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Full Length Research Paper

Interactivity and cyber democracy: The case of Zimbabwe's online newspapers

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This paper discusses the potential for promoting cyber-democracy through interactivity on news websites. The paper views interactivity and cyber-democracy on the online arena as central to free expression. The paper argues that the Internet is endowed with possibilities to promote the threefold ideal for public deliberations, that is, a conducive virtual environment for interactivity, cyber-democracy and a broadened public sphere. A content analysis of interactive tools carried out on 22 Zimbabwean online newspapers revealed that many newspapers are providing interactive tools that are of limited relevance to interactive citizen engagement with political issues. Different models were employed to assess the interactivity levels that the various feedback tools accorded citizens with a view to measure the potential for cyber-democracy. The three aspects of public deliberation and citizen engagement identified in this paper were found to be interdependent, that is, when one was low the same would be for other two.

Key words: cyber-democracy, interactivity, online newspapers, freedom of expression.

INTRODUCTION

Zimbabwean online news: Not yet post colonialism

Freedom of expression is not a 'nice to have' concept, but a bare necessity in any situation where human beings are involved. Freedom of expression and access to information is of paramount importance if citizens' sense of belonging is to be upheld. This is why it is important for a country to uphold and safeguard freedom of expression for citizens to be partakers in issues of governance. It goes without saying, that democracy, vague as it is, is a widely revered concept, with some countries deemed undemocratic and others more democratic. Freedom of expression, access to information and democracy are issues that form part of the puzzle on the path to the

legitimacy of those who are in power. At stake in Zimbabwe are the issues of doubt, scepticism and mistrust that hover around the legitimacy of those that occupy political positions. It is clear that there are specific linkages between media control, politics and the election in Zimbabwe and it has been argued that undermining the media weakens democratic practices (Mazango, 2005). This paper looks at new ways, while acknowledging the failures of traditional methods, of bringing sustainable freedom of expression, access to information and democracy through the new media.

The Zimbabwean media, dating back from colonial times, has been part of the civil service. Central to this civil service is the controlling arm of the government. The

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current government, more harsh than its predecessor (the colonial government), exercises autonomous control over both broadcast and print media. It prescribes what the mainstream media disseminate and uses the media as propaganda tools. Numerous reports and incidents that point to the risks involved in practicing independent journalism in Zimbabwe due to draconian media laws enforced by the ruling party, especially in the past two decades have been circulating through the media (Chuma, 2004). Tough media laws in Zimbabwe forced the closure of independent media and exiled most journalists to other African countries and abroad. These frustrated, exiled journalists established websites that focus on Zimbabwean news and issues: websites such as *changezimbabwe.com*, *zwnews.com*, and *newzimbabwe.com* to name but a few. Currently there are at least 34 Zimbabwe-focused Internet news websites established.

Online journalism is becoming increasingly important with repressive media laws that are strangling independent journalism within Zimbabwe. The online arena provides an alternative source of information for many Zimbabweans who can access it. In the light of the Zimbabwean media scenario, the provision of user-friendly interactive tools on these websites becomes of paramount importance because the traditional media has failed to tolerate the views of independent writers. There is such a distinct gap in news reportages between independent media and government controlled ones that readers do not know what to believe. Interactive tools empower readers to engage fully with texts and arrive at meaning on their own. This paper reports on the availability of interactive options on Zimbabwean newspaper websites aiming to discover the extent to which these news agencies utilise the two way-way communication and interactive features of the Internet.

RESEARCH METHODS

A research methodology similar to the ones used by Schultz (1999) and Rosenberry (2005) was developed for this project. 22 of the 34 online Zimbabwean newspapers were purposively selected for a content analysis. A list of Zimbabwean newspapers provided on the web site of Africa South of the Sahara (<http://www-sul.stanford.edu/africa/zimbambwe/zimnews.html>) was used as a sampling frame. It was one of the most reliable and up-to-date lists of Southern African online newspapers. The sampling frame was composed of both weekly and daily newspapers. The researcher purposively selected daily (those that were updated daily) web publications for the sake of uniformity.

Interactive tools were coded. It was not required to read through the entire news website. The study focused on the availability of feedback tools such as e-mail links and directories, chat rooms, blogs, online polls, and discussion forums. Due to the fluidity of online journalism, the coding scheme was left open for unexpected interactive options. Coding did not only include quantitative categories but qualitative notes, as well. This way it was possible to obtain more specific information on encountered interactive options, especially on the topics and structures of chats, polls, and forums. It acknowledged that recognizing the mere availability of interactive

options was not enough to describe the concept of interactivity. Hence, linking interactive options to characteristics drawn from cyber-democratic theory was used to provide the necessary descriptive tools for a qualitative analysis.

It was clear that the features to be examined in this study were fairly constant elements that did not change on a daily basis, unless a newspaper had launched a complete overhaul of its site. While topics of discussion forums or polls, for example, did change frequently, the availability of such tools did not.

Data were analysed by subjecting the identified interactive tool to an index of analysis as constructed by Shultz (1999). The index of feedback options assigns numeric values to interactive options in relation to the level of interaction they enable. The qualitative data were analysed and interpreted by drawing from different models interactive and cyber democracy models (McMillan and Hwang, 2002; Ferber et al., 2007).

Interactivity and cyber democracy: Theoretical models

Interactivity is an enabling factor of cyber democracy. There is a strong dependence cyber democracy has on interactivity and interactive features, hence interactivity models provide a theoretical basis for understanding cyber democracy. Increased interactivity broadens the spectrum of cyber democracy. Cyber democracy is a relatively new concept compared to interactivity which has already been the subject of discussion for quite a number of scholars from a wide range of fields (Heeter, 1989; Rafeli and Sudweeks, 1997; Ha and James, 1998; Choi 2004; McMillan and Hwang, 2002). Additionally, scholars contend that online political participation redefines democratic principles of access to information and transparency of the activities of the politicians (Garris et al., 2011; Radu, 2014). Interactivity then becomes a more advanced manifestation than mere access to information and transparency.

Measures of Perceived Interactivity (MPI) (McMillan and Hwang, 2002) is one theory that would help unpack cyber democracy. The approach focuses on the consumer's perceptions of a website's potential for interactivity. Apart from focusing on user perceptions or experiences of users, this approach interestingly combines the three basic elements of interactivity, which are direction of communication, user control and time, to come up with a holistic view. These elements, having appeared consistently in most of the interactivity literature, are central to the study of interactivity and consequently cyber democracy.

The MPI model, though designed specifically to explicate interactivity in relation to advertising, can be used as a basis for understanding cyber democracy. Though cyber democracy and advertising might appear to be parallel entities, there is a lot of correlation between the two terms. The overlap between the two lies in the idea both cyber democracy and advertising often aim to "get inside the head" of consumers (voters) and understand how and why they respond to messages (McMillan and Hwang, 2002). In cyber democracy and perceived interactivity are most likely to influence citizen perception and behaviour. Many people are becoming dissatisfied with traditional methods of political participation through representatives. They see politicians representing them, as constantly being involved in unproductive bickering in parliaments and houses of assembly (Dahlgren, 2013). Therefore, for the desired influence among the voters, an understanding of what triggers a specific behaviour pattern is required is of great importance to the evaluation of the added value that cyber democracy brings.

The mediated moderation model of interactivity as explicated by Bucy and Tao (2007) was also used to explain cyber democracy. The theory focuses on piecing together ideas from different approaches to locate commonality among them. The model approaches interactivity as technological attributes of mediated environments that enable reciprocal communication or information

exchange. According to this model, interaction can then be located between communication technology and users, and between users through technology, (Bucy and Tao, 2007). Most notably, the model combines ideas from message-centred, structural and perceptual approaches

Building on McMillan's (2002) four part model of cyber-interactivity, Ferber et al. (2007) developed a new model of cyber democracy. Central to McMillan's (2002) model are the three dimensions: receiver control of information, control of time and choice of subject. The model purports that one-way communication, which is equivalent to provision of information on websites, is actually monologue. Monologue, then, sometimes elicits feedback, which is still one-way with some limited participation. When this particular feedback, from the receiver, generates a response from the sender then it further develops into responsive dialogue. However, this level of communication is not yet ideal for cyber interactivity, until it takes a step further from this and paves the way for mutual discourse. According to McMillan (2002), mutual discourse allows both the sender and the receiver to generate messages. This means their roles can be interchanged.

Ferber et al. (2007) modify McMillan's measures of perceived interactivity model to explain three-way communication that taps into websites' potential for interactivity and public deliberation. They came up with a six part model to explain both interactivity and cyber democracy. The six-part model of cyber-interactivity asserts that McMillan's (2002) two-way communication which can be characterised by the provisions of e-mails cannot be used to measure the complexities of cyber-interactivity that other features offer. The fact that e-mails sent to the site's staff or to a politician if it is a political website, cannot be directly accessed by other site users unless approved, limits this interactive device to two way communication only. For communication to graduate to new levels of three-way communication, a site has to offer interactive tools that allow controlled response, for example features such as polls and bulletin boards, where users have access to other users' responses. Three-way communication is also enabled at an even higher level by the presence of forums and chat rooms. These devices allow for unlimited interaction among participants and offer users an opportunity to control content. Both the six-part model and the four-part models of cyber-interactivity provide important tools for the analysis of a website's potential to promote cyber democracy.

