

THE EFFECTS OF PICTURES ON THE ORDER OF ACCESSING ONLINE WAR STORIES

Normah Mustaffa, Faridah Ibrahim & Mus Chairil Samani
Universiti Kebangsaan Malaysia

Abstract

Research on how people read news stories has shown that readers chose to read and access news stories associated with pictures that contained an element of attraction. Researchers have found that the emotional elements within the picture could also play a role. It is unclear how neutral human interest pictures influence readers to access news stories. Is the access process influenced by less emotive pictures or more human interest elements? These issues were explored in an experiment in which 24 students participated. The experiment compared similar news that was accompanied with a human interest picture, information graphic and without information graphic. The focus of the news stories was on war news which almost always contained human interest elements that could be neutral or emotion-laden. The experiment suggested that human interest pictures of war stories could be equally effective in attracting readers to read and remember the news stories.

Abstrak

Kajian mengenai bagaimana manusia membaca berita menunjukkan bahawa pembaca cenderung memilih dan mendapatkan berita beserta dengan gambar yang mengandungi daya tarikan. Penyelidik juga mendapati elemen emosi dalam gambar juga memainkan peranan. Namun, masih tidak jelas sama ada gambar minat ramai yang berkecuali mampu mempengaruhi pembaca untuk mendapatkan sesuatu berita. Apakah proses mendapatkan berita dipengaruhi oleh elemen emosi atau minat ramai dalam berita? Isu ini diterokai melalui kajian eksperimental melalui penyertaan 24 orang pelajar. Kajian ini membandingkan berita sama yang mempunyai elemen gambar, maklumat grafik dan yang tiada maklumat grafik. Fokus berita ialah berita perang yang mempunyai elemen minat ramai dan maklumat grafik yang berkecuali ataupun mempunyai elemen emosi. Kajian mendapati gambar minat ramai dalam berita perang dapat menarik minat dan meningkat daya ingatan pembaca.

Keywords: news stories, news pictures, access, human interest, emotional elements.

Introduction

In a news environment, pictures give the news “authenticity”, “credibility”, and “actuality”, and give readers the impression that they are witnessing “something with their own eyes” (Brosius, Donsbach, & Birk, 1996, p. 181). Pictures may serve as an additional headline and point of entry for a story, quickly telling readers what the story is about. Thus, stories with

pictures have two points of entry compared to a story without a picture (only the headline). This illustrates that the pictures give support to the headlines by supplementing the information in the headlines.

In an online news environment, the most common ways of helping readers appreciate what news is available on news websites are to provide pictures and headlines. Editors normally provide the readers with pictures and headlines that once clicked will link to the full story. These two elements have their own way of attracting readers to the news. For example, a dominant size of picture is rated as more important (Huh, 1994) and can attract readers' attention (Garcia & Stark, 1991), while a line of catchy precise words in a headline can act as titles and lead-ins that are set above and clearly separate from the rest of the text. The headline naturally attracts the eye of the reader (Boduch, 2001).

The nature of the web, that allows selectivity and scanning, makes the way readers access the online news stories differ from print news. However, the difference between the web and print is not so much in the content but in the structure. In traditional print media, news stories are organized in a linear manner and generally designed to be read from beginning to end. In an online environment, accessing news stories demands inspection of the headlines, and it is through this inspection that pictures exert their influence on reading decisions. If a picture is buried in the text, it might never be given a chance to influence curiosity and attention. For example, once a particular article is selected, novel in-text pictures are likely to foster curiosity and thus motivate continued reading (Garcia & Stark, 1991). In other words, the web, with its node and link structure, facilitates access and reading according to the readers' preferences. Readers can more easily choose to read any article in any number of ways instead of in a single order determined by the fixed structure of a traditional print text. However, the decision on how and what news to read will depend on the readers' information needs and their experiences.

In view of how and what news to read, Levie and Lentz (1982) stated that readers do look at text illustrations in most situations, but they usually do not 'study' the pictures unless prompted to do so. This fits with the idea of pictures simply being a second headline to be briefly looked at once and then moved past. It shows that in most newspaper reading situations, there may be no need to remember all the details of pictures because most people choose to read and to keep reading only when they believe there will be some benefit in doing so.

