

Broadband Uses of New Digital Media Literacies

Providing Training for New Digital Media Literacies Using an Internet 2 Network:

Literature Review

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## Introduction

Pennsylvania is currently in the process of installing the hardware for a dedicated high-speed network between the KINBER (Keystone Initiative for Network Based Education and Research) members. KINBER are currently exploring what will be the effective uses of this network. MAGPI (Mid-Atlantic Gigapop in Philadelphia for Internet2) is the Internet2 provider for this network and has experience with creating content for Internet2 users. This study will begin with an analysis of what the KINBER member user's think will be an effective use of this new network. The next step will be producing a new digital media literacy presentation that will give the group some ideas of possibilities. A cohort of interested users will continue to explore opportunities. The project will complete with a survey to see if attitudes have changed and ask what future directions might benefit from a dedicated broadband network.

## The Research Questions

The original survey will be broad and qualitative in that I will be interested in learning what people think they know about the new network and get an understanding of what they are expecting with these new capabilities. I want to be careful with this survey not to lead the users so it will be important to have open ended questions especially in the beginning. For example "What do you think will be the most effective use of a dedicated broadband network?" I believe it will be effective to then ask their opinion of different specific uses, "How could libraries share information?" possibly following up with "Do you see academic advantages of a shared network?" These are examples of possible questions but I would like to develop about 5 total questions so the user we feel it is easy to complete the survey. (Mills 2010) With this data I will need to begin the quantitative task of getting some more detailed attitudinal information once I have analyzed the responses to the qualitative section. This part will change with the results but

I am going to suggest that new digital media literacies is a result of the qualitative section. If this is the case the null question would be “new digital media literacies will not be used effectively used in education over a broadband network”. The reverse being that the literacies would be effectively taught over a broadband network. The dependent variable would be the digital literacies and the independent variable would be their effectiveness over a broadband network. (Mawritz)

The next step of the research project will be to present some of my findings to a group of MAGPI users and make a presentation on how some of these ideas could be explored and used for academic purposes. The final step would be a post presentation survey. These questions would include:

- Have your expectations for broadband usage changed?
- Do you see another opportunity to be shared with the group
- Are you willing to continue as a cohort to share and explore other new applications?

### Themes and Literature Review

**Theme One:** What will be the effective use of a dedicated high-speed network between member institutions?

There were a couple of journal articles that looked at Internet 2 its history and expected uses. *Build it and they will come – Although You May Wish They Had Not* (McCredie 2000) is an interesting review of a dated review of the Internet2 use, McCredie has more of a technology background and is mostly interested in the special equipment needed and the impact on the local network. Many of these issue are still a potential problem today in that if the local network is not

designed correctly then the user experience will suffer. This kind of project is going to take collaboration from many department. The technology department needs to understand the impact and what may need to be done so there are no deleterious effects on the school. McCredie also provides documentation on the expense both the KINBER group should expect but also what local schools should expect. Because this study is old, many of the questions he raises either have been solved or are completely understood at this point.

Getting away from the hardware Elizabeth Dow wrote about a successful collaboration between five schools that had low enrollment programs of study that needed more students to stay alive (Dow, 2008). The article was interesting to me because of how closely it followed the format being used in this class. There is a discussion about the preliminary research and the limited examples they found prior to their study. She also has an excellent explanation of the hurdles they encountered and the solutions they found. The study itself states up front that the conclusions are only related to this group. There was a decision early on to not expand the study. In addition, the conclusion was a frank review of some of the barriers and opportunities between separate institutions. The overall finding was limited but positive because the institutions made a decision to continue the project even after the initial funding had run out.

So the first article was about the very broad internet2 and next was about usage between institutions and the third article in this review is about specific application tools. In *Internet2, Killer App or Dilbert's Nightmare*, (Hanss, 2001) the discussion is about the use of tools over the internet. Hanss notes that video conferencing is the obvious solution but looks at some other uses including digital video. A sound review of the current situation leads to a list of what schools are working on in 2001. This then lead to a discussion about video standards and what they mean, then following up with technical requirement of staging lighting and sound. The

discussion also continues with some dedicated programs being developed by specific schools. One of the examples was a program at The University of Pennsylvania which should be followed up on to find out what the current status of the project is now.