According to Bucy and Tao's (2007), interactivity lies in media attributes, technological features and modes of presentation. Similarly, Anttiroiko (2010) points to the empowering aspect of Web 2.0 applications that allow governments to make a leap towards post-modern governance. The availability of interactive tools enable the generation of web-based communities which facilitate interaction between users, and between users and government officials. Bucy and Tao (2007) advocate a narrow focus of interactivity to technological attributes or mediated environments that enable reciprocal communication or information exchange, which afford interaction between communication technology and users or between users and technology. The unit of measure according to this view should be interactive tools (Bucy and Tao, 2007; Rosenberry, 2005; Schultz, 1999; Massey and Levy, 1999; Choi, 2004). Interactive tools should then enable message sending or retrieval and even manipulation of content. Summing up the relationship between interactivity and the user, Bucy and Tao (2007) further acknowledge that the objective existence of interactive attributes does not guarantee the subjective experience of the user. Other variables such as the mediator variable, the moderator variable and Internet self-efficacy have some bearing on actual interactivity. Internet self-efficacy is the major factor that contributes inequalities among users and networks apart from the digital divide (Hacker et al., 2013). The mediator variable can be explained as an "intervening" variable or that which causes communication to take place. The mediator variable is also equated to functions of "cognitive mechanisms"; in other words, the user's

understanding and grasp of interactivity serves as the mediatory factor, while a moderation variable serves as a reserve from which the user taps into in times of need throughout the whole interactivity process (Bucy and Tao, 2007). Interactivity can still take place without moderation, yet the mediator variable is a pre-requisite.

THE QUANTITATIVE CONTENT ANALYSIS RESEARCH FINDINGS

The results of the content analysis of the interactive revealed that most of the newspaper sites (73% of the news sites) had an e-mail facility to contact newsroom, staff or friends. Only 18% of the sites did not offer any e-mail addresses. On almost all the sites, the e-mail facility was used to facilitate feedback from the readers or merely to contact the newsroom to post an article. 97% of the e-mail facilities on the websites were designed to facilitate one way or down-up communication. Of the 97% of e-mail use was for general purposes to contact newsroom. On most sites the general e-mail addresses were the most popular feedback tools and were not linked to any specific published article.

The second most popular e-mail facilities were e-mail addresses to writers and editors. 36% of the websites provided email addresses to writers or editors. Most of these e-mail addresses provided were of editors, not the writers of the articles. Under this category, the availability of the e-mail links was limited to a few writers or editors. 31% frequency on the list of e-mail addresses to editors/writers (limited) was considered quite high compared to the list of editors/writers' e-mail addresses (general pattern) which had a 7% frequency. The general pattern offers a better opportunity for reactive response, which might in turn trigger interactivity. This is mainly because they will provide direct e-mail links to the authors of specific stories.

Very few sites provided e-mail links to at least some articles/authors of a limited pattern (9%). These sites displayed limited links to some previous articles or authors. For instance, on one of these sites one article provided a link to the author's blog. Following this link one could easily trace the development of events by making references to previous ones. The e-mail link of this type was limited to a few individual authors and articles. However, none of the sites offered this feature as a general pattern.

Most online newspapers (95%) in this sample did not provide e-mail links to politicians. The sites that offered this option consistently used it with a 3% frequency of appearance. The e-mail links of this nature provided were sometimes of quite high ranking politicians, which ushered in an ideal situation for cyber democracy if this interactive device were to be utilized by both the politicians and the users. Another interactive device that featured not very prominently (10% frequency) was e-mail link to friends initiated by news or discussion forums. This interactive feature was offered on 3 of the newspaper sites studied. E-mail links to friends initiated

by news or discussion forums were a common feature that sparked heated debate as users posted their opinion on news and topical issues. These culminated in discussion forums, another interactive feature to be reported on in this study.

Only 27% of the news websites offered discussion forums. All the news websites that offered discussion forums required registration for one to participate. To register, a greater number of the websites requested a potential participant to supply name, email address and password. The rest only required a simple registration, asking for e-mail address and password for one to register.

Only one site (*Zimdaily.com*) ran discussion forums related to news articles. Participants on this forum still had to follow the same registration procedure. The participants posted their responses to a news article, commenting sometimes on the authenticity of the information presented. Most of the time, the debates would deteriorate into a war of words among the participants. These debates sometimes supplied new information the article had missed. The participation of journalists in this particular forum was not quite evident. Users sometimes posted vulgar outbursts so much so that one would wonder if there was any journalist checking the postings before they were displayed on the newspaper site.

Twenty-seven percent of Zimbabwe's online newspapers offer blogs. Blogs on all these news websites were frequently updated and contained topical information. The blogs were dated and the pattern tallied with daily news information. Information contained on these blogs seemed to be quite similar to news articles. The only difference was most of the bloggers appeared to follow a certain format of writing, in most cases a feature writing format. Apart from presenting news articles, on a site such as *Change Zimbabwe*, bloggers posted general information. Bloggers on this site seemed to be correspondents for the site as the blog section had similar news to that on the website.

Only 9% of websites studied conducted polls and surveys. These sites mainly featured simple quick polls that asked readers about their preferred candidates during the run-up to the March elections in Zimbabwe. Though the elections were harmonized (presidential, parliamentary and local government), the main focus was on the presidential vote. Polls were conducted to ask the readers' perspectives on the presidential candidates.

This type of a quick poll only required the participant to click on the preferred candidate and send the results back. There was no provision made for extra comments. Only after sending the vote would a participant access the results of the overall survey. In this particular type of quick poll survey, not only were users given an opportunity to reflect on their preferred candidate, but they were also made aware of the presidential aspirants. Letters to the editor was another interactive tool used by

the online news websites. 18% of the Zimbabwean news websites displayed letters to the editors on their site. These online newspapers fell under the independent category of the Zimbabwean media. Most of the writers' articles focused on voting, electoral candidates, and some on politicians believed to be opportunistic. Letters entitled: "Vote with Gukurahundi (the genocide in Matabeleland soon after Zimbabwe got independent from colonialism) in mind", "Lets not split the vote", "Qualities needed by a president", "So the dogs are out again March 29th", "Buying votes from civil servants", "A tip for voters", "Lets have a white neutral leader", "Bronze not gold Makoni" among others, were posted and displayed on one of the websites. Chat rooms also featured onto some of the websites. 13% of news websites explored offered chat rooms. The chat rooms offered were asynchronous and were mainly for social purposes. For instance, *Zimdaily.com* offered its own chat room known as "Zimface". This was a mere social utility feature that connects Zimbabweans across the globe. No specific topics were offered on these chat rooms. Users visited them to experience an online sense of belonging and to reconnect with former high school friends. Users formed sub-groups, depending on their unique and various interests. None of the online newspapers offered synchronous chats and journalists were neither participating nor hosting.

The frequency of appearance of interactive options, other than the one discussed in this paper, was very low, close to insignificance in relation to the context of this paper. Only one site offered mobile phone campaign (SMS services), the implementation of which was difficult to establish save for the fact that it was displayed on the home page of the site.

Tracing cyber-democracy in Zimbabwe's online newspapers

The results of the content analysis revealed that interactive features were used to capture the atmosphere and mood of the time. For instance, on the home page of one of the sites explored was displayed an online poll representing the aspiring presidential candidates. Active participation took place when users expressed their opinions on who they predicted was likely to win the presidential elections. Opinion polls of this nature promote cyber-democracy in two ways. Firstly, they give an opportunity for the participant to influence other users when he or she casts a vote for a preferred candidate. Secondly, when the user submitted his or her vote the overall results for the poll were displayed. The same user would then situate his or her opinion in the context of what the majority of people are thinking. The resultant level of communication was two-way communication.

Apart from aiding a bilateral flow of messages in the form of two-way communication (Choi, 2004), Internet

polls can also ignite and channel discussions and become part of a communicative level that can reach interactive level (Schultz, 1999). Internet polls are part of the Web 2.0 applications that are opening up avenues for increased political participation (Anttiroiko (2010), empowering aspect of new media. Internet polls were particularly popular among users, most probably because of their user-friendliness of being such a clique away. Most importantly, Internet polls added to the hype necessary to generate interest in politics which would culminate into further discussions on other interactivity tools. For instance, in the cited example of the Internet poll on one of Zimbabwe's online newspapers, users would discuss the results of the poll survey itself or the suitability of the candidates on chat rooms that were provided on the news website. Even though this was not ascertained in this study, the potential for poll surveys culminating in discussions cannot be ruled out. Despite the fact that the interactive level of communication due to polls was not established, this interactive device can still be hailed for engaging users in the political discourses of the time. Polls can also be heralded for initiating citizen engagement in governance and electoral issues. Such initiative usually produced the hype needed to stimulate interest, among voters, in politics.

