don Quixote de la Mancha.

The artistic exhibitions of Svetlin, which will focus our research for the application of our program MBCP, are 10 illustrations on the subject of Don Quixote de la Mancha. **Figure 2** shows 10 illustrations chosen for the applied research of our MBCP program.
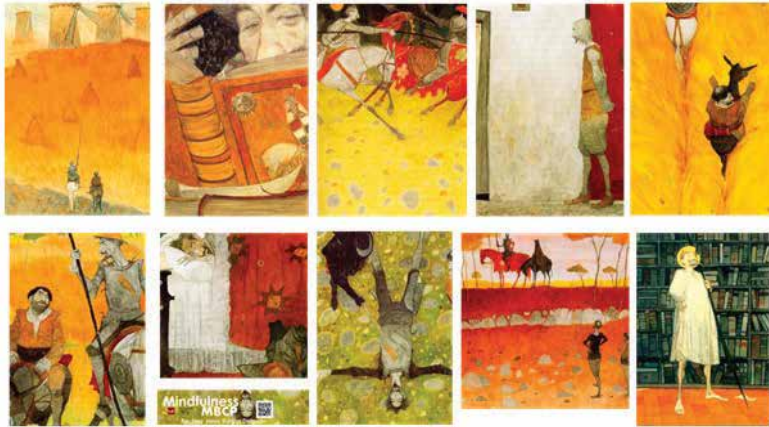
Figure 2. Composition of the 10 pieces analyzed in the application of our MBCP research. Own elaboration.

3. Mindfulness

Mindfulness is a quality of the mind or rather the intrinsic capacity of the mind to be present and conscious at a given moment, in an instant in which body and mind are totally tuned in a single lightning of present reality. Full presence and open awareness are combined in one moment in our mind/body/spirit. It is that quality that is unique to any human being but has been the subject of study mainly in the Eastern paradigm. Experience fully focused on the moment. Mindfulness focuses on the formalization of directing our attention to the process, carrying out a technique of energetic awareness. The sacred conscious process between stimuli, whether internal or external, and responses, internal or external. Creating a suggestive time to respond more appropriately. Much more skillfully, much more virtuously, and much more just. And the levels for perceiving and esthetic deepening are much more transcendent. Therein lies the essence of our program given that when our mind is calm in a perceptive process of maximum serenity and self-connection, the perceptive and compositional processes penetrate into a state of full consciousness that allows for a series of measurably high and conscious effects.

The stimulation of this space engenders a greater capacity to establish the most virtuous response. It is the intentional creation of a venerable fragmentation that distances us from automatic responses based on reaction and experiential rationality. Awakening an infinite and conscious firmament between the stimulus and the response allows us to evoke our ability to solve in a much more awake way, avoiding automated responses. Cognitive automotive that is based, fundamentally, on a dichotomous movement, whose base is purely hedonistic. Through the practice of Mindfulness, the ability to remain present with an unalterable equanimity in the face of all experience or stimulation (both pleasant and unpleasant, of internal and external origin) develops, so it stops responding with greed and aversion, remaining immobile, attentive, calm, and serene. It is, therefore, a stage of conscious improvement where

we do not let ourselves be dragged by our thoughts and emotions, it simply allows us to be present and attentive in that space of calm, to be able to emit the response in a much more lucid and virtuous way. In this space is positioned the innovative method of Creativity Mindfulness (CMF) that we present.

It is important to point out six key conceptual aspects that define "it is not Mindfulness" to be able to deeply understand its essence [4]:

• It is not a religion.

• It is not a new "new age" system.

• It is not about putting your mind blank. No one is capable.

• It is not a system to escape or be absent. The decisions you have to make are at this time.

• It is not an alternative medicine.

• It is not just relaxation.

Through daily meditation, our brain experiences large and measurable changes in 8 weeks of application. **Figure 3** shows a composition of the concept of Mindfulness.

A great deal of scientific research demonstrates the enormous interest of the scientific community in this interesting sphere of knowledge and its infinite spaces of application.

The eight essential Mindfulness attitudes to carry out your application are as follows:

1. Do not judge. Not to judge oneself, this is how one learns not to judge others. Do not judge the experience that is presented.

2. Patience. The complete opening to the moment requires patience, to accept that each event happens at its own pace.

3. Beginner's Mind. Experience every moment and experience as if it were the first time.

4. Trust. Learning to trust oneself, without burdening with what has previously been lived.

Figure 3. Graphic composition of the concept of Mindfulness. Own elaboration.

5. Do not commit to the effort. Do not be dazzled in doing and giving more importance to being. Do not make an excessive effort that carries tension.

6. Acceptance. By not judging what we observe, thoughts, feelings, and experiences, we learn to accept them.

7. Release. Let it out. Do not cling to experiences or people of the past.

8. Kindness. Connecting with the frequency of kindness and compassion at every instant allows us to attract more kindness and perceptual abundance [5].

4. Mindfulness applied

We can locate infinity of spheres where Mindfulness can be applied. Among others, we indicate some of the spheres in which we can find an interesting application:

- Mindfulness applied to sport.

- Mindfulness applied to the academic sphere.

- Mindfulness applied to emotional intelligence.

- Mindfulness applied to leadership and managers.

- Mindfulness applied to creativity.

- Mindfulness applied to pain.

- Mindfulness applied to the company.

- Compositional Mindfulness. MBCP Program. Mindfulness based on the perceptive consciousness. **Figure 4** shows a graphic composition of Mindfulness applications.

We will focus on the deepening and pragmatic development of the last sphere of application: Mindfulness Composer. MBCP Program. Mindfulness based on the perceptive consciousness. An unprecedented and absolutely innovative program applied to artistic perception. A program that allows us to verify the quantitative and qualitative effects of the application of our program in the perception before a work of art. **Figure 5** shows a graphical composition of the experiment to 12 subjects in each research group.

Figure 4. Graphic composition of Mindfulness applications. Own elaboration.
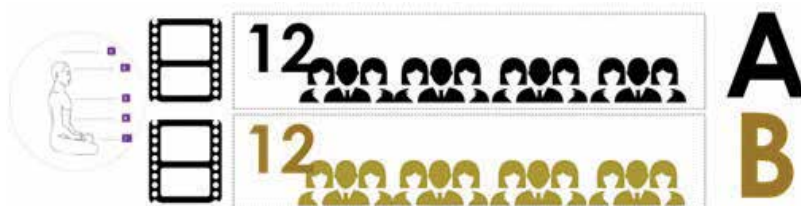
Figure 5. Graphical composition of the experiment to 12 subjects in each research group. Own elaboration.

4.1. Mindfulness composer

MBCP Program. Mindfulness based on perceptive awareness. Our program has its origin in a previous research, which led to a doctoral thesis that demonstrated the importance of a series of perceptive parameters for the creation of an analytical program design to deepen the essence of graphic and visual creativity. A program to take perceptive awareness of the elements of construction of an artistic message. **Figure 6** shows a cover of the book of the doctoral thesis of Dr José Jesús Vargas Delgado.

Our research starts from the following general hypothesis: When we connect without judgment, attentively to the present moment, with neutral and observant mind with our thoughts, emotions, and sensations (body), our ability to delve into the prescriptive effects of a work of art is much more deep. **Figure 7** shows an image of the starting hypothesis in research.

4.2. MBCP program level I

The application of our program is based on the creation of two research groups in which to apply our program: Mindfulness Composer. MBCP Program. Mindfulness based on the perceptive consciousness. Application to illustrations by author Svetlin Vassilev. Our research to demonstrate our hypothesis has created an experimental design through the application of two research groups.

- Group A: Control group, formed by 12 people, where the program is not applied but has important functionality in the experiment to control its application.

- Group B: Program application group (MBCP program application), consisting of 12 people (with sample representation), to whom the experiment is applied. **Figure 8** shows a graphical composition of the experiment to 12 subjects in each research group.

Through the application of MBCP program application, with a Taquitoscope that is shown to both group (A and B) the 10 illustrations with a time of 60 s. Technical data of the application of the research application: (1) 60 s per piece and (2) Application of the tachytoscope (60 s per piece)

Group A: Control group (without MBCP application).

Group B: Group application program (MBCP program application).

Quantitative and qualitative questionnaire to analyze:

- Variable attention.

Figure 6. Cover of the book of the doctoral thesis of Dr José Jesús Vargas Delgado. Own elaboration. Book Cover: VARGAS, José Jesús, Analysis of Graphic Advertising Communication: Deconstruction of graphic communication efficiency: innovative teaching method in the analysis and construction of advertising messages. Editorial: Vision Books. Madrid. 2012.

- Memory.

- Depth of perception. **Figure 9** shows a graphic image of experimental Group B.

Figure 7. Image of the starting hypothesis in research. Own elaboration.

Figure 8. Graphical composition of the experiment to 12 subjects in each research group. Own elaboration.

Application of research to Group A:

1. Brief explanation of the subjects to be known and a brief explanation of the experiment.

2. The MBCP program is not applied.

3. Projection of the 10 pieces of Don Quixote by Svetlin Vassilev.

4. 1 min per piece.

5. 10 s interval.

6. We passed a questionnaire to measure:

• Thoughts.

• Emotions.

• Body sensations that have generated.

• Transmissions of content of the work. **Figure 10** shows a graphic image of experimental Group A.

Application of research to Group B:

1. Brief explanation of the experiment and what is Mindfulness.

2. Apply 15 min of Mindfulness in breathing.

• Attentional connection with thoughts.

• Attentional connection with emotions.

Figure 9. Graphic image of experimental group B. Own elaboration.

Figure 10. Graphic image of experimental group A. Own elaboration.

- Attentional connection with bodily sensations.

4.3. MBCP program level II

1. Brief explanation of what is Mindfulness.

2. 4-week Mindfulness program.

- Body scan_body_scan.

- AOB (Awareness of Breath) Full attention on breathing.

- Emotional regulation based on Mindfulness.

- Formal practice: Daily meditation.

- Informal practice: Mindfulness in everyday life.

4.4. MBCP program level III

1. Brief explanation of what is Mindfulness.

2. 8-week Mindfulness program.

- Body scan_body_scan.

- AOB Full attention on breathing.

- Emotional regulation based on Mindfulness.

- Formal practice: Daily meditation.

- Informal practice: Mindfulness in everyday life.

- Outline of the foot series. MBCP.

5. Conclusions

Once we have applied our research to both groups A and B and have been able to analyze the quantitative and qualitative questionnaires, we can reach the following conclusions:

- Mindfulness application for the enhancement of perceptual deepening.

- By connecting without judgment with our thoughts, emotions, and bodily sensations our capacity with the esthetic exterior increases considerably.

- Increase of 25% of the attention, memory, and understanding elements.

- Qualitative increase of the connection with the work through the thoughts.

- Qualitative increase with the work through the connection with the emotions. Qualitative perceptual depth.

- Qualitative increase of the connection with the work through the emotions.

- Quantitative perceptual depth. **Figure 11** shows a graphic image of the effects of the application of meditation in research.

Figure 11. Graphic image of the effects of the application of meditation in research. Own elaboration.

Author details

José Jesús Vargas Delgado

Address all correspondence to: jjesus.vargas@universidadeuropea.es

Universidad Europea de Madrid, Madrid, Spain

References

[1] Mindfulness-Based Interventions in Context: Past, Present, and Future [Internet]. 2003. Available from: http://onlinelibrary.wiley.com/doi/10.1093/clipsy.bpg016/full [Accessed: 24 December 2016]

[2] Don Quixote by Svetlin Vassilev [Internet]. 2013. Available from: https://cizgilimasallar. blogspot.com.es/2013/01/svetlin-vassilev-don-quixote.html [Accessed: 24 December 2016]

[3] Vargas Delgado, José Jesús. MBCP program to the perceptive consciousness, and the comprehensive depth of the art inspired by Cervantes. In: International Congress. The reception of Cervantes in the XX and XXI Centuries. Myths and legends; 5–7 October 2016

[4] Saki Santorelli F. MBCP program to the perceptive consciousness, and the comprehen-
sive depth of the art inspired by Cervantes. In: International Congress. The reception of
Cervantes in the XX and XXI Centuries. Myths and legends; 5–7 October 2016

[5] Mindfulness: Diverse Perspectives on Its Meaning, Origins and Applications [Internet].
2013. Available from: https://books.google.es/books?id=8UKPAQAAQBAJ&printsec=fr
ontcover&hl=es&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false [Accessed:
24 December 2016]

Mixed Messages for Our Next Generation of Scientists

Donna Farland-Smith

Additional information is available at the end of the chapter

Abstract

Scientists have been in the media ever since Frankenstein in 1931. Today's youth may not have seen the original movie or read the book, but they have seen cartoon reiterations of the famous classic as the work has inspired numerous films, television programs, video games, characters in books and movies. The concept of the "mad scientist" creating a creature, monster, or weapon that eventually falls out of his control, leading to the scientist's eventual defeat or ruin, is a common theme in science-fiction and comic books. Draw-A-Scientist protocols have been utilized by science education researchers to investigate learners' perceptions of scientists. This chapter discusses historical perspectives of scientists in the media, the methods for analyzing students' perceptions of scientists and how aspects of their illustrations relate students' perceptions of scientists. The discussion presented here is framed in the context in which young children hold a range of perceptions that are based on cultural influences, and sometimes these images are limited, and sometimes they compete within the individual. The position of this author is that each of these three are interconnected with the others, support each other, and must be considered along with students' cultural background and science identity if these illustrations are to fulfill any promise of its utility for research or instructional purposes.

Keywords: illustrations, perception, representations, science, scientists

1. Introduction

Over the last hundred years, "media" has grown to be a broad term to include television, movies, internet and books [1–6]. In this chapter, the term "media" is limited to include both print and graphic forms of communication. As media becomes increasingly accessible, these forms of communication have become increasingly pervasive.

The public perception of scientists can be traced back to alchemists in mid evil times [7]. Another wide-spread popular culture influence was Mary Shelley's novel *Frankenstein* in terms of the "mad scientist because the myth dealt with new scientific knowledge and fears of how this knowledge might be used" [7]. This stereotypic image of the scientist gained worldwide status from a number of international studies [8–15]. For example, Chambers [8] collected children's pictures of scientists in the US and Australia and Canada [11]; in Ireland [12, 13]; in the UK [14]; in Korea [9]; in Taiwan [15]; and in Hong Kong [10].

1.1. Scientists in trade books

In terms of how scientists are represented in print media, Farland [4] concluded that some third graders' perceptions of scientists can be broadened based on their weekly exposure to non-fiction historical-based trade books depicting the work of scientists. Other DAST research [2] has suggested texts can send messages to females that the math or science contributions of their gender are not as worthy as that of their male counterparts. In an extensive review of five widely used seventh grade life science texts, Potter and Rosser [16] reported textbooks were gender biased with regard to pictures, text, language and accomplishments of individuals. Accomplishments of females were either missing, trivialized or criticized. Also noted was a lack of topics of particular interest to women, consistent use of occupational stereotypes, a predominance of pictures with males, and males displayed in active roles while females were presented in passive roles. Gender portrayals in books have been hypothesized to help children develop a sense of their own gender role and gender appropriate behaviors [17].

A recent study [18] examined the visual representations of scientists in NSTA's Outstanding Trade Books Awardees from 2014 to 2016. Results revealed that many of the books, more than half did not include any visual representations of scientists, and those that did significantly reinforced the misconception that scientists are males who are Caucasian. Teachers who rely on the yearly list of recommended trade books from NSTA's to supplement their instruction may unwittingly reinforce or promote the idea that only Caucasian males can be scientists through the selection of these books for their classrooms. Thus, teachers, parents, and library, media specialists should be aware of common stereotypes and misconceptions about scientists appearing in children's literature. Such misconceptions may cause students' to develop a narrow, erroneous view of the appearance of scientists.

Frankenstein includes an example of a stereotypic scientist in the movies, today's efforts have changed dramatically with a television show for preschoolers called *Sid the Science Kid. Sid the Science Kid* revolves around Sid and a specific question he asks to launch each episode. Sid wakes up each day with a question on his mind. He takes this question to his family first at breakfast. Then, as he prepares for school, he brings this question to the playground at pre-school where he begins formalizing his research into the actual exploration phase by creating a survey with his friends' responses. His teacher, Susie, is ready, willing and prepared to investigate whatever particular question he has on his mind for that day at school. At pre-school, the students investigate the question in the classroom or on the playground. After pre-school, his grandmother picks him up, reinforces what he has learned that day during the drive home—usually an answer to the question he began the day with.

An extensisive variety of topics in the categories of earth, life and physical science have all been recorded over the 69 episodes using this framework. For example, topics relevant and developmentally appropriate to young scientists include: tools and measurement, changes and transformation, senses, health, simple machines, backyard science, weather, the body, force and motion, environmental systems, light and shadow, technology and engineering, and living things. Each episode's conceptual content connects to the National Science Standards [19], Cognitive Learning Theory, and on the preschool science curriculum, Preschool Pathways to Science [20].

