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CONTENTS

LEAD ARTICLE

'Offline' vs 'online' media: Claim-makers, content, and audiences of climate change information

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Abstract

This paper aims to explore both similarities and differences between offline and online climate change communication in terms of claim-makers, content, and audiences. It is based on academic peer reviewed papers directly relevant to the communication of climate change by the media, published in English language between 2010 and 2016. Interdependences between offline and online media are often cited, especially in terms of web searches of information already reported by traditional media (both print and television). In some other cases, the study of the intermedia agenda shows that the debate originated on online blogs triggers and conditions the attention of print media. This interdependence is also showed by a polarisation between 'activists' and 'contrarians' in both online and offline arenas. However, while the web offers greater space for interaction and a variety of sources, the dominance of the 'old media' point of view seems to undermine these attempts.

Keywords

Introduction

This paper aims to explore both similarities and differences between offline and online climate change communication in terms of content, strategies and audiences. The relation between the types of medium used and public engagement is still debated and controversial. Many studies tried to identify

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the main elements that affect public perception and the factors that make communication on climate change successful. Asplund (2014) identifies five macro-themes in the literature on public perceptions of climate change, such as consensus and conflict in climate science (e.g. Asplund et al., 2013; Feldman, 2013; Jaspal et al., 2016; Sch fer, 2016; Schmidt et al., 2013; Speck, 2010), attribution of causes, levels of concern, climate change frames as filtered through existing worldviews (Leiserowitz et al., 2013; Poortinga et al., 2011; Whitmarsh, 2011), and the influence of experience on interpreting climate change (Akerlof et al., 2013; Spence et al., 2010; Taylor et al., 2014; Weber, 2010). In support to this, the literature review (from 1980 to 2014) on the evolution of public perceptions of climate change carried out by Capstick et al. (2015) shows that changes in public perception were particularly influenced by experiences of extreme weather events, media events, economic downturn and political events.

Recently, online debates on climate change have been progressively increasing, especially thanks to the widespread use of social media platforms. The Internet has become one of the most common sources for science information in particular in developed countries. Following the research conducted by the National Science Board (2016), the Internet represented the primary source of science and technology information in 2014 for the 47% of Americans (about 4 in 10 use a search engine and 2 in 10 use online newspapers to retrieve science-related information). The access to online platforms has been also increasing in Europe even though traditional media remain important (often offline and online platforms are combined) (Newman, 2016).

A part of studies have adopted social media, such as Twitter (Cody et al., 2015; Holmberg & Hellsten, 2011; Holmberg & Hellsten, 2015; Pearce et al., 2014; Veltri & Atanasova, 2015; Williams et al., 2015), YouTube (Jaspal et al., 2014; Porter & Hellsten, 2014; Spartz et al., 2015; Uldam & Askanius, 2013), Facebook (see e.g. Connor et al., 2016; Vraga et al., 2015) as sources of information for exploring public understanding of climate change.

Some authors suggest that social media can be privileged platforms from which observing social engagement, thanks to their conversational and interactive character.

However, some of the offline characteristics of the climate change discourses are also reproduced online. For example, Pearce et al. (2014) identified three types of Twitter communities (labelled as supportive, unsupportive and neutral) emerged around the publication of the Fifth IPCC report 2013, which reflect the division represented in traditional media narratives. Moreover, the same actors, such as scientists, NGOs, politics and media result to frame their messages in

different ways on these platforms. Social media create the favourable conditions for these actors to communicate and interact with the public. At the same time, science efforts to disseminate research results on the Internet seem to be still limited and concentred on the use of less interactive tools, such as e.g. web-blogs by using scientific language. NGOs largely use the Internet to engage and mobilise the public, to inform journalists and gain support from the outside. Politicians mainly use the Internet as a governance tool (Sch fer, 2012). Finally, the 'old media' (such as TV, radio and newspapers) struggle to create their channels also online by using different tools (from institutional web-sites to social media accounts).

Interdependences between offline and online media are often cited, in particular in terms of web searches of information already reported by traditional media (both print and television). In some other cases, the study of the intermedia agenda shows that the debate originated on online blogs triggers and conditions the attention of print media (Bosch, 2012; Hellsten & Vasileiadou, 2015; Lineman et al., 2015). This interdependence is also testified by a polarisation between 'activists' and 'contrarians' in both online and offline arenas. However, while the web offers greater space for interaction and a variety of sources, the dominance of the 'old media' point of view seems to undermine these attempts (Gavin, 2010).

This article will shed light on the strengths and weaknesses of online and offline arenas in terms of producing climate change awareness amongst the public. It will also interpret the role of different media, and their interdependences, in social constructing the meaning of climate change. The first paragraph will describe the literature review method, the second one will outline the main characteristics of both online and offline communication in terms of climate narratives, the third one will identify the interdependencies between the media. Finally, some considerations and conclusions about the meaning of such interdependences will be drawn.

Literature review method

The literature review on media communication of climate change focuses on similarities and differences between offline and online climate change communication in terms of content, strategies and audiences. It focused on a set of academic peer reviewed papers directly relevant to the communication of climate change by the media. A systematic literature search combined relevant keywords relative to the topic, such as 'communication of climate change', 'weather extreme', 'climate perception'. 273 papers were identified and read entirely. A core set of 98 articles were retained given their focus on

media strategies of communication of climate change and public response. The analysis included academic articles published in English language between 2010 and 2016. The time period was established considering that the more recent literature review on media communication of climate change was based on publications between 2000 and 2011 (Wibeck, 2014)[1]; and data published by the Pew Research Center (Stokes et al., 2016), show how since 2010 the public perception about climate-related risks has increased in Europe (and slightly in the UK). The academic articles were retrieved using journal search engines, such as Directory of Open Access Journals – DOAJ (www.doaj.org), Elsevier – Science Direct (www.sciencedirect.com), Jurn (www.jurn.org), Open Access Journals Search Engine – OAJSE (www.oajse.com), Google Scholar, Web of Science Thomson Reuters (http://thomsonreuters.com). Moreover, articles were directly searched in those journals with higher Impact Factor as indicated by The Scimago Journal & Country Rank[2].

Papers were retained for inclusion if they: directly pertained to media communication of climate change; and were academic articles/editorials (excluding review articles, books and PhD thesis). Papers that did not focus primarily on communication of climate change were not included in this core set of articles.

Traditional and 'new' media:
Main characteristics, similarities and differences

As highlighted by Carvalho (2010), attitudinal differences may be interpreted in the light of consumption of specific types of media content (see also *Table* 1). A part of the literature highlights positive correlations between media consumption and levels of political participation. Specifically, the Internet was found to increase political information and political participation and empower marginalised groups, whereas television tends to promote civic disengagement. Moreover, among the traditional media (which include in this case movies/documentaries, radio, television, and printed media) the most explored resources continue to be the newspapers (both online and printed); whereas among the new media (social media, online arenas, Google trends and Google

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[1] The literature review conducted by Wibeck (2014) only included articles focusing on public understanding of media messages of climate change. Moreover, Ballantyne's literature review (2016) focused on 299 scientific articles before 2014, but it focused on how researchers adopt communication theories and models to analyse certain aspects of climate change communication. Finally, the literature review conducted by Nerlich et al. (2010) considers researches carried out up to 2010.

[2] http://www.scimagojr.com/journalrank.php?category=3315&openaccess=true

news, ICTs in general) the social media are the most analysed. While the framing tendencies (from the media perspective) and the exposure (from the public perspective) to traditional news media have been widely explored by reporting the main characteristics and effects produced by this kind of communication, the study of both effects and dynamics of new media reporting media is still under definition. The literature focusing on traditional media communication highlighted, for example, that those communication based on consequences of climate change, but simultaneously providing solutions, seem to be more appealing for public engagement (Gunster, 2011; Hidalgo et al., 2014; Lopera & Moreno, 2014; Somerville & Hassol, 2011). Even uncertainty was found to be effective if associated with 'positive frames' (lack of losses). In this context, it appears that people feel that action would be more effective, and express intention to take these actions (Morton et al., 2011). Moreover, O'Neill et al. (2013) found that the imagery related to energy future (such as e.g. solar panels, wind farm, electric car, home insulation) increases self-efficacy, but imagery related to impacts decreases self-efficacy by increasing a sense of powerlessness. However, in the case of Al Gore documentary, which suggests a number of actions for mitigating climate change at individual level, Jakobsen (2011) found that changes in behavioural terms are only short-term. Furthermore, exploring how media usage influences climate change awareness and related behavioural intentions in Germany, Arlt et al. (2011) found that media effects are only related to quick actions that produce economic benefits or political influence. By contrast, there is no relation to long-terms behavioural change. Behavioural changes result to be mainly influenced by perceived control of climate change by individuals and awareness of climate problems, rather than by media usage. Russill (2011) suggests that public participation in climate change discourse might be undermined by adopting a perspective of truth that narrows subjective interpretation of the uncertainty of climate change. When there is consensus around the 'climate change emergency' among citizens (Olausson, 2011), the responsibility for acting on climate change becomes a 'political issue'. In fact, a need for global/local political interventions is highlighted on regulating both collective and individual behaviours. The adoption of policy responses and preventive measures is perceived as 'governments' responsibility' (Dirikx & Gelders, 2010; Olausson, 2011; Stoddart & Tindall, 2015) since people were found to be 'too self-centred' to voluntarily act on reducing anti-environmental behaviours.

Some authors highlight that, differently from traditional media, in some cases the exposure to user-generated content does not influence the perception of climate change (Porten-Cheé & Eilders, 2015), and the increase in the

number of stakeholders involved in online discussions does not necessarily improve the quality of information (Schäfer, 2012) (see *Table 1*). On the other hand, the relation between the need for information and the Internet use was found to increase the impact on problem awareness and behavioural intentions (Taddicken, 2013). The Internet use mediated through the media evaluation and need for information seems, indeed, to produce impacts on users' awareness. The more media reporting is evaluated as exaggerated, the more Internet use negatively affects levels of knowledge, problem awareness, and behavioural intentions (Taddicken, 2013).

Some authors suggest that social media and Google tools (such as Google search or Google news) can be privileged platforms from which observing social engagement, thanks to their conversational and interactive character (and facility to retrieve data in the case of Google trends) that allows to record people's engagement in specific issues (Leas et al., 2016). However, it does not necessarily mean that those people who are actively involved in discussing climate change-related issues are also engaged in acting on it. In some cases, such as web activities related to specific research projects, a preference for learning 'from the experts' rather than actively engaging in discourses was found, and Facebook success in involving people was connected to the specific format used (e.g. video, images) (Newell & Dale, 2015). An analysis of hyperlinks used in Twitter conversations reveals that even though the mainstream media are not the only source of information, reproduce the traditional media discourse (Veltri & Atanasova, 2015). However, one of the main innovations introduced by the social media in the climate debate is represented by the amplification of the role of non-expert users. On the one hand, the Internet offers the possibility to the general public to choose among a number of information sources; on the other, it gives them the opportunity to generate new contents and publicly and critically discuss scientific issues. Given the interactive nature of the social media (Boykoff, 2011), it is expected a 'democratisation' in constructing and sharing scientific knowledge. However, beyond the advantages, some disadvantages might be represented by the possibility that the increasing number of voices involved in the debate might (also 'intentionally') generate increasing confusion and uncertainty.

Table 1

Similarities and differences between new and old media

Characteristics	Old	New
Increase of political information and public participation/ engagement	Television tends to promote civic disengagement (Carvalho, 2010)	Exposure to user-generated content does not influence the perception of climate change significantly (Porten-Cheé & Eilders, 2015; Schäfer, 2012)
	Increased engagement through positive messages, consensus and solutions (Asplund et al., 2013; Gunster, 2011; Hidalgo et al., 2014; Lopera & Moreno, 2014; Morton et al., 2011; O'Neill et al. 2013; Somerville & Hassol, 2011)	Increase of problem awareness in relation to the users' evaluation of both content reliability and medium type (Namukombo, 2016; Newell & Dale, 2015; Spartz et al., 2015; Taddicken, 2013)
	Only short-term behavioural changes (Arlt et al., 2011; Jacobsen, 2011; Russill, 2011)	Potential increase of people engagement thanks to their interactive character (Leas et al., 2016)
	Use of emotional values involve users (Höijer, 2010)	Use of emotional values involve users (Veltri & Atanasova, 2015)
	Media messages filtrated by both individual values/ background (e.g. political orientation) and external factors (e.g. experience of impacts, and political orientation of the medium) (Akerlof et al., 2013; Zhao et al., 2016)	Media messages filtrated by both individual values/ background and external factors (Vraga et al., 2015)
Responsibility and opinion	The responsibility for acting on climate change is 'political matter' (Boykoff, 2014; Dirikx & Gelders, 2010; Feldman, 2013; Olausson, 2011; Speck, 2010; Stoddart & Tindall, 2015)	Non-experts, and 'minor' opinions become valuable (Askanius & Uldam, 2011; Cody et al., 2015; Hermida, 2010; Porten-Cheé & Eilders, 2015; Roosvall & Tegelberg, 2015; Segerberg & Bennett, 2011; Uldam, 2013; Uldam & Askanius, 2013; Williams et al., 2015)

Interdependences between old and new media

The literature review highlighted similarities, differences but also interrelationships between old and new media (see *Table 2*). It seems to emerge a connection between old and new media in particular in terms of web searches of information already reported by traditional media (both print and television) (Gavin, 2010; Gavin & Marshall, 2011), such as in the case of 'global warming slowdown' (Hawkins et al., 2014)[3]. Analysing tweets posted between 2012 and 2014 Kirilenko and Stepchenkova (2014) found that the flow of information around climate change is highly dominated by few media outlets, celebrities, and prominent bloggers. In some cases, the study of the intermedia agenda, such as in the case of 'climategate', shows that the debate originated on online blogs triggered the attention of print media, and conditioned them in using specific terms (such as the term 'climategate') (Hellsten & Vasileiadou, 2015). Moreover, in both contexts the importance of content with high emotional values emerges as means for involving the public/users (Höijer, 2010; Veltri & Atanasova, 2015); in some cases, even the online discourses around climate change might be driven by the publicity spread by traditional media, and no evident differences can be found in terms of topics and tendencies (Bosch, 2012). In fact, sometimes people searches for specific terms (such as climate change or global warming) are influenced by the use of them by the media (Lineman et al., 2015). This is also confirmed by the strong linkage between social media conversation, Google search for specific terms, comments posted by users on online arenas, and the high resonance given by the media to specific events.

The first area in which interrelationships between old and new media can be found relates to the consumption of specific types of media and public engagement/attention activation The studies reviewed confirmed what was suggested by Boykoff (2011): media (both online and offline) and, consequently public attention, is attracted by specific events. The events mostly studied can be classified as 'science-related', 'political-related', 'scandal-related', 'extreme weather-related', 'celebrity-related' and 'meta-media analysis'. The first category includes the release of scientific reports (Elsasser & Dunlap, 2012; Lörcher &

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[3] Google trends show how the 'pause' in global warming became a topic searched online after traditional media started to cover the issue, with peaks in occasion of the publication of key articles in the press or media events. However, the 'global warming slowdown' appears to be a missed opportunity for both online media, due to the scarce presence of scientists actively involved in interactive discussion on the problem (Hawkins et al., 2014), and traditional media, due to a number of variables related to 'journalistic norms' and 'concatenated contextual political, economic, social, environmental and cultural factors' (Boykoff, 2014).