However, Internet polls have their own limitations in terms of promoting cyber-democracy. The most glaring limitation is in the fact that only two of the 22 Zimbabwe's online newspapers offered poll surveys. This would affect accessibility by users, hence low cyber interactivity. Only quick poll surveys were conducted and the only other sophisticated survey, with an open-ended question, was not user friendly, as discussed elsewhere in this study. Quick poll surveys have inherent weaknesses in terms of facilitating cyber interactivity. According to Shultz (1999), Internet polls and surveys restrict users to operate merely on a reactive level of communication; they do not offer users an opportunity to engage in further discursive constructs that inform interactive communication. The other criticism levelled against Internet polls is that they do not transform into meaningful democracy on ground, in terms of removing unpopular politicians, the way real elections do. At best, they are used to test the popularity of the politicians which, in most cases, is usually parallel to the reality on ground. Internet polls, just like most online civic engagement tools, are limited factors of transformation (Dahlgren, 2013). In other words, their ability to transform into real meaningful democracy on the ground is minimal as they are mostly relegated to cyberspace.

27% of Zimbabwe's online newspapers used blogs to promote cyber-democracy. As highlighted above, blogs are used to present candid information, the likes of which would never be printed in state-controlled newspapers. Blogs on one of the news sites could be accessed under an umbrella heading, "Kick Mugabe Out". One did not even have to read through the texts posted on this

interactive device to know the type of information presented. This was clearly protest writing, given the political situation in Zimbabwe. According to Rosenberry (2005), citizen blogs, online letters and online polls are features that show that a newspaper website is empowering users with a channel to voice their opinions (putting institutional authority behind citizen voices). In the Zimbabwean context, the institutional authority could be the state and its media laws. If readers are empowered to write information that forms their opinions, in the traditional media this being regarded as contravening the media laws, then that would be true empowerment. Similarly, Dahlgren (2013) advocates a move away from politics whose terrain is defined only by politicians, but rather political debates that can develop anywhere and everywhere on the socio-cultural landscape. The fact that bloggers do not have to be necessarily in the same geographical location to influence each other by the ideas that they post on their blogs makes political debates accessible anywhere. Earlier on, Garris et al. (2011) had hailed this accessibility of information, which is not geographically bound, as a redefinition of political standards. According to the media laws such as POSA and AIPPA, it is a criminal offence to write and publish information that is negative about Mugabe (Lush and Kupe, 2005). With these laws still in place, it is quite clear the texts posted on these blogs would never be published in the traditional state-owned Zimbabwean media. With these laws still in place, interactivity tools such as blogs will play a special part in enabling a form of democratic deliberation with political issues that bypass the instituted draconian laws.

Following one of the bloggers' welcome statement to his blog, inferences can be made about perceptions of the user in terms of how he views the medium and its role. The blogger first introduces himself with "the opinions of a blogger, writer, singer, son, brother, father and husband". He goes on explicitly to distance himself from professional journalism and asserts himself as a true citizen journalist. Above all, he states his role of making the people aware of the political situation in Zimbabwe. Using McMillan and Hwang's (2002) Measures of Perceived Interactivity (MPI) model, the motives for setting up blogs on Zimbabwe's online newspapers can be inferred. The model attributes user perceptions or experiences of users as the main reason why participants engage with the media interactively. With this particular blogger, perceptions that prompted him to use this interactive device could be the potential of the Internet to reach out to an innumerable number of readers across geographical boundaries, what McMillan and Hwang (2002) termed synchronous communication on the MPI model. The blogger is very clear about his intention, which is to let as many people as possible know of the devastating rule in Zimbabwe. His perceptions of blogs and the Internet as a medium, therefore, have informed his choice of the best channel to create this awareness.

McMillan and Hwang (2002)'s Measures of Perceived Interactivity model also focuses on user experiences as the drive to interactivity. Applying this aspect of the model to Zimbabwe's online media landscape, then, two types of experience were noticeable. It could be experience with the online media, Internet proficiency or physical experience with the political situation, personal experience with the devastating rule. Both these experiences are apparent with the blogger. Scanning through the blogger's profile displayed on the page showed that he was a Zimbabwean who had left the country in 2000. This indicated that he was likely to have experienced the crises due to the current political situation. The fact that he is able to combine the two-way communication (to read and send messages) and control navigation/control choices (use an interactive device) to participate actively shows his Internet experience as explicated in McMillan and Hwang's (2002) MPI model. The two types of experience could have acted in combination to urge the blogger to engage interactively on one of Zimbabwe's online newspaper's website.

Apart from McMillan and Hwang (2002)'s MPI model, Ferber et al. (2007) propose a six-part model to analyze cyber-democracy on newspaper websites. The six-part model, as explained in the previous chapter, adds to McMillan's (2002) four-part model. The six-part model was purposively chosen because of its improvement on the four-part model, hence offering a comprehensive set of dimensions for the analysis and discussion of interactive devices and their role in cyber-democracy. According to both models, the provision of information on websites is a monologue, mainly because readers have no control over what they find on the site.

Both the four-part and six-part models classify feedback as one-way communication with limited participation. The findings of the content analysis in this study reveal that Zimbabwean online newspapers solicit feedback from their readers using the e-mail facility. According to the two models, communication of this nature restricts users to operate on a one-way communication basis. The e-mail device had the highest frequency -49% in relation to all the other interactive tools - yet it accords users minimal interactivity. There is usually no assurance that the solicited feedback will generate any response (Ferber et al., 2007). In relation to this study, what this means, therefore, is that even if the bulk of Zimbabwe's online newspapers is connecting readers to online editors, readers to other readers, readers to politicians and officials through the e-mail device, cyber-interactivity will remain low because of the inherent limitations of the feature to promote interactivity and/or cyber-democracy.

McMillan (2002)'s and Ferber et al. (2007)'s models also agree on how websites provide an opportunity for responsive dialogue which paves the way for two-way communication. In this category of communication, the sender still retains the primary control of the process

(McMillan, 2002). In the online newspapers explored in this study, the sender in the form of the online newspapers' staff loads the information on the website and decides on what interactive options to provide on the site. The interactive options that enable responsive dialogue are similar to those that allow two-way communication, devices such as Internet polls and e-mail to friends. The role of the reader is pre-determined by the online newspapers' staff. The reader is merely expected to read the texts, and use available interactive tools to send feedback. The major weakness of this type of communication is that it does not empower the reader. Again this adds to the criticism of low availability and low Internet accessibility that affects Zimbabwean online newspapers, apart from the issue of the inherent limitations of the device itself.

The fourth dimension in the direction of communication as proposed in the two models is mutual discourse. Mutual discourse gives both parties an equal opportunity to send and receive messages. The provision of interactive tools such as chat rooms and discussion forums signifies the occurrence of mutual discourse (Ferber et al., 2007). Chat rooms and discussion forums were offered on only two of the 22 online newspapers explored. There is such an anomaly in terms of the interactive devices that are given prominence in Zimbabwe's online newspapers and their corresponding significance in promoting interactivity and cyber-democracy. The online newspapers are focusing on providing interactive devices that are of low value to interactivity or that offer the user limited interactive communication. If online newspapers were really for the empowerment of the users, great emphasis would be given to devices that promote the highest level of interactivity. If prominence was given to devices like that of high interactive level chat rooms and discussion forums, these could have been more common on the websites, their value lying in facilitating mutual discourse.

Mutual discourse then leads to yet another level of communication termed public deliberation. Ferber et al. (2007) add public discourse and controlled responses to McMillan's (2002) four-part model, to come up with the six-part model. Considering that Mcmillan's two-way communication could not account for the kind of participation that is not moderated by journalists, Ferber et al. (2007) added public discourse and controlled response to make provisions for three-way communication. The study identified chat rooms, discussion forums and blogs as some of the devices that participants can use to deliberate on political discourse. Since users can post their opinions and get responses from other participants without necessarily having to go through a journalist, there is a possibility that an entirely free form of interaction will take place. For instance, in the discussion of the use of blogs on one of Zimbabwe's online newspapers, a blogger had his own page on the main site. There is the potential for the blogger to respond to

queries from other participants with no journalist involved. The blogger had an opportunity to address an unknown third recipient of the message, hence three-way communication. This kind of interaction, as represented in the three-way direction of communication, empowers users to influence each other out of the control of journalists. The websites will then have the potential to offer citizens an audience of engaged users interested in political discourse (Ferber et al., 2007).

The last three-way communication on the improved model of political communication explains controlled response in the interaction process. In controlled response, interactive devices such as polls and bulletin boards allow users to participate when they vote and submit their votes, but the site retains control over the content. In controlled forums and chat rooms, there will be a moderator or journalist who will then forward transcripts of the discussions to the site (Ferber et al., 2007). Site control can also take place in public discourse where some comments will be deleted for libel, obscenity and other violations (Ferber et al., 2007). The controlled response as the highest order instance of communication in this model, then, places greater weighting on interactive devices like online polls in promoting cyber-democracy. Online Zimbabwean newspapers rarely use online polls to empower readers. Therefore, according to this model, these newspapers are not doing enough to promote improved political communication.

