

New Media and Simulation

Christina De Bartolo

New Media Research Methodologies: MPM 107
Professor *Alexandra Bal*
November 29th 2013

Introduction

The world is full of many types of media. With technology advancing so quickly, what one is capable of creating is basically endless. This world of advancing technologies and creations can be directly related to the study of new media. New media is described in many ways. It is important to understand what new media is to explain how it can affect and benefit areas of research. Since there are many misconceptions with what new media is one goal of this paper is to properly define new media. As well, the exploration of the popularity for the use of new media in regards to research will be discussed. An example being examined, to explain how a new media method can be used for research is simulation. Also, this paper will discuss what simulation is and some of the main pros and cons with simulation research. Overall this paper will strive to help one understand new media research while exploring the idea of one of the new media research methodologies, which is simulation, and many aspects that surround it.

What is New Media?

When researching new media “Too often ‘new media studies’ means only ‘internet studies’” (Giddings 107). Giddings explains this idea because it can be understood by anyone who attempts to research what is new media. He is able to help examine why this is a common misconception. The Internet is one of the areas of new media that is well known, and many of the other areas, although new media categories, are not as common to most individuals. The issue is still though, that when defining new media “[it and its] communications is continually evolving and as a result, its definitions evolves as well.” (Eber-Schmid) This definition begins the idea that new media is much more broad than many definitions explain it as. New media can describe basically anything that is new, and deals with a form of media. Although this may sound obvious for the fact that it is called new media, it can be confusing because of the common misconception discussed, that new

media only looks at aspects dealing with the Internet. In conjunction, another definition to show how broad new media are is that it can be seen “A new way of seeing, a new way of defining, [and] a new way of knowing.” (Grigar 216) This basically gives new media a definition, but it is still very broad due to the fact that there can not be any finite examples, since they are infinite to what one can create based on what they see, define, or know.

Another important aspect to look at in accordance to new media, to help one define and understand the meaning, is discussing the way new media is used in the academic world, and why it has become so important for research. Authors Joanna Siah Ann Mei, Namrata Bansal and Augustine Pang, discuss the fact that new media has become so popular because it is capable of making information that was once only able to be communicated through text and still images, understood, or told, through multiple, diverse platforms (Joanna Siah Ann Mei 149). This can create popularity because it gives learners multiple ways to understand, or explore different ideas. New media gives people the opportunity to reinvent the way at which we look at that idea. This may make it easier to understand an idea, or more relatable, when compared to just simply having text to understand an idea; although at one point, this was a new media form, because it was a new way of learning. To further help explain how new media can change the way an idea is explored, the topic of simulators will be discussed.

What is a simulator?

Simulators help discuss new media, because they are an example of how a new media form not only can assist in teaching an idea, but also becomes a tool in many aspects of research. Before discussing how simulators can be used as a method of research, one must understand what a simulator is. Merriam Webster Dictionary describes a simulator as “something that is made to look, feel, or behave like something else, especially so that it can be studied or used to train people.”

(Merriam Webster) This definition works with the idea being explored, which is the fact that simulators are a method of research that has been created by a new media methodology. The main idea that should be focused on in this definition, is that not only are simulators a way to study an idea, but also a way to train one in a specific area.

How simulators are a new media research methodology (research and teaching through simulators)

In an interview author Nigel Gilbert discusses these two aspects, simulators being used for research and to assist in teaching an idea. He comments on how ideas are studied, or researched, in accordance to simulators by saying “What simulation is, at its heart, is the idea of taking some ideas about society and building, in a computer, a model, a simulation, of that, of your ideas, so that you have a virtual society.” (Gilbert) What Gilbert is explaining by saying this, is the simulator can be used to study any ideas that can be expressed, but in a controlled area. A simulator is programmed to re create a specific idea the researcher(s) want to explore. This makes it easy for a researcher to focus on that individual idea. The researcher(s) are also capable of programming the simulator to look at relations based on a few other aspects, but the main idea here is that a recreation can be made, but it is specific. This is done so that detailed research can be done thoroughly in that area.