Neverla, 2015; Pearce et al., 2014; Rick et al., 2011; Stoddart et al., 2015). The second one includes UN meetings and other political meetings on climate change ((Arcila-Calderón et al., 2015; Askanius & Uldam, 2011; Blanco Castilla et al., 2013; Elsasser & Dunlap, 2012; Kunelius & Eide, 2012; Liu et al., 2011; Lörcher & Neverla, 2015; Porten-Cheé & Eilders, 2015; Rick et al., 2011; Schäfer et al., 2013; Segerberg & Bennett, 2011; Stoddart et al., 2015). The third category mainly refers to climate-gate scandal (Holliman, 2011; Koteyko et al., 2013; Ward, 2010) and errors appeared in the 2007 IPCC Fourth Assessment Report (Anderegg & Goldsmith, 2014). The fourth one refers to natural disaster and weather fluctuation/extreme events (Cody et al., 2015; Dow, 2010; Gavin et al., 2011; Lang, 2014; Miah et al., 2011; Ruiz Sinoga & León Gross, 2013). The experience of extreme temperature, for instance, was found to be associated with both an increase in twitting activities in the US and the connection of these events to climate change (Kirilenko et al., 2015). The fifth includes facts and events related to celebrity statements on climate change (Leas et al., 2016). The last category concerns the interrelations between media and how news media reporting critically reflect on other media products, such as in the case of the release of the Al Gore documentary 'An Inconvenient Truth' (Elsasser & Dunlap, 2012; Stoddart et al., 2015).

The role played by specific events might be read as an indicator of the 'volatility' of the phenomenon that erupts and declines quickly and reappears from time to time (Goode & Ben-Yehuda, 2009) in relation to specific facts. Some of these facts are clearly connected to the core problem (climate change), as in the case of UN meeting, release of scientific reports and documentaries, some others (see, for instance, weather fluctuations) are associated by the media to climate change (with either aims, to support or weaken scientific evidences).

The second area of interrelationships regards the creation of (politically) polarised communities. Shifting the debate between 'supportive' and 'unsupportive' on the online realm, the communication around climate related issues is not exclusive domain of media organisations, journalists, scientists, policy-makers, NGOs, but also 'non-elite' people become active interlocutors. In fact, as shown by Porten-Cheé & Eilders (2015), the 'spiral of silence' theory is not confirmed in the case of exposure to user-generated content: individuals who see themselves in the minority tend to express their opinions in online arenas. Studies aimed at identifying communities which are more or less oriented to support mainstream science on Twitter, reveals that there exists a polarisation between 'activists' and 'contrarians' (reflecting the same controversy that characterises the debate on offline media communication of climate change).

However, differently from what happens in the mainstream media[4], on this platform activists result to be more abundant and active in conversation around climate (Cody et al., 2015; Williams et al., 2015). Moreover, similarly to what happens in the context of traditional news media, both categories (convinced and unconvinced) tend to create like-minded communities by making conversational connections with those who share their views on climate change (Pearce et al., 2014; Williams et al., 2015). Analysing the network of blogs related to different opinion on climate change, Elgesem et al. (2015) identified a number of different communities: while sceptical voices resulted to be mainly concentrated in one community, a constellation of communities was dominated by accepters. They found that only one of the identified advocate communities presented more connections with sceptics, and they mainly interacted in topics concerning the science of climate change. In some cases, a conflict frame prevails in the conversations on social media, and the 'rude and hostile' tones, which characterise the comments (as, for instance, on YouTube), do not leave space for dialogue (Askanius & Uldam, 2011), thus increasing 'polarisation' between users, especially in relation to commenting ideologically-oriented videos (Porter & Hellsten, 2014). Lack of room for interaction was also found in web-sites managed by climate change organisations that tend to use their pages in a mono-directional way (Jun, 2011).

However, the role of ICTs in promoting engagement, in particular among the most vulnerable people is a cited value (Namukombo, 2016). The high 'popularity' of social media content (expressed in terms of visualisations) also seems to influence people perception of salience of climate change (Spartz et al., 2015). More specifically, social media seem to be often used by activists, who are often marginalised by the main stream media (Roosvall & Tegelberg, 2015), for both organisational or promotion of specific campaigns (Askanius & Uldam, 2011; Segerberg & Bennett, 2011; Uldam & Askanius, 2013), but also for general discussions (even though mainly with people who share the same values) (Cody et al., 2015; Williams et al., 2015). In some cases, the connection between traditional and new media pushes activists to carry on 'disruptive actions' (like in the case of the Stanstead airport action by the Planet Stupid) in order to gain attention firstly on the 'old' media, and consequently on the new ones. However, while the web offers greater space for interaction and a variety of sources, the dominance of the 'old media' point of view seems to affect this kind of attempts (Gavin, 2010).

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[4] For example, in the case of political and mass media marginalisation of activists during UN meetings (Roosvall & Tegelberg, 2015; Uldam, 2013).

Finally, climate change has been often described as a politicised issue (Antilla, 2005; Aykut et al., 2012; Boykoff & Boykoff, 2004; Carvalho, 2007; Dirikx & Gelders, 2010). On the one hand, media representation tends to give more attention to the political valence and interpretation of the phenomenon, rather than to the scientific one (Jaspal et al., 2016; Rick et al., 2011). On the other hand, online discussions tend to reflect a political polarisation that generates a division between two communities, 'advocates' and 'sceptics' (Pearce et al., 2014). This means that science might be interpreted and metabolised though the political lenses that dominate the discourses surrounding climate change. The 'politicisation' and consequent 'polarisation' around climate change recall several criticalities regarding the role of media as primary or secondary definers of social problems (and their relationship with the 'existing structure of power') (Hall et al., 1978), and the identification of 'victims' and 'folk devils'. The existence of two 'contrasting communities' that use multiple media formats and channels (Cooper, 2011), make difficult both to clearly identify those who can be labelled as folk devils and their antagonists who counteract (McRobbie & Thornton, 1995; Thornton, 1994), as well as the identification of the primary definers of the problem.

Table 2

Interdependences between new and old media

Interdependences	Source
Hyperlinks used in Twitter conversations reproduce the traditional media discourse	Veltri & Atanasova, 2015
Web information (and related users' searches and discourses) driven by what reported by traditional media	Bosch, 2012; Gavin, 2010; Gavin & Marshall, 2011; Hawkins et al., 2014; Kirilenko & Stepchenkova, 2014; Lineman et al., 2015
Some influence of the new media on traditional media language (e.g. 'climategate')	Hellsten & Vasileiadou, 2015
Media and public engagement/ attention attracted by specific types events	Anderegg & Goldsmith, 2014; Arcila-Calderón et al., 2015; Askanius & Uldam, 2011; Blanco Castilla et al., 2013; Cody et al., 2015; Dow, 2010; Elsasser & Dunlap, 2012; Gavin et al., 2011; Holliman, 2011; Kirilenko et al., 2015; Koteyko et al., 2013; Kunelius & Eide, 2012; Lang, 2014; Leas et al., 2016; Liu et al., 2011; Lörcher & Neverla, 2015; Porten-Cheé & Eilders, 2015; Rick et al., 2011; Ruiz Sinoga & León Gross, 2013; Schäfer et al., 2013; Segerberg & Bennett, 2011; Stoddart et al., 2015; Ward, 2010
Politically polarised communities between sceptics and advocates	Askanius & Uldam, 2011; Cooper, 2011; Elgesem et al, 2015; Gavin, 2010; Holmberg & Hellsten, 2011; Holmberg & Hellsten, 2016; Jun, 2011; McRobbie & Thornton, 1995; Pearce et al., 2014; Porten-Cheé & Eilders, 2015; Porter & Hellsten, 2014; Williams et al., 2015
Politicised issue	Aykut et al., 2012; Carvalho, 2007; Dirikx & Gelders, 2010; Jaspal et al., 2016; Rick et al., 2011

Considerations and conclusion

The analysis of the literature leads to reflect upon the multiplicity of actors and stakeholders that play a role in influencing public perception of climate change. The literature review proposed above shows interdependences between science, politics, media and public perception (Weingart et al., 2000). In turn, these four spheres are embedded in a wider context (physical, social, economic, cultural) that produces influences on them and are also likely to be influenced by external actors who defend their interests. In light of these reflections, it is possible to describe both multilevel and overlapping processes of communication/reception of climate change-related messages that contribute towards constructing public opinion. At a first level, scientists produce a multiplicity of evidences that might also be contradictory. At a second level, policy-makers stay in the middle of several forces and they have to take decisions in this uncertain context. At the same time, political actors can be influenced by a number of factors such as economic power, technological know-how, positions and alliance structures in international organizations, possession of resources (Kunelius & Eide, 2012). Their decisions might be also conditioned by the need for electoral support, thus accommodating both public opinion and economic interests. In turn, this might reinforce public opinion, and influence the minorities or by contrast generate opposition. This means that public opinion might result from political reluctance to implement legislation that might produce discontent amongst electorates and economic bodies (that, in turn, have interests in supporting those electorates) (Capstick et al., 2015; Lorenzoni & Pidgeon, 2006; Weingart et al., 2000). From this, it seems that uncertainty generates uncertainty in a vicious cycle from which economic/political interests might take advantages.

At a third level, different kinds of mediators, e.g. communicators, journalists, activists, might increase this uncertainty because they are voluntarily or involuntarily influenced by their own opinion (and social-cultural backgrounds) and codes in communicating climate change-related information. Moreover, some powerful economic stakeholders might have interests in defending pro/anti-environmental values. Hence, even these mediators tend to promote specific values amongst the general public by also referring to scientific sources that might support their position. Journalistic media reporting is influenced by multiple needs, such as reporting objective information, making them attractive through effective narrative, and being economically supported (Dahlstrom, 2014). The journalistic performance might result from the relationship between media and state power, between media and the political system, between media and the market (Kunelius & Eide, 2012). The need for quickly reporting news might conflict with the long time required for contacting scientists, who are

not always willing to dialogue with them. Moreover, new forms of journalism are emerging, based not only on traditional official sources of information, but also on information retrieved on social networks (Hermida, 2010). This means that, social network users can contribute towards constructing the news as direct witnesses who inform journalists and other audiences on on-going events.

In the middle of this complexity, there exists a 'space between' in which science, media and politics intersect generating knowledge about climate change, which in turn is interpreted and communicated by the media (as 'mediating' forces, see Boykoff, 2011) to the general public. In this space, the media combine different insights (from science, politics and the other media) (Smith, 2005) into messages characterised by specific codes, styles and contents. However, this inter-level interaction is not always linear, and might contribute towards generating 'interferences of discourse' (Weingart et al., 2000). From their part (fourth level), the general public and single individuals are called to interpret the huge amount of contradictory information received or searched. In addition to the three main sources of information identified here, a number of information are also spread by NGOs, and grass-roots movements (see DeLuca, 2009), and other Internet users engaged in discussing climate change-related issues (Cody et al., 2015; Williams et al., 2015). In deconstructing information these individuals are in turn influenced by both a number of personal/contextual characteristics (from personal worldviews, values and ideologies to demographic characteristics, social and cultural backgrounds, their geographical location, social/cultural/ economic context in which they live etc.) and their social networks (which can contribute towards either polarising existent positions or generating doubts). They might also be influenced by both the kind and format of messages they receive (which e.g. discredit or support scientific theories), by the source of information (judged as more or less reliable), and by their perception about potential benefits deriving from supporting one position instead of another. The fact that the literature review highlighted interdependences between offline and online media content in terms of claim-makers and content, but also showing similar criticalities (in terms of contrasting results especially in relation to public perception), supports the hypothesis that similar 'power mechanisms' are at the base of media communication/interaction around climate change. In fact, while the web offers greater space for interaction and a variety of sources (both advocate and sceptic), the prevalence of the 'old media' narratives seems to undermine these attempts.

This also highlights the need for further exploring the 'space between' in which different actors and diverse interests converge (including the media

ones) producing climate narratives and influencing public understanding of climate change. Moreover, as highlighted by Schäfer (2012), there is still a need to investigate some unanswered questions related to i) the effects produced by new media on problem awareness, which is not only related to the number of 'clicks' or visualisation, but also to the 'qualitative' analysis of discourses that surround climate change; ii) the relationships between type of Internet use and knowledge of the phenomenon (voluntarily or involuntarily); and iii) the effects produced by social media on behavioural changes.

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CONTEMPORARY DEBATE

Communication theories and design practices of strategic communications in social field

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Abstract

The article analyzes modern communicative practice in the nonprofit sector in the context of the theory of strategic communications. The novelty of the ideas lies in the fact that, firstly, the strategic planning of social communication is poorly comprehended in comparison with commercial one, secondly, the certain methods of designing communication strategies are still the subject of debate. The author identifies three research traditions, on the basis of which the methods of developing communication strategies have been formed: positivistic psychological theories of behaviorism and cognitive science, Gestalt psychology and semiology. The article is concerned with the possibilities and limitations of three groups of methods in practice of social communication.

Keywords

Introduction

Whenever we wish to be understood, we organize the process of communication with other people in a special way by gauging their knowledge about the discussed topic, comparing our systems of values and finding out if the interlocutor can assess the situation from a different standpoint. Otherwise, a misunderstanding may occur which may result in a conflict. In other words, communication is an act of forming a unified semantic space between the engaged participants. While in interpersonal communication understanding may be achieved spontaneously due to empathy, in mass communication reaching it requires some reflexive

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effort. The reason for it is as following: both the addresser and the addressee, located at the opposite ends of a communicative act, are immersed in different social practices. Therefore, each side measures the object of discussion with its own set of parameters.

The main goal of any social project is to create a healthy society and promote healthy psychosocial attitudes and behavior among its members. The problem is that an individual and society are connected but not equal systems. A person being a part of this system is dependent on it; however, he or she is not often capable of thinking about the system as a whole. As a result, a variety of interpretations appears which sometimes exclude each other about what is considered as a social welfare. Developers of a charity project, who are oriented towards their personal views, propose their own versions. People who receive it tend to interpret it according to their own logic. The risks of mutual misunderstanding, mistrust, irony and insults are higher in social communication than in other spheres of life. For instance, a social campaign 'Buckets for cure' (The dangers of cause marketing, n.d.) arranged by KFC in partnership with a breast cancer fund Susan G. Komen. The fund offered its clients to buy pink buckets with fried meat under pretense of beating breast cancer.

One of the campaign's goals was its coverage in press, which was achieved, however, in a negative way as the brand KFC was condemned with hypocrisy. One of the bloggers called it 'another sad example of commercialism draped in pink ribbon' (Greed, cancer and pink KFC buckets, n.d.). So much for good intentions.

Controversy about a social campaign issued by a charity organization 'Barnardo's' is another example of misunderstanding we should point out as it was received quite poorly as well. The reason for its negative perception is the image chosen for the problem which is wide spoken and of a current interest – children being born in poor families with extremely low income or even with absence of one. According to the official statistics, those kids are more likely to become alcoholics or drug addicts. In order to tackle this issue, the advertisement makers ended up using shock tactics by publishing an image of a baby with a huge cockroach trying to get out of the baby's mouth. Other images from the series featured babies consuming methylated spirit instead of baby formula or holding a syringe (presumably filled with narcotics). This strategy clearly backfired as British Advertising Standards Authority received 445 complaints from the audience with demands to remove the ad from public view (Social advertising shocks Britons, 2017).

Strategic communications in the social sphere: Statement of the question

The examples of dysfunctional effects of advertising campaigns mentioned above only prove that social communication in the same way as a commercial one needs a strategic planning. Strategic communications is relatively a new trend in the theory of communication, being formed in 1980s as a response to the challenges of the creative revolution in the US and Europe, and the discussion about competence-based approach in education of the 21st century (Ross & Richards, 2008).

If to omit the dramatic details of the plot about the confrontation between practitioners and representatives of the academic environment, the problem was to find such a solution in the formation of advertisers, which would satisfy the two ones, at first glance, mutually exclusive conditions. At first, consistency and solidity of academic education should be kept. The qualification level of a specialist with a university education implies that he/she is able to respond not only to the question 'How to do?' but 'Why is it possible to do?', 'What is the essence of what I'm doing?', that is to have a special professional motivation and to see the entire production process as a whole, not just separate operating units. Secondly, the fundamental knowledge must be combined with the applied skills.

The contradiction was solved thanks to a rethinking of the concept of 'application'. These are not 'manual' skills but pragmatic special installation on projective thinking. Design thinking in conjunction with systemic academic knowledge develops creative abilities of a specialist, it allows to solve complex problems not fitting patterns.