Within each episode, show writers seem intentional not only in exploring science concepts but also Sid's questioning strategies. Sid embraces the idea of scientific process within the realm of scientific methods and spends his entire day zealously consumed with investigating a particular question. The producers in constructing his experiences conceptually and exploring them over time (a day- which is developmentally appropriate for a 4-year-old) increase opportunities for developing and discovering some "big ideas". For example, Sid may discover that some changes are reversible while others are not (i.e., "The Perfect Pancake" Episode) in which understanding of that irreversible transformation/heat is explored. According to the *Next Generation of Science Standards* (NGSS) [21], the call for scientifically literate students and their understanding of the science processes such as the benefits of considering irreversible change can motivate young children who experience such pleasure and fulfillment of discovery with the hopes that they will want to savor it again and again. Early investment and exposure to science can inspire many years of discovery. In this way, the content in Sid is both meaningful and relevant to the everyday lives of young children. For example, a question about decay, "Why is my banana yucky?" was the basis for the "My Mushy Banana" Episode. In this way, the science content is framed in relatable ways to its characters yet investigated through the nature of science, through posing questions, investigating objects and events that can be directly observed and explored.

In addition to the speculation that media influence students' perceptions of scientists, some researchers have also suggested that schools, and the activities that occur in them [22] have significant effects upon student s' perceptions of scientists. Numerous studies have been conducted that consider what teachers do in their classrooms can be affected by teachers' attitudes and dispositions toward science, including confidence levels in doing science [23–25]. In particular, teacher attitudes matter because they manifest themselves in actions that are fully recognizable to students and consequently influence student behavior [23, 25–27].

2. Methods for analyzing students' perceptions of scientists

Asking students to "draw a picture of a scientist" has been a popular method for those wishing to engage in Draw-A-Scientist Test research [8–10, 12, 14, 15]. While the majority of DAST research concentrated on students' stereotypical images and their perceptions of scientists, the manner in which data derived from these studies has been analyzed has often been limited to such things as the reporting of frequencies and the computation of simple t-tests. This level of analysis has provided a starting point for the investigation of students' perceptions of scientists and interesting discussion regarding potential interventions that might be utilized to help students modify

their perceptions. This may be why science education researchers have speculated about where these images derive without having further investigated this issue much beyond basic general observations for the better part of the last sixty years.

Analyzing images of scientists and labeling them stereotypical, rather than investigating where these images originate in students' schema, has left a gap in the existing DAST research. This may be due to the multifaceted complexity involved with such investigations. Even so, some notable questions regarding conceptions of scientists have arisen through DAST research: "When are concepts initiated?" [8], "When are concepts most likely to impact conceptual formation?", "Which concepts are central to students' personal science identities?", and "What are the influences that impact formation of such concepts?"

3. How aspects of illustrations relate to students' perceptions of scientists

For many children, what is included in media messages is often interpreted by students in ways that helps them define what they perceive to be culturally acceptable thinking and behavior [28] and have some effect of children's idea of the word "scientist." This researcher contends that students undergo a specific process when developing perceptions of scientists and that process is intimately related to one's culture. It is a process that begins with children viewing scientists with positive or negative associations from within their culture. Students typically look to culture and people within their immediate environment to help reinforce or redefine their perceptions while synthesizing their own ideas [29]. As children mature, they begin constructing personal perceptions of scientists, which are unlikely to change until they have personal contact with a scientist or experience a situation that causes a change in perceptions.

While educational researchers often discuss the significance of one's culture in relation to children and education, culture is not typically linked in terms of how children perceive scientists. Such an approach allows educators to understand the influence of culture on students' perceptions of scientists and ultimately may help shape future scientists.

In 50 years of looking at drawings and analyzing the images children draw when asked to draw a scientist, one common figure that has emerged has consistently been that of the "mad scientist" [30]. Therefore, it is not surprising then that science educators have long since suspected a connection between the relationship of media and its influence upon students' perceptions (or conceptions) of scientists [31–33]. Numerous authors have argued that media significantly contribute to students' schema development [1, 6, 28, 31–39].

4. Conclusion

For many children, what is included in media messages is often interpreted by students in ways that helps them define what they perceive to be culturally acceptable thinking and behavior [28]. Making students aware of real scientists can be a huge benefit in exciting

students about science and the possibility of pursuing careers in science-careers that are experiencing a dramatic loss of interest today. These messages must be incorporated with traditional science content in the classroom and must be systematically and deliberately taught to young children [40]. If aware that children come to school with a variety of scientist perceptions, teachers can use this knowledge to help young children to accurately understand what scientists look like, where they work and what they do. On the other hand, children need opportunities to voice the perceptions they have about the world in which they live. Allowing children in all cultures an opportunity to voice those perceptions provides educators with an opportunity to correct misunderstanding and hopefully influence children to consider scientists and science differently.

Illustrations of scientists provide insight into an individual's personal science identity. Some critics are dismissive of the significance of draw a scientist tests because they believe they yield meaningless representations of the concept of scientist [41]. Add the intriguing consideration that even the act of asking students to draw a scientist may inadvertently indicate to students that a typical scientist exists. Doubts such as these regarding the reliability and validity of the DAST have caused some to disregard it as useful in spite of the desire by many to investigate students' perceptions of the nature of scientists. However, Farland-Smith et al. [42] concur there is something to be gained by considering children's illustrations since they have long been accepted as *representations* of how they view the world. Such pictures or illustrations can convey information about a child's personal science identity. Formerly, children's science identities, as well as teacher responses to these identities, have been considered as being shaped by gender, race, and class relations [34, 43]. Teachers should be aware and pay close attention to the significance of DAST illustrations because the contemporary approach offers much more than a label of stereotypical or non-stereotypical. Rather, students' pictures of scientists expose cultural clues within a community of practice, and insight into students' personal science identity.

Understanding the similarities and differences in educational systems, not to mention cultures, and its impact on children also may help in developing positive perceptions that motivate students to consider careers in science. For the purposes of this chapter science careers are defined as those occupations which utilize knowledge of engineering and the natural and physical sciences, which include: engineer, research scientist, statistician, conservationist/forester, and all persons with majors in biological sciences, physical science, or engineering. Science-practitioner occupations (i.e., physician, dentist, veterinarian, pharmacist, optometrist) are included as "science fields" in this study.

Author details

Donna Farland-Smith

Address all correspondence to: farland-smith.1@osu.edu

The Ohio State University, Mansfield, USA

References

[1] Baker-Sperry L, Grauerholz L. The pervasiveness and persistence of the feminine beauty ideal in children's fairy tales. Gender and Society.2003;**17**:711-726

[2] Bazler J, Simonis D. Are women out of the picture? Sex discrimination in science texts. The Science Teacher. 1990;**57**(9):24-26. Retrieved from Women's Studies International Database

[3] Bernt PW, Bernt JP, Turner SV. Gender patterns in middle school students' media use. In: Paper presented at the American Educational Research Association, 84 Annual Meeting; Chicago, IL; 2003, April.

[4] Farland D. Effect of historical, non fiction, trade books on elementary students' perceptions of scientists. Unpublished doctoral dissertation, University of Massachusetts-Lowell; 2003

[5] Farland D. Effect of historical, non fiction, trade books on elementary students' perceptions of scientists. Journal of Elementary Science Education. 2006;**18**(2):33-50

[6] Gough A. Addressing the science in schools crisis: Media images, scientific literacy and students' lives. In: Proceeding of the Annual Conference of the Australian Association for Research in Education; Fremantle, Australia; 2007, November

[7] Haynes R. From alchemy to artificial intelligence: Stereotypes of the scientist in Western literature. Public Understanding of Science. 2003;**12**:243-253. DOI: 10.1177/096366250 3123003

[8] Chambers D. Stereotypic images of the scientist: The draw-a-scientist test. Science Education. 1983;**67**(2):255-265

[9] Chiang C, Guo C. A study of the images of the scientist for elementary school children. In: Paper presented at the National Association for Research in Science Teaching, St. Louis, Missouri; 1996.

[10] Fung Y. A comparative study of primary and secondary school students' images of scientists. Research in Science & Technological Education. 2002;**20**(2):199-213

[11] Maoldomhnaigh M, Hunt A. Some factors affecting the image of the scientist drawn by older primary school pupils. Research in Science & Technological Education. 1988;**6**: 159-166

[12] Newton D, Newton L. Young children's perceptions of science and the scientist. International Journal of Science Education. 1992;**14**(3):331-348

[13] Newton LD, Newton DP. Primary children's perceptions of science and the scientist: Is the impact of a national curriculum breaking down the stereotype? International Journal of Science Education. 1998;**20**:1137-1149

[14] Song J, Pak S, Jang K. Attitudes of boys and girls in elementary and secondary schools towards science lessons and scientists. Journal of the Koran Association for Research in Science Education.1992;**12**:109-118

[15] She H. Gender and grade level differences in Taiwan students' stereotypes of science and scientists. Research in Science & Technological Education. 1998;**16**(2):125-135

[16] Potter E, Rosser S. Factors in life science textbooks that may deter girls' interests in science. Journal of Research in Science Teaching. 1992;**29**(7):669-686. Retrived from Education Research Complete Database

[17] Koch J. Elementary science education: Looking through the lens of gender. Initiatives. 1992;**55**(3):67-71

[18] Farland-Smith D, Finson KD, & Arquette C. (2017). How picture books on the National Science Teachers Association recommend list portray scientists. *School Science Mathematics*. 2016, accepted

[19] National Research Council (NRC). National Science Education Standards. Washington, D.C: National Academy Press; 1996

[20] Gelman R, Brenneman K, Macdonald G, Roman M. Preschool Pathways to Science (PrePS): Facilitating Scientific Ways of Thinking, Talking, Doing, and Understanding. Baltimore, Maryland: Brookes Publishing; 2010

[21] NGSS Lead States Next Generation Science Standards: For States, by States. Washington, DC: The National Academies Press; 2013

[22] Farland D. Trade books and the human endeavor of science. Science and Children. 2006;**44**:35-37

[23] Fennema E. Mathematics and Gender. Retrieved from Women's Studies International Database, 1990

[24] Jones GM, Wheatley J. Gender differences in teacher-student interactions in science classrooms. Journal of Research in Science Teaching. 1990;**27**(9):861-887

[25] Sadker D, Sadker M. Failing at fairness: How our schools cheat girls. New York: Touchstone Books; 1995

[26] Bandura A. Perceived self-efficacy in cognitive development and functioning. Educational Psychologist. 1993;**28**(2):117-148

[27] Goodard RD, Hoy WK, Woolfolk Hoy, A. Collective efficacy: Its meaning, measure, and impact off student achievement. American Educational Research Journal. 2000; **37**:479-507

[28] Cavanaugh TW, Cavanaugh C. Connecting the media center and the science classroom using film. Library Media connection. 2005;**23**(6):52-54

[29] Farland-Smith D, McComas WF. Teaching the human dimension of science. Science and Children. 2009;**46**(9):32-35

[30] Finson KD. Drawing a scientist: What we do and do not know after fifty years of drawings. School Science and Mathematics. 2002;**102**(7):335-345

[31] Flick L. Scientists in residence program improving children's images of science and scientists. School Science and Mathematics. 1990;**90**(3):204-214

[32] Gardner H. Artful Scribbles. New York: Bavi Books; 1980

[33] Schibeci RA Images of science and scientists and science education. Science Education. 1986;**70**(2):139-149

[34] Flicker E. Women scientists in mainstream film. In: Huppauf B, Weingarat P, editors. Science Images and Popular Images of the Sciences. NY: Routledge: 2008, pp. 241-256

[35] Kirby DA. Scientists on the set: Science consultants and the communicating of science in visual film. Public Understanding of Science. 2003;**12**:261-278. DOI: 10.1177/0963662503123005

[36] Locke S. Fantastically reasonable: Ambivalence in the representation of science and technology in super-hero comics. Public Understanding of Science. 2005;**14**:25-46. DOI: 10.1177/0963662505048197

[37] Shaffer D, Squire K, Halverson R, Gee J. Video games and the future of learning. (Cover story). Phi Delta Kappan. 2005;**87**(2):105-111

[38] Steinke J. Cultural representations of gender and science: Portrayals of female scientists and engineers in popular films. Science Communication. 2005;**27**(1):27-63. DOI: 10.1177/1075547005278610

[39] Steinke J, Lapinski MK, Crocker N, Zietsman-Thomas A, Williams Y, Evergreen SH, Kuchibhotla S. Assessing media influences on middle school-aged children's perceptions of women in science using the Draw-A-Scientist Test (DAST). Science Communication. 2007;**29**(1):35-64. DOI: 10.1177/1075547007306508

[40] Roach LE, Wandersee JH. Short story science: Using historical vignettes as a teaching tool. Science Teacher. 1993;**60**(6):18-21

[41] Boylan C, Hill D, Wallace A, Wheeler A. Beyond stereotypes. Science Education. 1992;**76**(5):465-476

[42] Farland-Smith D, Finson KD, Boone W, Yale M. An investigation of media influences on elementary students representations of scientists. Journal of Elementary Science Education. 2012;**25**:355-366

[43] Brickhouse NW, Lowery P, Schultz K. What kind of a girl does science? The construction of school identities. Journal of Research in Science Teaching. 2000;**37**:441-458

Study of National Cases About Media Behavior

Internet and Social Media in Malaysia: Development, Challenges and Potentials

Saodah Wok and Shafizan Mohamed

Abstract

The penetration of the Internet and social media has helped Malaysia abreast with the other developed countries. Nonetheless, being a multicultural country, Malaysia has to ensure her multiracial population lives in harmony and peace. This happens with the integrated help of media control and regulations exercise in Malaysia: the Printing Presses and Publications Act (PPPA), Film Censorship Act, Broadcasting Act, Communication and Multimedia Act (CMA), and media ownership control. Many researches have been conducted pertaining to the Internet and social media that have been published locally in line with the development of the Internet and social media in Malaysia. Similarly, new media is also subjected to being controlled through methods such as controlling the Internet, blocking and filtering, and content removal. The chapter also looks into the impact of the Internet and social media on civil society, thus creating a momentum to promote toward giving suggestions for future research involving not only theories but also models using more sophisticated analyses. More research can be done and the future of research is bright. Other areas that can be looked at are the impacts of the Internet and social media on the young populace of the nation.

Keywords: Malaysia, media control, media ownership, politics, social media

1. Introduction

With a population of more than 25 million and a land area of approximately 330,000 km, Malaysia is considered to be one of the new industrialized countries [1]. Situated in southeast Asia, Malaysia is divided into east and west. Kuala Lumpur, the country's capital, is situated on the west, better known as peninsular Malaysia; the two states in east Malaysia—Sabah and Sarawak—form the Borneo Island. Malaysia is best known for its multiracial composition

which includes the majority Malays and other Bumiputera groups (67%), followed by the Chinese (26.0%) and Indian (7%) ethnic groups. With many races co-existing, Malaysia has myriad cultures, religions, and languages. Although it is considered a Muslim country with Islam being the official religion, many other religions such as Christianity, Buddhism, and Hinduism are practiced in Malaysia. The National Language Act (1967) sanctioned Bahasa Malaysia (the Malay language) as the country's official language and stipulated that all formal events should be conducted in Malay. English is also widely used, as are other ethnic languages such as Mandarin, Cantonese, Tamil, and other native tongues.

1.1. The Malaysian media

Malaysia has a history of media control. Through media laws and concentrated media ownership, the Malaysian Government oversees all the information circulating in the mass media. Media laws such as the Printing Press Act (1984) and Broadcasting Act (1987) limit political discussions in that news or stories deemed derogatory or overly critical of the government cannot be published. Freedom of speech and expression are also limited by laws that stipulate what can and cannot be discussed in public. Sedition and defamation laws restrict freedom of speech and protect political figures from being scrutinized; and laws such as the Internal Security Act (ISA) and the Official Secrets Act (OSA) enable the authorities to detain without trial anyone accused of disrupting the country's harmony. Thus, the media in Malaysia offers limited space for citizens to engage in political discourse. While some forums for political discussions are available in the alternative media produced by opposition parties or non-government organizations, they are often hampered by media laws [2].

Opposition and dissenting voices do not have access to the mainstream media. These conditions have served the government well in terms of securing support from the people. Due to the lack of open access to the mainstream media, the opposition parties in Malaysia have resorted to creating their own alternative media. Malaysia's alternative media includes "politically contentious" [3, 2] professional online newspapers, non-governmental organization (NGO) websites, and journalistic blogs. The primary objective of these alternative forms of communication is to challenge "the consensus that powerful interests try to shape and sustain through the mainstream media" (p. 3) [2]. Thus, the alternative media in Malaysia mostly adopts political, oppositional, and radical inclinations. The alternative media often finds it difficult to survive due to the lack of finances and barriers of license renewals. The late 1990s saw the advent of new digital technologies. By this time, the alternative media had expanded and incorporated the Internet and digital media, such as compact discs and video discs. Although government control of oppositional media remains tight, the Internet provides a new medium for political activists to convey their message without the need to worry excessively about regulations. This relative freedom exists from 1997 when Malaysia signed the Bill of Guarantee. The bill was an agreement designed to reassure international investors that Malaysia would not impose any censorship on the Internet [4].

