

Science or promote  
scientific  
misunderstanding  
media essay



**ASSIGN  
BUSTER**

The media are the technologies used to send the news or information to everyone through mass communication. There are several types of media such as broadcast media, print media, and internet media. What are print media? Print media is a medium that using printing process to produce the text and images with ink on the paper using a printing press to send the information to people. The example of print media are newspaper, books, magazines, newsletters, leaflets and so on. Various kinds of media have become a vital sources for informing citizens including scientists about recent development of science 1. The mass media also a main component in controlling the rise and fall of social issues and the science-policy interface 2. Generally, 49 % of European reads science articles in newspapers and magazines either regularly or occasionally in the European commission 2007 survey 3. Besides, the survey also shows that the print media such as press, newspapers, and magazines are rated as second trustworthy media to communicate the science 4.

The print media play an important role to inform the way public understand science 5. Newspapers are an important sources to understand the science, medical reporting and the critical role of reliable information 6. They transmit the risk messages not only via the advertisements but also newspaper articles using a format that are conducive and easy to understand by the public. Many scientists view that media including print media is a pipeline to transmit the scientific messages to the public 7. Print media actually a way to stimulate public engagement in science. This is because the media like newspaper and magazines always published an accurate, short and free scientific article to help the public understanding about science development

8. The study had shown that the average length of an article in a newspaper is less than 600 words 9.

Holliman, R. (2004). Media coverage of cloning: a study of media content, production and reception. *Public Understanding of Science*, 13(2), 107-30

Miller, D. (1999). Risk, Science and Policy: definitional struggles, information management, the media and BSE. *Social Science & Medicine* 49, 1239-1255.

Special Eurobarometer 282- summary. (2007). Scientific research in the media. – European Commission.

Special Eurobarometer 282, 1-42 (p. 22).

Wilkie, T (1996). Sources in Science: Who can we Trust? *The Lancet*, 347, pp. 1308-1311.

Hargreaves, I., Lewis, J., and Speers, T. (2002). Towards a better map: Science, the public and the media. Economic and social Research Council.

Nelkin, D. (1991). AIDS and the News Media. The Milbank Memorial Fund, New York University. *Health, Society and the “ Milbank Quarterly”*, Vol. 69(2): 293-307.

Tyler, T., & Cook, F. (1984). The mass media and judgments of risk: Distinguishing impact on personal and societal level judgments. *Journal of Personality and Social Psychology*, 47, 693-708.

Hargreaves, Lewis and Speers, 1-54 (p. 14).

From there, print media promoting enthusiasm and engagement in science, it's the media to encourage the public to find out the details of scientific study from other sources because there usually has citation of journals or scientists name in the articles. For example, the public can just google search using the scientist's name or any citations shown in articles to find more information on a scientific knowledge.

For example, an article 10 had published the finding of male contraceptive pill, let the public know the progress of scientists in finding the way to solve the problem of men especially for those want to control and plan the right to have a baby. From this article, the people will know what's going on in scientific fields for free and also attracted public who interested in male contraceptive pill to look out the details from other sources with the help of the researcher's name mentioned in the articles. Although it's just a short article, but it includes all the purpose or aim of the research, the research regarding contraceptive pills that had been going through in the recent and past, the researchers that involved and citation of a journal published. So, this was a good articles to stimulate the public engagement in science development with just a couple of minutes. The figure 1 shows a short part of an article published involving most of the criteria mentioned above.

Capture. PNG

Figure : A cut from an article 11

However, newspapers also a major source of risk information where the public mitigated the impact of an issue and access to their own information networks. So, print media is a risk communication tool to engage the public

<https://assignbuster.com/science-or-promote-scientific-misunderstanding-media-essay/>

12. Media help to make the risks more visible when an issue raises the public controversy 13. Controversy has always treated as a driving force for the advancement of scientific knowledge 14. The articles especially from newspapers are attempting

Martin, D. (2009). Contraceptive pill for men a step closer after scientists isolate 'infertility gene'. Daily Mail Online. Available from <http://www.dailymail.co.uk/health/article-1166861/Contraceptive-pill-men-step-closer-scientists-isolate-infertility-gene.html> [Accessed 3 April 2009]

Martin, sentence 10-14.

Wakefield, S. E. L. and Elliott, S. J. (2003), Constructing the News: The Role of Local Newspapers in Environmental Risk Communication. *The Professional Geographer*, 55: 216-226.