The founders of the theory of strategic communications are considered to be professor D. Shultz and his colleagues at Northwestern University, USA, having offered the course 'Integrated marketing communications' (Schultz, Tannenbaum, & Lauterborn, 1994). Since 1950, management by goals, making up the point of strategic management, has been successfully applied in business practice at the highest levels of planning. However, only in 1980 communication activity was comprehended in the context of business processes – consequently interconnected technological operations aimed at achieving the set goals. This logic suggests standardization of communication, which includes the development of specific and measurable indicators of the quality of communication technology at the entrance, as well as evaluation of cost-effectiveness of the output. The problem consisted in the specification of indicators, measuring marketing communication.

As it is known, the marketing complex includes four instruments designated with a formula '4 P' – product development, pricing and delivery system to the

point of sales, and promotions. Together, they are working to manage customer behavior – whether it's buying and other kinds of business transactions that affect the income of the organization.

The competence of marketing communication is formation of behaviors' installations that can be measured with the help of intermediate variables – awareness and attitude. In other words, the communication has been conceptualized by Schultz and his followers on the basis of psychological theory of behavior, interpreting the behavior as a response to external stimuli (S -> R).

Statistical comparison by the transitions to purchases from the side of aware and loyal customers has allowed the researchers to identify sustainable coefficients regardless of the sphere of commodity production or services. Empirically identified coefficients of conversion allow to plan and control the financial contribution of communication in business strategy, give it the status of strategic communication.

Undoubtedly, strategic planning of communication activity can and should be applied not only in situations of economic relations. Efficiency is important in any field, whether it be political, social or spiritual sphere. Because the sustainable development of any social system is connected with the satisfaction of both material and spiritual needs of included in it individuals. Generally valid tasks are the attractors, uniting the efforts of individuals, organizations and government agencies. Macrostructures, combining human, power, organizational and material resources in the name of socially significant goals are called social institutions. If to talk about the institute of social protection of the population, precisely in the context of its activities it should be considered the activity and goals of the communication for non-profit organizations included in it by functionality. The mission of the institute of social protection – implementation of the idea of social justice, the promotion of values and norms of social interaction, strengthening social health and social capital. Indeed, shared by the majority ideas about good and evil, norms of behavior is the basis for the identity of individuals as citizens, the basis of their loyalty to a particular national community. Without this loyalty people turn into population, though living in the same territory, but unable to protect it.

The structure of the institution of social security is isomorphic to the 'technical process' by the production of social services, which is always built based on representations about the quality of these services, and in our case – the concrete historical notions of social justice and the needs of the future. It is possible to talk about a variety of social and cultural models of social protection institutions, where the main customers and sponsors are tribal leaders and elders, government, business, people... Accordingly, financial support of

initiative projects in different times and in different cultures depends on various institutional actors, their visions of social health, behavior of the problematic social groups and social rehabilitation tools.

However, we emphasize the main conclusion of our previous argument: at the level of goal setting of a social campaign, it is always possible to identify and analyze the problem of the functioning of the social whole, it should be noted by the target groups involved in it, to formulate problems of current behavior, to implement communication, to encourage certain forms of activity, to monitor their implementation through intermediate variables of awareness and attitudes.

The point in the development of strategic communications theory is related to the search for methods of designing a communication strategy.

Theoretical and methodological approaches in the design of communication strategies
American School: Positivism in the treatment of communication strategy

American School is developing this perspective on the same positivist methodological basis of behavior. Statistical analysis of the factors influencing the awareness and relation of the target audience in relation to the subject of the advertising message, identifies the meta-model of decision-making. Communicative strategy is here understood as encouraging decision-making processes. This approach is currently the most influential in the theory and practice of strategic communications. However, it is not perfect.

Since the situation of the decision changes the set of communicative impact models is multiplied, and this search is still not seen in the end. In professional journals skepticism about AIDA, AIMDA, DAGMAR, FCB and other abbreviations often sounds, giving the name of the universal logic of the decision and claims to be open to communication code. However, renounce of these models is impossible, because they allow communication with intermediate measurements of the position of an object, and thus give it the status of the strategic. There is only one way out here: to be armed with a preliminary hypothesis, to recheck the accuracy of its additional research specific target audiences. It is important for the specialist to determine the key factors in the decision, or positioning, which gives a positive trend throughout the decision-making process.

For example, the simplest everyday situations related to consumer behavior, a positive attitude to the product is directly connected with the idea of its own benefit, that is, with the conviction that its functional characteristics are best placed to meet the needs.

However, the behavior in more complex situations with a focus on the social environment, is motivated by altruism and mutual assistance, and is characterized by a more complex reflexive structure. As a general rule, a decision to help one's neighbor is made under the influence of emotional factors: compassion for those in need, a sense of duty to help, etc. Prosocial behavior, however, does not exclude rationality in the behavior of the helper. Assistance can also be harmful. If you give money to a neighbor who has problems with alcohol addiction – objectively, this is aid. But what will be the result? A drunk neighbor who bothers the neighborhood. One can hardly say that this is worth doing. If sponsors come to an orphanage and give presents to the homeless children, the latter form the philosophy of the poor and learn to live a parasitic lifestyle.

Issues arising from the ambiguity of assistance motivated the study of cognitive psychologists J. Howard and Sh. Schwartz. In 1981, they proposed a model of helping action, which includes five types of cognitive processes that characterize the logic of assisting decision-making: attention – motivation – evaluation – protection – behavior (Ilyin, 2013).

This model starts from the moment of awareness of the situation, when someone needs help. Phase of attention includes recognition of someone else's misfortune, the selection of effective prosocial activities and recognition of him-/ herself as ready to help. The essence of the next phase – the phase of motivation – is construction of personal standards and updating of personal liability according to social values, followed by generating a sense of moral duty. The third stage – assessment of expected impact of prosocial actions – includes an assessment of potential costs and acquisitions. The cost in this case is made up of social costs (for example, the risk of social disapproval), physical costs (pain), and moral costs (which would be the result of a breach of individual norms). At the stage of protection, a person can develop a reason to refuse the responsibility for someone else's misfortune. Preference may be given to personal interests, and responsibility for others may be rejected as an unfair requirement. This is due to the fact that people follow normative expectations regarding the level of their deserved rewards and costs. At the same time, the responsibility for the decision to act or not to act may be perceived as conflicting obligations, or a person may decide that it lacks the necessary capacity for intervention and resources. The last stage – acting or refraining from action, depends on the result acquired by the process of decision-making.

Postmodern interpretation of a communication strategy

Despite the diversity of theoretical directions of postmodern science, they are ideologically united, they are rebuilt from the positivism with its rationalistic

attitude toward knowledge. Knowledge is not only a product of thinking, but unconscious.

Thinking operates with static cognitive constructs (frames), through which an individual assigns values to the phenomena from the surrounding world. This knowledge, from the point of the postmodernists is burdened with two significant disadvantages: firstly, it is inevitably fragmentary, secondly, it assesses the present in terms of experience, which took place in the past, that is, disturbs the perception of reality. The knowledge that is stored in the unconscious, ensures the integrity of understanding due to the fact that the ability to grasp things and events in their essence – meanings. The meaning is dynamic, always in opposition to established values. Mobility sense, which distinguishes it from the value, because it balances between the conscious and the unconscious. It involved the creation of the psychological mechanism of the imagination, which, in contrast to the thinking, is able to seek answers to urgent questions directly in the 'files' stored in the unconscious.

The memory of the unconscious mind is much more volumetric than the memory of the conscious mind, because it stores all the information, fixed physical organs of perception, including the one that consciousness simply does not notice. This idea, advanced by Sigmund Freud, has become a reference for the postmodern philosophy, justified them by using a witty analogy – an experimental design 'wonderful waxy block' (Derrida, 2000). Since the unconscious, as opposed to the consciousness retains all of the information tracks recorded by physiological sense organs, then any of their stable repetition forms a bizarre network of concrete sensory images associative logic, i.e. bonds, is not obvious to the 'day of thinking' and the usual order things that determines our everyday lives. The order of everyday life is not the only possible, its limitations are understood by the collision with intrapersonal and social conflicts that cannot be solved by existing mental patterns. The solution is stored in the unconscious, but it is on the unconscious and that access is closed to consciousness. The channel, which connects the conscious and the unconscious – imagination that 'wakes up' the internal setting to solve the problem. The mechanism of the imaging mechanism is similar to the dream, as described by Freud, and performs the function of a translator from the language of the unconscious mind in the language (Freud, 2004). Extruded into the unconscious, the rest of the daily experience breaks in the dreamer's preconscious in the form of recognizable images but included in the amazing scenario. It requires reflexive effort to interpret their symbolic meaning. When this meaning is derived, personal and cultural memory is enriched with a new meaning, embodying code of lived experience.

With the philosophical notion 'meaning' the term 'idea' is related, which is used in communication management theory. The creative idea of trying to grab the characteristic manifestations of the fact is that no extraneous material has a pronounced shape. It is integral that captures steady repetition in different representations of ranks (cognitive constructs), synthesizes a similar personal experience and the image of the world.

For postmodern culture expanding the boundaries of their own experience through other practices regarded as a key value of – way of updating the 'I' and personal growth. In the postmodern philosophy another important concept was developed – 'Other' – the logical-semantic space generated in the context of different life experiences, different social practices. This idea was picked up by a generation of rebellious era of creative revolution in 1970-1980. This is the way meant by Timothy Leary, when applied to the 30-thousandth of a crowd of hippies gathered January 14, 1967 in Golden Gate Park, with the famous phrase: 'including, attitude, attacks! (Turn on, tune in and drop out)!'

The theory of brand communication:
Gestalt psychological direction
in the development of communication strategies

The new socio-cultural context led to reinterpretation of the strategic communication model. If the archetypes of the collective unconscious, or gestalts, precede any communicative actions, they allow anyone to intuitively correctly distinguish lies from truth, sincerity from deceit, folly from wisdom, etc. Therefore, Gestalt-psychology followers radically rethink about the model of successful communication. A key element in the system is the personality of the speaker, the credibility of the one who speaks.

In scientific use of the communication management, the concept of branding, understood as a process of development of a trusting relationship between the trademark and the consumer, is introduced. As a full perception of the personality can be formed on the characteristic features of behavior in different situations, the brand is designed as a simulative model of personality, manifesting itself not only in the narrow niche of consumer behavior (traditionally occupied by traders), but positioning itself regarding the role expectations of a higher order: social and group membership, professional status and spiritual values. The main thing is that all these activities of the brand do not contradict each other, giving the impression of fraud. Synergy of brand communication is achieved through alignment with its personality, crowning the so-called pyramid brand. The development of brand communications theory can be characterized by two opposing trends.

Stockholm School of Economics revolutionary breaks with all the traditions of strategic planning, both in the economy and in communications. Promoted Funky Business, and the future of humanity is represented as the Dream Society. Model '4D-branding' Thomas Gad (Gad, 2001), the author of the Swedish business bestseller of the same name, does not contain even a hint of a cognitive decision-making model. Brand simulacrum is modeled according to the four pseudo – measurements of identity, similar to the figure.

David Aaker, professor of business-school of the University of California at Berkeley, saves a cognitive measurement scale, allowing it to offer a methodology for assessing the value of the brand (Aaker, 2003). However, Aaker's model thus enters into the territory of structural and semiotic research methods, which categorically do not accept the Gestalt psychologists. This direction in the communication strategy will be discussed below. While we consider the explanatory potential of the theory of brand communications in the field of social planning.

The role of the actors of social communication can be given to charities, non-profit organizations, individuals, who take on the role of volunteers, as well as government agencies, commercial and political structures. Trust to them is based on the faith in altruistic motives for their decision to take up these or those socially important problems. However, if this belief is shaken, the reputation is very difficult to restore.

For example, an international consulting company the CAF, which annually publishes the 'goodness' ratings of the peoples, record low figures of Russian donations to charities. This unfavorable figure has a history associated with the Children's Fund activity Lenin, the first charitable foundation in Russia, created in the wake of the romantic mood adjustment. Its first chairman was the famous writer Albert Likhanov. During 1987-1990 – years of Fund's triumph, it received more than 350 million rubles of private donations (Charities Aid Foundation (CAF) – Charity Giving Made Simple, n.d.).

Until now, the Russians attitude to charities is suspicious. And not only among the population, but also in the Institute of Journalism. Some kind of a silence loop was formed, which only exacerbates the situation with the funds. Much more dynamic is a practice of targeted assistance that is being developed due to the social networking platform. Fundraising is organized by volunteers, detailing adversity to their subscribers, reporting on the results. Since the account of a social network is daily diary entries, as well as the reaction to the publication and statements of 'friends' and 'friends of friends', the subscribers have formed a volume imagination of individuality of volunteer, it is based the foundation for trusting relationships.

Undoubtedly, officials, businesspersons, politicians are difficult to get the trust. All of them have their own business objectives, the achievement of which is not always the same as the care of social health. Through journalistic publications, the facts get in the public space and are set to a cautious attitude to such benefactors. In particular, from the perspective of Gestalt psychology, given at the beginning of this article, the scandalous situation with the KFC brand, to join the fight against breast cancer, is explained. Roles of the producer of fast food and the guardian of the nation's health are perceived in the modern world as mutually exclusive, and their combination is evaluated as an extreme degree of hypocrisy. However, Gestalt psychology cannot give an answer to the question: when and how to transform a frame of perception of socially responsible companies. Why does the allocation of funds from commercial activities in the 1970-1980 mean social responsibility, and in the 2000s – the hypocrisy?

Semiology and methods of structural analysis in the design of communication strategy

The answer to this question is given by semiology that develops on the theoretical basis of semantics – the science of the laws of the construction of the meaning of the minimum units of language. Traditionally, such problem was governed by semantics – a science that deals with building sense from the smallest parts of language. The history of semantics goes back to Medieval times; however, it begins to develop as a separate science at the turn of the 19th century because of discoveries made by F. de Saussure, Ch. Morris, Ch. Peirce, who proposed an idea of semiotic nature of language and argued about interpretation, sense and meaning as universal rules of language systems. While working on the relationship between a signifier and what it signified, F. de Saussure stated that 'there is nothing in a language except for differences' (Saussure, 1999), for consciousness is only able to perceive differences. He also provided the scientific world with a model of arranging a meaning by introducing a term called a structure of semantic field, which is constituted by the two axes of Syntagma and Paradigm. The syntagmatic axis expresses grammatical relations between the symbols, thus tying together variables of certain categories. The paradigmatic axis signifies meaning and expresses the individual practice of universal grammar implementation.

The method of structural analysis was later adopted by postmodernists. The language is a tool of social reality construction; therefore, each and every cultural phenomenon can be regarded as a symbolic system capable of revealing the secret of sense construction.

The ideas of structuralists forced the society to reconsider the rhetoric, which traditionally regarded metaphor and metonymy merely as expressive figures of speech. R. Jacobson considered them to be not figures of speech, but rather a semantic model which manages a choice of expressive forms as a syntagma (Jakobson, 1987). Metaphor, which arranges the relations between the symbols' similarity-wise, is seen as a paradigm. In the first case, the logic of consciousness takes part in construction of senses; in the second case the logic of unconsciousness and imagination both lead the way. This idea was perceived by Soviet structuralist M. Lotman, considering meta-structure of the art text as a marker of an ideological and artistic style, worldview code (Lotman, 1992).

The following scientific findings were divided, and two disciplines took over – cognitive science and semiology. The representatives of the cognitive branch operate with the category of frame (a cognitive construction). A frame is a minimal operational unit of thought, which serves as a benchmark to find the differences and similarities of the observed phenomena. Depending on the complexity of the system parameters, which organize frames of perception, we can distinguish (cognitive-wise) complex and simple individuals. For example, in the practice of marketing communications while preparing the psychographic profile of the audience, a technique called 'repertory grid' is widely used. It was invented by American psychologist J. Kelly (Kelly, 2000), the author of the theory of personal constructs. The identity of the individual, in his opinion, is an organized system of more or less important constructs, or the frames. Cognitively speaking, a simple individual operates with binary assessments 'I like it / I do not like it'; a complex system of those assessments characterizes a sophisticated personality and compound perception of the society.