1.2. Malaysians online

As at the end of 2012, almost 19 million Malaysians were online. This accounted for 66% of the Malaysian population [5]. For most part, the Malaysian Government has been very serious

in its attempt to make Malaysia a regional and global player in information technology (IT). Since the Internet was introduced to the Malaysian public in 1995, many strategic steps have been taken to accelerate its penetration. Public schools have been equipped with computer labs, tax exemptions have been given for the purchases of laptops and Internet connections, and a multimedia university was built to create Internet-savvy graduates [6]. Public and private institutions have been expected to incorporate IT technologies in their operations. The government launched its own IT policy whereby all government offices must be online and paper-less by 2015. In 2010, the government launched My e-Government (myEG), a one-stop portal for Malaysians to deal with any kind of government-related services such as the payment of taxes and general summons. The introduction of broadband in 2007 further sealed the Internet as an important component of Malaysian life. Better and faster Internet access has facilitated the boom in e-commerce and online businesses. It has also allowed Malaysians to extract more from the Internet, especially in the form of faster streaming of media content. Hence, Malaysians have become more reliant on the Internet for everyday activities such as the daily news, paying bills, or simply catching up with family and friends. On top of that, more and more Malaysians are sharing pieces, if not most, of their lives online. The availability of individual media and social networking sites allows Malaysians to not only extract information or conduct transactions but also to create and contribute ideas, information, and life stories. To date, 70% of online users in Malaysia have a Facebook account. In fact, Malaysia has the fifth-most Facebook users in Asia.

2. Background of the Malaysian media

In 1978, Lent used the term "guided media" to describe the Malaysian press system wherein the leaders of the country "admonish mass media, especially broadcasting, to be uncritical of government policies" (p. 72) [7]. The rationale was that Malaysia, "being a newly emerging nation, needs time to get on its feet. The mass media, therefore, should provide this by not touching on sensitive issues, by stressing positive and ignoring negative societal characteristics" (p. 72) [7]. Almost 40 years later, Lent's [7] description is still relevant. Because of this close relationship between the state and the media, international media watchers have often been critical of the state of freedom of the Malaysian media and have been skeptical of the justifications provided by the state. Indeed, according to Lim [8] (p. 88), immediately following Article 10 of the Federal Constitution, which guarantees the right to free speech, is a set of qualifiers that give the parliament the power to impose "such restrictions as it deems necessary or expedient in the interest of the security of the Federation or any part thereof, friendly relations with other countries, public order or morality". In imposing such restrictions in the interest of security, public order, and even the contested concept of morality, the parliament "may pass laws prohibiting the questioning of any stipulated matter, right, status, position, privilege, sovereignty or prerogative". The Malaysian Government's official control over the media has always been tight. In the name of political stability, economic development, and social harmony, the Malaysian Government is very strict in its control of press freedom. The mainstream press depicts the government leaders as having a naturalized affinity with the general populace in terms of socioeconomic aspirations and goals. This public declaration of the Barisan Nasional (BN) Government's economic successes is elaborated by

the media's calculated tightening and to some extent, closure of access for the other contesting political parties [9]. The opposition parties' stance on some issues and their policies on economic, political, and cultural matters are hardly heard by the electorate. The coverage of the opposition parties by the mainstream media has often resulted in the former being depicted in a negative light [10].

2.1. Media control and regulations in Malaysia

Through media laws and concentrated media ownership, the Malaysian Government oversees all the information circulating in the mass media. Media laws such as the Printing Press Act (1984) and Broadcasting Act (1987) limit political discussions in that news or stories deemed derogatory or overly critical of the government cannot be published. Freedom of speech and expression are also limited by laws that stipulate what can and cannot be discussed in public. Sedition and defamation laws restrict freedom of speech and protect political figures from being scrutinized, and laws such as the Internal Security Act (ISA) and the Official Secrets Act (OSA) enable the authorities to detain without trial anyone accused of disrupting the country's harmony. The University and College Act (AUKU) prohibit students from being involved in any form of political activity. More specifically, there are four media laws that are detrimental to the freedom of speech and press. The laws are Printing Presses and Publications Act (PPPA), Film Censorship Act, Broadcasting Act, and, Communication and Multimedia Act (CMA).

2.1.1. The Printing Presses and Publications Act (1984)

The PPPA is the law that controls the Malaysian print media. Established in 1984, it imposes printing license and publishing permits that can only be approved by the Home Affairs Minister [11]. Under this law, a potential publisher needs a publishing license from the ministry before starting a newspaper or magazine. The publisher must apply for a new license every year. This creates a climate of self-censorship among Malaysian editors and journalists, especially those publishers who have much to lose considering the high production cost of traditional print media [10]. The PPPA also controls foreign publication available in the country. Foreign publications are required to pay a large deposit that can be forfeited if the publishers are found to be prejudiced to the national interest [11].

The government has often threatened to terminate or not renew the license of some critical newspapers from the opposition parties, such as *Harakah* owned by the Pan-Malaysian Islamic Party (PAS), *Suara* owned by the Peoples Party, and The Rocket owned by the Democratic Action Party (DAP) [12]. The wider effects of the PPPA on freedom of expression and press, the media, and the development of civil society in Malaysia have been far reaching. As an outcome of the *Reformasi* Movement in the early 2000s, the BN government did not renew the permits of magazines, including *Detik*, *Tamadun*, *Wasilah*, and a newspaper, *Eksklusif*, for criticizing the government over the citizen's and political rights. For example, *Harakah*, a newspaper published by the opposition party PAS, was forced to reduce its circulation from twice a week to twice a month and was allowed to be sold only to party members, not the public [9].

2.1.2. Film Censorship Act (2002)

In Malaysia, film censorship is controlled by the Film Censorship Board under the prerogative of the Home Ministry. In 2002, the Film Censorship Act was revised to state that all films screened in Malaysian cinemas must first be certified by the Film Censorship Board. The Board imposed a rating system on all TV programs and films aired in Malaysia. The system categorized films and TV programs based on different types of audiences. The first category "U" is for general viewing which meant that films in this category can be watched by audiences off all ages and can be screened at any time. The second category is the "PG13" films that require parental guidance for audiences under 13 and can only be screened from 6.00 to 10.00 pm on weekdays and from 6.00 to 12.00 pm on weekends. The third category "18" includes films that can be watched by audiences who are aged 18 and above and can only be screened from 10.00 pm to 6.00 am daily [13].

According to Wan et al. [14], most films that are censored by the Film Censorship Board dealt with three sensitive issues which are religious, cultural, and moral values. Basri and Alauddin [15] added that political ideology also plays an important role in film censorship. Films that are deemed to depict Malaysia negatively are banned. Such films include the Ben Stiller-directed film "Zoolander" which depicted Malaysia as an impoverished and underdeveloped country. In the past decade alone, almost 100 films have been banned from Malaysian cinemas, and these included local and imported films [13]. Most recently, on July 2013, two Malaysian bloggers, Alvin Tan and Vivian Lee, were charged for producing and sharing pornographic photographs in their blog. On October 2012, Tan and Lee shared photographs of them having sex in their blog—http://alviviswingers.tumblr.com/. They also uploaded their sex video on YouTube. They were charged under Section 5(1) of the Film Censorship Act 2002 that states that no person shall have or cause himself to have in his possession, custody, control or ownership; or circulate, exhibit, distribute, display, manufacture, produce, sell or hire any film or film-publicity material which is obscene or is otherwise against public decency. Tan and Lee face a fine between 10,000 and 50,000 RM, or a maximum 5-years' jail, or both, upon conviction.

2.1.3. Broadcasting Act (1984)

The Broadcasting Act was enacted in response to the privatization of the broadcasting media initiated by the then Prime Minister, Mahathir Mohamad. When Malaysia's first private TV channel, TV3, was introduced, the Broadcasting Act was seen as the government's legal medium to control the emerging private broadcasting channels. The Act allows the Information Ministry to control and monitor all radio and television channels and to suspend or cancel the permit of any private company that broadcasts information which contradicts government policies or the state-sponsored Asian values (see Section 2.3.2) [16]. Hence, even with the introduction of private channels and satellite TV technology, political contestations cannot appear on any Malaysian television. The initial two TV channels, RTM1 and RTM2, are state-sponsored channels and are under the direct prerogative of the Information Minister, thereby posing no threat to the state [9].

The Broadcasting Act was controversial because it did not specify the parameters in which the Act operates. This gives the information minister free control over undefined aspects of local broadcasting. One of the most criticized aspects of the Minister's use of the Act is the implementation of censorship. In 1995, the then Information Minister, Mohamed Rahmat, initiated a strict censorship campaign against what he termed as the media's excessive portrayal of Western images and counter-culture values. He imposed censorship conditions that have been considered as unreasonable and lacking credibility. Among the conditions were the strict requirements for male TV entertainers to have short hair and female newscasters to not show their neck [17]. With the advent of the Internet and new media, the Broadcasting Act was no longer able to cover the scope of the expanding broadcast and Internet media. For example, the Broadcasting Act did not have provisions that could ascribe conditions for the licensing of Internet and satellite broadcasters. As such, the Act was repealed in 1998 and replaced by the Communication and Multimedia Act (Lee, 2002) [18].

2.1.4. Communication and Multimedia Act (1998)

The CMA replaced the Broadcasting Act to allow the government to regulate all manners of broadcasting including the Internet. The Malaysian Communications and Multimedia Commission (MCMC) is entrusted with the role of promoting and regulating the communications and multimedia industry and to enforce the communications and multimedia laws in Malaysia. Hence, it has the power to approve, amend, or revoke broadcasting and other licenses (Lee, 2002). The MCMC is also given the task to implement and promote the government's national policy objectives for the communications and multimedia sector. The CMA has some enlightened provisions which protect freedom of expression online, such as Section 3(3) which states "Nothing in this Act shall be construed as permitting the censorship of the Internet". However, the MCMC, under the control of the Minister of Energy, Water, and Communication (EWC), has enormous discretionary power to take certain actions against media users [19].

One example was the MCMC blocking the MalaysiaToday.net website in August 2008 because of commentaries that the MCMC alleged were "insensitive, bordering on incitement". The EWC Minister claimed the action was well within his jurisdiction and cited Section 263 of the Act which permits certain actions for the "protection of the public revenue and preservation of national security". The block was lifted the next day after a public uproar and criticisms by some United Malays National Organisation (UMNO) leaders who saw the block as negative publicity for the government, which had just sustained a massive loss in the 2008 election.

2.2. Media ownership

Restrictions on media freedom in Malaysia are not only confined to the direct legal control imposed through the many laws and regulations but also through an indirect control mechanism in the form of ownership. This is especially true when much of the mainstream media in the country is owned directly or indirectly by entities linked to the ruling political party. Most notably is Media Prima's monopoly over the mass media. Media Prima is the largest media conglomerate in the country. It is a publicly traded company listed on the Main Board of the Malaysia Stock Exchange. Media Prima controls 43% of the New Straits Times Press

(NSTP) Group. NSTP is Malaysia's oldest and largest publisher. Its three main newspapers, *New Straits Times*, *Berita Harian*, and *Harian Metro*, have a combined circulation exceeding a million copies per day. Media Prima also controls the private television broadcast sector in the country. It owns and operates four out of six of the free-to-air television channels, TV3, NTV7, 8TV, and TV9. The other two, RTM1 and RTM2, are directly run by the Ministry of Information [16]. According to Lim [8], Media Prima commanded 50% of TV viewership in the country as of March 2008. Moreover, Sani [9] explains that anti-monopoly laws against concentration of media ownership do not exist in Malaysia, and this has allowed Media Prima to steadily acquire controlling stakes in most media outlets in the country.

The conglomerate also owns four radio stations, Fly FM, Radio Wanita (Women's radio), Hot FM, and One FM. In addition, it owns a motion picture company (Grand Brilliance), a recording studio (Ambang Klasik), and several advertising companies (Gotcha, Uniteers, Right Channel, UPD, and Big Tree Outdoor). The dominance of Media Prima becomes more problematic because it is a subsidiary of Malaysia Resources Corporation Berhad (MRCB), a government-backed corporation. Major shareholders of both Media Prima and MRCB are known to be supporters of the government, with many of them holding posts within UMNO. This means that through its link with the media conglomerate, the UMNO has a disproportionate amount of influence on the major television, newspaper, radio, and advertising agencies in the country [9].

The Malaysian Chinese Association (MCA) and Malaysian Indian Congress (MIC), the second and the third largest parties in the BN coalition, are also major stakeholders in the media industry. Lim [8] indicated that the MCA, through its investment arm, Huaren Holdings, owns over 40% of shares in The Star which is the most profitable newspaper in the country. The MCA investment arm also controls over 20% of the Nanyang Press Group which controls local Chinese newspapers, the China Press and the Nanyang Siang Pau, one of the most established Chinese-language newspapers in the country. Lim [8] also highlighted that in 2007, the Malaysian-based Sinchew Media Corporation, also a company closely linked to the MCA, announced its intention to merge with the Hong Kong-based Ming Pao Group and invited Nanyang Press Holdings to form a tri-partite venture. The Sinchew Group owns the lucrative Chinese language daily, Sinchew Jit Poh, the highest circulating Chinese language newspaper in the country. The merger, realized in 2008, resulted in the creation of Media Chinese International Limited, the largest Chinese language publication group outside of China and Taiwan. The Indian-based party, the MIC, conducts its dealings with the mass media through its investment arm, Maika Holdings Berhad. It was founded by the MIC President, M. Samy Vellu, who also serves as its chairman. It currently owns the Tamil language newspaper, Tamil Nesan (Tamil News), one of three Tamil language newspapers still in publication in the country [16].

3. Theories and researches on Internet and social media in Malaysia

Much research has been done by prolific researchers throughout Malaysia, especially by university academicians from 20 public universities, private universities, and colleges besides other research institutions of the nation. The researches were carried out empirically either

through the use of quantitative research design (survey and experimental methods) or the qualitative research design (in-depth interview, focus group discussion, case study, field observation, and document analysis). In most cases, the quantitative researches are widely reported compared to the qualitative researches in Malaysia. Quantitative research mainly applies theories related to the issues under study. Therefore, this chapter focuses on only the quantitative research and design researches that are mainly published in the three established journals on communication in Malaysia: *Jurnal Komunikasi (*Malaysia Journal of Communication*), Jurnal Pengajian Media Malaysia (*Malaysian Journal of Media Studies*),* and Global Media Journal—Malaysian Edition, which are published by Universiti Kebangsaan Malaysia since 1985, University Malaya since 1998, and Universiti Putra Malaysia since 2011, respectively. Among the functional analysis theories, the two popular theories are the uses and gratification theory [20] and the agenda setting theory [21].

The uses and gratification theory is widely used in relation to the uses of the social media and the satisfaction attained from using them. When the research discusses issues on information sharing using the media (traditional media and social media), the chance is that they tend to incorporate both media concurrently. Rarely do they share information in isolation, by using a specific media. Some studies done pertaining to information sharing (mutual seeking and giving of information) using the traditional media and the contemporary media are conducted by Lim [22], Zain et al. [23], and Wok et al. [24]. With regard to information seeking, Yusuf [25] analyzes the political issues in Malaysia.

Researches have also been done on various target audiences such as youth [26, 27], employees in organizations [28], flood victims [29], Malaysian active users [30], and Malaysian university students on civic participation [31]. Researches that have been conducted pertaining to the uses and gratification theory might be related to other issues such as student involvement on campus activities [32] using multiple social media sites and searching for halal-related information [23].

Many studies have involved social media as sources of reference [32–34]. On the contrary, Shahnaz [35] focuses on just Facebook user profiles using the uses and gratification theory. This was at the initial stage of the social media, especially Facebook. Research on the different motives for using Facebook is conducted by Mahmud and Omar [36].

In addition to the uses and gratification theory, Lee et al. [37] use the diffusion of innovation theory [38] to test buying through advertisements on Facebook. Research has been done on specific sites, for example, religious websites [39], too.

The agenda setting theory is another theory that is widely used. It was tested among Nigerian students in Malaysia pertaining to homeland online newspapers. It focuses on the perceptions and attitudes toward issues and candidates in the Nigerian Presidential Election in 2011 [40, 41]. A study on news media consumption and the agenda setting theory was also done on youth [24] for both the traditional and new media—the Internet.

The diffusion of innovation theory is one of the theories used in testing the Internet usage in Malaysia, specifically in Kota Bharu, Kelantan [42]. The usage can be sustained provided the

users gain benefits from it. In addition, the Internet is an excellent medium for interpersonal and social network and the sharing of information among users.

Not only are theories the ones that have been used by the researchers but models, too, have been tested. One such model used as the underlying basis for testing the hypotheses of the study is the technology acceptance model (TAM) by Davis Jr. [43]. Even though the study was done in the urban areas, the users of webcasting [44] were still low then but with a promising prospect. The underlying theory used is the reasoned action theory [45]. A model was developed as a guide to test the acceptance of e-services. So, Mahbob et al. [46] find that the use of e-government services is perceived as beneficial to users, easy to use, trustworthy, and self-efficient. Nonetheless, the use is still low. Using the TAM model, e-commerce usage is also studied among Internet users in Malaysia [47].

Most research in Malaysia is done not to test a specific theory but it is merely to describe the current situation. A research is done on Internet usage in Institut Kefahaman Islam Malaysia (IKIM), an Islamic radio station [48]. Basri et al. [49] caution the practitioners in the broadcast media and filming on development of digital growth. There is no theory involved, just an analytical perspective of the researchers themselves. In addition, Khan and Khan [50] caution the possibility of the digital divide among the developed and developing countries and among the haves and haves-not populace of various countries due to the price encountered.

With the implementation of government initiatives to narrow the gap between the rural and the urban populace of Malaysia, Osman [51] calls for a concerted effort by the government and implementation bodies so that the gaps will not grow wider. Such noble effort by the government is an asset to the nation and the populace at large, regardless of the locality.