The benefit of incorporating pictures in news stories is undeniable, and it is well documented that the addition of pictures to text leads to superior information acquisition (Graber, 1990; Katz, Adoni & Parness, 1977; Madigan, 1983). However, in an interactive medium that involves flexible combinations of different forms of written or spoken text, static or animated pictures, sound and music, the question of how readers use pictures to access news stories has not been widely explored. Previous research has revealed that threatening or negative images help to attract readers to read specific stories in newspapers and other news media (Mundorf, Drew, Zillmann & Weaver, 1990; Newhagen & Reeves, 1992; Gibson & Zillmann, 2000; Sargent, 2005). When individuals encounter a potential threat, they are more cautious with subsequent information and this will lead to careful reading of that particular news (Nabi, 1999; Zillmann, 1998). The negative image serves as an extension of a surveillance function (Lasswell, 1948) that demands the readers' attention in order to monitor their environment.

The desire to know further details of what happened in society can be satisfied by further reading the associated text.

Furthermore, texts and images on websites do not exist in isolation. According to Harriman and Lucaites (2007), the websites among other media, leaves little doubt that readers are more likely to be thinking, feeling and acting based on what they have seen rather than what they have heard or read. As with other artifacts, Gliem and Janack (2008) argued that the content of a photograph is dependent on the visual and cultural literacy of the observer. All these arguments have supported Szarkowski's (1966) earlier argument that more than any other kind of picture, a photograph evokes the tangible presence of reality, which acts as a substitute for the subject itself and making it simpler, more permanent, more clearly visible of the plain fact.

Szarkowski further explained that photographs have five categories namely the actual event, details, frame, time and vantage point. War photographs are related and being conceived by the five paradigms. However, war photographs may sometimes interact with human emotions. An emotional charged photograph such as war victims and casualties could send a torrent of pity, while photographs of aggression and army violence would evoke anger among the readers. At the same time, people will respond or choose to ignore certain images of the photographs at any given time, based on their preferences and selective perceptions.

Hence, this indicates that readers would decide for themselves the type of information they prefer to read and the order in which they process different types of information available in online news. The ways readers prefer to access, interact with, and interconnect information is distinct based upon their set of experiences and abilities. In other words, readers have full control over the information available online as they navigate and input the information at a pace that matches their internal comprehension processes. This distinction gives an opportunity for editors to use pictures as a way of attracting readers to their news stories.

Purpose of study

Until recently, there was little research on the effectiveness of messages presented on the web or on the effects of using visual elements in a web presentation (e.g., Garcia & Stark, 1991; Sargent, 1998; Sargent & Zillmann, 1999; Gibson & Zillmann, 2000; Zillmann, Knobloch & Yu, 2001; Knobloch, Hastall, Zillmann & Callison, 2003; Sargent, 2005). Much research exists concerning the effects of mass media on audiences, and how the public uses mass media for their own purposes. Since the web is used to present news stories, it is important to determine how incorporating design elements such as pictures will influence readers to read the news. In 1990s, newspapers increasingly turned to graphics to convey information as a way to inform, rather than bore readers. Only a handful of researchers (e.g. Pasternack & Utt, 1990; Stark & Hollander, 1990; Griffin & Stevenson, 1992) had begun to tackle the issue of how graphics and text work together in a newspaper context.

Although it has been shown that different graphics served different purposes such as the human interest pictures in journalism studies and the information graphics in educational psychology, a question of interest here is do all pictures attract readers to access and read the story and at the same time help them to gain knowledge from the news?

Access: A definition

In regards to research on picture effects, only a few researchers have investigated the influence of pictures on access (e.g., Sargent, 2005; Knobloch, Hastall, Zillmann & Callison, 2003; Zillmann, Knobloch & Yu, 2001; Zillmann & Bryant, 1985). However, these researchers defined “access” differently according to their research purposes.