Semiologists actively work with the category of meaning. In contrast to the Gestalt psychologists, they do not give up trying to follow the logic of sense. However, this is not a formal logic, and the game – without rules, without limits of time and space. The French philosopher Gilles Deleuze speaks of two types of episodes in the development of ideas, literally calling them 'a passenger without a seat' and 'empty space' (Deleuze, 1998). Undoubtedly, this extravagant statement echoes the ideas of Jakobson and Lotman about the development of meaning with respect to Grammar axes and paradigms, using the model of metaphor or metonymy in the organization of communicative practice. Indeed, the dynamics of social and cultural processes manifested in the fact that the existing rules, forms, meaning that up to sometime have not been challenged, show a sudden irrelevance in relation to the new challenges, experiences. Meaning, forever plying somewhere 'passenger' is 'unreturned gift' and all the ensuing problems in the relationships.

Thus, cognitive and semiological approaches do not exclude but complement each other. Their contradiction is removed by the idea of the communication being regarded as a process aimed at mutual understanding, which is deployed in time and has a hierarchical nature (Alexeev, 2002; Klyukanov, 2010).

At its first stage, communication is similar to a monologue. The actual order is regarded by 'The Speaker' as a natural one; it doesn't occur to him/her that somebody else might see it differently. Communication is comprehended here as channeling of information and its aim is to define an ontological status of a subject in the clearest way in order to respond to a question 'What is it?'

The ideas about 'The Other' picture of the world are extremely scarce, and the possibility of 'adjustment' of the Speaker to his/her companion is limited by registration of reactions to different communication stimuli. As a result, respectable statistics is accumulated, which can then allocate significant incentives that cause the desired reaction of the 'Other'. This knowledge allows one to answer a priority question for the Speaker which is, 'How to do it?' In philosophy, this level of questioning and the corresponding stage of the dialectical deployment of communicative process is called praxeology.

Phase of epistemological development of communication is characterized by arranging in order a diverse and chaotic experience emerged from practice. Redefining of the experience of 'Others' into their own codes happens at this stage; thereby a search for a common denominator in the experience of the Speaker and Others takes place which results in an opportunity to compare these experiences.

A move to the next development cycle of communication – axiological – can be described as a movement from 'deliberate ignorance' to 'conscious awareness'. The Speaker is able to answer the question, 'Why is it important to Others?' Understanding of logical-semantic structure of the 'Other's' worldview is formed, as well as the principles of meaning generation by the 'Other' consciousness. At this stage psychological annex to the personal space of the 'Other' becomes possible, as well as the impact on it 'from the inside', with the help of practices, reinstallations of the anchors and other instruments of psycholinguistic reprogramming.

At the highest stage of foreign culture adoption there is a new degree of orientation freedom in a different logical-semantic space, in another discourse. Indeed, this space is no longer perceived as 'foreign' for emotional and sensual experience of living in other people's codes makes this experience a personally valuable one and opens another angle of view on the usual order of things. Communication regains ontological status when there is a feeling of trust in the other picture of the world; what was perceived as surreal, receives the status of

an understandable (but not familiar) reality. Return to the starting point takes a whole new level: it is a reflexive attitude to the new reality. Major task of communication at this stage is resolving trust issues, and the main question asked by the Speaker is, 'What is right?' This aforementioned cycle of communication is called an ethical one.

The principle of structural analysis in the diagnosis of social advertising

In the practice of communication management, concept of communication levels is realized in the process of development of communication strategies. Depending on the results of the target audience research profile – their knowledge on the communication subject, motivations and values – a decision is made regarding positioning.

Communication is built either by relying on awareness, that is, by appealing to the existing cognitive representations of the norms of social practice, or by changing the relationship when the semantic associations extend beyond the usual social grammar and turn to remote individual practice. Attitude to the proposal changes along with the change in the context of perception. However, the audience should be ready to accept such creative maneuvers, having formed an idea of reality as a reference and an example for comparison. Otherwise, the message will be perceived as nonsensical.

For instance, in 2013 Russian Federal Service for Supervision of Communication, Information Technology and Mass Media has banned an Australian social commercial 'Dumb ways to die' (Dumb ways to die, 2017). The video is made in an ironic style and consists of series of pictures where the cartoon heroes are dying because of stupid things: set fire to their hair, poke a grizzly bear with a stick, take expired medicine and eat expired products... Any irony in relation to death is perceived as blasphemy in Russian culture, even if it occurred because of the victim's own stupidity. Therefore, the standards of verbal behavior for such situations had previously developed. Social posters and promotional films about the safety standards of living are oriented on training, and that is why a certain appropriate style of storytelling is chosen to tell about accidents. The conflict triggered by the Australian commercial was inevitable: Russian society is not ready for a sharp breakdown of these patterns. Not that it was even needed. The ability to step back in order to look at someone else's misfortune, laugh at the 'stupidity' of the victim are signs of individualism, which signifies problems with solidarity and lack of social capital.

Every culture values and protects its own system of moral and ethical standards to maintain social order. The modernist ideology stems from the idea

of a rational nature of a person and of necessity to control passions and irrational behavior. Thus, social communication inside this paradigm of values often implements feelings of guilt and fear. But since philosophical ideas of Nietzsche and Freud condemning the repressive function of culture had become part of mass consciousness, moralistic tone of social advertising began to cause irritation.

This is particularly evident in cases where an advertiser crosses the line and creates inappropriate messages. For example, in 2010 the Russian public indignation was raised by an anti-smoking poster within the social advertising project, 'You don't care, do you?', initiated by the largest operator of outdoor advertising in Russia 'Russ Outdoor'. The poster shows a baby and a cigarette being extinguished against the baby's body. There is no doubt about the inherent message being on the danger of passive smoking, and yet the sadistic image overshadowed it. Here is one of the responses we could not agree more with, 'Sadistic "social treatment" somehow brings to mind not the physical health of children, but the mental state of adults pursuing this action. Maybe I'm wrong, but I get a sick feeling every time I pass this shield' (Beljaev, 2010).

Shocking British advertising with the image of a cockroach sticking out of a baby's mouth also tried to awaken a sense of guilt among the middle class, drawing attention to the problems of socially vulnerable citizens. Judging by discussions on the Internet, the social campaign by Barnardo was associated with the discussion of the British society of a heavy tax burden, which bears the middle class by paying taxes, which go to rather generous social benefits. The shocking image of a baby was perceived by good citizens as a motivation for the next step – to accept the injustice of wealth inequality and, consequently, pursue on donations and tax increases. However, the sense of social solidarity in the UK has undergone serious testing by the consumer ideology of individualism that was adopted by politicians. A social stratum of citizens, who were labeled by psychographic studies as 'hamsters', was formed. 'Hamsters' of the 2000s are not willing to pay, and they do not wish to think about moral evaluation of their behavior.

Thus, the two scandalous events associated with shocking images of babies, are fundamentally different. In Russia, the negative reaction was triggered by the stupidity of advertisers who failed to choose the right language of communication. In England, there was a cognitive conflict between moral requirements and a selfish desire for material well-being and comfort; an unexamined complex repressed into the unconscious, which thriving citizens preferred not to stir up.

An appeal to the feeling of fear is also a common tool in social communication. Fear is a basic emotion and represents the unconscious bodily response to a

dangerous situation. Among experts in the field of social advertising it is widely believed that this is the only tool that is able to 'sober up' a careless audience and get them to think rationally.

However, psychological studies of emotions contradict this belief. While describing the typical feelings and behavioral reactions, stimulated by the emotion of fear, K. Izard (Izard, 1991) noted that the nervous system appears to be suppressed, and that the thinking and behavioral activity freezes along with it.

Therefore, in order to receive positive effects of such radical instruments of public influence, it is necessary to include a positive program of action in the message. E.g. not to bully by horror of a car crash, but to instruct and tell about the consequences of driving in different speed modes, with and without seat belts, or a child seat. Rather than spook the teenage audience raised in the era of sexual revolution with AIDS, suggest ways of having safe sex, etc.

Social communication should consider the shifts in value paradigms. Returning to the example of the charitable campaign 'Buckets for the cure', which was provided at the beginning of this section, we should point out that KFC tried to build a dialogue with the target audience based on the usual procedure of corporate philanthropy of the U.S. of the 1950s. Corporations used to represent the foundation of American economic prosperity. Their activities were exclusively motivated by the concern about the national welfare. By engaging in solving social problems, they used to act in a way of their business practices: giving tax deductions to the budget or donating from profit to charities. However, in 1970 the public changed their opinion on the corporations. They became to be treated like an evil empire which manipulated American consumers for a company's own purposes and by turning them into weak-willed animals. KFC clearly underestimated this new frame of reference in the field of Postmodern social values.

Post-industrial society with a social space represented as a complex mosaic of atomized individuals, is a challenge for a culture, it must solve a complicated task of integrating diverse experiences and views of the world and find a common platform for creating common semantics for a new type of social community.

According to E. Fromm and his idea of existential needs (Fromm, 2011), which expresses the essence of human nature, a secret for a healthy society is a social environment, which would develop an essence of a human being rather than suppress it. Fromm's ideas, which were rooted in the philosophy of existentialism, evolved into the perspective of humanistic psychology. A. Maslow (Maslow, 1987), C. Rogers (Rogers, 1994), V. Frankl (Frankl, 1990), E. Neumann (Neumann, 2008) focused their research on the spiritual essence of man. The distance between the theory and practice of communication is huge,

because in reality people have to face persistent prejudice, repressed fixations, which also make up one of human essences. Regrettably, the social nature of a human being is programmed as congenital malformation and is a split psyche in which Ego, which is responsible for the social part of a person, is separated from the Self, embodying the spiritual. Alas, in this sense the modern man is not that much different from his ancient ancestor for in a situation that requires social cooperation, the unconscious activates the binary program of 'The Self / Other'.

The external moral pressure as a persuasion tool having dependably worked in societies of the Modern, loses its effectiveness in the socio-cultural environment of the Postmodern. It seems to a man of the Postmodern convincing only that to what he independently came as a result of reflexive efforts. Do not push, but to prompt, to help a person in solving painful cognitive conflicts, correlating them with the moral norms of prosocial behavior. In other words, to build a dialogic, but not a monologic communication.

The structural method in the construction of dialogical communication in the social sphere

More visually the experience of construction of dialogic communication can be traced in the practice of creating and optimizing web-sites of charity organizations. Web-developers design the structure and design of the web-site, based on the concepts of the process of decision-making by target customers.

To be reminded that for semiologists this cognitive process reflects the usual order of the charity practice and it is understood as its grammar. Based on the brief, as well as structural-semantic research of similar web-resources, experts reconstruct the sequence of cognitive reactions of clients: what will attract his attention, how much information would be sufficient for him, etc. It is not always when the original assumptions turn out to be correct. 'Not working' web-site signals about the errors when it is a few visited, or visitors do not make planned target actions.

Sometimes it is enough to pass the so-called SEO-optimization, tracing with the tools of web-analytics the failure statistics from viewing pages of the web-site, view depth, transfers to other pages, etc. All these data allow us to make a small extra emphasis to the initial hypothesis of the decision-making model by a target audience.

There are situations when a fundamental change of the web-resource – redesign – is needed. This happens when an organization establishes changes in the composition of a target audience due to a variety of reasons – a new marketing policy or gaining a new experience, allowing in another way to see already existing customers.

For several years we have been together with our graduate student O. Andrienko (Andrienko, 2012) watching the activity of the Spanish charity association 'Ledicia Cativa'. Until 2012, this organization was represented in the virtual environment with a business card site, focused on the local community. The site structure was very concise. Firstly, it is a very low-key presentation of the project. This is a help to children from Russia who live in areas suffered from the Chernobyl disaster. Secondly, there was a section about the status of a charitable organization, in which it was mentioned about the connection with the influential Spanish religious organization Opus Dei. It is unlikely that its function can be interpreted as emotional involvement and formation of empathy by potential volunteers and sponsors. Rather, it is referring to the moral norms, following which is a mandatory component of a social status. The third section, the most detailed, saved in the new version of the site, is built up without typical questions of potential participants. For example: 'How to help, if a person has no opportunity to take a child for the whole summer?', 'Is it possible to donate tangible assets or material things, being a volunteer from this association?' ('Asociacion Ledicia Cativa Como ayudo?', n.d.). Finally, the traditional section with contacts. We can assume that for the Spanish people, who save features of traditional culture in their lifestyle and are immersed in the life of the local community, the information provided on the site would be enough to take the right decision.

However, the 'Ledicia Cativa' manages an international charity project, and interaction with representatives of another culture often stumbles with the difficulties of understanding. During the years of communication with Russian children, their parents, officials, it would seem the obvious idea of cultural difference was opened to the project participants as a revelation. For example, the Spanish faced with distrust to the motives of their activity. Indicative situation in 2010, when the Spanish holidays with the orphans from the Middle Urals were failed (Kezina, 2011). A lot of money turned out to be wasted. Return tickets, medical insurance for each child, visas, packages of documents and certified translations were paid by ordinary Spanish people. Even with the partial refund of tickets, Spanish families have lost about 400 euros for each child. The formal reason was purely bureaucratic delays – the protracted process of transferring authorities for signing the agreement about the departure of Russian children abroad by the regional ministries of education to local bodies of trusteeship. In the absence of strict regulations, a subjective factor appeared – a personal attitude of officials to the international charity. Ombudsman for Children of the Sverdlovsk Region, commenting the situation as 'very controversial and mixed', referred to the 'scandal with the American family, that tortured the adopted in Russia boy'.

Russian parents also shared their fears with the volunteers of the project. For example, their children would be stolen. These concerns stem from the fact that the material side of life of Russian families is much lower in comparison with the Spanish. Having felt the prosperity in a Spanish family, children do not want to return home anymore. The negative outcry was intensified by rumors spread by parents whose children received negative experience in the project. Cultural adaptation on the early cycles is accompanied by a depression of child, but for this situation, adoptive Spanish families were totally unprepared.

All these troubles did not fit into the usual understanding of the Spanish about charitable activity. The grammar of role prescriptions and relationships between project participants should be reviewed. For this purpose, we use the method of structural analysis.

The meaning of a conflict and emotional experiences of the project participants becomes clear, if to consider them in the context of ritual of giving, pattern of the collective unconscious one, first described by French ethnographer Marcel Mauss (Mauss, 1996). Poisoned gift, the central symbol of this ritual, characterizes the essence of the relationships which the donor and the bestow enters. These are relationships of power, together with a gift a person acquires dependence on the donor. Meta-structure of the ritual is a complex system of settings, which regulate relations of the members of the community (Starykh, 2002). For example, the gift cannot be refused from, because this action leads to a 'loss of face', a rupture of social ties. Despite the fact that different types of societies are characterized by varying degrees of independence of the individuals from society, the destruction of social ties is always dangerous for the health of the community. In order to maintain its own social status, it is necessary to make a back gift – 'return gift'. Moreover, such structural elements of ritual, like a circle of bestows, gift's generosity, the method of handling-in, the timing of the return of debts, etc. are able to regulate the relationships between the donor and the bestow in the very wide range – from aggression and psychological subjection to the hearty friendly relations and equivalent positions of the participants of symbolic exchange.

Speaking in a similar vein about the case of 'Ledicia Cativa' we have concluded that the philanthropists, taking as a reference point a mental map of their own, traditional Spanish world, have fallen into a trap of a more complex scenario in which, in addition to 'Their own', also 'Strangers' appear. It follows that a more complex regulation of relationships between participants is required. It is necessary to launch a scenario such as 'Their own people together solve worrying everybody problem'. This grand strategy eliminates the risk of confrontation 'their own' and 'strangers', protects against suspicion of psychological aggression and attempt of subjection.

How to do it? With the instrumental issues, as we have already found, it is better to apply to cognitive methods. However, if we want to get a coherent model of the investigated situation, it is necessary to relate the concepts of prosocial behavior and the ritual of giving.