The Internet per se has been a pervasive and contemporary medium for attracting customers so much so that it is used for the marketing of products and services [22]. The Government of Malaysia has taken the initiative to promote its services to the public. Hence, a number of studies have been conducted to tap into the use of the e-government. As such, studies include Mahbob et al. [46] who find that the use of e-government is still low.

Much research discusses the development of new media on certain aspects and contexts, such as public relations [52], use of online newspapers in Malaysia [53] whereby the online newspaper complements the actual newspaper per se, online interpersonal relationships among adolescents in Malaysia [54], comparisons between the new policy between Malaysia and Korea [55], usage of websites for publications marketing (Mustafa and Adnan, 2012) [56], blog sites as a platform for voicing opinions toward the government [57], an analysis of the usage of e-books [58], digitalizing classroom instructions in Malaysia [59], the usage of social media in interpersonal relationships between people in Malaysia and Indonesia [60], and civic participation among Malaysian university students [31].

Bolong and Waheed [61], who test the uncertainty reduction theory and the social penetration theory for the interpersonal relationships among same gender, find that it is applicable for face-to-face communication using the computer-mediated communication (CMC) for all age groups.

4. The development of Internet and social media in Malaysia

Internet penetration in Malaysia is still very much an urban experience. Government statistics compiled by Malaysian Communication and Multimedia Commission (2014) indicated that the highest internet penetration was in the Klang Valley area, which places the nation's capital, Kuala Lumpur, at 71%. This is followed by the most developed state in Malaysia, that is, Selangor (71%), and at the administrative capital, Putrajaya (89%). Internet penetration is still relatively low in other less populated states such as Sabah (43%) and Sarawak (41%), situated in east Malaysia where most residents belong to indigenous groups.

According to Kemp [62], almost 90% of Malaysian Internet users have registered social media accounts. Malaysians are considered as sociable online as they have among the highest average number of friends on social networks in the world. For instance, Facebook users in Malaysia have, on average, 233 friends which is about 80% higher than the global average. It was also found that Malaysians prefer to spend more time online rather than watching television or listening to the radio. Video streaming is one the favorite online activities with 51% of online users having an active YouTube account while 80% of Internet users stream online video content each month. Due to the increased popularity of social media in Malaysia, it is identified that one-third of the country's Internet traffic will be access to social sites. According to Muniandy and Muniandy [63] citing Burson-Marsteller [64], Malaysian netizens view social network sites 14 billion times every month. Factbrowser, citing comScore (2011), stated YouTube accounted for 67% of all online videos viewed in Malaysia [63].

4.1. Controlling the Internet

Although the government has initially claimed to not censor the internet, it has openly and blatantly controlled the Internet content when it comes to protecting their image. Any forms of content that are derogatory to the government are always curbed through indirect laws such as the Official Secrets Act and the Sedition Act. Punishments can include fines and several years in prison. In 2013, Prime Minister, Najib Razak, announced that the government would abolish the Sedition Act. However, by November 2014, the government had actually strengthened the law claiming it was necessary to maintain national harmony. Further amendments were made in 2015, enabling the authorities to block and reprimand online contents that are considered seditious while increasing the penalty from 3 to 7 years in prison.

Defamation Act 1957 is another law that can be used against online users. Libel and slander are two categories that fall under the Act. The mass media are somewhat protected from the Act because under Section 12(1), a media report is privileged if it is found that it is generally fair, accurate, and is without bad intentions. Online media such as blogs, however, are not protected by Section 12(1) of the Act because it is considered to be a personal opinion that may be libelous [65].

The Evidence Act 1950 was amended in 2012 that holds online users responsible for seditious content that is posted on their platforms. This means that hosts of websites, online forums, news outlets, blogs, and even internet service providers (ISPs) can be held responsible for contents that come from their platform or network whether or not they are the author.

As mentioned previously, legal control over the Internet falls under the purview of the Malaysian Communications and Multimedia Commission (MCMC) which is overseen by the Minister of Information, Communications, and Culture. The 1998 Communication and Multimedia Act (CMA) gives the information minister certain authorities that include imposing license to operators of network and online services. Currently, MCMC actively monitors online speech, including scrutinizing online portals, social media, vloggers, and bloggers. Two main methods that have been used by the MCMC are blocking and filtering and content removal [66].

4.1.1. Blocking and filtering

According to MCMC [72] (2014), there are still no government interventions on websites except for sites that are considered pornographic. While there have been threats against contentious political sites, the government has not systematically targeted them [66]. There was an attempt in 2009 when the then Minister of Information, Communications, and Culture, Dr. Rais Yatim, proposed to evaluate the significance of having Internet filters and gatekeepers but he later backtracked following intense opposition by the public. By October 2014, the government said the Malaysian Communication and Multimedia Commission (MCMC) had shut down or blocked more than 6000 websites that were considered unsuitable.

Because of the strict surveillance on online content, many government-linked companies and public universities practice self-censorship by restricting access to contentious online sites and blogs.

4.1.2. Content removal

According to Ahmad [52], while no public instructions have been made, MCMC has been known to remove content, especially those deemed critical to the government. Actions have been taken in a non-transparent manner that lacks legal and judicial formalities. Several blog owners and social media users have been ordered to remove their content by the MCMC. The contents mostly revolve around the three most sensitive issues in Malaysia that include race, religion, and royalty. The issue of religion is particularly most sensitive. In 2015, MCMC requested Facebook and YouTube to remove controversial Malaysian blogger Alvin Tan's video that showed him insulting the *adhan* or the Islamic call of prayer. To date, Alvin Tan is still on trial for several other cases in which he had insulted Islam and the Malaysian political leaders. However, the cases are still pending and Alvin has fled to the United States of America to avoid trial in Malaysia.

5. The impact on Internet and social media on civil society

Opposition and dissenting voices do not have access to mainstream media. These conditions have served the government well in terms of securing support from the people. Due to the lack of open access to the mainstream media, the opposition parties in Malaysia have resorted to creating their own alternative media. Malaysia's alternative media includes "politically

contentious" [3, 2], professional online newspapers, NGO websites, and journalistic blogs. The main goal of these alternative media platforms is to contest "the consensus that powerful interests try to shape and sustain through the mainstream media" (p. 3) [2]. Thus, the alternative media in Malaysia mostly adopts political, oppositional, and radical inclinations. The alternative media often finds it difficult to survive due to the lack of finances and barriers to license renewals. The late 1990s saw the advent of new digital technologies. By this time, the alternative media had expanded and incorporated the Internet and digital media, such as compact discs and video discs.

According to Anuar [16] and Brown [12], the seeds for using the Internet as an alternative platform to the mainstream media were first sown during the Reformasi because at that time, the alternative media had expanded and had included the Internet and digital forums. Although government control over oppositional media was tight, the Internet provided a new medium for political activists to get their message across without the need to consider 57 government regulations. During the peak of the *Reformasi* movement in 1998–1999, numerous anti-government websites emerged, providing news and stories that were not available in the mainstream media [12]. Electronic bulletin boards gave the public a chance to discuss and discover other people's opinions. Although Anwar Ibrahim was not the first political figure to be unfairly detained and punished by the government, his story was the first to be openly discussed on the Internet, allowing Malaysians, for the first time, to personally access uncensored political information. Malaysians, who before the Reformasi had little exposure to information other than that coming from the government-controlled media, were suddenly awakened by the volume of political information coming from both the government media and the Internet. The use of the Internet was complemented by the use of faxes and copiers that further increased the reach of the news to the wider public [4]. During this time, new political and anti-government websites mushroomed. George [4] claimed that at one point there were no less than 40 anti-government websites, including agendadaily, *reformasi* online, laman reformasi, reformasi.com, freeanwar.com, mahazalim, Freemalaysia, saksi, and many others. Electronic forums and bulletin boards provided a fertile ground for the public to exchange opinions. While existing alternative presses were hampered by licensing and circulation constraints, the same constraints could not be applied on the Internet.

This relative freedom became more evident during the 2008 election when opposition groups were finally able to go against the restrictive campaign rules and dodge the virtual blackout by the mainstream media by going online and turning to blogs, news portals, and YouTube. By December 2006, majority of Malaysia's 10.3 million registered voters were between 21 and 35 years of age. This data, compiled by the Election Commission and published in The Sun in 2008, indicates that these voters would determine the results of general elections and that political parties must target this group to win. It is clear that in the 2008 election, the opposition parties targeted and won the hearts and minds of youth voters [67]. Compared with the opposition's constantly updated blogs and social media, the BN component parties were relatively very quiet online. According to Sani [67], Google searches on the DAP, Pakatan Keadilan Rakyat (PKR), and PAS were so much higher compared to searches on UMNO and other BN component parties. In addition, Google searches on PAS and PKR in Malay by far were found to be the highest in small cities and towns, for instance, in Kuantan in Pahang and in Kajang

in Selangor [67]. According to Lim [8], opposition candidates also used the Internet to solicit funds for their election campaigns. In Lim's interview with blogger-politician Tony Pua, they discussed Pua's campaign for the Petaling Jaya Utara parliamentary seat, and Pua explained how he used e-donations as a way to raise funds for his candidacy. By asking for donations via his personal blog, Pua successfully collected more than 30,000 RM via credit card and online transfers. He needed to raise 50% of the amount that election candidates are legally allowed to use for campaign. Pua managed to collect some 45, 000 RM over five nights from his nightly online political campaigns. Lim [8] explained that during the 2008 election day, Malaysia Today (http://www.malaysia-today.net), a popular political site, had around 15 million hits—a three-time hit increase of what they usually get. The number could be averaged out to about 625,000 visitors an hour.

The pioneer online newspaper, *Malaysiakini*, was so overwhelmed by visitors on polling day that the site broke down. At its peak, the site had around 500,000 visitors an hour, a sharp jump from the 100,000 to 200,000 hits it customarily had per day. In comparison, the website of the mainstream newspaper, New Straits Times, received only 970,000 visits for 1 day, from midnight on election day to midnight the following day. This further signified that the Internet-based media had broken the government's strict control over media and political deliberation. The government could no longer disregard the views expressed by the bloggers because they had claimed identifiable political power [68]. These contemporary political and media developments indicate that the Internet via the social media specifically have now allowed Malaysians to engage in civil political discourse.

6. Conclusions and suggestions

On May 5, 2013, Malaysians went to the polls again. There was much hype and anticipation about this election as many are anxious to know whether the coalition of opposition parties, the Pakatan Rakyat (PR), would be able to form a new government in Malaysia and replace the Barisan Nasional (BN), which has been in power since 1955. The voter turnout was remarkable. Approximately, 85% of registered voters or 11,257,147 Malaysians exercised their basic rights to vote, making it the highest voter turnout in Malaysian history.

In the midst of the election frenzy, three bloggers had been detained under the Sedition Act. Blogger "Milosuam" was arrested on May 2, 2013 under the Official Secrets Act on the basis that he had posted classified documents on his blog. "Milosuam" had also blogged that the Malaysian police had conducted early voting, a claim denied by police officials. Two other bloggers were also arrested. "King Jason" was arrested on May 6, 2013 over his allegations that the election was fraudulent and "Papagomo", an UMNO blogger, was arrested for racial remarks against the Chinese electorate who he claims were ungrateful and caused BN to suffer in the election. Both bloggers were detained under the Communications and Multimedia Act. Even with the repeal of the ISA and the Sedition Act, freedom of speech is still very much constrained in Malaysia.

On the Internet especially, everyday Malaysians, who are against such politics, are making their voices heard. In blogs, Facebook, Twitter, and many other online user platforms, calls

for unity and anti-racism are evident. While they are also those who support the racial stance, many are against it and this even includes supporters of BN. More interestingly, everyday citizens are sharing their memories, stories, and experiences of being part of a harmonious multiracial society and are proposing that these experiences should be considered as evidence that Malaysians are not racists. The Malays are calling on their Chinese friends specially to clarify that they are not what the mainstream media makes them out to be. The Chinese are expressing themselves by showing that they are not affected by the racist political propaganda and are in solidarity with their fellow Malaysians. While these reflections and analysis are based on limited observation, it indicates that new media are allowing everyday Malaysians to understand and participate in civil society. Expressing and sharing personal experiences and calling for unity and solidarity are powerful citizen actions.

What is clear from this analysis is that with the rise of Internet and social media, the availability of democratic media practices have changed the Malaysian media landscape and its corresponding effects on the experiences of being Malaysians. Therefore, more extensive and in-depth research that addresses the impact of these new media experiences can provide an encompassing understanding of how overlapping and complex new media experiences penetrate and evolve society and the experience of citizenship over time.

Not to forget that more research needs to be conducted in Malaysia using other theories such as the cultivation theory [69], resource dependency theory [70], and dependency theory [71].

It should be interesting to apply the use of models for social media activities in relation to any type of participant behavior. Many activities can be studied using a single media or integrated social media. The model can be developed based on the variables selected for mainly mediating variables. For example, the outcome of the social media use is in terms of participation. There are many types of participation that can be studied. In terms of participation, it can be classified in terms of political participation, community participation, social participation, citizen participation, citizen communication, and citizen journalism, civic engagement, and socialization of youth. Since social media involves information-sharing process, many communication processes can be tapped. Such sharing activities can involve information-sharing process involving social support groups during a natural disaster, sharing of health information, and employment information. In terms of non-formal organizations involving linkages formation, social media is beneficial for leadership development. Leadership formation through popularity exhibited by the number of followers can result in popular leadership formation, decision-making process, overload, and underload of information.

With the application of structural equation model (SEM) using the analysis of a moment structure (AMOS) program and smart partial least square (PLS) method, many models can be developed. It is up to the researchers to explore the variables considered in the model. Therefore, it is up to the creativity of the individual research to develop and confirm their model(s). This is where any new model developed can extend and integrate theories in line with contemporary contextual situations.

The issue of leadership is very important. Therefore, models can be developed based on the networking entity of social media capabilities. It depends on the creativity of the researchers

concerned to tap the possibility of media as the mediating variable, especially for the public administration system, civic engagement, and citizen communication. Some of the models developed elsewhere in the world can also be retested in Malaysia. More is expected from the researchers to be creative enough. Participative management can also be explored with the emergent leadership based on popularity of the individual concerned based on hilar as having special and unique characteristics especially socialization, involving different levels of individual status.

Author details

Saodah Wok* and Shafizan Mohamed

*Address all correspondence to: wsaodah@iium.edu.my

International Islamic University Malaysia (IIUM), Kuala Lumpur, Malaysia

References

[1] Bożyk P. Newly industrialized countries. In: Globalization and the Transformation of Foreign Economic Policy. Burlington, VT: Ashgate Pub. Co. 2006. p. 164

[2] George C. Contentious Journalism and the Internet: Towards Democratic Discourse in Malaysia and Singapore. Singapore: Singapore University Press; 2006

[3] George C. The internet's political impact and the penetration/participation paradox in Malaysia and Singapore. Media, Culture & Society. 2005;**27**(6):903–920

[4] George C. The internet and the narrow tailoring dilemma for "Asian" democracies. The Communication Review. 2003;**6**(3):247–268

[5] MCMC. MCMC Annual Report 2012 [Internet]. 2012. Available from: http://www.skmm. gov.my/skmmgovmy/media/General/pdf/MCMC_RET523-667P_ENGLISH_COMPLETE. pdf [Accessed: March 25, 2013]

[6] Bunnell T. Malaysia, Modernity and the Multimedia Super Corridor: A Critical Geography of Intelligent Landscapes. Vol. 4. Surrey: Curzon Press; 2004

[7] Lent JA. Malaysia's national language mass media: History and present status. South East Asian Studies. 1978;**15**(4):598-612

[8] Lim MK. The function of blogs in democratic discourse. Journal of Global Communication. 2009;**2**(1):13-326

[9] Sani MAM. Media freedom in Malaysia. Journal of Contemporary Asia. 2005;**35**(3): 341-367

[10] Steele J. Professionalism online: How Malaysiakini challenges authoritarianism. The International Journal of Press/Politics. 2009;**14**(1):91-111

[11] Loh FKW. Developmentalism and the limits of democratic discourse. In: Loh FKW, Khoo BT, editors. Democracy in Malaysia: Discourses and Practices. Surrey: Curzon Press; 2002. pp.19-50

[12] Brown GK. The rough and rosy road: Sites of contestation in Malaysia's shackled media industry. Pacific Affairs. 2005;**78**(1):39-56

[13] Rao A. Film censorship and its relevance in modern Malaysia. International Journal of Science Commerce and Humanities. 2013;**1**(3):74-85

[14] Wan A, Chang PK, Aziz J. Film censorship in Malaysia: Sanctions of religious, cultural and moral values. Jurnal Komunikasi. 2009;**25**(1):42-49

[15] Basri FKH, Alauddin RA. The search for a Malaysian cinema: Between U-Wei Shaari, Shuhaimi, Yusof and LPFM. In: Samsudin A, Rahim, editors. Isu-isu komunikasi. Bangi: Pusat Pengajian Media dan Komunikasi UKM; 2003

[16] Anuar MK. Journalism, national development and social justice in Malaysia. Asia Pacific Media Educator. 2005;**1**(16):63-70

[17] McDaniel DO. Broadcasting in the Malay World: Radio, Television, and Video in Brunei, Indonesia, Malaysia, and Singapore. Santa Barbara: Greenwood Publishing Group; 1994

