CORNERSTONE

🖉 MINNESOTA STATE UNIVERSITY MANKATO

Journal of Undergraduate Research at Minnesota State University, Mankato

Volume 5

Article 19

2005



Joshua E. Randall Minnesota State University, Mankato

Follow this and additional works at: http://cornerstone.lib.mnsu.edu/jur Part of the <u>Communication Technology and New Media Commons</u>, <u>Higher Education</u> <u>Commons</u>, and the <u>Other Computer Sciences Commons</u>

Recommended Citation

Randall, Joshua E. (2005) "Campus Paper Waste," *Journal of Undergraduate Research at Minnesota State University, Mankato*: Vol. 5, Article 19. Available at: http://cornerstone.lib.mnsu.edu/jur/vol5/iss1/19

This Article is brought to you for free and open access by the Undergraduate Research Center at Cornerstone: A Collection of Scholarly and Creative Works for Minnesota State University, Mankato. It has been accepted for inclusion in Journal of Undergraduate Research at Minnesota State University, Mankato by an authorized administrator of Cornerstone: A Collection of Scholarly and Creative Works for Minnesota State University, Mankato.

Student Agreement:

I am submitting my research article to be published in the JUR (The Journal of Undergraduate Research at Minnesota State University, Mankato), an electronic journal of the Minnesota State University Undergraduate Research Center.

I/We certify have followed the accepted standards of scientific, creative, and academic honesty and ethics.

I understand that my article submission will be blind-reviewed by faculty reviewers who will recommend acceptance for publication; acceptance with revisions; or reject for publication.

I understand that as author, I retain the right to present any part of the research in any form in other publications.

The JUR has the right to reproduce and reprint published submissions for instructional or promotional purposes.

For complete details, see Journal of Undergraduate Research at Minnesota State University, Mankato policies page.

Mentor Agreement:

I have reviewed the submission, and I support its inclusion in the JUR (The Journal of Undergraduate Research at Minnesota State University, Mankato). I understand that I will be acknowledged as the faculty mentor for the student author(s). To the best of my knowledge, the student has followed the accepted standards of scientific, creative, and academic honesty and ethics.

CAMPUS PAPER WASTE

Joshua E. Randall (Speech Communication) James Dimock, Faculty Mentor (Speech Communication)

The fall of 2004 at Minnesota State University, a new program called MavPrint was introduced. The user submits a document to be printed at a computer, the expense is deducted from their account, and then their document can be retrieved from any MavPrint station. In years past printing had been free, but seeing how according to Bryan Schneider, the director of Technical Services at Minnesota State University – Mankato, from the year 2003 to the year 2004 the printing costs for the University rose 200 percent, they felt it was time to make a change. MSU students printed out over 4 million pages in 2003, when stacked that is enough paper to reach over 54 stories high, half of the height of the Sears Tower. Clearly, paper waste on campuses is a significant predicament. In order to understand the predicament that campuses are in, the problem of paper waste, the causes of these problems and some solutions to solving these problems will be addressed in my paper.

Campus Paper Waste By Joshua E. Randall

The fall of 2004 at Minnesota State University, a new program called MavPrint was introduced. MavPrint was a fee-based printing system, which worked like an ATM. The user submits a document to be printed at a computer; the expense is deducted from his or her account, and then the document can be retrieved from any MavPRINT station. In years past printing had been free. Students at MSU were not happy about paying for something that had been free, but from the year 2003 to the year 2004 the printing costs for the University rose 200 percent, and the school felt it was time to make a change. MSU students printed out over four million pages in 2003. When stacked, that is enough paper to reach over 54 stories high (Schneider, 2004), or half of the height of the Sears Tower. This problem was not unique to MSU. Dartmouth College students were printing over six million pages per year (Read, 2002). Clearly, paper waste on campuses was a significant problem. To better understand the problem of campus paper waste, the problems needed to be typed up, then the causes can be e-mailed, and, finally, the solutions can stop being printed.

The two problems that needed to be analyzed are first, the volume of the printing on college campuses and second, the cost of paper waste. First, the volume of paper printed and wasted on college campuses, an average university with a campus population of ten thousand students uses more than one million sheets of bond and letterhead paper each month ("Rutgers," 2004). The results of a basic college search on Fastweb.com performed on January 30, 2005 reported that there are three hundred and six colleges that have at least ten thousand students. With eight months of school and a million pages per month, that totals 2,448,000,000 pages per school year or three hundred Sears Towers throughout the nation. The environmental impact of the University of Buffalo could be equated to a modest sized city such as Juno, Alaska, with a population of thirty-one thousand ("University," 2005). The worst part of paper waste is that many college administrators estimate one-third of the printed pages are discarded immediately, sometimes never even picked up (Read, 2002).

Second, free printing at universities wastes more than paper; it also leads to significant monetary and environmental costs. Paper is not cheap. Paper consumption costs include not only the paper itself but also the costs of printing, faxing, postage, storage, shipping, waste disposal and recycling ("Rutgers," 2004).

Dartmouth College was spending two hundred and fifty thousand dollars annually to maintain its printers. The University of Arizona saw costs for its public printers rise from twenty thousand to fifty thousand dollars over a period of five years (Read, 2002). That thirty thousand dollar difference could employ a full-time staff person. Recycling also has a price—costing fifty to one hundred dollars a ton to recycle basic office paper waste and magazines (Bach, 2004).

Second, environmental costs include forest depletion and energy consumption. A sheet of paper made from wood consumed seventeen watts per hour of electricity (Nordman, 2002). The average college of ten thousand students printed more than a million pages per month, which equates to two hundred thousand eighty-watt bulbs or enough energy to power 2500 homes for an hour (Hiniker, 2005).