From Zillmann and Bryant’s (1985) point of view, access was defined as a selective exposure to various types of information. They suggested that access is a phenomenon involving any behaviour that is deliberately performed to attain and sustain perceptual control of particular stimulus events. This means that people tend to limit themselves to only choosing the information that is really important to them. In a situation where the use of the Internet is to fit the purpose of information searching and gathering, this definition seems to give more specific focus to how readers react to a variety of information available in the Internet. It is assumed that readers will selectively expose themselves only to the information that will fulfill their information needs.

This definition is now widely accepted and can be seen in studies where researchers have defined access, or in their terms “selective exposure”, in terms of reading time (i.e., duration of access) not just initial access. For example, Zillmann, Knobloch and Yu (2001) explored access within printed newsmagazines as selective exposure to a harmless photograph (innocuous) or a photograph depicting victimization (agonistic) that were associated with a text. They examined how readers chose to read a printed news story based on the picture associated with the text. They found that text with innocuous photograph was selectively attended and processed for a longer period of time than the same text of articles without images. Moreover, the finding indicated that more extensive information processing was spent for text of articles accompanied by photographs depicting victimization.

In a similar vein, Knobloch, Hastall, Zillmann, Callison (2003) referred to access as selective exposure to threatening or innocuous images that were associated with both headline displays and the text of online news stories. Their findings demonstrated that the incorporation of threatening images along with the display of headlines was the most effective way to encourage choice of the news stories by readers. Such threatening images in war news could be the gruesome images of victims of war, casualties and the devastating war torn areas.

For the purpose of this article, access refers to readers’ initial selection of a story made up of scannable headlines and associated pictures, allow readers to quickly decide whether the information interests them. Therefore, access through headlines associated with pictures is one focus of interest in this paper because the incorporation of pictures in the online news front page might support the headlines and therefore influence access to the news stories.

Objective

This article attempts to examine the category of picture and positioning/story location that influence the access of online war stories.

Methodology

In investigating cause and effect phenomena, experiment is the best method to apply. The experiment was a mixed factorial design and there were 24 students who participated in the experiment. They were allocated to the three experimental groups. Participants in Group 1 and Group 2 received a combination of two human interest pictures and two information

graphics. Participants in Group 3 had news stories in the same four display orders but without pictures.

The materials used in this experiment were online instructions which were displayed as a welcome page on the computer screen and a set of questionnaires about the pictures and the texts. The instruction contained steps that participants had to follow while doing the experiment. They began the experiment by clicking the “Start” button at the bottom of the instruction page that led them to a display screen with the four available stories.

Each participant saw an online display screen in which the screen was divided into four quadrants, with each quadrant containing a picture and headline of a news story. In order to give the participants direct access to the news story, the headline of each story in the display screen was a clickable headline. Participants were allowed to read the story for as long as they wished but once read the headline and the picture disappeared from its quadrant on the front display screen. This meant that participants could not re-access the story that had been read. Each participant had to follow these steps in order to complete reading each of the four news stories.

Results and analysis

The data analysis in this experiment focussed on the order in which the stories were accessed. Access was analysed according to the first news being clicked, second, third and last by looking at the log file that recorded those activities. The questionnaire was analysed to compare retention and assessment of the overall design across picture conditions. A two-tailed significance level of 0.05 was used for all statistical tests.

The results of access which was analysed with the chi-square goodness-of-fit test showed that picture category, either human interest or information graphic, had the same effect on access ($\chi^2=0.13$, $df=1$, not significant). Of the 16 participants who saw news stories with graphics, 43.75 percent (7) participants read first news with human interest pictures on the display screen and 56.25 percent (9) participants first read news with an information graphic on the display screen. Similarly, analysis of the story being read last showed that 56.25 percent (9) participants read last news with human interest on the display screen and 43.75 percent (7) participants read last news with information graphic on the display screen.