[18] Lee C. Telecommunications reforms in Malaysia. Annals of Public and Cooperative Economics. 2002;**73**(4):521-540

[19] Deibert R. Access Denied: The Practice and Policy of Global Internet Filtering. Cambridge: MIT Press; 2008

[20] Blumber JG, Katz E. The Uses of Mass Communication: Current Perspectives on Gratification Research. Beverly Hill: Sage; 1974

[21] Shaw DL, McComb M. The Emergence of American Political Issues: The Agenda-Setting Function of the Press. St. Paul: West; 1977

[22] Lim KB. The mediating role of customer satisfaction towards customer loyalty in the motor Takaful industry in Malaysia [thesis]. Gombak: International Islamic University Malaysia (IIUM); 2016

[23] Zain NA, Tamam E, Shamshudeen RI. Media baharu: Medium pilihan pelajar Islam bagi mengetahui isu halal dan haram urusan muamalat. Global Media Journal—Malaysian Edition. 2015;**5**(2):49-67

[24] Wok S, Tamam E, Bolong J. Pattern of the news media consumption and news discussion among youth: A test of agenda setting theory. Global Media Journal—Malaysian Edition. 2011;**1**(1):1-31

[25] Yusuf AIS. Political information seeking and political efficacy: Applying the uses and gratifications theory [thesis]. Gombak: International Islamic University Malaysia (IIUM); 2014

[26]   Wok S, Arabi SI, Misman N. Social media use for information-sharing activities among youth in Malaysia. Journalism and Mass Communication. 2012;**2**(11):1029-1047

[27]   Wok S, Misman N. Matching types of social media sites (SNSs) to motives and profiles of youths in Malaysia. Pertanika Journal of Social Sciences & Humanities. 2015;**23**(S):169-186

[28]   Wok S, Hashim J. Communicating and sharing working relationships with older employees. Journal of Communication Management. 2013;**17**(3):100-121

[29]   Azzman TA, Wok S, Manaf AM, Ismail R. Exploring the use of social media for information sharing during the 2014 flood in Malaysia. Procedia—Business and Social Sciences Journal. 2015;**211**(1):931-937

[30]   Mustafa SE, Hamzah A. Media baharu yang baharu: Trend penggunaan jaringan sosial dalam kalangan pengguna di Malaysia. Jurnal Pengajian Media Malaysia (Malaysian Journal of Media Studies). 2011;**1**(2):93-110

[31]   Amirfarhangi F, Ishak MS, Nikfard P. Internet and civic participation among Malaysian university students. Jurnal Pengajian Media Malaysia (Malaysian Journal of Media Studies). 2015;**15**(2):42-52

[32]   Myint H. The influence of social networking sites on student involvement on campus among Islamic University students [thesis]. Gombak: International Islamic University Malaysia (IIUM); 2016

[33]   Azman H, Salma A, Razak NA, Hussin S, Hasim MS, Hassan MA. Determining digital maturity among ICT users in Malaysia. Jurnal Komunikasi (Malaysian Journal of Communication). 2014;**30**(1):23-35

[34]   Mustafa SE, Hamzah A. Media sosial: Tinjauan terhadap laman jaring sosial dalam talian tempatan. Jurnal Pengajian Media Malaysia (Malaysian Journal of Media Studies). 2010;**12**(2):37-52

[35]   Shahnaz L. Profiling Facebook users among KIRKHS students and their motives for using Facebook [thesis]. Gombak: International Islamic University Malaysia (IIUM); 2011

[36]   Mahmud MZ, Omar B. Motif dan kekerapan penggunaan Facebook dalam kalangan pelajar universiti. Jurnal Komunikasi (Malaysian Journal of Communication). 2013;**29**(1):35-54

[37]   Lee HE, Mustaffa N, Salman A. Faktor-faktor yang mempengaruhi remaja Lembah Klang untuk terus membaca dan membeli melalui pengiklanan Facebook. Jurnal Komunikasi (Malaysian Journal of Communication). 2014;**30**(1):229-250

[38]   Rogers E. Diffusion of Innovation Theory. New York: The Free Press; 1971

[39]   Aripin S, Wok S. Usage and satisfaction of religious websites among students in IIUM. Al-'Abqari: Journal of Islamic Social Sciences and Humanities. 2016;**8**(October Issue): 27-44

[40] Mustapha LK. Relationship between online newspapers coverage and salience of 2011 Nigerian Presidential Election issues and candidates' attributes among Nigerian students in Malaysia [thesis]. Gombak: International Islamic University Malaysia (IIUM); 2014

[41] Mustapha LK, Wok S. Measuring agenda-setting in the online newspaper environment. Malaysian Journal of Media Studies. 2015;**17**(1):45-57

[42] Salman A, Abdullah MY, Hasim MS, Pawanteh L. Sustainability of Internet usage: A study among Malaysian youth in Kota Bharu, Kelantan. Jurnal Komunikasi (Malaysian Journal of Communication). 2010;**26**(1):62-72

[43] Davis Jr FD. A technology acceptance model for empirically testing new end-user information systems: Theory and results [thesis]. Cambridge: Massachusetts Institute of Technology; 1986

[44] Azzman TA, Hassan MA, Hassan MS. Acceptance and usage of webcasting among users of selected cyber cafes in Klang Valley. Jurnal Komunikasi (Malaysian Journal of Communication). 2008;**24**(1):46-62

[45] Ajzen I. The theory of planned behavior. Organizational Behavior and Human Decision Processes. 1991;**50**(1):179-211

[46] Mahbob MH, Nordin MZ, Sulaiman WI. Inovasi perkhidmatan awam Malaysia melalui pelaksanaan e-kerajaan: Satu kajian empirik tentang penerimaan e-services di Lembah Kelang. Jurnal Komunikasi (Malaysian Journal of Communication). 2011;**27**(1):18-33

[47] Rawi AS, Omar SZ, Ali MS. Tahap hubungan antara pelbagai faktor terpilih dengan keinginan menggunakan e-dagang dalam kalangan pengguna Internet. Jurnal Pengajian Media Malaysia (Malaysian Journal of Media Studies. 2011;**13**(2):1-28

[48] Salleh MAM, Ghani NA. Pola pemaparan kandungan maklumat Islam menerusi Internet: Kajian kes terhadap Institut Kefahaaman Islam Malaysia (IKIM) dan Angkatan Belia Islam Malaysia (ABIM). Jurnal Komunikasi (Malaysian Journal of Communication). 2003;**19**(1):23-37

[49] Basri FKH, Sarji A, Yusof A. Era digital: Cabaran baru kepada karyawan serta pendidik penyiaran dan perfileman di Malaysia. Jurnal Komunikasi (Malaysian Journal of Communication). 2004;**20**(1):1-15

[50] Khan MA, Khan RM. Internet paradox: Defining media globalization and the digital divide. Jurnal Komunikasi (Malaysian Journal of Communication). 2005;**20**(1):65-81

[51] Osman MN. The digital divide issues: Is the gap getting bigger? Jurnal Komunikasi (Malaysian Journal of Communication. 2007;**23**(1):1-13

[52] Ahmad JH. Perhubungan awam dan teknologi baru. Jurnal Pengajian Media Malaysia (Malaysian Journal of Media Studies). 2009;**11**(1):9-20

[53] Ariffin MY, Jaafar NI. Online newspaper in Malaysia: A preliminary study. Jurnal Pengajian Media Malaysia (Malaysian Journal of Media Studies). 2009;**11**(1):83-94

[54] Bolong J, Tamam E, Hassan MS, Hasan M. Strategi meningkatkan hubunganan interpersonal dalam talian dalam kalangan remaja Malaysia. Jurnal Pengajian Media Malaysia (Malaysian Journal of Media Studies). 2010;**12**(1):91-109

[55] Zanuddin H. New media policy: A comparative perspective on Malaysia and Korea. Jurnal Pengajian Media Malaysia (Malaysian Journal of Media Studies). 2010;**12**(1):37-52

[56] Mustafa SE, Adnan HM. Penggunaan laman web oleh penerbit universiti di Malaysia sebagai strategi dalam pemasaran penerbitan ilmiah. Jurnal Pengajian Media Malaysia (Malaysian Journal of Media Studies). 2012;**14**(1):93-105

[57] Ahmad SA, Hassan NN, Hussein A. Laman blog: Platform mencanai pendapat, memperojeksi nilai dan juri awam terhadap kerajaan. Jurnal Pengajian Media Malaysia (Malaysian Journal of Media Studies). 2012;**14**(1):35-46

[58] Mustafa SE. Buku elektronik: Ulasan persuratan terhadap kesedaran dan penggunaannya. Jurnal Pengajian Media Malaysia (Malaysian Journal of Media Studies). 2013;**15**(1):103-117

[59] Lee SY. Digitalizing the Malaysian classroom: Barriers, insights and feasibility. Jurnal Pengajian Media Malaysia (Malaysian Journal of Media Studies). 2013;**15**(1):75-90

[60] Mustafa SE. Media sosial di Malaysia dan Indonesia: Penggunaannya sebagai alat komunikasi, kolaborasi dan jaring sosial. Jurnal Pengajian Media Malaysia (Malaysian Journal of Media Studies). 2013;**15**(2):71-85

[61] Bolong J, Waheed M. Online interpersonal relationships strategies between same gender among Malaysian chatters. Global Media Journal—Malaysian Edition. 2013;**3**(1):38-61

[62] Kemp S. We are Social: Social, Digital and Mobile in Malaysia [Internet]. 2012. Available from: http://wearesocial.net/blog/2012/01/social-digital-mobile-malaysia/ [Accessed: March 25, 2013]

[63] Muniandy L, Muniandy B. The impact of social media in social and political aspects in Malaysia: An overview. International Journal of Humanities and Social Science. 2013;**3**(11):71-76

[64] Burson-Marsteller Global Social Media Check Up. Public Affairs Asia [Internet]. 2012. Available from: http://www.burson-marsteller.com/social/PressRelease.aspx [Accessed: March 25, 2013]

[65] Ahmad AL, Mohamad EMW, Hassan BRA, Pawanteh L, Ahmad F, Aziz J. Regulating blogs in Malaysia. The Innovation Journal: The Public Sector Innovation Journal. 2011;**16**(3):1-17

[66] Freedomhouse. Malaysia Country Report: Freedom on the Net [Internet]. 2015. Available from: https://freedomhouse.org/report/freedom-net/2015/malaysia [Accessed: March 25, 2013]

[67] Sani MAM. The emergence of new politics in Malaysia from consociation to deliberative democracy. Taiwan Journal of Democracy. 2009;**5**(2):97-125

[68] Tan J-E, Ibrahim Z. Blogging and Democratization in Malaysia: A New Civil Society in the Making. Kuala Lumpur, Malaysia: Strategic Information and Research Development Centre. SIRD; 2008

[69] Gerbner G, Gross L. Living with television: The violence profile. Journal of Communication. 1976;**26**(1):172-199

[70] Aldrich HE. Resource dependence and interorganizational relations: Local employment service offices and social services sector organizations. Administration and Society. 1976;**7**(4):419-454

[71] Ball-Rokeach S, DeFleur ML. A dependency model of mass-media effects. Communication Research. 1976;**3**(1):3-21

[72] Malaysian Communications and Multimedia Commission (MCMC). (2014). Annual Report 2014. Retrieved from: https://www.mcmc.gov.my/skmmgovmy/files/63/63f 902cd-d990-4171-8867-13379b9a83d4/index.html#2

Opportunities for a New Type of Dialogue with the Organisation's Publics: A Case Study on How Political Parties Are Adapting in the Basque Country

Ainara Larrondo and Irati Agirreazkuenaga

Additional information is available at the end of the chapter

http://dx.doi.org/10.5772/67937

Abstract

The organisational websites and second-generation web-based technologies like social media have led organisations to alter their activities and strategies both internally and externally. This marriage between Internet and organisations is especially relevant in the case of political organisations like parties. Politics in our society is basically media politics, based on socialised communication and the capacity to influence people's opinions. Online communication has had a direct influence on the parties' publics and the relations with them: on one side, the citizens, and on the other, the mass media and journalists. While top-down adaptations by organisations generally prove more costly or are even non-existent, what we are witnessing is a horizontal type of adaptation [2]. This gives the political class and press offices the opportunity to descend to 'street level' using the tools provided by the web, as well as to become direct communicators that replace the media's traditional work of interpretation. In this context, this chapter offers results from a study (EHUA13/10) centred on understanding how political parties have adapted their communication strategies to meet the challenges of the multimedia paradigm. For that purpose, it focuses on a concrete case and on political parties with representation in the Basque autonomous parliament.

Keywords: politics, parties, organisational website, social media, dialogue, publics

1. Introduction

Nowadays, everything is 2.0, although it appears that this expression is becoming obsolete and everything suggests that it will fall into disuse, as happened with other multipurpose terms. Unlike the first generation of the web (1.0) characterised by the development of websites where it was possible to access information, but where setting up direct interaction with,

and between, users was difficult—websites 2.0 are characterised by their encouragement of interactivity at all levels [1]. The idea of web 2.0 began to spread from the year 2004 onwards, in order to distinguish a second generation of Internet, characterised by more dynamic and interactive applications, as well as by greater dialogue between senders and users, and between Users [2]. The term, coined by Tim O'Reilly [3], refers to a series of applications and Internet sites that use collective intelligence to provide online, interactive services while enabling users to control their data, which is why it is also known as the "social web".

The so-called social media are thus a characteristic feature of web 2.0. Social media are defined in counter-position to the traditional "mass media". While the latter were concentrated in the hands of senders who transmitted unidirectional content to the broad public, social media are defined thanks to the actions of citizen-users, who are simultaneously creators and consumers of content ("prosumers"), giving rise to multidirectional models. "Social media" are therefore a fairly broad concept that covers different tools and services. Concretely, it covers all those websites, platforms, media and Internet services that are characterised by a high level of interactivity, as they enable users to collaborate, interact, converse and, in general, participate in creating, sharing and spreading all types of content. Weblogs, RSS readers or aggregators, news filtering, social markers, social media, wikis, microblogging and geo applications, amongst others, all form part of web 2.0 [4, 5].

The present time is an excellent moment for studying organisations and, in particular, everything related to their communication actions, due to the drive that these latter have acquired in the Internet field. Similarly, it is an ideal moment for the specific analysis of the online communication of political organisations. It is no surprise that this is increasingly centred on integral proposals, far removed from the classic electoral communication aimed at winning votes. In this sense, although studies on the digital activity of political organisations are usually restricted to specific moments of an electoral type [6], there is an increasing tendency for parties to undertake a type of "permanent campaign" [7]. In this state of affairs, as experts point out, effectiveness in communication depends, to a great extent, on the synergies established among the contents of the different messages and even on the use of novel narrative strategies such as transmedia storytelling [8].

From the research point of view, interest in the confluence of communication and technology in organisations has pivoted around online mediated communication and its use. While there is no shortage of intellectual production, preferential attention has been paid to two main problems: on one side, the progressive use of online mediated communication as a replacement for direct communication; and, on the other, the use and preference for some media over others [9].

In recent years, there has been an increase in analyses focusing on the development of new models of communication, relation and, in general, interactivity between organisations, communication media and citizens. This is also true of the political field, where there is still uncertainty concerning the true scope of so-called politics 2.0. Concretely, its real effects on mobilising the electorate have yet to be demonstrated. Nor is it clear that political leaders are using the resources of social media to interact and dialogue with citizens [10].

This idea matches Gruning and Hunt's definition of organisational communication as a behavioural science concerned with guiding the activity of organisations in their relations with the "social setting". This description highlights the imbalances that usually arise in the relation of organisations with their publics [11]. One possible solution is the symmetric, bidirectional model, based on reconciling the organisation's interests with those of the community.

This can be achieved by establishing channels of communication and dialogue with the organisation's publics that facilitate the latter's participation in the organisation. The open and bidirectional communication model, defended by Gruning and Hunt for external organisational communication, fits in with the vision that political parties currently hold of web activity. They define this as a dialogue, although the empirical evidence does not always support this somewhat self-satisfied view.

The development of new technologies and, very particularly, the spread of social network platforms, or platforms 2.0 (blogs, social media, microblogging…) have brought several challenges for all organisations and their members. This has given rise to fears and uncertainty. In the concrete case that interests us, political organisations, it is worth specifying, amongst all the possible causes of such reticence, the changes that web 2.0 is generating in the traditional paradigm of politics and democracy, and in the type of control and power with respect to public opinion and communication [12].

Platforms 2.0 complement the mediating function traditionally played by the classic mass media, especially the press, thanks to the encouragement of new focal points of public opinion. Relations on web 2.0 are bidirectional or multidirectional and enable the exchange of content in any media format (text, image, audio, video, graphics, etc.) This facilitates new forms of horizontal communication that generate multiple types of public discussion. In this sense, the question of who is in control is one of the main differences between social media and offline media. In offline media, each actor has and knows her or his role; in social media, it is the citizens who are the protagonists and organisations tend to adopt their role to be able to communicate, which is something that does not happen in the offline field [13].

Aside from the mere technological evolution involved in the web, the change in organisational communication is important because it is linked to the ideas of vertiginosity, cognitive overabundance and "hypercomplexity" that characterise the Information and Knowledge Society [14]. In this society, control of communication has become a decisive element, while individual success or failure increasingly depends on having the skill to communicate adequately.