The causes of excessive paper waste on college campuses need to be examined. There are two causes: first, the ease of printing and second, the misuse of technology. First, the ease of printing highly contributes to this problem. Since paper is "not a rare resource, and we are not charged the true value of the papers that we do print, we do not see a problem. It is so easy to hit the print button and collect your print jobs, not thinking about the true costs, such as the recycling of the paper, the toner, the trees that needed to get cut down in order for this paper to be made" (Bernhagen, 2004). Paper consumption in the United States is rising, in large part because of the ease of reproducing information with printers and high-speed copiers ("Rutgers," 2004).

The second cause of paper waste is the misuse of technology. When computers first started coming out, it was theorized that society would move towards a paperless world. However, this theory did not prove to be true. The increase in information available in full text on the Internet and through subscription databases has greatly increased the demand for printing (Callahan, 2003).

Due to the increase in information, society prints not only for personal pleasure, such as emails or newspaper articles, but students are also forced to print homework assignments and journal articles. Everyone is part of the problem.

A solution can be found to make campuses more paper friendly. There are two solutions to the problem of campus paper waste: first, universities and students need to encourage fee-based printing, and second, personal solutions can be enacted.

In an attempt to decrease excess printing on campuses, many libraries are moving toward a fee-based printing system. Fee-based printing is where patrons have an account from which they can print and with every page printed, the remaining balance on the account decreases. A fee-based system can discourage impulsive printing as well as promote conscientious use of the printer. A survey reported that, of 117 libraries surveyed, only 54 percent charge a fee for printing. After a fee-based system was adopted at Colorado State University, printing decreased from thirty-five thousand prints per week to thirty-one thousand per month (Callahan, 2003). More universities need to introduce a fee-based system to help control paper waste. However, universities must take into account students' monetary considerations as well. They cannot charge unreasonable prices for printing; since for-profit companies such as Kinko's charges eight cents per page, universities should charge less so that students will have access to printing but can still afford to print the pages required.

The solution to the paper waste problem must start on an individual level. Two personal solutions are that people need to control the world around them, and they need to use technology to their benefit. One way to control the paper in an individual's world is to reduce their use.

Reducing paper is not the only thing individuals can do; they can also reuse the paper they have printed. One way to reuse paper is to use the blank sides of unneeded single-sided copies for printing drafts or taking notes ("Conservatree," n.d.). For convenience, keep a tray of one-sided paper next to the printer for use when printing drafts so that paper that would otherwise be unneeded can be reused.

Once an individual's paper use is under control, a person can start to use technology to benefit himself or herself. Set up your computer to be paper conscious. Preview printouts to ensure the best use of computer paper. Instead of printing out emails you feel are important, save them to your hard drive or to an external device such as a flash drive. This way you also avoid making unnecessary print-outs and copies.

Another way to use computers to be paper conscious is to email professors assignments. Universities can subscribe to web-based digital assistants, such as UCompass, Desire 2 Learn, or BlackBoard. Professors can use the reviewing and editing tools available in products such as Microsoft Word. If students or professors are unaware of these features or unsure how to work them, universities can offer classes.

After looking at the problems, the causes, and the solutions to paper waste on college campuses, it is easy to see that improving paper efficiency does not involve sacrificing access to the information on the paper. There is nothing wrong with using paper; the user just needs to be able to reduce the paper waste, as well as reuse the paper that has already been printed. The problem of paper waste is serious, but it is one everyone can very easily help to solve by doing his or her part.

References

Bach, P. (2004, December 2). Kimberly-Clark spinoff Neenah Paper debuts as standalone firm.

The Post-Crescent.

Bernhagen, W. (2004, November 2). Personal interview.

Callahan, D. & Calloway, M. (2003). Paper use and recycling in academic libraries." *Electronic*

Journal of Academic and Special Librarianship, 4.

Conservatree - paper selection for the environment. (n.d.) *Conservatree.* Retrieved May 23, 2005 from http://www.conservatree.com/>.

FastWeb! (2005, January 30). *Monster.com*. Retrieved January 30, 2005 from <<u>http://fastweb</u>.

monster.com/>.

Hiniker, Dick. (2005, January 27). Telephone interview.

Nordman, Bruce. (2002, January 22). ReThink paper. *Earth Island Institute*. Retrieved May 23, 2005 from http://www.rethinkpaper.org/>.

Read, Brock. (2002, October 4). 10 ways colleges can cut IT costs. *Chronicle of Higher Education*.

Rutgers' Cook College. (2004, November 2). Rutgers' Cook College.

Schneider, Bryan. (2004, July, 30). Changes to student printing - (Announcing MavPRINT).

E-mail to All students list.

University at Buffalo. (2005, April 25). University at Buffalo.

Author's biography

Joshua Randall is the son of Michael and Vickie Randall. Joshua was born in Mankato in 1984, he graduated from New Ulm Senior High School in 2003. He is pursuing Bachelor of Sciences in Management and Speech Communication, and minors in Marketing and Business Administration. Joshua has been a member of the Maverick Forensics team the two years that he has been at Minnesota State University, Mankato. He is on track to graduate from MSU in May of 2007. After graduation Joshua plans to work towards his Master of Arts in Communications. When not in school Joshua enjoys watching sports and staying up to date with online news sources.

Faculty Mentor's biography

James Dimock is a member of the faculty of the Speech Communication Department at Minnesota State University, Mankato where he has taught courses in communication study since 2002. Dimock received his Bachelor of Science in 1996 from Black Hills State University and his Master of Arts from the University of South Dakota in 2000. His scholarship emphasizes rhetoric specifically the rhetorical theory of Richard Weaver and the rhetoric of war and violence. He lives in North Mankato with his wife, Peggy and their five children, Alex, Andrew, Maggie, Keaton and Claire. When not teaching or researching, he enjoys backpacking and canoeing.