In theory, these online newspapers are living up to their role of promoting cyber-democracy, as citizens are given an opportunity to exercise their right to free expression, a right that they are denied by the traditional newspapers. However, the promises of online media are not so easy to attain because there is a number of factors that work against the achievement of a fully fledged and thriving cyber-democracy. One of the challenges is that the target citizens are not composed of a homogenous computer literate people (Schmidtke in Tsagaraousianou et al., 1998). In the face of all the crises that Zimbabwean citizens are experiencing, computer literacy would not be one's priority. Computer literacy is thus likely to remain a major threat to the success of cyber-democracy in the Zimbabwean online media. Apart from computer illiteracy, there are also other factors like accessibility to the Internet within Zimbabwe in particular which hinders the full function of cyber-democracy and its transformation into actual democracy to yield practical results.

Conclusion

Interactivity on Zimbabwe's online newspapers was found to be very low. The content analysis of the 22 online newspapers reveals that interactive options were limited in terms of widespread use and presence across the websites, and in terms of the real interactivity that they were able to accord a user. The content analysis revealed that online sites were providing features that

offered limited interactivity. The paper shows that the e-mail facility was very common with the online newspapers, yet this facility limits users to operate at a merely reactive level. Interactive options that offer higher levels of interactivity, like discussion forums and chat rooms, were not popular with Zimbabwe's online newspapers. An analysis of the interactive devices using Schultz's (1999) index of analysis revealed low levels of interactivity on Zimbabwe's online newspapers.

The low levels of interactivity due to limited devices had an adverse impact on cyber-democracy. The potential for cyber-democracy hinged on the availability of interactive devices that enable two-way and three-way communication. An assessment of cyber-democracy, therefore, was only feasible at the websites' potential levels.

Zimbabwe's online newspapers were found to be promoting cyber-democracy but the correlation between interactivity and cyber-democracy was found to be a crucial factor. Low interactivity levels limited the news websites' potential to present a thriving cyber-democracy. Interactive devices that promote cyber-democracy were identified in some of the online newspapers in the sample. Online polls were used to mirror the political realities of what was happening in Zimbabwe during the run up to the March 2008 elections. Other interactive devices closely linked to promoting cyber-democracy identified on the sites were blogs, chat rooms and discussion forums. Transcripts of the discussions were available on a few of the newspaper sites.

In terms of cyber-democracy, therefore, the findings of this study suggest that Zimbabwean online newspapers are asserting themselves as alternative avenues to the traditional media for political deliberations on diverse opinions. The Zimbabwean online newspapers are closing the spaces and boundaries between the citizens and the media created by tough media laws. The online newspapers provide political information about electoral candidates, parliamentary debates and news articles based on politics. Political information on the online newspapers helps citizens to gain an insight into the candidates' profiles and helps them to make informed decisions.

Conflict of Interests

The author has not declared any conflict of interests.

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Full Length Research Paper

Analysis of an interpersonal conflict: The *office* fictitious or non fictitious conflict and ending

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The *Office* was analyzed to determine if television shows portrayed believable conflicts and resolutions in real life. One episode was analyzed, "Dinner Party," and important interpersonal relationship problems were documented for evidence that correlated with the research previously founded. The episode was watched multiple times and patterns inside of the research were corresponded with what occurred in the show. Major aspects analyzed were what began the conflict, depression amongst relationships, and topics argued most amongst couples. It was determined that if these results matched up with the television show, then shows would be life-like to the audience.

Key words: Interpersonal conflict, interpersonal relationship, couples dispute, dissatisfaction, depression.

INTRODUCTION

The television show, *The Office*, was analyzed to determine if television shows have realistic conflicts and believable endings. A believable show felt authentic to the audience when they applied it based on his or her own personal knowledge and the likelihood it would occur in his or her own life. The same went for the ending; however, it may not always be just for both parties involved because both of them anticipated that they were right. It was critical to analyze why television shows are non fictitious because television is dominant in popular culture today. Everybody owns at least one television and often spend countless hours watching it; therefore, people began to copy the activities and attitudes that are portrayed on the television. Television stars virtually placed an image in people's minds of how they should

act. Therefore, by the analysis of this television show, it would be like analyzing a real life situation since people attempted to act like people on television. In *The Office*, the episode followed Michael and Jan as they hosted their first dinner party together as a couple. A feud erupted due to events that took place that made them furious at one another. The analysis of a couple helped to see if television shows portrayed real life because romantic relationships and fighting are common in everyday life. The episode was watched multiple times. It was determined if television shows have authentic plots that are believable to the people watching by the analysis of the episode, "Dinner Party," in the television series *The Office* which allowed for an in-depth look at how conflicts begin and are resolved in interpersonal relationships.

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LITERATURE REVIEW

Common terminology

According to Clark and Clinton (1994), interpersonal communication is defined as, "communication between people as individuals. Communication becomes interpersonal to the extent that the people involved can see each other's uniqueness and can explain and predict each other's behavior on the basis of that uniqueness" (p. 614). Interpersonal communication occurred between anyone that communicated with each other, in the case of Jan and Michael, they had a unique relationship with each other that no one else had. Conflict was specified by Clark and Clinton (1994) as, "an expressed struggle between at least two interdependent parties who perceive incompatible goals, scarce rewards, and interference from the other parties in achieving their goals" (p. 104). Conflict had to be delineated in order to analyze whether or not Michael and Jan did indeed have a conflict; it was determined that they were in a conflict because they had incompatible goals and scarce rewards that interfered with each other. Finally, resolutions one could have a win-win solutions defined by Clark and Clinton (1994) as, "with this method the goal is to find a solution or solutions that satisfy the needs of all parties involved. Not only do the parties actively seek not to win at the expense of each other, but they actually believe that by working together they can discover a solution that will allow all of them to reach their goals without compromise, a solution where no one loses... Establish communication...Own the problem...Define terms and values...Find common ground...Negotiate" (p. 106). This allowed for an analysis of the resolution of Michael and Jan's conflict and determined if television shows had believable resolutions.

What commences conflict

Barki examined how conflicts commenced in real life which allowed for the analyzation of conflicts in television shows. He constructed his work because he examined other works done by other researchers and combined their research which analyzes how conflicts begin, but interpersonal conflict was what Barki needed to comprehend. Barki (2004) discovered, "... interpersonal conflict as a dynamic process that occurs between interdependent parties as they experience negative emotional reactions to perceived disagreements and interference with the attainment of their goals" (p. 2). The *Effective Communication* textbook aligned well with the definition provided by Barki; they both involved incompatible goals, interference, and scarce rewards. This determined that this was what was needed to define conflict and *The Office* should align with it. Disagreements, negative emotions, and interferences were definite properties that people associated with conflict. Some researchers

believed that it only took one of these elements to initiate a feud, but some believed that all three of these aspects took place in some way (Barki, 2004, p. 3). It was determined that only one of these aspects was needed to begin a feud, but the other two played a role as well.

Furthermore, task conflict and emotional conflict are different types of interpersonal conflict. Discrepancies, incompatible goals, or contrasting desires are involved in task conflict; this occurred when both parties involved were aware that there was a conflict. Emotional conflict occurred when the parties involved had disagreements that emerged from anger, frustration, and other negative feelings (Barki, 2004, p. 4). It appeared that emotional conflict occurred between couples while task conflict occurred in people who were acquaintances.

As a matter of fact considering that television shows were produced by writers, it was a form of literature. Literature often discussed disagreement as the most used tool for conflict; this occurred when people anticipated that they had divergent needs, interests, opinions, or values (Barki, 2004, p. 6). It could be acknowledged that this episode had a conflict that began with a disagreement. Often in real life, conflicts also emerges because of disagreements; therefore if this was the case, then television shows are fairly accurate on how conflicts began. Barki (2004) founded, "...conflict contexts...a dynamic process that occurs between interdependent parties as they experience negative emotional reactions to perceive disagreements and interference with the attainment of their goals... interpersonal conflict is viewed as an individual's perception formed by his or her perceptions of disagreement, negative emotion, and interference that are present in the situation" (p. 9). Conflict contexts occurred in daily life arguments because negative emotions were a common element for conflicts; people who felt hurt or betrayed reflected poor emotions toward a person. These negative emotions often arose because of differences that they had. For everyone, conflict was viewed differently because of different perceptions; people viewed themselves as the victim and not as the cause to the conflict. They were biased because they desired to be correct and not the one who caused the wrongdoing.

Depression

Correspondingly, it was believed that hostility was associated with relationship distress which caused more depression symptoms (Knobloch, 2013, p. 1253). Hostility toward one partner was believed to be an indicator that triggered depression in a person. This was just a hypothesis constructed by Knobloch that acquired further research and investigation. He conducted research on sixty-one couples where twenty-three people had depression. By comparing couples who had one partner with depression to a couple who had no one with

depression allowed for an in-depth examination of the differences in the mannerisms of the couples and led to the ultimate goal of depression in couples.