2. Communication changes in politics: the new relation with the organisation's publics

The context of change generated by Internet is having an impact on organisations and their normal procedures for relating to, and communicating with, their publics. Organisational communication refers to all the communication resources available to an organisation to

reach its publics efficiently [15, 16]. In this respect, the organisation must adapt to new options or resources that facilitate its communication task, amongst which multimedia and web 2.0 resources stand out due to their impact, scope and novelty. They have given rise to a new paradigm, based on interactive models, that is changing the mode of managing organisations and their communication strategy. These models give special relevance to the public and relegate to a secondary position the traditional prominence of mass media and journalists, who were traditionally addressed by organisations and their press offices.

The image of the press office—and thus of the organisation it represents—facing the mass media results from the way in which personal relations with journalists are managed. But these relations now increasingly involve other publics due to the organisation's participation in social media and its way of communicating, dialoguing and responding on these media. In other words, communication no longer only affects the organisation's image in relation to media and journalists, but also in relation to the general public, made up of the citizens who are increasingly active participants in the media. This means that organisations should dialogue with them, taking into account their views and opinions. Apart from being prepared to listen, a key aspect to consider is that the web is a particular environment that converses in a particular tone of voice, which implies specific communication strategies. One of the main challenges of the web is the weakening of the media boundaries and the sensation of being in a space that is constantly being shaped and adapted.

The shift of the traditional leading role from the medium to the journalist is highly significant in the field of organisational communication, due to the traditional relations between journalists and press offices [17]. Applied to the field that concerns us, political communication, the relation of the party with the media has often been limited to providing information to political journalists through press conferences, interviews or press statements. In this context, the party acts as a social actor that tries to integrate itself into a "media opportunity structure" [18] to achieve public visibility that will further the creation of its own image, which influences the formation of the party preferences of voters [19]. As certain studies show, increased interaction is resulting in a growth in the perception of effectiveness and trust in politicians [20].

In their turn, the citizens also seem to have replaced the media and journalists as the reference of the communication department. In this respect, it should be borne in mind that society no longer informs itself solely by means of what the traditional media say—or at least one sector of society, who are also known as digital natives and characterised by their high presence on web 2.0.

In this way, although organisational communication traditionally addressed publics in a unidirectional and centralised way, the dynamic of the web and social media demands bidirectionality, transparency and an acceptance that activity in the digital setting must have continuity and show a real, not feigned, interest. This is especially significant in the case of organisations like political parties. The web has increased the value of known communication processes by virtue of new tools for transmitting information, relating to journalists and reaching an active and critical citizenry, and this evolution is proving especially important in the case of parties, which not only have an ideology but also an organisation and a communication strategy.

Social platforms have become communities and, increasingly, organisations capable of setting an agenda, since they have contributed in a decisive way to changing the meaning of ideological projects. The 15-M movement in Spain is one example of this tendency involving the formation of citizens' groups and mobilisations that have a growing political repercussion. This is a consciousness of citizenship that has grown in parallel to the deterioration of trust in political parties and the loss of pluralism [21].

3. Challenges in managing organisational communication on Internet: the online press office

Communication management must be understood as a managerial function within the organisation, as it is only in this way that it can be faced in a strategic way. However, in many organisations, the communication department or press office is situated in a "no man's land" between marketing, publicity, human resources, etc. In any case, this department or office should have a transversal character and work in collaboration with other departments of the organisation [22].

Within an organisation's structure, the communication department is thus differentiated due to its functions: the planning, implementation and evaluation of the organisation's communication [23]. This organisational communication is aimed at achieving a certain esteem or "desired perception" [15], understood as a set of attributes that the organisation wants its internal and external publics to associate with it. This identity is also constructed or is influenced by the image that its publics receive and by the way they relate to the organisation.

In this sense, the digital information ecosystem requires increasingly committed press offices that are capable of taking on part of the work that the mass media had been doing up until now, above all in the case of organisations and institutions. To this end, organisations and their press offices or communication departments have achieved a much more horizontal or direct relationship with their publics thanks to organisational websites and, above all, their presence on the main social media platforms (Twitter, Facebook, Instagram, etc.)

The evolution of social structures and dynamics has thus contributed to making the art of communicating in the organisational field an increasingly systematic and organised task, aimed at attaining specific goals in three main areas: the relation with the media; the relation with the community; and crisis communication. The expansion of Internet and web 2.0 has had an impact on these three fields and has meant that the planning and management activity done by communication departments has acquired new interest for researchers.

It is therefore possible to speak of a progressive evolution. In fact, in the last two decades, the press office of organisations has passed through different phases of development marked by a strategy with specific actions for the web medium. These phases demonstrate that there has been a qualitative evolution in the consideration of the press office as a source of information, on the one hand, and in its direct relation with both journalists and citizens in general, on the other.

In the concrete case of the organisations that concern us, political parties, these and their main leaders threw themselves into opening digital windows almost as quickly as the most advanced institutions, businesses and Internet users [24] in the mid and late 1990s. During electoral campaigns, parties started to create websites in support of their candidates and some, like the vice-president of the United States, Al Gore, even included debating spaces like forums and live chats in 1994. Before the emergence of web 2.0, around 2002, some strategies were already being developed to take politicians closer to citizens using the Internet. The spread of the blogging phenomenon played a very important role in this respect [23].

In spite of that, the websites of parties and candidates in the 1990s were merely websites with static content. Political groups understood that their presence on Internet was a way of projecting a technologically advanced image. They were more interested in generally appearing to promote the new technologies than in really exploring the new expressive and transformative possibilities that the web gave them. In this first stage of online activity, a basic goal was to have a presence on Internet, like a mere display window for the organisation. In the second stage, dating from the start of the new century, the online press office advances qualitatively and discovers the advantages of online publishing—agility in managing information, multimedia character, unlimited capacity for memory and for linking news items with options for dialogue and relating with the public, etc. In this stage, an active presence on Internet becomes one of the formulas preferred by the communication departments thanks to the incorporation of innovative resources, like Virtual Press Offices (VPOs) and multimedia sections that were perfected over the course of the decade [25]. These VPOs function as independent sections within the corporate website, from where it is possible to access high quality images, videos and short audios, the file of press statements, etc.

The third and final stage began about one decade ago. In this phase, although websites continue functioning as a key tool for image and corporate communication [17, 26, 27], the press office joins the upheaval generated by the spread of web 2.0 and positions itself on the platforms with most social impact. Websites thus cease to be an isolated and marginal instrument for electoral intervention and become part of the multimedia dynamic. Currently, the messages of parties and their candidates are spread and complemented with diffusion and feedback on other digital channels, which in turn are combined with journalistic media and classic audio-visuals.

In short, there is no doubt that social media platforms modify the organisational realm and require that organisational strategy be adapted to a changing environment. Disturbances of communication have become the norm and should not be interpreted as an inconvenience, as they might entail enormous strategic innovative potential that must be allowed to unfold [28].

4. Methodology

In the present context described above, marked by the advance of the web and changes in communication processes, this paper analyses the way in which political organisations are dealing with digital activity and how this is being received by the media, journalists and citizens. This perspective argues that the new technologies have not only altered the professional

definition of what is "political", but also the definition of the department or office within political organisations that is responsible for managing and defining communication strategy. As suggested above, this strategy is centred on techno-political practices outside the specific moments of electoral campaigns and on developing an online public space. This communication aims to encourage reflection on these changes and challenges by providing a synthesis of some partial results of a research study focusing on the main organisations of the Basque Autonomous Community [29].

The study used a sample based on five political parties with parliamentary representation in the Basque Country: the Basque Nationalist Party (*Euskal Alderdi Jeltzalea-Partido Nacionalista Vasco*—EAJ-PNV), Basque Country Unite (*Euskal Herria Bildu*—EH Bildu), the Basque Popular Party (*Partido Popular Vasco*-Euskal Talde Popularra—PP), the Socialist Party of the Basque Country/Basque Left (*Partido Socialista de Euskadi-Euskadiko Ezkerra*—PSE-EE/PSOE), and Union, Progress and Democracy (*Unión Progreso y Democracia*—UPyD). The study was carried out between 2013 and 2015 and employed different techniques (analysis of organisational websites and political blogs, in-depth interviews with managers in charge of organisational communication and mass media, and focus groups with young university students). Concretely, the research study summarised in this paper had two main goals:

1. To describe how political organisations in the Basque Country have adapted to the digital scenario, according to their communication strategy on different online media (websites and platforms 2.0: RSS, microblogs, social media and networks, blogs, etc.)

2. To gain a deeper understanding of the way this online activity has affected the relation with publics, bearing in mind that this relation is one of the main pillars of democratic functioning. In this respect, the study specifically sought to understand:

a. The main difficulties and advantages encountered by these organisations in their use of virtual platforms to communicate more directly and efficiently with their publics: the mass media and the citizens.

b. How the principal mass media in the Basque Autonomous Community view the effectiveness of the communication and dialogue actions carried out by parties via the web, with both citizens and journalists.

c. To understand the vision and opinion of young Basques about the online political practices and the dialogue of the organisation with its main publics.

5. Results

The communication managers interviewed stated that it was advisable to have professionals in their departments or press offices who were capable of responding both strategically and on a day-to-day basis to the demands of this field. This is because, beyond its novelty and attractiveness, it can serve as an authentic meeting place with citizens and society. In spite of that,

they believe it is advisable not to lose sight of the fact that web 2.0, although it is very much in vogue, is an additional and complementary element within the organisation's communication.

The presence and virtual positioning of political parties through the organisational website have meant an evolutionary process, involving improvement and continuous exploitation of the advances brought by Internet over the years (audio-visualisation, unlimited space for deepening content, speed, interactivity, etc.). At the same time, the department's work on web 2.0 has involved a challenge that, although expected and foreseen, has forced it to react much more rapidly.

Management of the website is totally internalised in all the parties considered in the study. According to the results of the content analysis, in terms of visibility and popularity, there was a clear need for the parties analysed to carry out actions to improve their positioning on the web. Although they have well-structured websites with a large quantity of interesting information, they must dedicate more attention to specific strategies for developing search engine optimisers (SEO). It is possible to note a slight tendency to prioritise interactive practices (32.46%), which come before options with a traditional character, like mobilising the electorate (25.32%), communication and information (22.07%) or accessibility (20.12%).

This supremacy of the interactive function is largely due to the momentum of the political parties' presence on social media, a presence that is due to the development of the website itself, from which it is possible to:

a. Access those media through links that appear on all the website pages—although it is on the homepage where they are more prominent.

b. Energise website content—new items, posts, videos, photographs, etc.—on those media.

c. Visualise content spread through the party's social media on the website itself.

On the other hand, besides employing basic and well-known resources, such as traditional email with the press office, direct contact is now also carried out using other channels, such as contact through chat on WhatsApp. Forums are a resource that has now fallen into disuse with Twitter replacing the role of such dialogic spaces, which were characteristic of the first stages of both media and organisational websites.

With respect to the dialogue between parties and media/journalists through web 2.0, it can be said that this is a channel that is little used and undervalued. As the communication departments analysed in the study recognise, the information that is moved on platforms 2.0 reaches journalists directly through traditional channels (email containing the press statement, information on the web, etc.) In those concrete cases where communication is solely launched on social media, it is backed up by a call to the relevant agencies and newsrooms. What interactive tools have achieved is to accelerate the relation between political press offices and journalists, enabling this to become more fluid and swifter, as occurs with invitations to press meetings over WhatsApp, for example.

Facebook is the network that is preferred for the parties' communication strategy, followed by Twitter in some cases and YouTube in others. All the communication departments state

that Google+ is a network of little relevance to their communication function, but that it is important for web positioning. They also share an interest in more novel and cutting edge networks like Instagram and Pinterest. In this respect, Flickr is considered to be a traditional network that continues to carry weight and be of communication interest, above all for some of the parties' activities, such as pre-campaign and campaign activities.

Concerning their strategic presence on different social networks and the use made of them, Facebook stands out as it is considered to be an especially useful platform for interactivity with the broad public, especially the voting public or those close to the party. Twitter, on the other hand, is seen as a more useful network in relation to journalists, bloggers and so-called influencers in general. In this respect, they recognise that in many cases, the social media are employed as a mere complementary platform for re-distributing content already published on the website or in the traditional media, given the real difficulties for generating debate. These difficulties are caused, on the one hand, by the type of functioning of the party itself, which tends to maintain its traditional attitude or role as a sender, rather than as a receiver of what the public is saying or as one side involved in a dialogue. In other cases, the difficulty derives from the use made of social media by the public, which, in some cases, has little interest in, or commitment to, mass debate.

Blogs are seen as the best way of transmitting the personal—rather than institutional—viewpoint of the political leaders in a straightforward way and, in this sense, they are one of the most useful tools for direct contact with citizens, although the majority of the blogs analysed do not allow citizens the option of making comments. They also enable politicians to express themselves on issues where this is not possible in other spaces (speeches in parliament, electoral meetings, public speeches, etc.)

The political parties considered recognise that journalists have not yet acquired the habit of following the party on platforms 2.0 in search of the latest information or scoops, perhaps because to date no clear routines have been established in this respect. Conversely, the general norm is to specifically follow politicians who are known to be very active and who can provide striking headlines for whatever reason, above all due to their capacity for generating controversy. It also seems that some leaders' blogs have a certain following, although this continues to be an exception.

The parties recognise that when they use blogs they try to both strengthen the message distributed through the conventional mass media and increase closeness to the public, supporters, journalists and other bloggers. All the parties agree in recognising that using blogs improves their image, bearing in mind that nowadays the blogosphere continues to be one of the main, deliberative, public spaces in the Internet field.

6. Conclusions and final remarks

The communication activity of the political parties and mass media considered in the research is going through a time of transition. At this point, the results of our case study evidence the particular significance of making clear the objectives that the political party aims to achieve through digital communication, as well as the best ways to integrate these aims with existing

projects. This prevision should also include clarification of which areas require major investment in the short and long run, including a prevision of how this investment will be measured.

One of the key issues in political organisations is public engagement [30] and the coordination of content creation activities for the different platforms, which include the consideration of new professional profiles in the communication or press department. This involves the use of online systems that make it possible to communicate directly with citizens without the traditional mediation of journalists, although their mediation continues to make up the most important part of the work of organisational communication. Amongst the online tools, the organisational website functions as a mechanism for the multiple distribution of content generated by the communication department, while the social media function as a tool for the organisation to spread content and to dialogue with its publics [31, 32].

Interactivity is somewhat underused or subordinated to other goals, such as providing information with a top-down or vertical style. Although in general the politicians and organisations considered want to hear what citizens have to say, not all of them show a coherent attitude towards web 2.0 philosophy and there is a tendency to "appear to be listening". So much is this the case that use is not even made of the basic potentialities of social platforms, which are capable of providing cohesion to political messages that do not fit in the traditional media. The tendency is to use these platforms as mere channels for syndicating content and information that has already been spread through the more classic channels.

Out of all the networks 2.0 that exist at present, Twitter appears to be the most efficient for generating an exchange of information and opinion based on the triad formed of citizen/users, politicians and journalists. It is not surprising that Twitter should be the paradigm of horizontal communication, given its functionalities like freedom of production, absence of editorial control over content or multi-directionality of the flow of messages. It is at the same time a mass medium and a mass-personal communication medium. Moreover, it has proved to be a valuable tool for discovering what is on the minds of citizens at a given moment in time.

Twitter is similar to the traditional word-of-mouth of interpersonal communication. Besides following, responding to and expressing opinions on messages proceeding from political organisations and conventional media, citizens can use Twitter as a vehicle for alternative politics, based on the creation of networks and movements that are ceasing to be marginal and coming to have a growing presence and visibility in society.

The parties recognise that the traditional type of mediated communication (press, radio and television) continues to be basic, even coming before web tools (organisational website and social media). However, these parties also recognise that it is their activity on the web—especially on social networks and Twitter—that on many occasions makes them into a subject of news in the traditional media, above all on television. The citizens still trust the traditional media as the main source of information on politics, parties and elections [33]. Furthermore, there is a significant gap between the expressive potentialities that the new media offer both parties and citizens, and the real use that both make of them.

The political organisations considered in the study recognise that Internet and web 2.0 are indispensable nowadays; but so are the traditional media, to which, curiously, they continue to dedi-

cate the greater part of their efforts. In fact, activities on social media often seek visibility and repercussion in the mass media, generally the television. The parties have thus tried to adapt web 2.0 to their needs, rather than changing their *modus operandi* in answer to the cultural norms of the social web, while at the same time, they recognise the limitations and shortcomings of web 1.0.

Acknowledgements

Author details

Ainara Larrondo* and Irati Agirreazkuenaga

*Address all correspondence to: ainara.larrondo@ehu.eus

University of the Basque Country (UPV/EHU), Leioa (Biscay), Spain

References

[1] Hendricks J A, Klaid L L, editors. Techno Politics in Presidential Campaigning. New York: Routledge; 2010.

[2] Kelty C, Panofsky A, Currie M, Crooks R, Erickson S, Garcia P, Wood S. Seven dimensions of contemporary participation disentangled. Journal of the Association for Information Science and Technology. 2015; 66(3): 474–488. doi:10.1002/asi.23202

[3] O'Reilly T. What is web 2.0 [Internet]. 2005. Available from: http://www.oreilly.com/ pub/a/web2/archive/what-is-web-20.html [Accessed: 2016-03-24].