The semantic intention embedded in the archetype of donation allowed us to capture the internal structure of the conflict and to imagine the dialectic of relationships of the donor and the bestow on the scale with opposite poles: enmity and friendship. The model of prosocial behavior is a logical sequence of decision-making process about the assistance; its configuration depends on the type of the motives of helping behavior, and situational factors, such as the influence of the group. The development of the scenario 'Their own' is possible in a particular socio-psychological environment based on empathic understanding among project participants. Correlating a real and desired situation with a map of the mental process, the weak units are being discovered in the original communication strategy. To convert to 'Their own' people with different social and cultural experiences, special attention should be paid to the cognitive processes that were not originally considered. First, it is emotional involvement. Secondly, the impact on the reflective stage of the decision making: social psychologists proved that a detailed clarification of the circumstances of adversity affects the increasing of empathy. Apparently, all the same was understood by the leaders of the charity project 'Ledicia Cativa' because this policy can be traced in the redesign of the site.

The visual appearance of the logo has been changed. Previously, it was the ship and shell – Galician symbols, now it is the image of children on the green lawn. Undoubtedly, such a change symbolizes a valuable shift in the corporate culture of the organization – from ethnocentrism to universal existential values.

Secondly, a volume section about the activity 'Ledicia Cativa' has appeared. Indeed, a charitable organization, acting as a mediator between the Spanish and Russian communities, should inspire confidence of both sides. In particular, much attention is paid to the internal regulations governing the conduct of volunteers and sponsors. It emphasizes technology of assistance: temporary stay of children in the Spanish families during summer months or winter holidays. Basically, these are children who have a family. For the orphans from children's homes, this program also spread, however, by the internal charter of the 'Ledicia Cativa' the adoption of Russian children is not allowed. Thus, the organizers of the project are rebuilt from international criminals who under the guise of charity entered a slave trade of children from the third world countries. Such scandals increasingly fall on the pages of foreign media. The community of some countries, such as Romania, Guatemala, Indonesia, Kenya, insists on the

introduction of the law into effect about the prohibition of children adoption by foreign citizens (International adoption should be banned – DebateWise, n.d.; In wake of Engeline's death, KPAI proposes ban on foreign adoption, n.d.).

Thirdly, a volume section with a description of the Chernobyl disaster, the consequences of radiation exposure to children's health, with the medical advice of health improvement after a holiday in Galicia has appeared. This section focuses on the Spanish volunteers and sponsors so that they are able to make a balanced decision and to have an opportunity to correlate the scale of the problem and the proposed ways of help.

Based on our understanding of the problems that have arisen in the course of an international charity project 'Ledicia Cativa' it would be possible to recommend additional tactics of communication management.

For example, a large reserve of emotional impact lies in the historical memory that unites both folks. One section could effectively work on the objectives of the project. This section is related to the history of the Spanish revolution of 1937, when by the request of the Republicans the Soviet Union took under its guardianship the Spanish children. Seeing off the children to the Soviet Union, the Spanish parents told their children that they were going to a country where the life is a paradise and an example to follow. Indeed, the small Spanish were given the best of everything – Pioneer camps, doctors and the enhanced medical care, delicious food (Russkie Ispancy, 2017). It should be noted that the Spanish family remember about these events, they talked about it in an interview with the project supervisors. For many people the aid to the Russian is the return of the debt. It would be nice to update the story in the memory of Russian parents, it could remove a complex of 'unreturned gift' and all the ensuing problems in the relationships.

Also, we would like to pay attention to another conflict-factor in charitable projects. This diffusion of responsibility when someone avoids personal participation in activities, thinking that it's all already thought out and made by someone else. This effect is also present in communicative behavior. For example, Russian parents resent the Spanish because they get little information about their children; and Spanish families believe that the supervisors are responsible for liaison with Russian parents. On the other hand, the Spanish families are offended that by the return of children to Russia, they do not get letters from Russian parents. They are concerned about the attention to the feelings of people who had time to become attached to the baby. If Russian parents were focused on human relationships rather than bureaucratic regulations, they would be terrified of themselves. In connection with the foregoing, it is clear that the necessary technologies provide multiple horizontal relations among

project participants. Perhaps in the near future, the predominant format for web-resources of charity organizations will be the social networks, which are supposed to be the best way to ensure horizontal communication of participants.

Conclusion

Two approaches to designing communications – positivistic and postmodern (based on a platform of humanitarian disciplines) – are perceived as oppositional. At one time, one of the founders of the Department of Advertising and Public Relations of the Faculty of Journalism of Moscow State University, Professor V. Uchenova (Uchenova, 1999; Uchenova, 2004) formulated this contradiction as a war of marketing and cultural concepts of advertising. Alas, this contradiction has not yet emerged from the acute stage.

Key international scientific journals, oriented toward the American school of communication design, regard as methodologically weak any manuscript, that does not fit into the format research 'factors, that stimulate the behavior of the target audience'. In particular, the author heard such accusations repeatedly.

The consequences of this war also affected the advertising education in Russian universities, as the domestic education is also oriented towards the American model.

From the standpoint of dialectical logic, any of the extremes taken for truth, keeps the system (and advertising theory, and advertising education) in an unstable state, which has a lot of negative consequences. It is necessary to integrate the existing experience of reflection and bring the theory of marketing communications to a new level. The undoubted value of positivistic models is in the project approach in solving communicative problems. Communicative strategy, understood by positivists as positioning, allows to map the mental processes of the target audience and focus on the problematic links. However, the arsenal of the positivist sciences and the position of the 'external observer' do not allow to the researcher to understand the meanings of various reactions of the 'object of observation'. Interpretation of this hidden meaning, which governs the behavior of the Other, constitutes the exclusive competence of the humanities.

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ARTICLES

An investigation into features of news web-sites in Bangladesh

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Abstract

News industry in the world, as well as in Bangladesh, is experiencing massive transformation due to innovation and availability of different information and communication technologies. The production, consumption and revenue sources are being dramatically changed. News outlets are struggling to keep pace with the constant changes and adaptations as it demands multiple investments in technologies and skills. Online sources are developing multiple features in presenting content utilizing various options and opportunities brought about by technology. This article investigates the web-sites of 35 news outlets, both online only and online platforms of traditional newspapers and TV in Bangladesh. It explores the features that empower both news producers and consumers in terms of designing platforms, delivering content, and freedom in consumption. The features include scope for customization, interactivity, embedding of multimedia, availability of user-friendly services and additional delivery channels both on homepage and story pages. It employs content analysis method. Analysis of the data shows that limited number of web features are available on the selected news sites with major weakness in presenting multimedia content, scope for customization and greater interactivity.

Keywords

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Introduction

Propelled by innovative communication technologies, the profession of journalism, as well as the whole media ecology, is going through enormous transformations. The changes include content production, delivery and consumption process, revenue and business models (MacNamara, 2010), the role of journalists (Singer, 2006), the relationship between a journalist and a reader, and audiences' loyalty to a news organization (Tandoc, 2014). The driving forces of the changes are the Internet and smartphones. Beginning in the latter half of the 1990s, most of the scholarships on online journalism focus on exploring online journalism as breaking news journalism (Saltzis, 2012), and interactivity (Chung, 2008; Stroud et al., 2015). Mark Deuze (2001) identified three key characteristics on online journalism at main stream news outlets. Those are hypertextuality, interactivity, multimediality.

Tanjev Schultz (2006) investigated the interactive options in online journalism. By analyzing content of 100 newspapers in the USA, the researcher concluded that only few interactive options are used. Most of the options are not functional, rather those are symbolically used. Meanwhile, Hans Beyers (2006) argued that a good news site must have 16 fundamental components of multimedia, interactivity, hypertext, and immediacy. The components include photo gallery, audio (such as interviews or music), video (such as interviews, reports), interactive graphs, discussion boards, chat, polls, games, quiz, search feature, SMS services, availability of content that can be read on a mobile phone, availability of similar content PDF version, use of internal and external hyperlinks, e-letters and breaking news.

Deborah S. Chung (2008) identified four categories of features that promote interactivity. Under the categories the features include submit stories' function, submit photos' function, submit news tip, reporter/editor e-mail links, letters-to-editor, customized topics, customized headlines, search feature, e-mail updates/alerts, message boards, chat functions, Q&A (live chats), audio files and video files. The researcher, however, argued that online audiences do not use all the interactive features extensively. Using content analysis methods, Ali Rafeeq (2014) investigated the interactive features of the three mainstream news web-sites in the Maldives. The researcher found that the news web-sites did not fully utilize and enhance interactive features.

Most of the studies on online journalism and new media ecology have been conducted in Western perspective. Very little research investigated this issue from Bangladesh context. Investigating 28 newspapers in Bangladesh, Mashihur Rahman (2008) found that the news outlets provide limited level of interactivity which allows readers to be more engaged and empowered in the news process.

However, the researcher mainly focused on interactive options only on the homepage of the news media.

To fill the gap, as there is no research on the topic with a comprehensive approach combining web feature on homepage and story page in the context of Bangladesh, this study investigated web features of 35 news outlets, both online only and online platforms of traditional newspapers and television in the country. It explored the features that empower both news producers and consumers in terms of designing platforms, delivering content, and freedom in consumption.

Methodology
Sample selection
Bangladesh's media industry comprises of news outlets of print, television and radio. Leading news outlets have presence small size online and operate from the capital city of Dhaka. With the availability of the Internet, very small on top news sites in a globally popular online news outlets with limited resources and coverage are mushrooming across the country, which is a recent phenomenon. However, news outlets which operate from Dhaka dominate the information ecology of the country. According to a report of the Department of Film and Publication (DFP), the state body for registration and monitoring media industry under the Ministry of Information in Bangladesh, there are 1,213 registered daily newspapers in the country of which 483 operates from Dhaka. All of the 45 private television channels operate from the capital city. Up until 2017, the Ministry of Information did not have any mechanism to register online platforms. However, a process of registering online news platforms has recently been initiated by the Ministry, and it has received a total of 2018 applications from all over the country (BBC Bangla report January 2018).

This study investigates features of both homepage and story page of top 35 news outlets based in Dhaka. The outlets were selected purposively as no authentic database and listing of news media were found in the country. Even the researchers found no data on top news sites in a globally popular web rating site, Alexa (www.alexa.com). So, the outlets on top news sites in a globally popular were selected on the basis of their perceived popularity and reach in the country. Moreover, the researchers used insights, observations, informal interviews with media practitioners, and consultation with academics and researchers to select the news outlets for the study. To make the sample representative, both online only, web version of traditional newspapers and television were included in the study. Languages of the outlets were taken into account by incorporation of Bangla, English and the outlets with both Bangla and English versions.

Data collection and analysis

Data were collected on the features by accessing to both homepage and story pages of the selected news sites. The features on homepage were divided in five categories – *customization* (page layout, page format, other language edition, and content selection), *interactivity* (online live chat, contact us, email by-line, online poll, blogging, message boards, forums, provide new tips), *multimedia* (video clippings, audio clippings, vodcast, podcast, slide shows, photos and graphics), *user-friendly services* (news alerts, list of top stories, e-commerce, search engines, archives, online translations, podcast, vodcast, and web specials), *additional delivery channels* (mobile, email newsletters, and RSS).

Meanwhile, the story page features were divided in six categories which include *customization* (text size, column format, story format), *interactivity* (by-line email and provide news tips), *multimedia in the story* (video clippings, audio clippings, slide shows, photos, graphics), *multimedia next to the story* (video clippings, audio clippings, slide shows, photos, graphics, vodcast, podcast), *user-friendly services* (translate the story, listen to the story, blog the story, email the story, comment on the story, contribute readers' version of the story) and *hypertext* (hypertext in the story and hypertext to the story).

Simple descriptive statistical methods were performed to generate insight into the collected data. The availability of the features is presented in number and percentages in groups and tables. For media platform type and language of news outlets, cross tab method has been performed.

Overall analysis of web features
Web features on the homepage

Results on customization, interactivity, multimedia, user-friendly services, and additional delivery channel options on the homepage are presented in *Table* 1 below.

Customization means allowing audience control over the content, layout and display, category, index letting users make their own selections about what they want to see or set preferences for how information is organized or displayed. It can enhance user experience because it allows users' freedom in their interaction. Customization might allow users to track contents of their interests, regions. Moreover, users may be facilitated to create and maintain a list of pages allowing users' control of getting exactly what they want and sometimes how they want. Users can rearrange the page content in terms of the language, font size, and content categories.

The results indicate that online journalism in Bangladesh is passing a nascent period in terms of availability of interactive features on the web-sites

of newspapers. Although none of the sample online newspapers provide options on the homepage for customization of page layout, page format and content, 14 (40%) of observed news outlets allow readers to consume their content in a language other than Bangla, and the second language is English. Meanwhile, 28 (80%) news outlets have options for customization of the content by the index type. On the other hand, 15 (42.9%) news outlets allow their readers to customize the content in terms of geographical location of the news.

Interactivity is one of the key features of online journalism. Availability of multiple options include online live chat, contact us, email by-line, online poll, blogging, message boards, forums, provide news tips and search options are some of the indicators of an interactive news site. Results indicate that online news outlets in Bangladesh use very few interactive features on their homepages. Most used interactive features are contact us – 32 (91.4%), online poll – 12 (34.3.70%), and search option – 30 (85.07%).

Today, journalism is not merely a textual and pictorial representation. It is now multimodal. A news story or news package is created with any combination of text, image, audio, video and graphics. Analysis of the data in *Table 1* shows that news outlets in the country mainly use a combination of text, video clippings, and photographs. In some cases, slide shows are made by using photographs. High end graphics are not used to explain any news or event. Rather, mainly Google map is used as a graphical element. Only 20 (57.10%) news outlets embed video clippings in their homepages. Meanwhile, 18 (51.40%) news outlets provide slide shows, 34 (97.1%) provide photos, and 24 (68.60%) provide graphical elements in their content on homepages.

In recent years, news organizations around the globe have increased some user-friendly services enabling users choosing and getting information and making its effective use with comfort and in a desired way. News alerts, list of top stories, list of popular stories, list of most viewed stories, list of most emailed stories, archives, online translation service, save story, update time are some of these services. They have given more freedom in consuming news than ever in the history of journalism. But all the options are not available in most of the sample news sites. The results show that options for archiving news content are most available (91.70%) in the selected news sites, which means that 29 news sites archive their content. However, most of the news sites provided the following options: list of top stories – 25 (58.30%), list popular stories – 25 (66.70%), and most viewed stories – 22 (83.30%). On the other hand, none of the sampled news sites provide online translation service and save story folders on their homepage.

In the traditional way, news distribution is relatively straightforward. Printed in a press at a certain time, then transported to newspaper agents or

selling outlets, from there picked by newspaper hawkers, then distributed or delivered to readers. Meanwhile, in case of broadcast medium, telecasting news at a certain time, and watched or listened by audiences. But news distribution in a new media world is completely a new process. Today, news reaches the audience through multiple channels, and it is made possible by technologies like social media platforms (mainly Facebook), mobile phones, various apps, email newsletters and RSS feeds. Analysis of the results shows that social media platforms mostly use additional delivery channel in Bangladeshi news media followed by breaking news options, mobile phone app, mobile phone, RSS feed and newsletter. 29 (82.20%) of the sample news outlets distribute their news through social media platforms, 14 (40.00%) through mobile phone apps of different operating systems. Meanwhile, 19 (54.30%) reach their audiences through braking news option on their homepage and 4 (11.4%) through RSS feeds. Surprisingly, only one (2.90%) news outlet uses email newsletter as their news delivery channel.

Table 1

Availability of web features of different categories on the homepage

Categories	Web features	Total observed news outlets/N=35	
		Yes	No
Customization	Page layout	0	35
	Page format	0	35
	Other language edition	14	21
	Content	0	100
	Index by type	28	7
	Index by place	15	20
Interactivity	Online live chat	0	35
	Contact us	32	3
	Email by-line	0	35
	Online poll	12	23
	Blogging	0	35
	Message boards	0	35
	Forums	0	35
	Provide news tips	2	33
	Search option	30	5

Multimedia	Video clippings	20	15
	Audio clippings	3	32
	Vodcast	0	35
	Podcast	0	35
	Slide shows	18	17
	Photos	34	1
	Graphics	24	11
User-friendly services	News alerts	0	35
	List of top stories	25	10
	List popular stories	25	10
	List of most viewed stories	22	13
	List of most emailed stories	1	34
	Archives	29	6
	Online translation service	0	35
	Save story folders	0	35
	Story update time	28	7
Additional delivery channel	Mobile phone	5	30
	Newsletter	1	34
	RSS	4	31
	Apps	14	21
	Breaking news options	19	16
	Social media	29	6

Web features on the story page

News story is not merely a package of information, facts, figures or images. Rather, it is a consumable product with combination of multiple elements. Audiences want to consume it with their choice and freedom. Options for text customization, interactivity, multimedia in the story, multimedia next to the story, user-friendly services and hypertext give readers the choice and freedom. Results on web features on story pages are presented in *Table* 2.