Additionally all of the couples were analyzed based on the SASB coding scale which analyzed the couples behavioral focus, affiliation, and interdependence (Knobloch, 2013). Once the testing of the couples was completed, Knobloch constructed some accurate results on depression in couples. With respect to the hypotheses previously stated; in depressed couples, the partner who was not depressed showed more hostility towards the depressed individual and the depressed individual also showed more submissive behavior (Knobloch, 2013). With these results in mind, the analysis of how much hostility Michael and Jan showed towards each other allowed for a judgement of whether or not they were in a depressed relationship. After Knobloch (2013) made his results, he developed a theory which stated, "The interactional theory of depression postulates that depressed individuals and their partners engage in repetitive interactional sequences marked by interpersonal hostility, control, and distance" (p.1250). This theory helped shaped future research of depression between couples. Hostility played the largest role in the interaction between these couples and how they acted. Most of the time, the non - depressed individual tried to cope with the situation by avoiding, ignoring, or rejecting the depressed person (Knobloch, 2013, p. 1251). Thus, by just avoiding the person, it made the situation much worse than it already was; running away from problems did not fix them, it only made them worse. This caused the depressed individual to show even more signs of depression and ruined the relationship forever. More research needed to be conducted to accurately depict in couples the signs of depression and how hostility played a role in the destructive behavior.

Couples agitation

This article's main focus was on communication between couples and what caused the negative interaction that occurred between them. Couples who could cope with conflict better through proper communication had less negative interactions with one another; it also allowed for deeper levels of self-disclosure and led to more intimacy. However, destructive communication caused higher rates of break-ups and more negative interactions between couples (Stanley, 2002, p. 660). Ultimately, couples who could not communicate properly had major problems with their relationships and had higher rates of dissatisfaction. Many hypotheses were created before conducting the research which included a telephone survey where 908 participants were asked the same questions and this determined what couples bicker the most about. The hypotheses stated: the higher the negative interaction with one another, the higher rating of divorce potential the

couple faces, couples who state that one of the individuals withdraw will be characterized by greater levels of negative interaction and dissatisfaction, men typically withdraw more than females do, money is the number one issue couples argue about, and more committed couples with think less likely about what it would feel like to be in another relationship and feel less trapped and more satisfied (Stanley, 2002). With these hypotheses, Stanley then conducted his phone survey to determine if his beliefs were accurate. He asked the same questions for all of the participants and after analyzing his results he was able to determine that his hypotheses were fairly accurate.

Therefore, Stanley founded that, for both genders negative interaction led to higher divorce rates, for previously divorced couples the top arguments starter was, children, followed by money, both genders said that males tend to withdraw more than females, and more committed couples thought less about being with other people. Through his research, Stanley realized that fighting erodes a sense of safety in a relationships and that when both partners withdrew it always ended in divorce or a break-up (2002). It was concluded that couples with more negative interactions faced higher rates of dissatisfaction with one another and led to more divorces. Withdraw from either partner also led to dissatisfaction and harmed a relationship, especially when both partners withdrew.

METHOD

The Office, was an American television show that featured the life of people inside an office. The episode, "Dinner Party," allowed for an accurate depiction of realistic television. It focused on an everyday couple coping with a terrible relationship, but they were too afraid to leave each other which led to many feuds. Michael and Jan were the feuding couple that was analyzed to answer the research question. Since they were in a relationship, it meant that they were in an interpersonal relationship. Their interpersonal relationship faults developed through bad communication skills. They began to fight about experiences and events that everyday couples fight about, which showed how television shows are realistic. This episode was watched five times on DVD to fully understand the feud. Notes were taken on nonverbal elements, verbal elements, and paralanguage.

REPORT

Jan and Michael were in a relationship for a few months; Jan moved in with Michael after she was fired. They both lived a miserable life with each other and Michael gave up a lot of who he was to try to please Jan. Their terrible relationship status finally exploded into a violent rage of yelling at a dinner party, because they were unhappy and dissatisfied with each other and their relationship. This argument allowed for the research question to be answered because of the analysis of their dispute. After their opposition was analyzed, it allowed for an in-depth

look at resolutions that are fair to all parties.

Jan and Michael's dispute

Throughout the evening, Jan and Michael had little disagreements and bickered slightly. Every time Jan communicated to Michael, her pitch increased and she attempted to sound sincere, but it did not work. She also sped up while talking in hopes of ending the conversation. Michael's pitch and rate changed as well, he talked louder and quicker as he addressed Jan.

Jan and Michael finally showed their true aggression towards each other when Michael hung up his neon beer sign in the dining room. As soon as Michael hung up this sign, Jan's facial expressions showed how much she was displeased; she tried to look very pleasant in front of the guest, but it was obvious that she was faking it and she really was furious. While looking displeased Jan mentioned, "Hey babe, how about we take the beer sign down until our guests leave and then we'll discuss it" (Daniels and Fieg, 2008). She had an angry tone, but she was attempting to hide it. After Michael insisted on not taking the sign down, Jan attempted to calm down the only way she knew how, and that was by listening to her ex-assistant's, Hunter's, CD. The lyrics of the song suggested that Jan and Hunter have slept together: "You took me by the hand made me a man, that one night, you made everything all right" (Daniels and Fieg, 2008). As Jan listened to the song she caressed her neck and rubbed it and started to sway to the music as Michael commented to the guests, "Jan thinks Hunter very talented. You know what, I don't think he's that good" (Daniels and Fieg, 2008). Michael's tone depicted jealousy and envy. After Jan listened to a few lyrics, Michael and her continued to argue as she yelled out, "You are hardly my first" (Daniels and Fieg 2008). She verbalized this to get a rise out of Michael and she was also very displeased with him and wanted to show him that she really was not his.

Depression

It was highly possible that Jan and Michael could have been suffering from depression just by being with each other. This can be determined by the amount of hostility that they directed towards each other. Throughout the evening, when Jan communicated with Michael she sounded angry and rude, but she tried to get rid of her hostility by listening to Hunter's CD and smelling candles. When she listened to Hunter's CD, she was at peace and danced seductively to the music; she did this twice during the evening. She also smelled her candles that she made; she mentions in a relieved tone, "When I get frustrated or irritated or angry, I come up here and smell all of my

candles and poof it all goes away" (Daniels and Fieg, 2008). This showed how Jan attempted to relieve her hostility towards Michael; it was implied that she did this often and during the episode she was caught doing this a few times. Jan's tone changed as she talked to Michael, it went from sounding normal to sounding displeased and unhappy. She tried to sound encouraging to Michael, but it was obvious that she was insincere and her rate increased, her pitch rose, her articulation was more prevalent and she never paused while talking. Jan throughout the episode was rude to Michael and he just took it. Michael did not stand up for himself and backed off when he was about to, this caused Jan to have the ability to walk all over Michael. Michael showed how Jan is hostile towards him, he confessed to Pam, "I hope she didn't do anything to the food...I can't prove it but I think she's trying to poison me" (Daniels and Fieg, 2008). Michael was worried that Jan was going to break one day and try to kill him. The true hostility showed when Jan became so frustrated with Michael that she threw his Dundie Award at his plasma screen television which broke both objects.

Dissatisfaction

Couples who were often dissatisfied with their relationship began to withdraw from each other which led to breaking up and having many negative interactions. Also, this withdraw led to wanting other people and arguing about major topics in life. Jan had many signs of withdrawing from Michael: smelling her candles and listening to Hunter's CD. She did both of these things to escape Michael and to ignore the problem; however, listening to Hunter's CD also showed Jan's desire of wanting to be with another person because she danced seductively to the music.

Michael also withdrew, he did so when he was about to speak his mind, but he stopped himself and then looked into the camera and did nothing. He did not speak his mind and tried to forget about the argument. When Jan tried to face the problem, it caused Michael and her to have negative interactions; this is shown as Jan verbalized, "I guess that makes me the devil" (Daniels and Fieg, 2008), she proceeded to laugh harshly. Jan could not communicate properly with Michael and this caused their negative interactions. Michael eventually spoke up for himself and he described in agony, "When I said that I wanted to have kids and you said that you wanted me to have a vasectomy, what did I do, and then when you said that you might want kids and I was not sure we had the vasectomy reversed and then when you said you definitely did not want kids we reversed back. Snip, snap, snip, snap" (Daniels and Fieg, 2008). As Michael mentioned this to Jan, his tone was displeased and his facial expression was saddened. They also

argued about money as they commented to each other: "No all you do is get me to work on my rich friends." "For an investment opportunity." "Man I would love to burn your candles." "You burn it you buy it."

"Oh good I'll be your first costumer" (Daniels and Fieg, 2008). These negative interactions with each other occurred throughout the episode which ultimately led to their demise.

Conflict overview

Jan saw Michael as an obstacle to her happiness, but she did not leave him because she was previously divorced and believed that she could not do better than Michael. She forced herself to stay in this unhappy relationship even though she thought that Michael was idiotic. Jan believed that she was always right and that Michael was always wrong. Her main goal was to control every aspect of the relationship. Michael saw Jan as a control freak and was submissive to her. He was very dissatisfied with their relationship, but did not want to leave Jan because he loved her. Michael saw the conflict as Jan not letting him have any say in their relationship.