**Theme Two:** How will new digital media literacies be shared among these institutions? Within this theme are some sub-topics; are the opportunities among a group of cohorts from different institutions working together to build new digital media literacies or are the opportunities having shared resources like a digital repository of media content and finally are there tools that can effectively be used across a dedicated high-speed network.

On this subject there were 2 articles of interest. The first was from a librarian's perspective to find the role of Internet2 in the future of information sciences. Though this article was focus on a k-12 solution it gave a historic review that match the previous article reviewed. It also addresses the "last mile" issue for local schools. But the article when on to describe a clearinghouse called MUSE where Internet2 users can go to find others working on similar projects and how to get the projects to work together. This researcher has found that MUSE is too broad and fairly difficult to use to find effective partners. But having this contact will help explore the success and failures.

In *The Promise of the Internet* (Mutch, Ventura, 2003) the concept that is important her is the Internet2 is more than just big data pipes, which is key to getting users to understand the advantages of this technology. This journal article focuses on the information sciences and hoe future libraries need to be part of the discussion of how to manage this information pipeline. Included in this discussion was a repeat of the history of the internet but this time from the

perspective of information professionals. As we develop better understandings of these tool and literacies the information professional will have an important voice.

**Theme Three:** What academic support will be required to help educators effectively use new digital media literacies? Educators will need to be trained in the subtle evaluation differences of new digital media literacies and the more familiar written paper.

In *Arts go the Distance, Creating a low budget, long distance Collaboration* (Shafer 2005), has the best example of a successful action research project. The Author explained the status of the literature they had found on the subject, which they found there was nothing exactly like what they were proposing. They also talked extensively about the surveying process they went through including a control group. They used a series questions but made the audience feel like research was part of the theatre performance. This article also talked about some of the logistic issues around using Internet2 for performance art.

The most current journal article I review was about how important it is to train faculty how to evaluate new digital media (Ostenson, 2012). The article gives a history of personal experience and observation on how educators have approached the grading issue. The conclusion of the article provides a series of rubrics that are general enough to meet most projects but give salient reasons why a paper needs to be graded differently from a media project.

The final article I reviewed is a plan of action (Hobbs, 2010) by one of the leaders in promoting media literacy in education. As a plan of action Rene has established a process that has been embraced by many in education.

### Conclusion

Though I understand my voice should not be part of this discussion I want to note how the process made me aware of the structure most of the articles contained. I am not sure I fully

understood the importance of the format we have been working on. But after performing this literature review I found the structure consistent and easy to follow, I have been reading journal articles for a long time but now I have a much better understanding of why the paper has the structure it has and now I find the articles easier to read.

## References

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- Mills, G. E. (2010). *Action research, a guide for the teacher researcher*. (4th ed.). Boston: Pearson College Div.
- Werle, J., & Fox, L. (2009). INTERNET2 and school libraries: THE TIME IS NOW (MORE THAN EVER). *MultiMedia & Internet@Schools*, 16(5), 16-20.

## Appendix

### EVALUATION MATRIX OF STUDIES INCLUDED IN THE LITERATURE REVIEW

Fill this table in with information you collect for your Literature Review. You will find four sections: 1) Introduction/Impact, 2) Historical Studies, 3) Current Studies, and 4) Theoretical Framework. These four sections should lead directly to your research problem and central question.

Study Author/Year/Title	Focus	Methodology & Methods	Results	Conclusion/limitations
<p style="text-align: center;">Introduction/Impact</p> <p><i>(The information that you include in your opening paragraph/introduction to the Literature Review must entice the reader to want to read the Literature Review. Include impact statements, references that cause one to question presumed assumptions, and links to your problem statement.)</i></p>				
<ul style="list-style-type: none"> <li>Andrew Mutch, &amp; Karen Ventura. (2003). The promise of internet 2. Library Journal, 14.</li> </ul>	What is the Internet2	Quantitative lists and discussions of current users	Big name institutions exploring large dollar value projects	Not as much about the users as it is about the tools. Also fairly limited examples for general users without large resources
<ul style="list-style-type: none"> <li>Dow, E. (2008). Successful inter-institutional resource sharing in a niche educational market: Formal collaboration without a contract. Innovative Higher Education, 33(3), 169-179. doi: 10.1007/s10755-008-9076-x</li> </ul>	One method the share resources to offer a wider variety of low enrollment classes	Both qualitative and Quantitative. Five member instructions working together	It was a successful application where a variety of programs were offered in very specific programs of study	A limited study between 5 institutions who's results were very positive about offering cross school programs of study. An interesting study but I am not sure the school of PA will be able to agree on how this could work here. The schools that participated were volunteers. Also basically video conferencing
<ul style="list-style-type: none"> <li>Werle, J., &amp; Fox, L.</li> </ul>	Getting people to	qualitative	Generating examples of the	Very good look at Internet2 and information systems