Scope for customization can allow readers more freedom to consume content. For convenience, readers sometimes want to increase or decrease sizes of the texts they read, change the format of the column and story format. This opportunity engages the audience in a more immersive manner. But, the results of the study reveal that Bangladeshi news media give relatively less freedom to their audiences. Only 9 (25.70%) sample news outlets allow their readers to customize the sizes of texts. While,

none of the news outlets give scope for customizing the column and story formats.

Today, audiences are not passive consumers of news, and the relation between journalists, news media and the audience are not linear. Rather the relation is two-dimensional and the audiences want to be engaged in the news process. The two-dimensional relation and engagement are created through availability of combination of options in news story. The options include by-line email to the reporter, scope for providing news tips by readers, integrating multiple social media platforms and delivering news through the platforms on a regular basis, scope for printing the story if the reader feels the need for it. Most importantly, an effective interaction takes place in the news process when readers can leave comments on a certain story, and they can express their views and arguments on the story. The results of the study (*Table* 2) show that 33 (91.40%) of the sample news outlets allow their audiences to print the stories. But very few dialogues happen between a certain reporter and audiences through email as 33 (94.28%) news outlets do not have options for by-line email, meaning that only two (5.70%) news outlets allow their readers to communicate with their reporters. Moreover, readers cannot provide any news tip as this scope is not given by any of the news outlets. However, 26 (54.30%) of the news outlets allow their audiences to comment on the news stories. The results indicate that Bangladeshi news media are much more advanced in interacting with their audiences through social media platforms. The analysis of the web features shows that 33 (94.30%) news outlets use social media platforms as a way of audience engagement.

News is all about multi-sensory communication today. To make it an effective one, news media incorporate multimedia elements in news stories. The multimedia elements include video clippings, audio clippings, slide shows, photos, graphics, vodcast and podcast. Results show that photos – 35 (100%) – and graphics – 25 (71.4%) – are mostly used multimedia elements in Bangladesh news media. Meanwhile, video clippings, audio clippings, slide shows are less used in news stories respectively. On the other hand, very few numbers of news outlets use multimedia content next to the story.

In order to increase revenue, news outlets around the world are striving for attracting audiences by providing diverse user-friendly services. The services include scope for translating story into another convenient language, listening to the whole story, blogging the story, emailing the story, rating the story, saving the story, leaving comment on the story, incorporating readers' version of the story, printing the story, and the time of the upload and update the story. The results show that printing options – 31 (88.60%), update time – 31 (88.60%),

comment on the story – 19 (54.30%) and email the story – 11 (31.40%) are the most used user-friendly services in Bangladeshi news media. Only three news outlets allow their audience to rate the story. Meanwhile, none of the sample news outlets have the options for translating the story, listening to the story by using an audio player or any other device, blogging the story and adding readers' version to the story. But media users respond to news stories through comments option.

Hypertextuality is one of the most important aspects of news production and consumption in online environment today. It is used to provide context, background, and provide value to the news story. It helps the audience to make sense of a certain issue or event more clearly as it takes the readers to the relevant and deeper meaning of the story. Hypertexts are given in the story and next to the story. Only three (8.60%) of total sample news outlets incorporate hypertext to a news story. Interestingly, four (11.40%) news outlets incorporate hypertext next to the story which allows readers to make sense of the context and background of any issue or event.

Table 2

Availability of web features of different categories on the story page

Categories	Web features	Total observed news outlets/N=35	
		Yes	No
Customization	Text size	9	26
	Column format	0	35
	Story format	0	35
Interactivity	By-line email	2	33
	Provide news tips	0	35
	Social media integration	33	2
	Print the story	33	3
	Comment on the story	26	9
Multimedia in the story	Video clippings	4	31
	Audio clippings	3	32
	Slide shows	9	26
	Photos	35	0
	Graphics	25	10

Multimedia next to the story	Video clippings	4	31
	Audio clippings	0	35
	Slide shows	4	31
	Photos	7	28
	Graphics	4	31
	Vodcast	0	35
	Podcast	0	35
User-friendly services	Translate the story	0	35
	Listen the story	0	35
	Blog the story	0	35
	Email the story	11	24
	Rate the story	0	35
	Save the story	3	32
	Comment on the story	19	16
	Contribute readers' version of the story	0	35
	Print the story	31	4
	Update time	31	4
Hypertext	Hypertext in the story	3	32
	Hypertext to the story	4	31

Comparison of media specific web features

This section presents the results on media of two categories – media type by platform (online only, online version of a traditional newspaper and online platform of TV) and language (Bangla only, English only and both Bangla and English). However, only results of some particular features are considered here.

An opinion poll, often conducted by news media, is an important indicator to understand multiple social and political dynamics of a country (Anstead & O'Loughlin, 2014). The Internet has made possible to conduct such polls in a more engaging, participatory, easy and timely manner. Audience of online news outlets can respond to any social and political issues through such polls conveniently. On the other hand, the outlets can use the poll as strong audience engagement technique which can lead to increased revenue of the news outlets. The analysis of data (*Table* 3) shows that only 9 (34.29%) news outlets provide the audience with options to participate in such opinion polls. Two (5.71%) of the outlets are online only, and seven (28.57%) are the online platforms of newspapers. Meanwhile, none of the online platforms of TV have the option for opinion polls on their web-sites. The results yield a contrasting scenario as online only news outlets far lag behind the online platform of traditional newspapers in this case. Similar insights can be found in the case of news outlets

of language category. In case of opinion polls, Bangla news outlets are far ahead of English and Bilingual outlets. Data indicate that eight (22.86%) news outlets which deliver content in Bangla have options for opinion polls.

Online poll (Total observed news sites 35)

Types of news platform	Online poll			Language of news outlet	Online poll		
	Yes	No	Total		Yes	No	Total
Online only	2	7	9	Bangla only	8	12	20
Online platform of newspaper	10	14	24	English only	1	3	4
Online platform of TV	0	2	2	Both Bangla and English	3	8	11
Total	12	23	35	Total	12	23	35

Hypertext

One of the basic aspects of the web is the hypertext (De Maeyer, 2012). In online journalism, it offers a broader scope for good for storytelling and keeping the audience more informed. Good storytelling requires multiple sources of information. Providing links to a certain word, idea or concept adds context, explains details and provides depth to the story. Thus, it enables greater transparency, credibility, interactivity, readability, information-seeking and connectivity (De Maeyer, 2012; Borah, 2014). Analysis of data (*Table* 4) indicates that news outlets in Bangladesh do not capitalize the immense opportunity of good storytelling brought about by the Internet as a poor number of news outlets provide links to their stories. Only three (8.57%) news outlets provide hypertext in the story and four (11.43%) next to the story. Only one (2.86%) online news outlet provides hypertext in the story. Interestingly, online platforms of traditional newspapers are ahead of online only platforms as two (5.71%) of the platforms provide links in the story and three (8.57%) next to the story. Meanwhile, none of the Bangla language news outlets provide links in the story and next to the story. Only three (8.57%) news outlets which are bilingual provide a link in the story and next to the story.

Table 4

Availability of hypertexts both in and next to the story
by type and language of news outlets
(Total observed news sites, N=35)

Types news platform	Hypertext in the story			Hypertext next to the story			Language of news outlet	Hypertext in the story			Hypertext next to the story		
	Yes	No	Total	Yes	No	Total		Yes	No	Total	Yes	No	Total
Online Only	1	8	9	1	8	9	Bangla only	0	20	20	0	20	20
Online Platform of Newspaper	2	22	24	3	21	24	English Only	0	4	4	1	3	4
Online platform of TV	0	2	2	0	2	2	Both Bangla and English	3	8	11	3	8	11
Total	3	32	35	4	31	35	Total	3	32	35	4	31	35

Additional delivery channel

Multiple communication technologies and social media platforms are changing the production, distribution and discovery of news. Technology has created options to deliver information in a variety of ways these days. Delivering digital content does not depend only on Web. Audiences want to access information from their smartphone, tablet, laptop computer or another mobile device. Today, publishing of and accessing to information is all about real time – at any time and from anywhere. On the other hand, news outlets are fiercely fighting to maximize their revenue by reaching far, wide and diverse audiences. Most of the Bangladeshi news outlets use six types of channels in addition to the main web-site to deliver the content. The channels include mobile phones, newsletters, breaking news options, mobile applications, social media and RSS. The analysis of data shows (*Table 5*) that five (14.29%) news outlets deliver their content through mobile phone text messages, three (8.57%) of them are online only and two (5.71%) are online platforms of traditional newspapers. Meanwhile, 29 (82.86%) news outlets reach their audience through social media platforms, mainly Facebook. 18 (51.43%) outlets are online platforms of traditional newspapers and 9 (25.71%) are online only news outlets. This figure indicates that online only platforms far lag behind traditional newspapers in

social media as their delivery channel. Mobile apps are the leading platform of news distribution, which stands at 14 (40.00%). Among the news outlets which use apps as their news delivery channel, 9 (25.71%) are online platforms of traditional newspaper and 5 (14.29%) are online only. In case of news outlets of language type, bilingual news outlets are leading in using additional delivery channel such as mobile phones, apps, and social media. Five news outlets use mobile phones, 19 breaking news option, 14 apps, and 29 social media.

Table 5

Availability of additional delivery channels by type of news platform
(Total observed news sites, N=35)

Types of news platform	Mobile phone			Newsletter			Breaking news options			Apps			Social media			RSS		
	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total
Online Only	3	6	9	1	8	9	6	3	9	5	4	9	9	0	9	1	8	9
Online Platform of Newspaper	2	22	24	0	24	24	13	11	24	9	15	24	18	6	24	3	21	24
Online platform of TV	0	2	2	0	2	2	0	2	2	0	2	2	2	0	2	0	2	2
Total	5	30	35	1	34	35	19	16	35	14	21	35	29	6	35	4	31	34

Table 6

Availability of additional delivery channels by language of news outlet
(Total observed news sites, N=35)

Language of news outlet	Mobile phone			Newsletter			Breaking news options			Apps			Social media			RSS		
	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total
Bangla only	1	19	20	1	19	20	9	11	20	6	14	20	15	5	20	3	17	20
English only	0	4	4	0	4	4	2	2	4	3	1	4	3	1	4	0	4	4
Both Bangla and English	4	7	11	0	11	11	8	3	11	5	6	11	11	0	11	1	10	11
Total	5	30	35	1	34	35	19	16	35	14	21	35	29	6	35	4	31	35

Multimedia option on the homepage

The term multimedia took its place when computer and the Internet were brought into play in practicing journalism. For the purpose of producing a good story package text, images, audio, video and graphics are used to turn it into a multimedia story. Qasim Akinreti (2007) defines multimedia as a concept which accommodates the processing of text, audio, visuals and graphics into one medium for different people at the same time. Multiple elements include texts, audio, video and graphic eventually complement each other providing a detailed picture enabling audience to comprehend a story with ease.

Bangladeshi news outlets mainly use video as multimedia in their homepage and story. The analysis of data shows (*Table* 7) that 20 (57.14%) of them add video to their homepages. Among these outlets, 7 (20.00%) are online only, 12 (34.29%) are online platforms of traditional newspapers, 10 (28.57%) are Bangla only and 9 (25.71%) are both Bangla and both Bangla and English. Audio, video, vodcast and podcast are least used in the news outlets. Meanwhile, slide shows and photos are highest used multimedia elements. The results indicate that online only news outlets have to put a lot of effort to capitalize the opportunities brought about by the Internet.

Table 7

Availability of multimedia options on homepage by type of news platform
(Total observed news sites, N=35)

Media Type	Video			Audio			Vodcast			Podcast			Slide show			Photos			Graphics		
	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total
Online only	7	2	9	2	7	9	0	9	9	0	9	9	7	2	9	9	0	9	7	2	9
Online platform of newspaper	12	12	24	0	24	24	0	24	24	0	24	24	10	14	24	24	0	24	16	8	24
Online platform of TV	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
Total	20	15	35	3	32	35	1	34	35	1	34	35	18	17	35	34	1	35	24	11	35

Table 8

Availability of multimedia option on homepage by language of news outlet (Total observed news sites, N=35)

Media type	Video			Audio			Vodcast			Podcast			Slide show			Photos			Graphics		
	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total
Bangla only	10	10	20	1	19	20	0	20	20	0	20	20	12	8	20	20	0	20	14	6	20
English only	1	3	4	0	4	4	0	4	4	0	4	4	0	4	4	4	0	4	3	1	4
Both Bangla and English	9	2	11	2	9	11	1	10	11	1	10	11	6	5	11	10	1	11	7	4	11
Total	20	15	35	3	32	35	1	34	35	1	34	35	18	17	35	34	1	35	24	11	35

Interactivity

Interaction generally means mutual exchange, mutual influence, sharing, etc. For media, interaction is multidimensional. It occurs between the media content and audience, media people and its audience. Jens F. Jensen (1998) defined interactivity and interactive media based on four different information patterns – transmissional interactivity, consultational interactivity, conversational interactivity and registrational interactivity. All the determinants measure the level of freedom readers enjoy in choosing content from the continuous stream of information. The structural design allows audiences to be engaged directly with the media process. Interactivity provides audiences with the capacity to participate in consumption and production of information. Analysis of data (*Table* 9 and *Table* 10) indicates that Bangladeshi news outlets mainly use social media – 33 (94.29%), print the story – 32 (91.43%) and comment on the story – 26 (74.29%) to allow their audience to interact with the content. Among the news outlets which use social media as an interactive option, 9 (25.71%) are online only and 24 (62.86%) are online platforms. Meanwhile, data in *Table* 10 show that English language only news outlets (11.43%) lag far behind Bangla language only (25.71%) and bilingual (Bangla and English) news outlets (31.43%) in integrating social media in their story pages. In case of print the story, this figure is 8 (22.86%) for online only and 22 (62.86%) online platforms of traditional newspapers. None of the news outlets have options for providing news tips which indicate that Bangladesh news outlets do not capitalize the power of the insight in their news process.

Table 9

Availability of interactive features in story page by type of news platform (Total observed news sites, N=35)

Type of news platform	By-line email			Provide news tips			Social media			Print the story			Comment on the story		
	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total
Online only	0	9	9	0	9	9	9	0	9	8	1	9	7	2	9
Online platform of newspaper	2	22	24	0	24	24	22	2	24	22	2	24	19	5	24
Online platform of TV	0	2	2	0	2	2	2	0	2	2	0	2	0	2	2
Total	2	33	35	0	35	35	33	2	35	32	3	35	26	9	35

Table 10

Availability of interactive features in story by language of news outlet
(Total observed news sites, N=35)

Type of news platform	By-line email			Provide news tips			Social media integration			Print the story			Comment on the story		
	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total
Bangla only	0	20	20	0	20	20	18	2	20	18	2	20	14	6	20
English only	1	3	4	0	4	4	4	0	4	4	0	4	3	1	4
Both Bangla and English	1	10	11	0	11	11	11	0	11	10	1	11	9	2	11
Total	2	33	35	0	35	35	33	2	35	32	3	35	26	9	35

Conclusion

Journalism is going through some evolutionary process around the world as well as in Bangladesh. With the help of multiple interactive and convergent technologies, changes, transformations and evolutions are being happening in media ecology and the practices of journalism. With the findings of the study, it can be concluded that news media in Bangladesh have done little to capitalize the immense potentials offered by new information and communication technologies. The results also indicate that the news web-sites did not fully utilize and enhance interactive features in online journalism. The designs of web-sites of sample news outlets are heavily inspired by the design of printed newspapers as they provide very few options for customization, scope of interactivity, embedding of multimedia tools, availability of user-friendly services, and additional delivery channels on their homepages. Most of the Bangladeshi news outlets, which have online presence, seem to be bilingual as majority of the sample outlets provide options for other language edition. The most used additional delivery channels are mobile apps and social media platforms, mainly Facebook.