Table 1
Number of participants who read a news story first or last as a function of story location and news category

Story Location/Quadrants:	<u>Read First</u>	<u>Read Last</u>
A Top left	7 (29.17%)	8 (33.33%)
B Top right	4 (16.66%)	6 (25.00%)
C Bottom left	10	4

	(41.67%)	(16.67%)
D Bottom right	3	6
	(12.50%)	(25.00%)
<u>News Category:</u>		
Soft	11	7
	(45.83%)	(29.17%)
Hard	13	17
	(54.17%)	(70.83%)

Data from participants in all three groups were included in the analysis of the effect of screen location and news category. As can be seen in Table 1, access was not influenced by story location in top or bottom position ($x^2=0.33$, $df=1$, not significant). A total of 45.83 percent (11) participants accessed first news located on top quadrants and 54.17 percent (13) participants accessed first news located on bottom quadrants. Similarly, analysis of location for news being read last showed that 58.33 percent (14) participants accessed news located on top quadrants last and 41.67 percent (10) participants accessed news located on bottom quadrants last.

Statistical analysis confirmed that access was not influenced by story location to the left or right of the screen ($x^2=1.39$, $df=1$, not significant). About 70.84 percent (17) participants read first the news located on left side (top and bottom) of the screen and 29.16 percent (7) participants read first news story on the right side (top and bottom) of the screen. For news read last, it showed that an equal number of participants i.e. 50.0 percent (12) read stories located either on left or right side of the screen.

News category also had no effect on access ($x^2=0.80$, $df=1$, not significant). About 45.83 percent (11) participants accessed soft news first and 54.17 percent (13) participants accessed hard news first. Similarly, analysis of the news category being accessed last showed that 29.17 percent (7) participants accessed soft news last and 70.83 percent (17) participants accessed hard news last.

Conclusions

The findings of this experiment failed to show a significant difference of pictures effect on access. Both picture categories had the same influence on access. In other words war pictures, regardless whether they are of neutral human interest or with emotive appeals, tend to have similar influence in terms of access. Whilst, story location and news category did not influence access. The same effect of pictures on access might be due to the pictures themselves that may have been too neutral or too emotionally-laden, to attract readers’ attention. And it could be also due to the news story content that was too general in a sense that it might not interest readers to read. Furthermore, participants might have a strategy in choosing to read the stories in an order that was independent of the pictures. This means that while choosing the story to read, readers may not have considered the pictures but they were more concerned to finish reading all four stories. Therefore, one possibility is that access

effects of picture category might appear if the participants were given a choice to read only a limited number of stories, e.g., two news stories.

Since the purpose of this study is to explore picture effects on access, a further investigation is needed to see if this missing effect can be found if readers are given a real choice to read only two out of four news stories available.

About the authors

Dr Normah Mustaffa is currently the Head of Programme for Communication and Information Management at the School of Media and Communication Studies, Faculty of Social Sciences and Humanities, Universiti Kebangsaan Malaysia. Her research focus is on online journalism and new media. Assoc. Prof. Dr Mus Chairil Samani is the Chair of the School of Media and Communications Studies. His area of research covers journalism, publishing and media literacy. Assoc. Prof. Dr Faridah Ibrahim is also from the same school and her research focus is on journalism particularly peace journalism and media ethics.

Part of this article has been presented at the International Conference on “The Changing World of International News in the 21st Century: The Impact of Digital Technology”, Hong Kong Baptist University, 14-16 April 2009. Funded by: UKM Research Grant UKM-GUP-TKS-08-11-288.

Further enquiries, please email: normahm@ukm.my; fbi@ukm.my; chairil@ukm.my

References

- Bargh, J. A. (1984). Automatic and conscious processing of social information. In R. S. Wyer, Jr. & T. K. Srull (Eds.), *Handbook of social cognition*, Vol. 3, (p. 1-43). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Barnhurst, K. G. (2002). News geography and monopoly: The form of reports on U.S. newspaper Internet sites. *Journalism Studies*, 3, 477-489.
- Brosius, H. B., Donsbach, W., & Birk, M. (1996). How do text-picture relations affect the informational effectiveness of television newscasts. *Journal of Broadcasting and Electronic Media*, 40, 180-195.
- David, P. (1998). News concreteness and visual-verbal association: Do news pictures narrow the recall gap between concrete and abstract news? *Human Communication Research*, 25, 18-201.
- De Wolk, R. (2001). *Introduction to online journalism*. London: Allyn and Bacon.
- Duchastel, P. (1978). Illustrating instructional texts. *Educational Technology*, 18, 36-39.
- Frost, C. (2003). *Designing for newspapers and magazines*. London: Routledge.
- Garcia, M. R., & Stark, P. (1991). *Eyes on the news*. St. Petersburg: Poynter Institute.
- Gibson, M. L. (1991). *Editing in the electronic era*. Ames: Iowa State University Press.
- Gliem, D.E. & Janack, J.A. (2008). A portrait of a transformational leader: An analysis of text and image on BarackObama.com. *American Communication Journal*. Vol 10, Issue 3. <http://acjournal.org/holdings/vol10/iss1/articles/lu/htm>.