Campbell, P. (2011), Boundaries and risk: Media framing of assisted reproductive technologies and older mothers. *Social Science & Medicine*, 72 (2): 265-272.

Holliman, R., Thomas, J., Smidt, S., Scanlon, E., and Whitelegg, E. (eds) (2009a). *Investigating science communication in the Information age: Implications for Public Engagement and Popular media*. Oxford, Oxford University Press.

to reflect balance, to show the pros and cons of one scientific issue. This can let the public take a scientific issue more clearly on its gain and lose.

Through the print media like newspaper or magazines, press or journals, the public can have their critical reading and help to develop more opinion or <https://assignbuster.com/science-or-promote-scientific-misunderstanding-media-essay/>

feedback to a science technology. The more feedback from the public, the space for a technology to improve will be more wider.

Another example is the article published recently 15. In this article, an accurate and short details of the progress of every scientist who take part had been published. The benefits of this research also stated clearly and the most important part is it mentioned this research still in progress and will be used only if the safety is confirmed. The main idea that we can see from this article is this article told the public the future research will be done by researchers (refer figure 2). Therefore, this is a good opportunity for the readers to argue whether they will support or oppose the new findings or the future researches. So, this is an effective way to raise engagement between the readers and the researchers in scientific development. A controversial or misunderstanding may start if the findings did not state clearly.

Capture1. PNG

Figure : A small pieces of article 16

Public perceptions are very important in shaping and changing the reaction of both individuals and social institutions to an issue 17. The amount of media coverage in science could directly reflect the interest of the public and also influence the number of public attention to the development in science 18. The media coverage and science education always treat as sources that can influence public opinions, attitudes and reaction to science 19. Actually some of the articles published in print media are an effective way to convince the reader to support the scientific research. A positive reaction of the public can raise the scientists and media profile in order to ease them to <https://assignbuster.com/science-or-promote-scientific-misunderstanding-media-essay/>

get more job opportunities , funding and also policy invitation. The other way round, if a scientific finding is opposed by the public, the scientist will be ignored or blamed which can influence their profile. Therefore, the public actually an important person to control the life of a scientist.

Baker, D. (2012). Scientists find a way to 'kick-start' infertile sperm dramatically increasing pregnancy chances. Daily Mail Online.

Baker, sentence 14-17.

Nelkin, p293-294

Carolyn L. F. (2012) . Science and Engineering Indicators 2012: Science and Technology: public attitudes and Understanding. Arlington VA: National Science Foundation (NSB 12-01).

Royal Society (1985). The Public Understanding of Science. Royal Society, London.

For example, an article about the human cloning where the progress and the decision of the authority person or organization had been stated 20. This article stated the aim of a scientist's work on human cloning so that the readers can understand clearly (refer figure 3). The advantages of human cloning had been stated clearly to convince the reader so that the public will support their research which indirectly convince the authority to agree and make it legally on their research. One research can go smoothly and more success with the help of the public and also the authority. This is because it is an effective way to popularize the name of scientists and the publisher to attract more funding, the main barrier to scientists to continue their <https://assignbuster.com/science-or-promote-scientific-misunderstanding-media-essay/>

research. Well, these also an article that is shown science in a positive light which help in the development of advance science. Untitled. png

Figure : A combined of few cut pieces of article 21

Books also a kind of print media that are tremendously important in science. They provide substance and structure for scientific communities in the world. Science books actually also a tool to share experiences and interact with the public. Books raise the public discussion because they play an important role in providing information, engaging different level of people and also contribute discussion of public. First, the books important in the development of science itself where it drives the science communication that involves feedback among different types of communication 22. Moreover, books are an effective way to recruit people younger generation to participate in science and the books also play an important role in the public debate which all the public issues can be discussed 23.

Diary Mail. (2004). ' Unethical' human cloning could get green light'. Dairy Mail Online. Available from <http://www.dailymail.co.uk/health/article-306817/Unethical-human-cloning-green-light.html>. [Accessed 16 June 2004]

Diary Mail, sentence 6, 12, 17 & 25.

Holliman, R., Thomas, J., Smidt, S., Scanlon, E., and Whitelegg, E. (eds) (2009b). Practising science communication in the Information age: Theorizing Professional Practises. Oxford, Oxford University Press.

Holliman et al., 2009b, Chapter 6.