[4] Arroyo N. Los sitios de redessociales: unaintroducción [Internet]. 2008. Available from: http://comunidad20.sedic.es/?p=176 [Accessed: 2016-03-24].

[5] Margaix D. APEI Report on Social web (Asociación Profesional de Especialistas en Información) [Internet]. 2008. Available from:http://eprints.rclis.org/12506/1/informea-peiwebsocial.pdf [Accessed: 2016-03-24].

[6]   Canel M J, Zamora R. La comunicación en lasorganizacionespolíticas: la estrategiaper-
manente en el mercado de la visibilidad de los poderespúblicos. In: Losada J C, editor.
Gestión de la comunicación en lasorganizaciones. Barcelona: Ariel; 2004. pp. 515–541.

[7]   Ornstein N J, Mann T E, editors. The Permanent Campaign and its Future. Washington:
American Enterprise Institute; 2000.

[8]   Villagra N, Cárdaba M A, Ruiz San Román J A. Communicating Corporate Social
Responsibility: re-assessment of classical theories about fit between CSR actions and
corporate activities. Communication & Society, 2016; 29(2): 133–146.

[9]   Lucas A. Sociología de lasorganizaciones. Influencia de lastecnologías de la información
y la comunicación. Madrid: Fragua; 2004.

[10]   Dutil P, Howard C, Langford J, Roy J. Rethinking government-public relationships in
a digital world. customers, clients, or citizens?. Journal of Information Technology &
Politics. 2007; 4 (1): 77–90. doi:10.1300/J516v04n01_06

[11]   Grunig J, Hunt T. Managing Public Relations. New York: Holt, Rinehart and Winston;
1984.

[12]   Van Aelst P, Van Erkel P, D'heer E, Harder R. Who is leading the campaign charts?
Comparing individual popularity on old and new media. In: ECPR General Conference.
2014. Available from: https://ecpr.eu/Filestore/PaperProposal/95ad6fae-f054-41df-a2b1-
75c2b08ebde1.pdf [Accessed: 2016-03-24].

[13]   Sobejano J. Sociología de lasredessociales. 2009. Available from: http://www.juansobe-
jano.com/2009/07/05/sociología [Accessed: 2016-03-24].

[14]   Costa J. La imagen de marca. Barcelona: PaidósIbérica; 2004.

[15]   Capriotti P. Planificaciónestratégica de la imagencorporativa. Barcelona: Ariel; 1999.

[16]   Van Riel C. M. Comunicación Corporativa. London: Prentice-Hall; 1997.

[17]   De Bustos R. El gabinete de prensa ante el Nuevo ecosistema informativo digital.
Adcomunica. 2012; 4: 223–227.

[18]   Sampedro V. Identidadesmediáticas. La lógicadelrégimen de visibilidadcontemporánea.
SpheraPública. 2004;4.

[19]   Canel M J. Comunicaciónpolítica: Técnicas y estrategiaspara la sociedad de la infor-
mación. Madrid: Tecnos; 1999.

[20]   McNeal R, Hale K, Dotterweich L. Citizen–government interaction and the internet:
Expectations and accomplishments in contact, quality, and trust. Journal of Information.
Technology & Politics. 2008; 5(2): 213–229. doi:10.1080/19331680802298298

[21]   Velasco P. No nosrepresentan. El manifiesto de los indignados en 25 propuestas. Madrid:
Planeta de Libros; 2011.

[22]   Aced C. El perfildelDirCom 2.0. Cuadernos de ComunicaciónEvoca. 2013; 9: 17–21.

[23] García Orosa B. Gabinetes de comunicación on line. Sevilla: Comunicación Social; 2009.

[24] Dader J. L. Ciberpolítica en los websites de partidospolíticos. La experiencia de laselecciones de 2008 en España ante lastendenciastransnacionales. Revista de SociologíaPolítica. 2009; 17(34): 45–62.doi:10.1590/S0104-44782009000300005

[25] Túñez J M, Sixto J. Redessociales, política y Compromiso 2.0: "La comunicación de los diputadosespañoles en Facebook. Latina de Comunicación Social, 66. 2011. Available from: http://www.revistalatinacs.org/11/art/930_Santiago/09_Tunez.html [Accessed: 2016-03-24].

[26] Losada J C. Los 10 frentes de la comunicacióncorporativa. DoxaComunicación. 2009; 6: 145–164.

[27] Túñez J M. La gestión de la comunicación en lasorganizaciones. Sevilla: Comunicación Social; 2012.

[28] Zowislo-Grünewald N, Beitzinger F. Web 2.0 in organizational communication: Source of irritation or driver of innovation? Journal of Media Critiques, Special Issue. 2014; 1: 159–176. doi:10.17349/jmc114110

[29] Larrondo A, editor. La actividadcomunicativa de los partidospolíticosdel País Vasco en el escenario digital. Implicacionesparamedios y público. Leioa: Servicio Editorial de la UPV/EHU; 2016.

[30] Pontes A I, Henn M, Griffiths M D. Assessing young people's political engagement: A critical and systematic literature review of the instruments used to measure political engagement. International Politics Reviews. 2016; 1–18.doi:10.1057/s41312-016-0002-4

[31] Hodge B J, Anthony W P, Gales L M. Teoría de la organización. Unenfoqueestratégico. Madrid: Prentice Hall; 2003.

[32] Krieger M. Sociología de lasorganizaciones. Unaintroducción al comportamientoorganizacional. Madrid: Prentice Hall; 2001.

[33] Anduiza E, Jensen M, Jorba L, editors. Digital Media and Political Engagement Worldwide: A Comparative Study. Cambridge: Cambridge University Press; 2012.

"Google It": Towards Virtual Knowledge and the Influence of Social Media on Education in Ghana

Dennis Moot

Additional information is available at the end of the chapter

Abstract

This chapter attempts to assess the opportunities social media (SM), particularly Facebook, WhatsApp and YouTube, bring to the classroom and how students in Ghana and by extension West Africa use social media to advance learning. Social media continue to influence and reshape teaching and learning in and outside the classroom. In West Africa, just as elsewhere, social media remains a catalyst in developing critical sectors such as health, security and education by eliminating boundaries and providing alternative means of engagement. Research on SM influence in the classroom has received great attention from scholars, what remains is the assessment of proactive use of social media in the classroom. This chapter argued that the youth in Ghana are using SM to improve learning and attaining academic success.

Keywords: social media, education, Facebook, WhatsApp, YouTube, Ghana, West Africa, teaching, social learning

1. Introduction

"Google it" is fast becoming the catch phrase for verification of facts and information. When said, the challenged is directed to type the question into Google. In turn, Google returns with several thousand sources that provide answers to the question in doubt. Interestingly, Facebook, WhatsApp and YouTube has become comparable to "Google it" due to its ability to generate discourse and information about issues. Social learning was the term introduced by Patricia Kuhl for the first time, a professor at University of Washington. Social leaning does not simply refer to the collaboration of the psychical presence of other students. Instead, it transcends boundaries of the physical location of the classroom, to a place of complex interconnections of numerous collaborators existing in the virtual world. These collaborators exit in the virtual world.

This chapter is concerned with the opportunities that social media (SM), particularly Facebook, WhatsApp and YouTube, brings to the classroom and how students in Ghana use SM to advance learning. It also considers some of the challenges confronting this new turn in knowledge pursuit by looking at the development of the incorporation of SM tools in the classroom and overall development of the youth. In Ref. [1], Ghana's National Communication Authority report indicated that mobile usage penetration reached 127.63% with more than 35 million telecommunication subscription. An indication that mobile phones and devices are fast becoming a household item, and the key players are the tele-communication companies.

Global effort to bridge challenges facing education system has achieved some feat through the use of the Internet and by large social media (SM). In Africa, the entry of Information Technology (IT) in the classroom is replacing blackboards, providing access to libraries on mobile devices, improving poor performances because of absenteeism and encouraging collaboration. SM, appropriately so used, is placing the students from all social class on the same benchmark used for educational progress. SM continues to eliminate the dominance of information previously controlled by few corporate entities. Today, with the likes of Coursera and Edx, one could launch a whole career without having to step into the classroom.

Unlike traditional media, SM has taken the competition to new heights melting binaries of timeliness, eliminating distance by improving communications and presenting and making collaborating and sharing effective. The magic is that SM through collaborative content generation diversified information delivery and consumption.

Following the SM boom around the millennium in West Africa, little knowledge exited as to how a person can manoeuvre around web 2.0 (now web 3.0) platform in relations to learning and sharing information [2]. Today, there is much more depth to reach which is attributed to the in-depth scope of SM. West African youth are not oblivious to the power of SM. From the era of Hi5 which collapsed to the sway of Facebook and twitter as well as YouTube and blogs, -on the one hand, and instant messages from BBM, Yahoo Messenger and now WhatsApp, Tango, Snapchat on the other hand, African youth are at the core of utilizing SM in their educational endeavours by sharing of notes, assignments and debates. What seems to be a major challenge, however, is the concern of students' over-dependence on the Internet in educational settings that has resulted in poor concentration, less critical thinking in solving complex societal issues and over-dependence on virtual knowledge.

The influence of SM amongst students and largely the youth has received a considerable attention from scholars. Most of these scholars argue that SM especially Facebook, WhatsApp and Twitter negatively affect students' performances [3]. In Ref. [4], a study conducted on students who used SM frequently found that students who spent much time on SM had some drop-in grades. In Ref. [5], the author supported this finding as they unveiled that there was a significant negative relationship between Facebook use and academic performance. The study concluded that students who use Facebook spend fewer hours per week studying on an average than Facebook non-users and as a result obtained lower mean Grade Point Averages (GPAs). In Ref. [6], the author examined the relationship among numerous

measures of frequency of Facebook use with time spent preparing for class and overall GPAs. Hierarchical linear regression analysis from the five studies by Junco indicated that time spent on Facebook was strongly and significantly negatively correlated with overall GPA.

Contrary to the above arguments, other scholars were much concerned about the improvement SM has brought to the classroom. In Ref. [7], Ito et al. argue that despite this negative influence of SM, teens use these technologies for several positive activities, including greater participation in interest-driven groups and activates. Likewise, in Ref. [8], it is advanced that SM provides the platform that encourage the youth to learn more about activities, practice classroom lessons and acquire knowledge on diverse fields. Similarly, Ref. [9] indicates that through more light on volume of work students produces because of SM. Generally, he argues that SM encourages the youth to write, a skill needed in most academic fields.

The benefits of SM in the classroom span from in classroom activities (teaching and participation) to out of the classroom collaboration and learning. Teachers can now post and receive assignments from their students without necessarily being physically present. Students equally now have access to enormous information in the form of articles, electronic books, biographies, video presentations and info graphs, all present on the web.

The arguments set forth in this chapter is to provide constructive strategies that could be adopted by stakeholders in the educational sector as well as students to take advantage of the benefits of SM to provide the teaching and learning experience; serve as a working document for educators to design and implement policies; and provide new avenues of providing comprehensive and concise teaching and learning experience for students as well as teachers. It attempts to provide a background information to edupreneurs vested in taking advantage of the commercial prospects of SM to conduct further research of ways to implement and include SM content on educational platforms to encourage student's participation and interest.

2. Social media

The numerous benefits of SM in every component of society are undisputable. With its seemingly free cost, (in Africa and elsewhere, there is cost associated with access, hosting and management) its use rests within the discretionary interest of the user. SM has also redefined the aspect of news reporting and information and placed in a more inclusive aspect called "Citizen Reporting." Individuals do not have to wait or a news agency to report on issues of much concern to them but with access to Internet and a few SM sites, news could travel in a matter of clicks.

Defining SM is a difficult task and quite impossible to provide a working scope in a single chapter. Primarily because of its dynamism of fast changing pace and characteristics. Dichotomizing its component: the media aspect of SM provides a channel for communications whiles the social elements evoke the idea of inclusiveness of the masses. Social networking sites are web-based services that provide the public a service that encourages connections, collaborations and engagement through improvement communication, shared interest and

messages (see Refs. [10–13]). This is most exemplified through friend requests and accep-tances, posting messages, sharing information (news, articles, or photographs), likes, com-ments and emoji reactions. The intermediaries that facilitate these connections at the user level are mobile devices and computers and at the macro level, social networking sites that use user-generated information to smoothen user experiences on the web. Convincingly, SM can be understood to be a convergence of multiple channels of communication that includes characteristics of the community where distance, availability and time are seamlessly inter-connected. Technically, in terms of web 3.0 that is the latest internet facility, then SM "would be a web-based application that does not just give you information, but interacts with you while giving you that information [14]." It is this interaction that does not exist in the tradi-tional media setting and perfect for networking. Even though the Internet is the medium, SM makes it simple as asking for participation in terms of comments or letting you vote on an article, or it can be as complex, recommendation and liking a page or posting in a collective means mostly of people with similar interest.

SM has opened a wide range of avenues where people conduct activities that are deemed of great importance in today's society. Through SM, people can conduct business swiftly in a short time that defeats the physical realities of owning a shop, possessing selling acumen and seeking of financial support for business sustainability. Today, information is shared across continents in seconds that might take days and sometimes months to do.

In the academia, participation, collaboration and academic integrity are given a true meaning. For instance, in referencing an academic work, one may stumble over a variety of information, mostly complex in nature. This information may either be difficult to understand, accept or its facts wrongly presented. In a traditional classroom setting, it would be difficult to have exter-nal perspective on the material obtained. Students will have no other choices than to accept and digest the perspective of the instructor. Through SM, a simple post will generate variety of interpretations, affording the students an insight into carefully comprehend and build their own perspective. The multiplicity of the knowledge shared will inform the students in a vari-ety of conditions to take into consideration and its context.

In Ref. [15], a study to access the role of SM in education submitted that "Web-based dis-cussions can contribute to the development of students' reflective ability and critical think-ing skills. Also, compared to face-to-face (F2F) interaction, students are more willing to voice their views or even disagreement and are more attuned to others' opinions in online discussions."

As stated earlier that SM is used for a wide range of different purposes and may serve society in different ways. Nonetheless, the vehicle of SM websites is built for such specific purposes. While some SM sites are built for the purpose of networking, sharing of more personal infor-mation with others may have the aspect of providing information by professionals on aca-demic, history and society or perhaps empowering citizen reporting.

However, it must be recognized that SM comes with some disadvantages for its users aside those that are much concerned about their privacy. Over reliance on the virtual world

could lead to a monolithic consumption of information. This is where every information is consumed as a fact without verification. It is for this reason fraud, hoax and spin information continues to gain popularity and cause damage often beyond repair. Aside this, for those that are concerned about privacy, there is easy access to a person's information which can later be used for criminal activities. An individual is at a higher risk of being implicated or duped. The other aspect of dangers associated with SM is the spread of viruses. It is much easier to transfer viruses from one end user to the other; the reason being that users of these SM are always intrigued to explore packages on the SM which is mostly presented in attractive design and appeal. For instance, recently, viruses hit users of Facebook with a presentation of a supposed sex video leak. Users who by chance clicked on the video had their accounts hacked and infiltrated. In such an instance, a person's personal detail sometimes financial could fall in the hands of unauthorised users.

2.1. Ways student can use SM effectively

According to *Andrew Marcinek*, an Instructional Technology Specialist at Boston University, the SM has become a factory of thoughts. People are capable of publishing their thoughts to a vast audience. Comments, tweets and status updates are ubiquitous and constant. He believes that the focus to a larger extent has been shifted from quality of content to quantity (see Ref. [16]).

In his approach of guiding students to use SM in the educational endeavour goes beyond simply instructing students to acquire a blogger ID, Facebook and twitter. These are essential part of using SM, but beyond boastfully claiming ownership among peers, inability to use it to develop the skills necessary to effectively convey messages to a receptive audience, then the value of the message is diluted. If that same student stood at a podium with a microphone, yet has not prepared a speech and has trouble using proper grammar, this student's message could be lost to his or her audience. In Ref. [16], Marcinek points to these few steps to students as a way to effectively use SM for their benefits and others.

First and foremost, instructors and educators must keep the standards high. Students should be enabled to find and share their voice with the world (see Ref. [17]). The need to be equipped with a powerful skill that is timeless: writing effectively. He added that "Students must realize that there is a BIG difference between "your" and "you're" no matter what forum they are using to communicate a message. Consider this how much effort does it take to edit 140 characters? Not much. It is heartening to find students publications with common errors such as "then" vs. "than", "it's" vs. "its," and knowing when to use an apostrophe to denote possession. These students learn from feedback that their message is diluted. If students are allowed to move on without correcting his or her errors, this trend would continue and possibly diminish their capacity of reaching their full potential. The same principles must apply in all forms of SM [18]."

Marcinek and some scholars (see Refs. [17, 19–23]) argue that the incorporation of SM in the classroom must be consciously implemented by educators. Specifically, in the areas of

writing and editing as exemplified above, the use of social platform like twitter encourages students to master the English language as well as effective communication. The use and cap of 140-characters overtime shapes the writing skills of students.

Finally, students must be taught the basic rudiments of writing before posting, examine motives. Every educator tries to find ways to present authentic assessment and give their students an audience for feedback and reflection. However, it must be conveyed to our learners that a lot more eyes are watching than ever before. The attention should be shifted from just instructing students to blog, connect and, communicate but to making sure students are putting out polished, substantive information. The same goes for Facebook and any other form of SM. The best educators must model this skill daily and practice what is preached. Students should be made to think about what information being put out there and the reason for the publication.