Online news is an evolving experience. Multiple determinants influence readers' satisfaction in multiple ways. Scope for customization of content, interactivity, multimedia in the story, multimedia next to the story, user-friendly services and hypertext are some of the factors which may satisfy the audience. Among the sample news outlets, text size customization is the only available option that gives readers freedom to increase or decrease the size of the text on their convenience. Meanwhile, social media integration, print the story and comment on the story are on the top available options for interaction in the sample news outlets. On the other hand, video clippings, audio clippings, slide shows, photos and graphics are the most used multimedia elements in the story. In case of user-friendly services, email the story, and rate the story are not present in the news stories of the news outlets. Very few of the sample news outlets embed link to a relevant site in their news stories.

In comparative analysis, it is obvious that online only news outlets in Bangladesh have to do much to be online news media in a truer sense as a majority number of the outlets do not capitalize the immense opportunity for good storytelling brought about by the Internet. Most of the news outlets provide very few web features in their web-sites. Similar, insights are generated about the media type by language (Bangla only, English only and both Bangla and English). It was observed that Bangladeshi news outlets tend to be bilingual (both Bangla and English), and such outlets are a bit ahead of Bangla only and English only ones in catering the opportunities created by the Internet.

The results yield a novel understanding of online news production, delivery and consumption pattern from Bangladesh context, and create a threshold for future research. But limited sample size is the main weakness of the study, although significant number in the context of Bangladesh. More in-depth insights can be generated if such studies are conducted in broader perspective on larger sample. This research was conducted from the organizational perspective. Future research from audience perspective would offer solid understanding of the evolving new media ecology, the news industry and its future course in Bangladesh.

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Mobile technologies and development in conflict affected North East region of Nigeria: The issues, benefits and challenges

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Abstract

The North East of Nigeria for almost a decade has been engulfed in a violent conflict as a result of the Boko haram insurgency. The region is endowed with human and natural resources but remains the least developed part of the country due to the devastating Boko Haram conflicts and weak infrastructural base, among others, thus depriving the region of meaningful development. Recently, developments in the region have shifted to resettling displaced people and rebuilding and rehabilitating the zone in the midst of deep poverty, lower level conflicts and high expectations by the population. In all of that, instant communication and information sharing facilitated by mobile technologies remain central. Thus, the paper assesses the availability, quality and use of mobile technologies by various stakeholders in shaping the various situations, influencing and shaping the processes of development amidst the challenges in the region. Observation and interview were the instruments used for this study. The study found that the destroyed mobile facilities which enable phone networks in settlements along major highways in the region, have been reconstructed and mobile signals are available now. It also found that there are enormous benefits of mobile technologies in shaping development in the region but there are some challenges as well. The paper concludes that despite the challenges, the benefits of mobile technology in shaping development in the region is glaring.

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Keywords

Introduction

Mobile technologies have a global-wide acceptability. This is evident in the growing number of users of mobile devices and huge subscription in the mobile telephony sector and associated services. The proliferation of mobile phone networks in just a few years, has transformed communications in sub-Saharan Africa. It has also allowed Africans to leapfrog from the landline stage of development to the digital age (Wilson & Gapsiso, 2017). Nigeria, like any other country that is mindful of the enormous benefits of information and communication technologies, has embraced these technologies and has incorporated it into their daily endeavors.

Mobile technology has remarkably changed and is still changing the face of communication in Nigeria. Currently, there is hardly any part of Nigeria that has not felt the impact of mobile technology: government, companies, non-governmental organizations alike have realized the potential of this technology in addressing pressing national challenges. Mobile technology is increasingly making developmental impact in some key sectors, such as education, health, agriculture, banking, governance, security, etc.

Undoubtedly, a mobile phone is the most noticeable and useful device in the mobile industry; it serves a multiplicity of functions – navigational device, Internet access device, instant messaging client, handheld game console, etc. This point has compelled experts to argue that the future of computer technology is mobile technology (computing with wireless networking).

The introduction of mobile technology, specifically the Global System for Mobile Telecommunication, popularly known as GSM in Nigeria in August, 2000 was a defining moment in the history of the country. Prior to the introduction of this important communication technology, Nigeria's telecommunication industry had been monopolised by government-owned Nigeria Telecommunication Limited (NITEL) and characterized by obsolete telecommunication infrastructure, non-availability of telephone lines/epileptic service delivery and inefficiency. For instance, the total available telephone lines in the country before GSM were below 500.000. This was grossly inadequate for the country's huge population (Wilson & Gapsiso, 2014; Wilson & Gapsiso, 2017).

More than 15 years into the introduction of mobile phone services in Nigeria, there has been a speedy development of telecommunication infrastructure across

the country by the several competing operators, such as MTN, Airtel, Etisalat (now 9mobile), Globacom, Multilinks Telkom, Visafone, etc. This growth and competition in the delivery of telecommunication services are spurred by the overwhelming demand for mobile phone services by Nigerians (NCC, 2016).

Nigeria has an estimated over 187 million inhabitants (Worldometers, 2016). In the earlier years when only fixed telephone lines were available in Nigeria, the service was restricted to urban areas. Rural telephony was not available. However, with the introduction of mobile phones, rural areas have been included in the mobile telephony service (Wilson & Gapsiso, 2014) Currently, mobile networks in Nigeria have the fastest growth on the continent. The penetration of telephones in Nigeria increased from 0.5% in 1999 to 8% in 2004. In 2005, there were 16 million telephone subscribers in Nigeria and 18,587,000 mobile phone lines. In the same year, there were 1,223,000 fixed lines in the country. Mobile phone penetration is rated at 103% (National bureau of statistics, 2006, Ndukwe, 2005). Odukoya and Nkadi (2008) found that in 2006, there were 31.1 million mobile phone subscribers in Nigeria and at least 15 million subscribers were connected in 2007. In 2011, it is estimated that Nigeria had about 86.2 million mobile phone subscribers (Kombol, 2009). In 2012, Nigeria had the biggest number of mobile phone subscribers in Africa with more than 93 million (BBC News, 2012). Currently, Nigeria is one of the nations that is estimated to reach 100% mobile phone penetration. Nigeria mobile phone active subscribers stood at 148.74 million at the end of the first quarter of 2016. As at March 2017, the nation had 155 million active mobile phone subscribers (Aksu360, 2017; Ericsson mobility report, 2015; NCC, 2016). These subscribers cut across the regions of the country, including the North East region that is currently affected by violent conflict.

The North East region of Nigeria has not been left out in the mobile technology penetration and adoption. Before the insurgency, the region, like all other regions in the country, enjoyed its share of mobile technology deployment by the major telecommunication companies in Nigeria (MTN, Globacom, Airtel, Etisalat, and Starcomm). From 2009 when the conflict started to date, mobile technology, especially the mobile phone, has remained a key component of the daily lives of people in the North East.

In spite of the violent conflict in the region, mobile technology has remained a vital component of the day to day activities of the people in the region. The crucial place of mobile phone became glaring when in 2013 mobile telephone network was shut down in Borno, Yobe and Adamawa states as a counter insurgency measure. After that President Goodluck Jonathan declared the state of emergency in these three states. The use of Thuraya services at a point was

also banned by the military in affected states. While the mobile network was restored in Adamawa and Yobe in July, 2013, Borno state was without mobile telephone network for over 6 months (from 17th May, 2013 to 3rd December, 2013). During this period residents of the affected states had to travel several miles to use mobile technology services.

The North East Nigeria occupies one-fourth of the country's landmass of 970,000 sq. km. The zone has a population exceeding 20 million. It is endowed with human and natural resources but remains the least developed part of the country due to poverty, climate change, poor governance, devastating conflicts and weak infrastructural base (AOAV and NWGAV, 2013; Ojeme, 2011). In the last 5 years, the Boko Haram insurgency devastated the zone with thousands of people killed and injured, displaced over three million people and devastated the economic and social base of the region.

Presently, the violent terror level has reduced significantly with the decimation of the insurgents and stability gradually returning to the region, aattention is now focused on reconstructing, resettling and rehabilitating the zone in the midst of deep poverty, lower level conflicts and high expectations by the traumatized population. In all of that, instant communication and information sharing facilitated by mobile technologies remains central. Thus, this paper assesses the issues (availability, quality and use), benefits and challenges of mobile technologies in different shaping processes of development amidst the challenges in the zone. The paper has the following objectives:

- to find out the issues (availability, quality and use) associated with mobile technology shaping development in the North East region of Nigeria;
- to find out the benefits of mobile technology in shaping development in the North East region of Nigeria;
- to find out the challenges of mobile technology shaping development in the North East region of Nigeria.

Literature review

Mobile technology especially the mobile phone has become a common feature of the modern-day society landscapes. Over the past years, a number of studies (Elangovan & Aruchelvan, 2013; Kreutzer, 2008; Wilson & Gapsiso, 2014; Wilson & Gapsiso, 2017, etc.) have advanced various position on the importance of mobile technologies, specifically mobile communication. For example, Heeks (1999) noted that mobile technology has become an essential infrastructure which connects people from different parts of the world, helps analyse data, transfer information and manage knowledge in order to expand the capability

of human effort. Lisa (2015) noted that mobile technology has become a global necessity, providing the ability to communicate with the family, business associates, and the access to email, storing data, taking pictures, and other functions. It has become almost a status symbol in addition to the convenience and security that comes from owning. There are several uses of mobile technology in various fields of human endeavours in this age of intelligent machines that are in perpetual communication, creating new networks of knowledge, information and empowerment across the globe.

In developed countries such as Great Britain, France, USA, Germany, South Korea, mobile technology plays a decisive role in their private and professional lives. Thus, placing mobile technology alongside face-to-face communication, e-mail as the most important means of communication. This technology helps them keep in contact with their family and friends. For example, in South Korea, where the mobile technology such as the mobile phone is already by far the most important means of communication, some people are of the view that communicating via mobile phone is more significant than face-to-face communication (Life Studies, 2009). Kingston (2016) noted that this technology has emerged as a perfect way for people to stay connected with others and provide the user with a sense of security. In unusual circumstances such as emergency cases mobile technology can help reach victims quickly and may possibly save lives or prevent further danger. Modern mobile phones are capable of Internet access, sending and receiving photos and files, and some are equipped with Global Positioning System (GPS) technology, allowing for use in most locations around the world and allowing the mobile phone to be found or the user located in the emergency spot (Wilson & Gapsiso, 2017).

Mobile technology has emerged to play significant roles in various development efforts. For example, in education, mobile technology has helped provide educational institutions in teaching and learning. For instance, one of the telecom companies in Nigeria, Etisalat Nigeria, gave a boost education with the launch of Cliqlite Portal, an Internet enabled initiative that offers unlimited access to a wide range of educational materials to support education and learning. It gives both students and parents access to educational materials not just on mobile devices (IT News Africa 2016).

Mobile technology has also been an extremely transformative tool for agriculture. Mobile phones have allowed farmers to gain access to global market, extension services and important farm inputs (Huffington Post, 2013). For example, a few years ago Nigeria launched the 10 million mobile phone for farmers and an e-wallet agricultural scheme. The scheme has helped farmers access agricultural inputs which were initially diverted by middlemen.

Mobile phones have been very instrumental to farmers. In Kenya, there is a text messaging platform SokoniSMS64 that uses SMS to transfer exact information about wholesale retails of crops quickly, allowing farmers to negotiate deals with traders and improve upon timing to get crops to the market. There is also the use of mobiles in Tanzania (iCow) to track livestock reproduction, track a cow's individual gestation, feed types, schedules local veterinary contact information and precise market prices of cattle (Huffington Post, 2013).

Another area mobile technology is gaining visibility in developing countries is the health sector, a phenomenon widely known as mHealth. The growth of mobile technologies in the health sector such as text messaging projects, remote monitoring, portable sensors, and mobile phone are changing the way healthcare is delivered globally, with the potential to provide people with some level of access to health resources. Huffington Post (2014) reported that one of the glaring breakthroughs is the potential of mobiles to end life threatening diseases such as malaria through mobile technologies. 'Key malaria fighting tools such as bednets, diagnostic tests, cheap treatment, and reliable drugs are "turbocharged" through SMS mobile phone campaigns'. Text messages are widely used in Sub-Saharan Africa as a means of reaching out to subscribers on Malaria preventive measures. 'Results from text campaigns like these have been phenomenal, increasing bednet use by 12%, translating into 500,000 people sleeping under nets which otherwise may be vulnerable to a deadly mosquito bite' (Huffington Post, 2014). There are other health tips available via text messages for mobile phone subscribers. In Nigeria, a telecommunication company MTN has the mHealth service that disseminates health tips that help improve lifestyle of subscribers. The tips focus on general health cancer, fertility, blood sugar, etc.

Governance, commerce and banking are other areas that mobile technology is increasingly covering nowadays. Governments around the world have appropriated mobile technology in the affairs of governance. Communication and sharing information are key components that drive government activities. For example, Nigeria's telecommunication company Globalcom has supported civil servant in Nigeria with special SIM cards that allow communication and speedy sharing of information among civil servants at almost no cost. Political process has been supported by mobile technologies in areas of voter education, campaigns, citizen mobilization, etc. Nigeria 2015 presidential election was highly supported by mobile technology: a handheld card reader for verifying voters was used extensively by observers and party agents to keep track of the event and report the news to their supervisors. After the election the incumbent president, Dr. Goodluck Jonathan, conceded defeat and congratulated the

winner Mohammadu Buhari through a phone call (Wilson et al., 2016). Another Nigerian example is related to an SMS mobile platform called 'Shine your Eyes' which allows anyone to send a free SMS with the name of the candidate or representative and receive the basic track record of such a candidate as an answer. Also, a mobile application Roveda 2.0 allows Nigerians notify power cuts, riot or any other event capable of disrupting voting process. There is the whistle blower policy that is supported by mobile technologies. The federal government of Nigeria has created a text messaging platform or contact line, which enables Nigerians with authentic information on possible violation and misconduct inform government (The Nation, 2016).

Commerce and banking have greatly been transformed by mobile technologies. Huffington Post (2014) mentions 2012 report by the World Bank, according to which more than 2.5 billion people are without access to their bank account. Mobile technologies, specifically the mobile phone, is helping change this statistic. Presently, most developing countries, especially in Africa millions of people use basic phone services to transfer money, take out insurance policies, purchase air time, pay bills and collect payments from government and agencies. In Nigeria, Globacom is supporting the federal government cashless payment solution, known as the mCash – a mobile supported payment system that allows sellers or merchants to collect their money from buyers electronically (Guardian, 2016).

Mobile technology is also contributing in area of security. The use of emergency notification systems offers services that can send emergency messages to cell phones via text messages, e-mail accounts, and instant message accounts. This system helps security agencies respond to distress call from citizens. Use of walkie-talkie by security agencies contribute greatly to meeting the communication and information sharing needs of security agencies (Peter & Jacob, 2012). GPS-enabled devices also help citizens signal for help when emergency situations arise and to track stolen properties that GPS enabled.

Undoubtfully, Nigeria is harnessing mobile technology in the various areas discussed above. Cistematix (2011) noted that the reliance on mobile technology influences financial services, education transportation and logistics, emergency health service, entertainment and information and work related. The reliance on mobile technology is an indication that the technology is available. According to Okonji (2017), the increasing rate of mobile technology subscription services in Africa, especially in Nigeria, proves that mobile services will drive digital transformation in Africa in the next few years. Access and availability have been the driving for the penetration of the technology in African societies. Mobile technology has emerged the platform of choice for creating, distributing and

consuming innovative digital solutions as services in Africa (Okonji, 2016). Mobile technologies are used even among the poorest farmers and rural dwellers in Africa where provided network is available.