For example, the book “Molecular Biology of the Gene” written by James Watson is an important and use as a textbook worldwide 24. This book gathered together the field of molecular biology and taught the public the origin and basic techniques in the field of molecular biology. It not only educated public with more scientific knowledge but it also lets the public know what exactly the human formed by. So, science books actually a good facility to create a group of people with similar perspectives, tools and training. In addition, some of the books are in fact making arguments. For example, Evelyn Fox Keller’s *The feeling for the Organism*, a biography of Barbara McClintock, was the part of debating about the nature of science and whether the masculine science different from feminine science in the late 20th century 25. Many questions are raised and debate among the reader and even also the author as well. But, through this argument, the reader can understand and gain more the knowledge and also to identify clearly their role in scientific development.

The news in the print media are used as building blocks for the public to understand science and to make sense of an issue. While, the print media also bring some negative impact to the development of science. There is always very little scientific information in print media. If a science stories are interested and stick in the public mind, the public will start to make some informed guesses of those issues and this finally can bring to the misunderstandings 26. Moreover, some of unsuitable headlines had been used when published in print media especially newspaper. Headlines is very important either in attracting the reader to read more on the article or lead to the misunderstanding by the reader. Some of the people especially for

those who are busy and get to know the news and development of science by just read through the headlines. 33. PNG

### Figure 27

For example, with the headline above (figure 4), What will the reader think especially the male reader when they look at this headline? Of course many will think is that men have no role in creating a baby. By just looking at the headline, the reader especially the men will feel they had been ignored by science society and is a useless person in creating a child. It brings to the misunderstanding which might influence the development of science.

Although the research is beneficial to help those infertile people who wish to have their own child instead of using the sperm from a donor, but the reader might continue misunderstood of the development of artificial sperm due to the unsuitable headline. Some of the readers will continue to stick in the headlines even the contents are clearly presented or explained. So, headlines are important to influence the reader reflection.

Watson, J. D. (1965). *Molecular Biology of the Gene*. W. A. Benjamin, New York.

Comfort, N. C. (2001). *The Tangled Field: Barbara McClintock's Search for the Patterns of Genetic Control*. Harvard University Press, Cambridge, MA.

Hargreaves, Lewis, and Speers, 1-58, pg 5.

Marsh, B. (2001). We can create babies without men, claim scientists. Dairy Mail Online. Available from <http://www.dailymail.co.uk/news/article->

<https://assignbuster.com/science-or-promote-scientific-misunderstanding-media-essay/>

79711/We-create-babies-men-claim-scientists.html. [Accessed 22 October 2001].

In addition, the print media also have been suggested as a poor medium in reporting the risks associated with diseases 28. Besides, some of the publishers will distort the fate of scientific findings to attract more readers. This also promotes the scientific misunderstanding because print media was one of the trust media by the public 29. Every person relies on the media sources including print, television, and the internet to learn and respond to health risks on personal and also society level 30. Much of scientific information on the development and infectious diseases came from the mass media.

For example, the West Nile Virus and avian influenza 31. Although these diseases are the headlines in print media this recent year, but the diseases still spreading and causing death. But, the articles presented are in a low degree of precision and therefore the information provided have limited usefulness to the readers 32. The poor explanation and the least content level in print media will bring to the misunderstanding as well. The reader might misunderstand that scientific issues are not important which will turn one issue more seriously and incurable at the end.

In conclusion, print media is an important medium to stimulate the public engagement in science. It has actually brought more gain to the scientists who responsible for the work, the reader and also the publisher. The scientists and the publisher can attract more career development, funding invitation and also became well-known after publishing a successful article

which is supported and accepted by the public. While the reader will gain more scientific knowledge of the print articles. Although the print media is an important tool to communicate or informing the public about the development of science. It is an inevitable tool of science communication that promotes the misunderstood of the science.

Evensen, D. T., and Clarke, C. E. (2012). Efficacy information in media coverage of infectious disease risks: all ill predicament?. *Science Communication*, Vol. 34(3): 392-418.

Hargreaves, Lewis, and Speers, 1-64, pg 29-31.

Evensen and Clarke, pg 394-398.

Centers for Disease Control and Prevention. (2008). Questions and answers about avian influenza (bird flu) and avian influenza a (H5N1) virus. Retrieved from <http://www.cdc.gov/flu/avian/gen-info/qa.html>.

Roche, J. P. and Muskavitch, M. A. T. (2003). Limited precision in print media communication of West Nile Virus Risks. *Science Communication*, 24(3): 353-365.