(2009). INTERNET2 and school libraries: THE TIME IS NOW (MORE THAN EVER). MultiMedia & Internet@Sch ools,	think about how libraries will use larger bandwidths		future of libraries and the effect of Internet2	
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### Historical Studies

*(The historical studies should include a brief overview of the area in which you are studying.. You will then move with collective references and a few particular references from the past to today.)*

<ul style="list-style-type: none"> <li>McCredie, J. (2000) Build it and They Will Come. Educause Review July/August, 62</li> </ul>	Internet2 and its future from a 2000 perspective	Mostly quantitative evaluation of hardware processes	Looking at possible problems of offering broadband	This study is old but interesting how many of the questions from the study are still not solved or have morphed but are fundamentally the same
<ul style="list-style-type: none"> <li>Hanss, T. (2001). Digital video. EDUCAUSE Review, 36(3), 16.</li> </ul>	Looking for the "Killer App" for Internet2	Mostly qualitative explorations of digital videos in schools	Identified video conferencing as the major solution and suggest other possibilities	Video conferencing has been the major solution so far but I am interested in a different solution

### Current Studies

*(Your current studies will include current research that is being done nationally or internationally, results, and current research at the institution where you are carrying out your study. This section will naturally lead to you're the theoretical framework and your research questions.)*

<ul style="list-style-type: none"> <li>Ostenson, J (2012) Connecting Assessment and Instruction to Help Students Become More Critical Producers of Multimedia, The National Association for Media Literacy Education's, Journal of Media Literacy Education 4:2 (2012) 167-178</li> </ul>	Creating rubrics to meet the evaluative needs of new digital literacy	Qualitative review	Excellent examples of how grading a written paper is different from a digital media project	This study will be valuable in helping explain the advantages of new digital media literacies and how they are different from written papers. This tool provides researched solutions.
<ul style="list-style-type: none"> <li>Hobbs, R., (2010) The Aspen Institute Communications and Society Program, Digital and Media Literacy: A Plan of Action, Washington, D.C.: The Aspen Institute.</li> </ul>	Overview of media literacy in schools	Qualitative review of the future of media literacy	A look into the future	Ms. Hobbs is a leader in this area and her finding will be very important to my project

### Theoretical Framework

*(The theoretical framework should come from various disciplines and support the research that has been/is being conducted in your area of research. Many studies will come from psychology, sociology, epistemology, etc. The framework should emerge while you are reviewing collecting historical and current research. The theoretical framework will support your research questions and bring all of the review together under one framework that leads to your questions.)*

<ul style="list-style-type: none"> <li>Dow, E. (2008). Successful inter-institutional resource sharing in a niche educational market: Formal collaboration without a contract. Innovative Higher Education, 33(3), 169-179. doi: 10.1007/s10755-008-9076-x</li> </ul>	One method the share resources to offer a wider variety of low enrollment classes	Both qualitative and Quantitative. Five member instructions working together	It was a successful application where a variety of programs were offered in very specific programs of study	A limited study between 5 institutions who's results were very positive about offering cross school programs of study. An interesting study but I am not sure the school of PA will be able to agree on how this could work here. The schools that participated were volunteers. Also basically video conferencing
<ul style="list-style-type: none"> <li>Werle, J., &amp; Fox, L. (2009). INTERNET2 and school libraries: THE TIME IS NOW (MORE THAN EVER). MultiMedia &amp; Internet@Schools,</li> </ul>	Getting people to think about how libraries will use larger bandwidths	qualitative	Generating examples of the future of libraries and the effect of Internet2	Very good look at Internet2 and information systems