Gilbert also discusses simulators in unity with training. He explains that a simulator “has the advantage that you can then do what [he] call[s] virtual experiments. So instead of doing experiments on real people which is obviously expensive, unethical, all sorts of problems, you can do experiments on virtual people. That can be both very instructive and, [he] must admit, also quite fun.” (Gilbert) It is important for one to remember that although training is not described as research, they are very similar ideas. This is the reason teaching is being discussed; because the paper is discussing a new media research method, to fully understand how simulators can be a

research tool, the following idea must be explored. The reason they are similar ideas is because when teaching someone through a simulator, it is basically making them understand first hand, an idea, how something works or how to act in a certain situation. This causes the person learning, to basically do research, by actually doing the task, rather than reading about it. The simulators are made to have the information embedded in their system, so although one may not be reading the words on how to do something, the same ideas are shown through the simulators. This is what makes a simulator not only an area of new media, by displaying information in a different way other than text, as discussed earlier, but also a research methodology for new media, by helping someone learn, or understand something through the use of a simulator.

The Pros and Cons of Simulators

Now that it is understood that simulation is used as a research method, through both creating simulators for research, and using simulators to teach, the pros and cons of simulation can be examined.

Pros

The benefits or pros of simulation have a main effect on two groups of people. The first groups of people are the researchers or the people being taught by the simulators. The second groups of people who benefit from simulation are the companies, or group who own, fund or supervise the researchers, or students being taught by simulators. These groups can vary from companies using them to research ideas for a product or service, to the government using it to help doctors, or advances in the clinical world.

One benefit received by the first groups, the researchers and students, is “the sense that [these] participants have being immersed in a task or setting as they would if it were the real

world.” (Gaba) This is important to note, more for the students, because there are many areas, such as emergency responders (doctors, fire fighters, surgeons, police officers etc.) who are able to use a simulator, because it is difficult and unsafe for them to experience all the situations that they may have to be trained in. This means that they will be able to gain knowledge, learn, and experience something important to their training without any risks. An example, which would also include the researcher, would be a simulation of a human that can be used for practicing any type of surgery. The students can use this to learn how to do procedures without having to risk anyone life. The researchers could use this idea of a human simulator, because they may want to see how something may affect a human. Another pro for the first group would be that “Simulations can be used to help learners acquire new knowledge, and to better understand conceptual relations and dynamics.”

(Gaba) This idea is very similar to the one previously stated, because again, it is looking at the relationship between being able to educate one in an importance or dangerous situation without any major risks.

A benefit for the second group (companies, the government, organizations), the people who are supporting the first group, is that “Simulation is held in high regard as a cost-effective methodology for solving problems.” (Fraser 15) This is very important for the people who are funding the first group (the researchers and students). The reason is simple, if the groups, companies or organizations can save money in an area that can help advance the researchers or students, not only are they doing exactly that, advancing the people they are supporting, by helping them solve the problems they are trying to learn or overcome, but saving money while doing this. This means they have the opportunity to spend this money in a different area where they may need it. Another area which is benefiting the second group is that “Model building and simulation is becoming easier and faster through implication of advances in software and hardware.” (Bernard P. Zeigler) This benefits the second group because they will be able to access the simulators at low

cost. Also they will be able to create simulators much easier and faster, which means they will be able to create simulators for their specific needs in a timely manor, meaning it will take less time to fund certain projects, because the simulators will be able to be accessed faster.