The conflicts high point was when Jan threw the Dundie award at the television. After this incident, the police showed up and told them to keep the noise down and asked what occurred. Michael explained what happened and the police suggested that Michael should stay somewhere else. Dwight offered Michael to come home with him, he was hesitant at first, but he went with Dwight. Jan rushes out of the house all worried that the police were present and was worried that Michael was getting arrested. After Michael departed, Jan went back inside and attempted to fix Michael's Dundie award, but failed to do so and gave up. They had a win-win situation because they both received what they wanted: to be happy and free from each other. Michael leaving represented their break-up so now they are free and can live their lives how they desire.

Analysis

The articles were accurate with what occurred throughout the episode. Jan and Michael feud began with a disagreement: the beer sign. Jan viewed the beer sign as dispersant and tacky. This one disagreement sparked negative emotions to occur and also showed how they interfered with each others lives. These three aspects are what Barki founded in his research of what began conflicts. He was also right because literature did focus on disagreement as the main conflict catalyst. Emotions such as anger and frustration occurred due to Michael and Jan's disagreement which meant that they were in an emotional conflict. It could be inferred that Michael suffered from depression by being with Jan. She showed

high rates of hostility towards Michael by the rude comments she made and the constant negative gestures she processed toward him. Her hostility reached a maximum when she developed a fit of rage which caused her to throw a trophy at Michael's television, which destroyed both objects. They constantly argued, which developed more distance between them; this distance caused even more hostility to generate. More research and evidence needed to be conducted to fully determine if Michael was depressed or not, but the findings so far gave good implications that he was depressed.

Therefore what couples argue the most about was the next article analyzed. Stanley reported that coupled argued mostly about money; previously divorced couples argued about children the most. Both of these arguments were seen throughout the episode; Jan got Michael to attempt to get his friends to invest into Jan's candle making business because they had no money. They also argued about wanting children or not; Michael wanted children, but Jan was unsure and changed her mind many times. Jan and Michael also did not know how to communicate properly which led to multiple negative interactions. These negative interactions occurred even more when Jan or Michael withdrew from each other. Jan would withdraw to smelling candles or listening to music and Michael would not talk at all. When they withdrew from each other, it only made the problem worse because they would not try to fix anything. This all led to Michael and Jan breaking-up which Stanley proposed what would occur. Men were thought to withdraw more than females, but this did not occur in the episode. Jan, the female, withdrew way more than Michael did.

DISCUSSION

This conflict was realistic because it began how normal couple's conflicts usually begin. Jan and Michael experienced many disagreements throughout the episode all of which resulted in negative emotions and interference with their happiness. Everyday life conflicts usually involved one of these three elements, and in this case it involved all three. They had a disagreement about the beer sign which ultimately caused a downfall in their relationship. The fight in the scene was a realistic conflict because it was based on a disagreement that led to negative emotions and interferences in their lives. They both showed signs of hostility towards each other, which led to even more negative emotions. Conflicts in real life involve someone feeling he or she has been wronged, which both parties in this instance thought. Jan and Michael achieved a win-win situation even though it did appear this way, and the resolution was realistic. They both ultimately got what they wanted; to be free from each other and happy. In the end when Michael left with Dwight, it was the beginning of the end for them.

In addition when Jan attempted to fix Michael's Dundie

Award that she broke, it symbolized their relationship: it could not be fixed no matter how hard they tried. They were better off without each other and are much happier when they are not together. The resolution was fair to both parties because Michael and Jan were both happier by not being together. When they were together, their relationship was toxic and it destroyed their lives. They obtained their ultimate goal which was to find happiness. The resolution was authentic because couples in real life would break-up after the constant arguments and fights that occurred throughout the relationship. Everyday people desired to please themselves, and constantly being in fights with their loved one would not make them joyous; therefore, they would end their relationship.

Conclusion

It was important to know if television shows had realistic endings because society lived in a world that is run by the media. Popular culture wanted shows to be realistic so people could relate to it, and if they related to it more, the more they watched and the more money that a show would make. This helped showed why society loved to watch television; the conflict and the resolution was realistic and people could connect as a group to similar experiences that they shared with television shows. By understanding these aspects of relationships it helped teach people how they should act in conflict. People should not withdraw instead they should face his or her problems because it could end better for him or her. Also it improved relationships between people because he or she knew when they were in the wrong and it led to a higher possibility that someone analyzed their situation and realized it is their fault; thus, they would not be so closed minded. There still needs to be research on the depression in couples and what it actually causes for their relationship. Further investigation into interpersonal relationships and conflicts needs to be done to allow people to obtain the knowledge of conflicts and how they should be solved and how solving it poorly may end relationships.

Conflict of Interests

The author has not declared any conflict of interests.

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Full Length Research Paper

Undergraduate students use of mobile phones: Exploring use of advanced technological aids for educational purpose

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As India has the world's second largest mobile phone user base (over 893.3 million users, May 2011) and Wireless communication has emerged as one of the fastest diffusing media on the planet, fuelling an emergent 'mobile youth culture', it will be interesting to explore the attitude of undergraduate students towards the use of mobile phones for educational purposes. We all know that mobile phones provide multitude of features and services so much so that mobile phone has become an important part and parcel of everyday modern life. Thus, increased popularity of cell and smart phones in recent years has attracted research attention. The present study seeks to discover whether it is blissful for students regarding their studies and whether there remain significant differences in their attitude towards using mobile phones for educational purpose with respect to gender, medium of education, academic discipline and residence of the undergraduate students particularly focusing on the three main dimensions of usability, barriers and preferability of using mobile phones for educational purpose. The study deals with 55 samples comprising both males (27) and females (28) from different colleges under University of Calcutta. Data tools included a General Information Schedule and an attitude scale. Significant differences were noted in the attitude of the students with respect to gender, medium of education and residence while with respect to academic discipline the difference in the attitude of undergraduate students was insignificant.

Key words: Attitude, undergraduate students, mobile phone, educational purpose.

INTRODUCTION

Mobile phones are arguably another revolutionary invention of our time, besides computer and internet technologies. Mobile technology is growing by leaps and bounds. From 1990 to 2014, worldwide mobile phone subscriptions grew from 12.4 million to over 6.9 billion,

penetrating about 97% of the global population with Asia as the fastest growing region and India being the biggest market of cellular phones (after China with 893.3 million users, TRAI [Telecom Regulatory Authority of India], 2014). Mobile phones today go beyond just voice

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communication and provide a multitude of other features and services including short message service (SMS) or text messaging, multimedia messaging (MMS), photo display and recording, video playback and recording, calendaring, reminder (clock and alarm), web-browsing, checking e-mails, retrieving sports scores and news, using online dictionary etc. In other terms, mobile phone has become an essential part of everyday modern life. However, to many, the mobile phone is not a tool for making just phone calls, but rather, a 'lifeline' to the social network and an instrument for smoothly operating and coordinating their everyday life (Matthews, 2004). In education, mobile phones have led to the evolution of new paradigm known as mobile learning or m-learning (Muyinda et al., 2007). Ferry (2009) describes that modern mobile phones can be used to help students to access web based contents, remix it, share it, collaborate with others and create media rich deliverable for the classroom teachers as well as global audience. Rather than seeing mobile phones as troublesome devices, educators should seek to exploit the potential of the technologies learners bring and find ways to put them into good use for the benefit of learning practice (Sharples, 2003). Mobile learning is also considered as a new form of learning distance learning which began to develop in the eighties of the twentieth century. It means learning by correspondence by the use of the latest media technology in education (Al – Fahad, 2009). Many studies (Attewell, 2005; Chen and Kinshuk, 2005; Murat et al., 2008) have already proved that mobile technologies have considerable potential to enhance teaching and learning across all education sectors. Their impact on students' behaviour, enthusiasm, motivation and progress is well acknowledged (Rau et al., 2008), especially in some conventional schools abroad e.g. U.K. (Cook et al., 2007). Over two-thirds of the university students in their study used electronic media (including cell phones) while in class, studying, or doing homework (Jacobsen and Forste, 2011). Hence, the necessity to use mobile phones in education seems to be inevitable especially in higher education.

Now, we have entered in age which cannot be imagined without mobile phone. As young population is the future of the country, their views are of utter importance. As education is regarded as the backbone of any country and in modern times education (whether regular or distance education) is inarguably interrelated with technology, mobile phone has pertinent role to play in the education of the youth population. In this study, we aim to find out whether this device is useful for under-graduate students particularly for educational purpose, whether there are any differences in the attitude of undergraduate students towards using mobile phone for educational purpose with respect to gender, academic discipline, medium of education, area of residence etc., as there is dearth of research particularly on the attitude of undergraduate students to m-learning. From the above discussion it is quite apparent that m-learning is in use

and very popular among students abroad. But this study seeks to throw some light on the attitude of undergraduate students of our own country with a sample size of 100 comprising both male and female students from different colleges under University of Calcutta (West Bengal). Data tools included a General Information Schedule and an attitude scale comprising 28 items; they were divided into three dimensions namely usability, preferability and difficulty of using mobile phone. Data analyses were carried out with the help of SPSS software.