- Graber, D. A. (1988). "Processing the news: How people tame the information tide", at <http://www.aber.ac.uk/media/Modules/TF33120/graber.html#C>, accessed 4 March 2005.
- Griffin, J. L., & Stevenson, R. L. (1992). Influence of text and graphics in increasing understanding of foreign news context. *Newspaper Research Journal*, 13(1-2), 84-99.
- Harriman, R. & Lucaites, J.L. (2007). *No caption needed: Iconic photographs, public culture and liberal democracy*. Chicago: Univ. Of Chicago Press.
- Kahneman, D. (1973). *Attention and effort*. Englewood Cliffs, NJ: Prentice-Hall.
- Knobloch, S., Hastall, M., Zillmann, D., & Callison, C. (2003). Imagery effects on the selective reading of Internet newsmagazines, *Communication Research*, 30(1), 3-29.
- Levie, W. H., & Lentz, R. (1982). Effects of text illustrations: A review of research. *Educational Communication and Technology Journal*, 30, 195-232.
- Levin, J. R. (1981). On functions of pictures in prose. In F. J. Pirozzolo & M. C. Wittrock (Eds.), *Neuropsychological and cognitive processes in reading*. New York: Academic Press.
- Levin, J. R., Anglin, G. J., & Carney, R. N. (1987). On empirically validating functions of pictures in prose. In D. M. Willows & H. A. Houghton (Eds.), *The Psychology of Illustration: I. Basic research*. New York: Springer.
- Mayer, R. E., & Gallini, J. K. (1990). When is an illustration worth ten thousand words? *Journal of Educational Psychology*, 82, 715-726.
- Mendelson, A. (2001). Effects of novelty in news photographs on attention and memory. *Media Psychology*, 3, 119-157.
- Nielsen, J. (1997). "How users read on the web," at <http://www.useit.com/alertbox/9710a.html>, accessed 27 January 2004.
- Netcraft. (2000). "Web server survey" at <http://www.netcraft.com/survey>, accessed 7 June 2005.
- Paivio, A. (1971). *Imagery and verbal processes*. Hillsdale, NJ: Lawrence Erlbaum.
- Schneider, W., Dumais, S. T., & Shiffrin, R. M. (1984). Automatic and control processing and attention. In R. Parasuraman & D. R. Davies (Eds.), *Varieties of attention* (p. 1-28). New York: Academic.
- Schrivers, K. A. (1997). *Dynamics in document design: Creating texts for readers*. New York: John Wiley & Sons, Inc.
- Slatin, J. M., & Rush, S. (2003). *Maximum accessibility: Making your website more usable for everyone*. Boston: Pearson Education, Inc.
- Stark, P. M., & Hollander, B. A. (1990). Information graphics: Do they help readers understand news events? Paper presented at the annual meeting of the Association for Education in Journalism and Mass Communication, Minneapolis.
- Szarkowski, J. 1966. *The photographer's eye*. New York: The Museum of Modern Art.
- Ziegler, B. (1995). "Stop the presses: Publishers scramble into online services, but payoff is unclear," at <http://www.well.com/user/mmcadams/wsj.4-26.html>, accessed 26 June 2005.
- Zillmann, D., & Bryant, J. (1985). *Selective exposure to communication* (Eds.). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Zillmann, D., Knobloch, S., & Yu, H. S. (2001). Effects of photographs on the selective reading of news reports. *Media Psychology*, 3, 301-324.