Cons

Although the benefits of simulators seem great there is one issue, which was discussed about simulators. This is the idea that simulators have not been seen as a respected study tool. Author John McLeod discussed the issue that simulation is looked at as an art form much more than a scientific method; he said, “It must be made more of an organized discipline. We know how to wield one of the most powerful tools that technology has places at the disposal of society. [He] thinks we should take our responsibility for its further development and proper use very seriously.” (McLeod 8) McLeod is discussing what he feels is causing problems in the simulation world. He later goes on to say that the issue, with people not treating simulation as a serious form of scientific research is because “practitioners of the art continue to do their own thing in their own way and report their work in such a way that it is difficult or impossible for others to check or repeat their work – or don’t report it at all.” (McLeod 8) The reason this is an important con to address in the simulation world, is that it can help so many areas in research (for example helping figure out traffic lights, and the duration of a green light, compared to the traffic in that area) if the people in the ‘art world’, as McLeod states, were to follow a formula. The point of research is to be able to share your findings. If a simulation is created in the art world, it may be able to somehow help research simulators, and if they properly reported their work, not only could others use it, and advance it, but also their would be a common feature or formula when looking at the way the simulator is reported, which would get rid of the boundary between knowing an art and research simulator.

The final issue created with simulators, explores the issue with not learning in groups. “Although the social context is often an important part of the learning process, many simulations continue to offer a solitary learning experience, which can jeopardize the advantages of social interaction and collaboration in training.” (Bradford S. Bell 19) If one looks at the example of emergency responders, and the simulators used for teaching, the reason of why this could cause an issue can easily be identified. First responders work in groups with one another. If the simulations are being made for one person to complete, they will not receive proper training, because people, who are going to be working in a group, need to be able to interact with others, and be able to complete tasks as a group as well.

One must remember that there are pros and cons to every situation. With simulation this is important, because by examining both sides, one can see how to fix problems that are occurring to help create a more flawless research method.

In Closing

When understanding how new media is understood, one simply cannot just define what it is, because it is an ever-changing concept. What is known is that it describes new ways of thinking, knowing, and understanding. What is also discovered through this definition is the reason why new media is so popular to help research, which is because people enjoy learning in new innovative ways that explore ideas they investigating. Simulators are one of the ways that new media research is explored, and this showed that, not only can many aspects simulators can be used in different areas of research, but also for an array of people. An important benefit to remember is that what makes simulators an important piece of technology is the opportunity they bring to the researchers and students. Although simulators have some disputes, including one major issue, with simulators being looked upon as art, rather than research, issues can be resolved. The first thing needed is to

understand what the issues are, so they can be corrected. With the future of simulators, one should remember that new media research will change, with the invention of new media forms, and simulators may benefit from this. With new ideas or ways to create, or use simulators there are unlimited possibilities for not only new media as well as the way simulators are used.

Works Cited

Bernard P. Zeigler, Herbert Praehofer, Tag Gon Kim. "Theory of Modeling and Simulation." (200).

Bradford S. Bell, Adam M. Kanar and Steve W. J. Kozlowski. "Current issues and Future

Directions in Simulation-Based Training." CAHRS Working Paper Series (2008): 1-33.

Eber-Schmid, Bailey Socha and Barbara. "What is New Media?" 2012. New Media Institute. 11

2013 <<http://www.newmedia.org/what-is-new-media.html>>.

Fraser, Martin D. "Simulation: How This discipline portrays real life." IEEE Potentials, 1992. 15-

18.

Gaba, D M. "The future vision of simulation in health care." Qual Saf Health Care 13 (2004).

Giddings, Seth. "Book Review: New Media: An Introduction (2nd edn)." Convergence 13.1 (2007):

107-108.

Gilbert, Nigel. What Is Simulation? SAGE Publications, 2011.

Grigar, Dene. "What New Media Offers." Computers and Composition (2007): 214-217.

Joanna Siah Ann Mei, Namrata Bansal and Augustine Pang. "New Media: A New Medium in

Escalating Crises?" Corporate Communications: An International Journal 15.2 (2010).

McLeod, John. "Simulation: From Art to Science for Society." n.d. 8 - 11.

Merriam Webster. "Simulation." 2013. Merriam Webster. <[\[webster.com/dictionary/simulation\]\(http://www.merriam-webster.com/dictionary/simulation\)>.](http://www.merriam-</p></div><div data-bbox=)