The findings of this study are particularly helpful to students and teachers, as the students can use mobile phones for study purposes and the teachers too may start to look upon the device as a positive reinforcer for education.

Mobile phone and its use and utility

We are moving into an era when mobile devices are not just for talking and texting, but also for accessing the internet and all it has to offer (Pew Research Center, 2010). Mobile phones are used for a variety of purposes, including keeping in touch with family members, conducting business, and having access to a telephone in the event of an emergency. The use of a mobile phone is not limited to speaking alone; it is being used in making video, recording information and transmitting it to a phone or a computer as was being done by a computer, mobile banking and payment, surveillance and GPS services, ticket booking etc. Students can discuss their assignments or project works over phone which otherwise can be lengthy and boring. Over two-thirds of the university students in their study used electronic media (including cell phones) while in class, studying, or doing homework (Jacobsen and Forste, 2011). The usage of phones is not intended for negative purpose and influence; however the attitude and time channelled towards these devices has enslaved students, also making them addicts.

LITERATURE REVIEW

For this particular study related to the attitude of the undergraduate students towards using mobile phones for educational purpose, several extensive research reports or literature were studied. Madden et al. (2013) found that Smartphone adoption among American teens has increased substantially and mobile access to the internet is pervasive. One in four teens are "cell-mostly" internet users, who say they mostly go online using their phone. A study conducted in Nigeria (Utulu, 2012) revealed that mobiles phones were used by students for communicating with lecturer in charge of the course collect data (recordings), sending emails to lecturers, access Online Public Access Catalogue and share knowledge. Indeed, some studies suggest that mobile learning applications

can facilitate students in various ways like not only learning contents easily but also interacting with others anytime and anywhere, at his or convenience. Hence, the development of m-learning as a new strategy for education has implications for the way students and tutors in educational institutions interact (Huang et al., 2010). Findings of a recent study (Javid et al., 2011) showed that mobile phones are helpful for the students for study purposes. Students can use it for exchanging useful information with their classmates about their studies. Results of another study (Ferry, 2009) indicated that modern mobile phones can be used to help students to access web based contents, remix it, share it, collaborate with others and create media rich deliverable for the classroom teachers as well as global audience. Results revealed in an investigation (Thaden, 2007) to determine gender effect or influence on the students' perception focused an overall positive perception regarding the usage of cell phone technology mainly in secondary education. Positive responses from surveys suggest that there is interest in and potential for educational implementation and use of mobile phones as learning tools in schools. The educational advantages of using hand held devices over full-size computers are attractive. A wide variety of devices such as cell phones, PDAs, laptops, but also devices like pen-scanners are used for mobile learning (Trifonova and Ronchetti, 2004, 2006; Trifonova et al., 2006). Another unique study (Bhandari et al., 2006) found that cultural dimensions such as masculinity vs. femininity, absence of individualistic perspective and economic dependence do play a part in creating barriers that prevent easy adaptation of mobile phones particularly in the third world countries like India. Another study suggests that indicated cultural differences in communication style preferences had an impact on the adoption rates of wireless technologies (Castells et al., 2004; Hofvenschiold, 2003). Over the last decade the mobile phone has penetrated in every sector, presenting many opportunities to many areas, including higher education (Campbell and Russo, 2003).

Mobile communication offers a lot of advantages but it has also negative aspects and some studies have tried to find out the negative impacts of mobile phones on the pupils too. In response to a question about mobile-phone addiction, one out of three students said that they felt addicted to their phones. This sense of addiction may be related to dependency and heavy usage (Katz and Sugiyama, 2005). There is scarcity of particularly this kind of study in India. Hence, there is pertinent need of this kind of study here for better understanding of the undergraduate students towards using mobile phone for educational purpose.

METHODOLOGY

Research questions

Whether the attitude of undergraduate students towards mobile

phone use (three dimensions namely usability, preferability and difficulty) for educational purposes differs with respect to gender?

Whether the attitude of undergraduate students towards mobile phone use (three dimensions namely usability, preferability and difficulty) for educational purposes differs with respect to academic discipline?

Whether the attitude of undergraduate students towards mobile phone use (three dimensions namely usability, preferability and difficulty) for educational purposes differs with respect to medium of education?

Whether the attitude of undergraduate students towards mobile phone use (three dimensions namely usability, preferability and difficulty) for educational purposes differs with respect to habitat of the undergraduate students?

Sample

Undergraduate colleges were chosen by purposive sampling and students were chosen randomly for the research study. The total number of sample was 100 comprising students between 18 to 21 years of age and studying arts (B.A.) and science (B.Sc.) streams. The mean age of the samples is 19.11 years. The samples were collected from various undergraduate colleges in and around Kolkata in order to get responses from students with varying cultural, economic and social background as well as different academic disciplines.

Tools

(a) **General Information Schedule (GIS)** for collecting demographic characteristics (e.g. age, gender, residence etc.)

(b) **Mobile phone usage attitude scale (for undergraduate students):** The attitude scale was a 5 point scale comprising 28 items and divided into three dimensions namely usability, preferability and difficulty to explore the attitudes of the students. Out of these 28 items 15 items dealt with usability, 4 items dealt with barriers and 6 items dealt with preferability of using mobile phone. The attitude scale was validated for content validity through a panel of experts in the field and the reliability measures were found to be .63, indicating high reliability for all of the dimensions.

Data collection and data analysis

The data were collected from the subjects during January-February months of 2014. Data analyses (t-test) were carried out with the help of SPSS software.

Definition of operational terms

- An attitude is an expression of favour or disfavour toward a person, place, thing, or event (the attitude object). Attitude is also measurable and changeable as well as influencing the person's emotion and behaviour.
- A college or university student who has not yet received a bachelor's or similar degree is said to be an undergraduate student.
- It means that undergraduates are students of universities and colleges; they have passed out from high schools and have been accepted to colleges, but they haven't graduated yet.
- A mobile phone (also known as a cellular phone, cell phone and/or hand phone) is a phone that can make and receive telephone calls over a radio link while moving around a wide geographic area.

- Activities that are integral, immediate, and proximate to the education of students whether it is purely syllabus-based or out of syllabus knowledge and via any medium like electronic media, print media etc. qualify as “educational purposes”.
- Here, according to residence, students have been categorized as rural and urban. Rural students were those who came from country-side with a rural schooling background (present residence is being ignored) whereas urban students were those who resided in the city or town area. Area of residence is an important variable as the exposure of students to modern technologies depends mainly on the connectivity and communication facilities of the area where he or she resides.
- Here, usability is the ease of use a human-made object or the satisfaction gained due to the effectiveness of an object (here, mobile phone).
- Preferability, here, means favorability or desirability of a product (mobile phone) over others.
- Here, barrier means any obstacle that limits the usage of mobile phone.

RESULTS AND INTERPRETATION

The results focused separately on the attitude of undergraduate students towards using mobile phone for educational purpose based on the four categorical variables namely, gender (male and female), academic discipline (B.Sc. and B.A.), medium of education (Bengali and English) and area of residence (Rural and Urban). The attitudes of each four variables are again measured based on the three variables namely, usability, barriers and preferability of using mobile phone for educational purpose.

Testing of null hypothesis

All the null hypotheses were tested at 0.05 level of significance. The analysis in Table 1 shows that the calculated t value for gender-wise attitude towards usability is 1.46 and P value is 0.15 ($P > 0.05$); hence null hypothesis is retained. For barriers the calculated t value is 8.95; P value is 0.00 ($P < 0.05$); hence null hypothesis is rejected. For preferability the calculated t value is 1.32 and P value is 0.19 ($P > 0.05$); hence null hypothesis is retained. The calculated t value for the overall attitude of undergraduate students towards using mobile phone for educational purpose is 5.57 and P value is 0.00 ($P < 0.05$).

Therefore, it can be concluded that with respect to the attitude towards the usability of mobile phone male undergraduate students do not differ significantly from female students whereas in case of attitude towards barriers of using mobile phone for educational purpose, there exists significant difference between male and female students. Again in case of attitude towards preferability, it is seen that male and female students do not differ significantly. However, in overall, the male students possess significantly different attitude from female students towards using mobile phone for educational purpose.

From Table 2, it can be noticed that the calculated t value for academic discipline wise attitude towards usability is 0.17 and P value is 0.87 ($P > 0.05$); hence the null hypothesis is retained. For barriers, the calculated t value is 1.59 and P value is 0.12 ($P > 0.05$); hence the null hypothesis is retained. And for preferability, the calculated t value is 1.93 and P value is 0.06 ($P > 0.05$); hence the null hypothesis is retained. The calculated t value for overall attitude of undergraduate students towards using mobile phone for educational purposes is 1.32 and P value is 0.19 ($P > 0.05$).

Then, it can be concluded that with respect to the attitude towards the usability of mobile phone undergraduate students pursuing science stream do not differ significantly from the students pursuing arts stream. In case of attitude towards barriers of using mobile phone, there lies no significant difference between students of different academic disciplines. Again, in case of attitude towards preferability of using mobile phone for educational purpose, it is seen that undergraduate students pursuing B.A. courses do not differ significantly from the students pursuing B.Sc. courses. However, in overall, the B.A. and B.Sc. students do not differ significantly in their attitude towards using mobile phone for educational purpose.