Quality of mobile technology has been improving. According to Okonji (2016), mobile technology subscribers are increasingly migrating to mobile broadband services driven by network rollouts and mobile operator device and data strategies. Mobile broadband connections accounted for a quarter of total connections at the end of 2015, but it is expected to rise in two-thirds by 2020. The 4G service rollout is gaining traction, and by mid-2016, there were 72 live Long Term Evolution (LTE) technology networks in 32 countries across Africa, half of which were launched in the last two years. In Nigeria, MTN, Globacom, Airtel have all rolled out the 4G LTE mobile service, giving Nigerians the standard quality in terms of mobile technology (Nigerian Bulletin, 2016; Okunola, 2016). Some experts have even argued the quality provided by the companies is even been underutilized (Nigerian Muse, 2012).

While there are several benefits in the use of mobile technologies for development, there are also challenges, especially in developing countries. According to Wilson and Gapsiso (2014), developing countries are still struggling with the issue of access. There are still some Nigerians that do not have access to mobile phone services, especially in the rural areas. There are also challenges of cost of acquiring and maintaining a mobile phone. Tariffs are still very high in Nigeria and several services offered by the operators are still expensive. These challenges have not deterred users. Subscribers increase daily worldwide.

Theoretical framework

The paper adopts the technological determinism theory. In 1962, Marshall McLuhan explained the main ideas of technological determinism theory – media technology or channels of communication shape the way individuals in the society think, feel, act, and the way society operates as it moves from one technological age to another. McLuhan promotes the position that channels of communication or technologies bring change in family life, workplaces, schools, friendship, religion, recreation and sees every new form of media. The presumption of this theory is that a society's technology spurs the development of its social structure. The theory seeks to present media technology as a key mover of social change. It is an approach that identifies technology or technological advances as central causal element in processes of social change (Griffin 1997; Wood, 1997). These technologies extend the society's reach, increase efficiency and filter or organize and interpret social existence. The theory places technology as a key driving force in society and promoting idea that technological development

determines social change (changes the way people think and interact with others).

Situating the mobile technology in this theory places it as communication technology that has changed the way the society does a lot of things. Mobile technology is everywhere, accessible to most people and has set-off a new way of communicating and sharing information for development purposes. Mobile phones have influenced communication, entertainment, information access. People use their mobiles for entertainment and as a source of information (Techno Culture, 2009; Wilson & Gapsiso, 2017). The impact of mobile technology has reached a point that is described as a necessity in everyday existence of the modern society.

Another relevant theory is the diffusion of innovations. The diffusion of innovations is a theory of how, why, and at what rate new ideas and technologies spread through cultures. Everett Rogers introduced this theory in his 1962 book *Diffusion of innovations*. He defines diffusion as 'the process by which an innovation is communicated through certain channels over time, among the members of a social system'. The key elements in diffusion research are: the innovation, types of communication channels, time or rate of adoption, and the social system which frames the innovation decision process (Rogers, 2003).

There are three types of innovation-decisions within diffusion of innovations. An individual or an organization/social system aliens with a type of decision on whether an innovation is adopted/rejected. The three types of innovation-decisions are: optional innovation-decisions, collective innovation-decisions, authority innovation-decisions. Optional innovation-decision is made by an individual who is in some way distinguished from others in a social system. Collective innovation-decision is made collectively by all individuals of a social system. Authority innovation-decision is made for the entire social system by a few individuals in positions of influence or power. In the context of this paper the decisions are made by the federal government through INEC and other stakeholders such as civil society organization which creates ICT platforms to enable citizens participate in election discussions.

Diffusion of an innovation occurs through a five–step process. Rogers (2003) categorizes the five stages (steps) as: awareness, interest, evaluation, trial, and adoption. He notes that an individual might reject an innovation at any time during or after the adoption process. Rogers subsequently changed the terminology of the five stages to: knowledge, persuasion, decision, implementation, and confirmation.

Knowledge: In this stage the individual is first exposed to an innovation but lacks information about the innovation. It should be noted that at this stage or

process, the individual has not been inspired to find more information about the innovation. Nigeria has passed this stage, considering the huge number of users of mobile technology, which is an indication that there is a significant level of knowledge in respect of mobile technology among Nigerians.

Persuasion: In this stage the individual is interested in the innovation and actively seeks information/detail about the innovation. Mobile technology for development in Nigeria has gone beyond this stage. The introduction of an information technology policy by the Nigerian government and the willingness and acceptability of mHealth, mobile money, mCash indicate that mobile technology has been accepted.

Decision: In this stage the individual takes the concept of the innovation and weighs the advantages/disadvantages of using the innovation and decide whether to adopt or reject the innovation. Due to the individualistic nature of this stage Rogers' notes that it is the most difficult stage to acquire empirical evidence (Rogers, 2003). Mobile technology has been adopted for the purpose of agriculture, banking, education, etc. in Nigeria.

Implementation: In this stage the individual employs the innovation on a varying degree depending on the situation. During this stage the individual determines the usefulness of the innovation and may search for further information about it. Nigeria is at this stage of implementation. This is evident in the deployment of mobile technology facilities for development purposes (governance, agriculture, health among others) and the use mobile technology platforms by citizens.

Confirmation: In this stage the individual finalizes their decision to continue using the innovation and may use the innovation to its fullest potential. Nigeria is gradually getting to this stage. For example, 2015 general election showcased a massive deployment of mobile technology (mobile phones, electronic voter cards). In agriculture, farmers have adopted the use of a mobile phone and e-wallet system for easy access to farm inputs.

Diffusion theory argues that adoption of new technology and innovation starts with enthusiastic innovators and early-adopters and then moves to use by the early and late-majority when the innovation is better supported and more reliable (Rogers, 2003). Comparatively, one could argue that Nigeria falls among the late majority, especially when compared to what obtains in developed countries and looking back at when the nation began enjoying the deployment of mobile ICT in the 1960s (Wilson & Gapsiso, 2014). The expectation is that Nigeria would have been among the leading nations in terms of mobile technology deployment for development. However, it is making strides in the African continent considering the number of subscribers of mobile technology such as mobile phone.

Method

Observation and interview were the instruments used for this work. Observation as a method of data collection and analysis enables the researcher to gather data across perspectives, time and in the phenomenon's natural setting (Babbie, 1986; Patton, 2002). According to Norskov and Rask (2011), observation method may reveal implicit problems and offer important insight into issues and provide information about informal aspects of interactions and relations which can be difficult to obtain through other methods. Observation and interview covered issue relating to mobile network availability in area badly affected by the insurgent's activities in Borno state. The observation period was between February and May, 2017 in Borno state: (Maiduguri, Settlement in Konduga, local government areas along Maiduguri/Damaturi/Potiskum road, Benishek in Kaga LGA). The routes have a massive concentration of government reconstruction, rehabilitation and resettlement activities. The interviewees were purposively selected based on their experiences in the affected areas during official work duties in Borno state and their familiarity with development projects (rehabilitation, reconstruction and resettlement). 10 respondents were interviewed at various times between February and June, 2017. They include two government officials, 2 journalists, 4 aid workers (NGO workers), 2 security personnel and 1 information and communication technology expert/Primary Health Care supervisor.

Findings and discussion
The issues associated with mobile technology shaping development in the North East region of Nigeria

There is an obvious issue associated with the mobile technology in the region, especially Borno state that is worst affected by the violent conflict. Observation showed that mobile phone networks are now available in settlements along Maiduguri/Damaturu/Potiskum highways. At some points at the peak of the insurgents' attacks, the telecommunication facilities along the highways were destroyed. Only a few towns like Beneshek and Auno had mobile phone network in Borno state axis. Hence, it can be said that some level of mobile technology is available, especially the mobile phone network but the coverage is not as wide as it used to be before the destruction of telecommunication facilities by the insurgents. It was also observed that the 4G LTE network quality available in the Capital city of Maiduguri has not been extended to these areas.

It was observed that the states in the North East, such as Bauchi, Gombe, Taraba and parts of Adamawa that were not seriously affected by the insurgency have not experienced a drop in telecommunication quality, rather they have

moved on in terms of utilizing the technology for purposes of communication sharing, business transactions, etc. Towns in the north of Adamawa state, such as Mubi, Michika, Bazza, Madagali have their telecommunication services restored to normalcy and being used by subscribers for various developmental purposes, especially communication, information sharing and business transactions.

Respondents pointed out that most of the major towns in the southern part of Borno state (Biu, Shaffa, KwayaKusar, Askira, Shani) have telecommunication services and subscribers use these services with a fairly good quality. However, the northern part of Borno state does not have any telecommunication service. Towns bordering Cameroun, Chad and Niger use telecommunication services of these countries. One of the respondents (the government official) noted that most telecommunication facilities in the northern part of Borno have been destroyed by the insurgents, thus making access to mobile technology difficult or impossible for the ordinary people. The respondent pointed out that it would take a long time for the facilities to be rebuilt, especially those in the rural areas because the telecommunication companies would consider profitability of their investments. The user capacity in such rural areas may not generate the needed profit for the companies. 'People do not spend much on communication and thus the companies may be reluctant to fix or rebuild such facilities in the shortest possible time. People are more concerned about shelter, food and sustainable means of livelihood'. The issues of access of mobile technology in the affected areas, especially in Borno state, is predominantly about availability of facilities. Nevertheless, mobile technology is accessible in Maiduguri, the capital city and other towns in the southern part of the state.

On the issues of quality, the respondent noted that the most important goal at the moment is to rebuild the destroyed facilities so as the affected areas would be connected – no one talks about quality when access is a problem. However, the quality of the mobile technology in the capital city, Maiduguri is comparatively good. The major service providers (MTN, Airtel, Etislat (now 9mobile) , and Globacom) are all functional with some of them providing high quality 4G LTE service, which is driving e-banking, mHealth, e-governance, e-learning activities in the state.

In the area of use, mobile technology has remained a significant component of development activities in Borno and other states in the North East Nigeria. The respondent further pointed out that communication and information sharing is one of the major uses of the technology. Two of the respondents (military personnel and government official) specifically noted that mobile technology helped maintain a high-level communication in the area of security coordination

in the fight against the insurgents and maintaining security in the communities. The use of various mobile communication devices helps in these regards. They noted that individuals have provided security reports on impending or planned attack on communities, which often helps security agencies in preventing such attacks.

Another respondent (ICT expert and Primary Health Care supervisor) noted that mobile technology is contributing greatly in shaping development in the region. The respondent noted that mobile technology is being used in areas of monitoring vaccinators through the GPS to ensure that areas are adequately covered by the vaccinators. It is also used for data gathering and transfer. He noted the use of open data kit by supervisors in the health sector. He also pointed out the use of e-ticket for distribution of relief materials by aid agencies, making it easy for distribution of relief materials and accountability on the side of the agencies.

The benefits of mobile technology in shaping development in the North East region of Nigeria

Respondents noted that there are enormous benefits of mobile technology in shaping development in the region. Respondents identified the major and visible benefits of technology such as communication and information sharing on issues that are related to security. For any form of development, the communities should be secured to develop constantly, and the present reconstruction, rehabilitation and resettlement pursue these goals. Respondents pointed out that state and non-state security apparatus deploy the use of mobile technology, such as mobile phone, GPS, Thuraya among others to ensure that security activities are well coordinated so that the government's and NGO's activities can be carried out (construction and reconstruction of infrastructure in affected communities, distribution of relief materials, teaching and learning activities, etc).

Another benefit of mobile technology in the region is facilitating economic activities. E-banking activities, contacting suppliers of goods and services outside the region, mobile money transaction, sale of mobile technology and its associated components such as SIM cards, recharge cards, thus providing employment to the people are some economic benefits of mobile technology in the region.

Respondents also noted that the benefit associated to health and relief services are important in facilitating development through ensuring healthy communities. Mobile phones, ODK and GPS are very vital in ensuring that health service meant for the communities are not neglected or overlooked by stakeholders, as such they use of these platforms to monitor vaccinators to

ensure that they reach their designated areas and administer vaccines is very vital.

Two of the respondents (government official and ICT expert) noted that the people pressing needs at the moment are shelter, food and means of livelihood. That interestingly the use of e-ticket is of immense benefit to stakeholders responsible for relief materials distribution and services and allows for accountability and non-diversion of materials to the intended recipients.

The challenges of mobile technology shaping development in the North East region of Nigeria

Respondents noted that there are obvious challenges associated with mobile technology in shaping development in the region. The major one being access challenges for areas or communities where telecommunication facilities have been destroyed. For such areas, it would take some time to benefit from mobile technology, especially the rural areas where investors might be reluctant to rebuild such facilities. For organisations and agencies that rely on more costly mobile technologies such as Thuraya, the cost might be high thus limiting its full utilization. Respondents noted that only an official or two use such a device in a location that does not have the normal telecommunication service. Respondent noted that it would take a while for telecom services to reach some of the affected areas and to have the wide coverage the area enjoyed before the insurgency or terrorist activities. Access and affordability of the technology, according to the respondents would be major hindrances to fully harnessing mobile technology for development in the region.

Another challenge is in area of quality of service. The quality of telecom services goes along the way in ensuring the effective and smooth use of most mobile technology services, such as mobile Internet, mobile transactions, buying and selling via mobile platforms and sometimes as simple as uninterrupted and clear easy communication and information sharing. It was observed that 4G LTE service is reliable and of better or enhanced quality when compared to GSM or 3G.

Another major challenge is knowledge and willingness to fully utilize the mobile technology. Some of the mobile technology services require some level of skills to use. Respondents noted that the services such as GPS, ODK mobile money, and electronic banking transaction require a proper level of knowledge and skills to use. One of the respondents noted that even among the aid and health workers not everyone has the necessary skills to use some of the apps and some are reluctant to use them.

Conclusion

The North East region has been badly affected by the activities of the insurgents. The destruction of infrastructure has no doubt taken the region backward. For some communities, it is a fresh start as the infrastructure has been totally destroyed. As the government and other stakeholders are working towards rebuilding the affected communities through the reconstruction, rehabilitation and resettlement programme, mobile technology has proven to be instrumental in the ongoing development efforts in the region. At the peak of the insurgency, mobile technology stood out as a means of addressing communication related issues and even beyond. At this point of rebuilding, mobile technology is a vital tool. Despite the challenges, the benefits of mobile technology in shaping development in the region is glaring. Thus, it is recommended that the government and international organizations should support telecommunication companies (the key providers of mobile technology service) to rebuild destroyed facilities and extend services to areas that were not covered in the past so as to enhance the adoption and utilization of mobile technology in the region. The Nigerian Communication Commission had announced in March, 2017 that it would assist in rebuilding telecoms facilities in the North East region (Daily Trust, 2017), this laudable initiative should be vigorously pursued and implemented.

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Editorial Scope

The journal "World of Media" is affiliated with the National Association of Mass Media Researchers (NAMMI).

The journal "World of Media" has been published since 2009. It represents a review of original research in the field of media and journalism studies conducted by Russian authors from diverse cities and institutions.

"World of Media" is published in the English language.

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"World of Media" is aimed at promoting the development of media and journalism studies in both national and global contexts, and stimulating a wider public interest in the journalism theories, methods, findings and applications generated by research in communication and allied fields. Only those articles that are deemed to be of the highest standard and present original research conducted in one of the aforementioned fields are accepted for publication. Articles must not be under consideration by another publication at the time of submission.

This journal seeks to publish original research articles of the highest standard in the **fields** of:

- Media and journalism studies
- Communication theories
- Intercultural communication
- International communication
- New media
- Media regulation
- Media sociology
- Media psychology
- Regional studies
- PR and advertising
- History of journalism
- Media stylistics
- TV and radio journalism
- Business journalism

While the manuscript is open to all methodological approaches, all submissions are expected to be theoretically grounded.

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The editors of "World of Media" are now inviting submissions.

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List of references should include only publications cited in the article. Citations in the text should be accompanied by round brackets containing last name(s) of the author(s), year of publication and page(s). Example: (Shoemaker, 1991: 115–120). The "World of

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