3. Methodology: empirical data collected

Primary data were collected to determine the use of SM amongst students. The target population for the research was made up of heavy internet users from different educational and ethnic background. A simple random sampling technique was used to determine the population size. This was because the population was heterogeneous and possessed complex attributes.

The population was divided into three subgroups: lecturers, internet users group and the students. In determining an appropriate figure as a fair representation of the targeted group, a sample of 50 was considered appropriate for a population size of more than 1000. The target population was grouped as lecturers $(N) = 15$, internet users $(N) = 15$ and students $(N) = 20$.

The confidence level of the research was placed at 95% which meant that the outcome of the research factual is well conducted. However, the error or tolerance level of the research was pegged at 5% to take care of human errors that went unspotted.

Each participant received a set of questionnaire with open questions backed by close-ended answers. While the questions were mostly qualitative in nature, responses were regarded as quantitative. The questionnaire was made up of 20 questions segmented in three separate parts—biographical information, internet usage and benefit of SM in teaching and learning. It was, however, ever administered to all the three spectrum identified as target population for the research. The distribution and administration of the questionnaire were strictly based on the principle of stakeholder analysis. Thus, students and internet users were considered first given much priority followed by lecturers. Observations of activities on new media platform especially Facebook, WhatsApp, YouTube and Twitter were taken into account. Since the data were collected from a small sample size, no analytical software was used. Responses were tallied and tabulated for easy analysis. Also, confident generalisation could not be made. Rather inferences were made into the data collected by way of analysis.

The study reviewed scholarly works and publications from articles, reports, websites, group discussions and blogs in relation to the objectives of the research as a result of the research being a descriptive one.

3.1. Data presentation

The perception of SM in the classroom was rated among participants. Data were collected on respondents' biographic information (age, education and social media usage). Moreover, perceived challenges of the use of SM in the classroom and strategies for the effective use of SM were collected.

3.2. Biodata of respondents

The biodata collected from respondents included age, educational background and a prioritised response on the most used SM (**Table 1**).

The research established that 20% of respondents were below 25 years. In addition, 70% of the respondents between the ages of 25 and 30 whilst 10% of the respondents were above 30 years. It was therefore made known that majority of the target population were between the ages of 25 and 30 (**Table 2**).

From the information, above, it was gathered that out of the 50 respondents, 20 respondents representing 40% have had Senior Secondary education, whilst 30 respondents representing 60% have had education at the tertiary level. From the data, it was evident that most of the respondents were literate and understood not only the scope of the research but could speak to it (**Table 3**).

From the data above it showed that out of the 50 population size, 50% of the respondents prioritised the use of Facebook; whilst 30% used WhatsApp, followed my Twitter and YouTube both receiving 10% of respondent's feedback. There is a probability that respondents used a variety of SM platforms at a given time. However, respondents were asked to prioritised their usage so as to gain an idea of the SM students spend most of their time in terms of usage.

No.	Variables	Frequency	(%)
1	Below 25 years	10	20
2	Between 25 and 30 years	35	70
3	Above 30 years	5	10
	Total	50	100

Source: Field Work Data (2016).

Table 1. Age groupings of respondents.

No.	Variables	Frequency	(%)
1	Senior Secondary Education	20	40
2	Tertiary Education	30	60
	Total	50	100

Source: Field Work Data (2016).

Table 2. Educational background of respondents.

No.	Variables	Frequency	(%)
1	Facebook	25	50
2	WhatsApp	15	30
3	Twitter	5	10
4	YouTube	5	10
	Total	50	100

Source: Field Work Data (2016).

Table 3. Prioritised SM usage among respondents.

4. Challenges of social media usage in the classroom

The larger population submitted that SM in the classroom was a distraction. Mostly lecturers believed that SM does more harm than good. It was known that laziness in conducting research, limited zeal to learn and lack of cross-checking information gathered on SM were the most contributing factors of the grieve dangers of SM in the classroom.

4.1. Laziness among students in conducting research

Laziness among students in conducting research is known to be the lack of interest and aptitude of students to engage in data gathering to enhance their academic work. At any academic level, basic research is required to gather required information to enrich an individual submission. As it enriches the understanding of the students, it equally enhances the student to make credible debate or argument and present works in a professional manner.

SM has removed borders and brought people closer to each other. On daily basis, high volumes of information are uploaded and downloaded. This has made it possible for a user to gather data on diverse issues. For this reason, students are able to copy exact documents on topics taught in class without reading, editing and referencing. As information is readily available on SM, students tend to be lazy in conducting basic research.

4.2. Limited zeal among students to learn

Limited zeal among students to learn as far as the research is concerned is the inability of students to spend ample time to learn throughout their academic program. Students mostly do not spend time to participate in class discussions, group studies and individual studying periods. Owing to this, most students lack understanding on subjects taught and therefore resort to SM for already discussed essays and articles. It can be said that high level of exam malpractice is a result of limited zeal among students to learn.

The research gathered that a high rate of tiredness, focused attention to meet family needs and over reliance on others were the effects of limited zeal among students to learn, which contributed to the negative effect of students over reliance on SM.

4.3. Student's inability to cross-check information gathered on SM

Student's inability to cross-check information gathered on SM can be said to be the instance where students use every information accessed on SM without dully verifying such information. For information to be relevant, the student must verify the answerability of the information to the question the student seeks to answer, timeliness and author. These indications give students the inclination that the information sourced is credible and can be used to back any argument made.

It is known that high dependency on information gathered on SM, over believe of the accuracy of SM and ability to meet deadline was the effects of student's inability to cross-check information gathered on SM.

In an interview with Gertrude Tetteh, a final year student in one of Ghana's public universities said as a student she believed that information she sourced from the Internet is certified and accurate. However, she mentioned that she has been notified of the non-regulatory nature of SM platforms, which require that information gathered from the platform is carefully scrutinised. Yet, she said sourcing information from the Internet without carefully scrutinising it has been a long life behaviour that needs to be built.

4.4. Effects of gathering diverse views on Facebook

The research revealed that there were several adverse effects of students gathering diverse views from Facebook, as views and opinions solicited could not be certified. It is known that the high rate of confusion on views to adopt, inability of students to analysis views and take a stand and high rate of adopting wrong views were the immediate effects identified.

Benedictus Amudzi, a student, view on the effect of student use of Facebook to gather views and opinions on academic issues coincided with the research findings. In his view, Facebook is not a regularised environment with any ability to users to certify information solicited from the platform. Because of this students stand a high tendency of becoming confused due to students' limited ability to evaluate information solicited.

5. Strategies for the effective use of SM in the classroom

This segment sought to look at the best ways of tackling the effects of students over reliance on SM (Facebook) and how students could take advantage of the platforms to advance their educational development.

The study has proposed several ways of addressing the negative effects of SM on education. It was revealed that integration of SM in education tutorials, comprehensive training of students to use SM for learning and conducting an in-depth research were ways of utilising the tool in classrooms.

According to the data collected, it showed that among the respondents, 50% of respondents said that "*integrating SM in educational tutorials*" was the best way of addressing the negative effects of SM on education among students. Again, 30% of the respondents said that "*comprehensive training of students to use SM for learning*" was another possible solution to address the negative effects of SM on education among students. While 20% said that "*conducting an in-depth research should be conducted in the subject areas*" was the way forward.

In an interview with Mr. Ogochukwu Nweke, a former Director of Student Affairs and New Media lecturer at AUCC stated the best way student could avoid the negative effects of SM on education was for academic institutions and lecturers to blend courses with SM tools. He said that it streamlines what information students should use and provide administrators the opportunity to detect plagiarised works. He said that creating a community on SM platforms encourages students to develop the skills of debating, presentation and development of ideas.

5.1. Taking full advantage of SM in education

The research equally probed areas that would empower students to take full advantage of SM in their educational pursuit. It was agreed that setting up groups with same interest on Facebook, ability to rate effectiveness of SM in education and utilising services and application on SM to the fullest were some of the proactive ways students could adopt to take full advantage of SM (Facebook) in their educational pursuit.

According to the data, 14% of respondents said "*setting up groups with same interest on Facebook*" was one of the ways students take full advantage of SM for their educational purposes. Again, 30% said that "*ability to rate effectiveness of SM in education*" was another way students could take full advantage of SM for their educational purposes. Lastly, 56% said that "*utilising services and application on SM to the fullest*" the way forward.

It was unequivocal that the best way students could take full advantage of SM for their educational purposes was to utilise services and applications on SM to the fullest despite the fact that other ways proposed included setting up groups with same interest on Facebook and ability to rate effectiveness of SM in education.

Mr. Ogochukwu Nweke said that students can take full advantage of SM by utilising tools of SM platforms. He cited that Facebook allows users to create groups of interest and pages. Students could use this feature to set groups among colleague and professionals in the media field to gather expert views and opinions on academic issues.

6. Conclusion

The study was conducted to examine the impact of students using SM in the classroom and how it affects the academic performance of students. The study has revealed that despite its negative impact most scholars recorded on the use of social media in the classroom, if effectively managed can greatly improve the performance of students. Prime of the numerous benefits associated with the use of SM in the classroom included sharing information and ideas, improving reading skills, effective collaboration, and enhancing the experience of teaching and learning. Participation of students on Facebook, WhatsApp and YouTube encourages collaborations of the students even after class hours. This instils the act of continuous learning amongst the students (see Ref. [3]). However, the threat to academic performance remains. Most scholars argue that it leads to divided attention and reduced concentration in the class. Likewise, the issue of plagiarism increases as students often rely on SM for answers to assignments (see Refs. [3, 9, 15, 19]). The research could not cover in detail of the aspects of SM that best fit the operations and processes of education. The research could not rate the aspect of Facebook, such as chats, status updates and group conversations that negatively affected the educational goals of students. How effective SM was in contributing positively to the improving knowledge and understanding of students academically was not covered. Further research is required to contribute to this pool of knowledge. That way a convergence of these research works would provide a clear road map and ubiquitous means of integrating SM in the class to ensure peak performances and great teaching and learning experience.

7. Recommendations

Based on the findings in reference to the influence of SM in the classroom, its effects on education and its possible solutions, the following recommendations were made:

1. Integrating SM in educational tutorials would empower students to gather skills and knowledge to properly utilise the tools of SM to improve their educational goal.

2. Teaching students about time management is necessary to equip students especially workers to appropriately manage their time and skilfully blend their work with schooling and eliminate the overabundance on SM.

3. Educating students on research methods is necessary to advance the research skills available to students and eliminate the issue of plagiarism, over-dependence on SM and lack of analysis of issues before adopting ideas.

4. Setting up groups with same interest among students and colleagues on Facebook is important to bring scholars together to debate and contribute effectively to discussions and subjects therefore broadening the knowledge base of students.

5. Rating effectiveness in education on annual basis by management of educational institutions is important to enhance the management's ability to spot loop holes in the educational system and make amendments necessary to make seeking education credible.

6. Teaching students not to trust the accuracy of information on SM is important to make students critical thinkers, enhance their abilities to analysis arguments and make meaningful conclusions.

7. Encouraging students to source and make use of information from libraries is necessary to take the focus of students from SM and build credible research attitude among students.

Author details

Dennis Moot

Address all correspondence to: dm167412@ohio.edu

Ohio University, Athens, Ohio, USA

References

[1] Laary D. Ghana: Mobile Penetration Soars to 128% [Internet]. March 2016. Available from: http://www.theafricareport.com/West-Africa/ghana-mobile-phone-penetration-soars-to-128.html. [Accessed: 31 December 2016.

[2] Opoku A. SM in Ghana [Internet]. 18 January 2011. Available from: http://www.albertopoku.com/social-media-in-ghana/social-media-in-ghana/ [Accessed: 25 August 2016]

[3] Mingle J, Adams M. Social media network participation and academic performance in senior high schools in Ghana. Library Philosophy and Practice (e-journal). 2015; Paper 1286. Available from: http://digitalcommons.unl.edu/libphilprac/1286

[4] Emery E, Philip H, & Warren A. The role of mass communication. In: Introduction to Mass Communication. New York: Dodd, Mead and Company, Inc.; 1972. p. 14

[5] Enriquez JG. Facebook and Other Online Social Networking Sites Can Lower Grades, Study Says [Internet]. 2010. Available from: http://seerpress.com/facebook-and-other-online-social-networking-sites-can-lower-grades-studysays/6935/. [Accessed: 4 January 2017]

[6] Junco R. The relationship between frequency of Facebook use, participation in Facebook activities, and student engagement. Computers and Education. 2011;**58**:162–171

[7] Ito M, Baumer S, Bittanti M, Boyd D, Cody R, Herr-Stephenson B. Hanging Out, Messing Around, and Geeking Out: Kids Living and Learning with New Media. Cambridge, MA: MIT Press; 2009

[8] Ahn J. The effect of social network sites on adolescents' social and academic development: Current theories and controversies. Journal of the American Society for Information Science and Technology. 2011;**8**(62):1435–1445. DOI: 10.1002/asi.21540

[9]   Fishman J, Lunsford A, McGregor B, Otuteye M. Performing writing, performing literacy. College Composition and Communication. 2005;**2**(57):224–252

[10] Boyd DM, Elisson NB. Social network sites: Definition, history, and scholarship. Journal of Computer-Mediated Communication. 2007;**1**(13):11. Available from: http://jcmc.indiana.edu/vol13/issue1/boyd.ellison.html [Accessed: 1 December 2016]

[11] Heine C. Zynga's Q4 Ad Revenue Jumped 230% [Internet]. 14 February 2012. Available from: Clickz.com: http://www.clickz.com/clickz/news/2152508/zyngas-q4-revenue-jumped-230 [Accessed: 25 August 2016]

[12] Davis CHF, Canche MSG, Deil-Amen R, Rios-Aguilar C. Social Media in Higher Education: A Literature Review and Research Directions. Arizona: The Center for the Study of Higher Education at the University of Arizona and Claremont Graduate University; 2012

[13] Ayiah ME, Kumah CH. Social networking: A tool to use for effective service delivery to clients by African Libraries. In: 77th IFLA Conference. Puerto Rico: IFLA; 2011. pp. 1–14

[14] Berkowitz, Eric, and Steven Hartley. The strategic marketing process. In: Marketing. New York: Irwin McGraw-Hill; 1997. pp. 581–582

[15] Deng L, Tavares NJ. From Moodle to Facebook: Exploring students' motivation and experiences in online communities. Computers and Education. 2013;**68**:167–176

[16] Marcinek A. How to Help Students Use SM Effectively [Internet]. 2010. Available from: Edutopia: http://www.edutopia.org/blogs/how-to-help-students-use-social-media-effectively [Accessed: December, 2016]

[17] Newman AA. Brand Now Directs Their Followers to SM [Internet]. 2011. Available from: Nytimes: http://www.nytimes.com/2011/08/04/business/media/promoting-products-using-social-media-advertising.html?_r=1 [Accessed: 2 December 2016]

[18] Salvation M, Adzharuddin NA. The influence of social network sites (SNS) upon academic performance of Malaysian students. International Journal of Humanities and Social Sciences. 2014;**4**(10):131–137. Available from: http://www.ijhssnet.com/journals/Vol_4_No_10_1_August_2014/16.pdf [Accessed: 2 November 2016]

[19] Owusu-Acheaw M, Larson AG. Use of social media and its impact on academic performance of tertiary institution students: The case of Koforidua Polytechnic Ghana. Journal of Education and Practice. 2015;**6**(2):94–101

[20] Paul S. How Ghana is Using SM to Promote Voter Registration [Internet]. 2012. Mashable. Available from: http://mashable.com/2012/03/27/ghana-voter-registration-social-media/ [Accessed: 25 August 2016]

[21] San Miguel R. Study on Facebook and Grades Becomes Learning Experience for Researcher [Internet]. 2010. TechNewsWorld. Available from: http://www.technewsworld.com/rss-story/66805.html?wlc=1286985671&wlc=128719 5471 [Accessed: 20 August 13]

[22] MacMillian G. Print is Dead [Internet]. 2012. Wallblog. Available from: http://wallblog.co.uk/2012/03/16/google-ad-revenues-bigger-than-entire-us-newspaper-industry-print-is-dead/ [Accessed: 28 August 2016]

[23] Lane R, Russell T. Advertising the Framework. New Jersey: Prentice Hall, Inc.; 2001. p. 14

Edited by Beatriz Pe√±a Acu√±a

Media communication is a young discipline, if we compare it with others. It has been studied scientifically from the last century in social sciences. This topic, as it is a human process, is complex, and it is changing because of new technologies. It transforms our society too. It is recognised that we are in a communication society. The management of knowledge is settled in business area too. Communication skills are recognised as competences in education for preparing future citizens. Media communication feeds from different disciplines and it keeps their attention. This book is an attempt to provide theoretical and empirical framework to better understand media communication from different point of views and channels in various contexts. The international authors are specialised on the issues. They cover a wide range of updated issues. They span from deepening about behaviour of media or trends to national cases related to social net and to new phenomena - as it is mindfulness applied to creativity. So in this book, two sections are presented. The first section focuses on the behaviour of media, when it is applied in education field and reception research. The second section provides three case studies about the Internet: platforms and social nets developed and applied to different publics.

9 789535 148111

IntechOpen