From Table 3, it is seen that the calculated t value for the medium of education wise attitude towards usability is 1.14 and P value is 0.26 ($P > 0.05$); hence null hypothesis is retained. For barriers the calculated t value is 3.66 and P value is 0.00 ($P < 0.05$); hence null hypothesis is rejected. For preferability the calculated t value is 0.24 and P value is 0.81 ($P > 0.05$); hence null hypothesis is retained. The calculated t value for the overall attitude of undergraduate students towards using mobile phone for educational purpose is 2.81 and P value is 0.01 ($P < 0.05$).

Therefore, it is concluded that with respect to the attitude towards usability of mobile phone for educational purpose Bengali and English medium undergraduate students do not differ significantly whereas in case of attitude towards barriers of using mobile phone, there exists significant difference between English and Bengali medium undergraduate students. Again, in case of, attitude towards preferability, it is seen that the attitudes of English and Bengali medium undergraduate students do not differ significantly. However, Bengali medium undergraduate students possess significantly different attitude from the English medium undergraduate students towards using mobile phone for educational purpose.

The analysis in Table 4 shows that the calculated t value for residence-wise attitude of undergraduate students towards usability is 3.08 and P value is 0.00 ($P > 0.05$); hence null hypothesis is retained. For barriers the calculated t value is 2.80 and P value is 0.01 ($P < 0.05$); hence null hypothesis is rejected. And for preferability the calculated t value is 0.81 and P value is 0.08 ($P > 0.05$); hence null hypothesis is retained. The calculated t value for the overall attitude of undergraduate

Table 1. Attitude of the undergraduate students with respect to gender.

Dimensions	Gender	Mean	S.D.	t-value	P
Attitude towards usability of mobile phones	Male	60.74	6.98	1.46	0.15
	Female	63.07	4.68		
Attitude towards barriers of mobile phones	Male	8.41	2.24	8.95*	0.00
	Female	13.86	2.27		
Attitude towards preferability of mobile phones	Male	24.78	2.59	1.32	0.19
	Female	25.71	2.66		
Overall attitude of undergraduate students	Male	93.93	7.31	5.57*	0.00
	Female	102.64	3.81		

*=Significance at 0.05 level.

Table 2. Attitude of the undergraduate students with respect to academic discipline.

Dimensions	Academic discipline	Mean	S.D.	t-value	P
Attitude towards	B.Sc.	62.08	7.12	0.17	0.87
Usability of mobile phones	B.A.	61.80	4.96		
Attitude towards barriers of mobile phones	B.Sc.	10.36	3.40	1.59	0.12
	B.A.	11.87	3.57		
Attitude towards preferability of mobile phones	B.Sc.	24.52	2.68	1.93	0.06
	B.A.	25.87	2.50		
Overall attitude of undergraduate students	B.Sc.	96.96	8.26	1.32	0.19
	B.A.	99.53	6.16		

*=Significance at 0.05 level.

Table 3. Attitude of the undergraduate students with respect to medium of education.

Dimensions	Medium of education	Mean	S.D.	t-value	P
Attitude towards usability of Mobile Phones	Bengali	61.44	6.33	1.14	0.26
	English	63.67	4.31		
Attitude towards barriers of Mobile Phones	Bengali	10.35	3.34	3.66*	0.00
	English	14.17	2.55		
Attitude towards preferability of mobile phones	Bengali	25.21	2.82	0.24	0.81
	English	25.42	2.02		
Overall attitude of undergraduate students	Bengali	97.00	7.40	2.81*	0.01
	English	103.25	3.84		

*=Significance at 0.05 level.

students towards using mobile phone for educational purpose is 5.27 and P value is 0.00 ($P < 0.05$).

Hence, it can be concluded that with respect to the attitude towards usability and preferability of using mobile phone, the undergraduate students residing in rural areas do not possess significantly different attitude from the undergraduate students residing in the urban areas; while, in case of, attitude towards barriers of using mobile phone for educational purpose, there exists significant difference between rural and urban undergraduate

students. Still, rural undergraduate students possess significantly different attitude from that of urban undergraduate students towards using mobile phone for educational purpose.

DISCUSSION

From the present study, it has been found that the attitude of undergraduate students towards using mobile

Table 4. Attitude of the undergraduate students with respect to area of residence.

Dimensions	Area of residence	Mean	S.D.	t-value	P
Attitude towards usability of mobile phones	Urban	64.03	5.20	3.08	0.00
	Rural	59.40	5.97		
Attitude towards barriers of mobile phones	Urban	12.33	3.58	2.80*	0.01
	Rural	9.80	3.03		
Attitude towards preferability of mobile phones	Urban	25.83	2.59	1.81	0.08
	Rural	24.56	2.60		
Overall attitude of undergraduate students	Urban	102.20	4.51	5.27*	0.00
	Rural	93.76	7.27		

*=Significance at 0.05 level.

phones for educational purpose varies according to gender, medium of education and residence though the academic discipline (science or arts) does not impose any significant difference according to the study. Mobile phones have a potential of improving the teaching and learning processes as the tools are cheap compared to other ICTs which can be used for teaching and learning (Mtega et al., 2012). Though most scholars agreed that the gender gap in internet use had narrowed significantly among students in college age-group (Goodson et al., 2001; Odell et al., 2000) and also among general population (Brenner, 1997; Jackson et al., 2001; Ono and Zovodny, 2003; as cited in Ozoemelem, 2010), there are contradicting views too. Several studies reported that technologies were not utilized in similar ways by men and women and as a result some differences still existed (Mitra et al., 2005; Smith and Necessary, 1996; as cited in Economides and Grousopoulou, 2008). And likewise, this study has also found significant difference of attitude between male and female undergraduate students. In a third world country like us the gender gap in technological aspect like using mobile phone is much prominent but interestingly this study shows that the mean responses of female students in all the three dimensions are greater than that of their male counterpart. Hence, the female undergraduate students have more positive attitude towards using mobile phones for educational purposes than the male undergraduates.

According to this study, there is a meager difference between the mean responses of B.A. and B.Sc. students. As a result, there exists no significant difference between the attitude of undergraduate students pursuing arts and science discipline. But there should also lay significant differences in the attitude of students according to academic discipline (B.Sc. or B.A.). It may be due to the fact that students pursuing technical course like B.Tech, M.Tech or BCA, MCA or medical courses were not surveyed. Hence this may be considered a major loophole of the study. In different countries also science students have considered m-learning as an effective

method gaining knowledge (Al-Fahad, 2009). As technology is a necessary pre-requisite for better understanding of different scientific realities and theories, hence, it is quite predictable that e-learning and/or m-learning provide the students their much-needed data and vast knowledge base at a time and place. Therefore, they should have more positive attitude towards the use of mobile phone for educational purpose.

From this study, it can be concluded that Bengali and English medium students have significant difference in the attitude towards using mobile phone for educational purpose. The mean responses of English medium students are greater than Bengali medium students. Therefore, it can be concluded that the English medium undergraduate students have more positive attitude towards using mobile phone for educational purpose than the Bengali medium undergraduate students. It may be due to the factor that lately it has become a trend that children of well-to-do or in fact middle (and upper) class families go to the English-medium private schools (DISE, 2010-11) where use of technology is an important pre-requisite and a common happening. It can be easily noticed that English-medium students have much easier and much earlier access to various technological improvements like computer, laptop, iPads etc. Hence the difference of attitude may be attributed by the fact that the students with English medium background may have more resources and privilege of using technology like mobile phones not only for talking but also for educational purpose.

Residence-wise difference of attitude among students towards the use of mobile phone for educational purpose can be recognized as the people living in the rural areas throughout their lives find it difficult to cope-up with the new technology (RTBI, 2008). Other factors can also be counted such as the residents of rural areas consider technology such as mobile phone as an instrument of necessity and mainly useful for connecting with people whom they cannot visit regularly. Besides, the students residing in the rural areas are not aware of the advan-

tages of e-book, e-journal in contemporary higher studies. Hence, the rural folks have lesser positive attitude towards using mobile phone than the urban students, as par this study.

Suggestion for further study

Further researches can be done to find out among the multitude of applications and services provided by mobile phone which one is the most convenient and popular among college students particularly for educational purpose. Studies may also be directed to explore the difference of attitude towards using mobile phone between the students of literature on one hand and technical, medical and engineering students on the other hand. Purposeful research can be done to measure the attitude of students of various ages like children, adolescents, teenagers, young-adults and adults towards the use of mobile phone for educational purpose and thus we can get a better scenario of comparison and contrast regarding various age-groups. Thus, various interesting and purposeful researches can be done regarding attitude of students towards using mobile phone.

Conflict of Interests

The authors have not declared any conflict of interests.

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A vintage-style microphone is centered in the image, set against a dark blue background with glowing, streaky light trails in shades of blue and purple. The microphone is silver and black, with a classic grille.

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