

## **Reading Green: Comparing Environmental Impact of Reading the News in the Newspaper, On the Internet, and Using E-Readers**

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### **Abstract**

Generating and reading news has a negative impact on the environment, but some sources of news create a larger carbon dioxide footprint than others. To determine whether printed newspapers, Internet-based news sources viewable on computer screens, or news read on e-readers has the most adverse environmental effect, the Center for Sustainable Communications through a collaboration with paper company STFI-Packforsk conducted research at the Royal Institute of Technology in Stockholm, Sweden. The research findings indicated that e-readers produced the lowest amounts of CO<sub>2</sub>. However, there is very limited data on the life cycle and the disposal of e-readers. Therefore, this finding is extremely limited. Until research on the life-cycle and disposal of e-readers is conducted, or computers and laptops become more energy efficient, one known method of promoting environmental sustainability can be achieved through encouraging newspaper sharing, recycling, and reforestation.

Production of this week's Sunday newspapers will require that 500,000 trees are cut down.<sup>1</sup> The destruction of oxygen-producing, carbon-dioxide reducing trees, combined with the disposal of the paper in landfills, is the basic premise of the assertion that traditional newspapers are environmentally unsustainable. However, this premise does not automatically indicate that consumer use of internet-based news is more environmentally sound. Evaluation of the carbon imprint created by paper newspapers, internet-based news, and electronic paper or e-paper news must be made to compare the effects on the environment.

Recent research conducted at the Royal Institute of Technology in Stockholm, Sweden by the Center for Sustainable Communications through a collaboration with paper company STFI-Packforsk, indicates that "a half hour of reading an Internet newspaper per day has about the same environmental effect as reading a paper newspaper"<sup>2</sup> According to the study, an individual reading a daily newspaper uses approximately 28kg of CO<sub>2</sub> per year. By comparison, an individual who spends 30 minutes per day reading the news from the internet creates nearly 35kg of CO<sub>2</sub> per year. To illustrate this usage while breaking it down into smaller units, UK-based Times Online reported that 2 excluding one hit-search results, "Performing two Google searches from a desktop computer can generate about the same amount of carbon dioxide as boiling a kettle for a cup of tea".<sup>3</sup> (Leake, Woods, 2009)

According to the research conducted at Sweden's Royal Institute of Technology, the option with the lowest carbon imprint is the ability to read the news on handheld electronic readers, such as Amazon's Kindle-tm. Within the same study, e-readers were found to have a global warming potential of 14kg of CO<sub>2</sub> annually. This is attributed to the fact that rather than using backlighting, e-readers reflect light, and thus low energy usage is required for displaying the text.

The primary source of environmental damage caused by Internet-based news is the consumption of energy required to read the news online. For e-paper based news, the most environmentally damaging component is the production of the terminal itself.

However, in determining overall environmental sustainability, the effects of waste, both paper and e-waste, must also be evaluated. For example, if all newspapers in the United States were recycled, 250,000,000 trees could be saved each year. Recyclability of e-readers has not yet been widely studied.

Another factor required for better comparison of the various news sources is the life cycle of the viewable news. For example, a paper can be shared, as is often the case in restaurants, which lowers the per person CO<sub>2</sub> imprint. Also needed for better comparison is the length of life of the screen of the e-reader as compared to the monitor of a computer, and the computer itself.

What is known, however, is the effects of newspaper sharing, recycling, and reforestation. For each additional person who reads a single paper, the amount of CO<sub>2</sub> is reduced. For example, if 4 people read the same paper, the average CO<sub>2</sub> per person is 7kg. In terms of recycling, recycling all newspapers in the United States would prevent 250,000,000 trees per year from being cut down. Subsequently, if all Americans recycled just one tenth of their newspapers, 25,000,000 trees would be spared. In Finland and Canada, reforestation is conducted by industries related to wood products, pulp, and paper.<sup>4</sup> Under this system, trees are replaced as they are cut down. If Finland's model of replacing a tree for each cut down were adapted, newspapers in the United States could be more competitive with e-readers in terms of environmental sustainability.

In conclusion, e-readers such as Amazon's Kindle<sup>TM</sup> and Apple's iPad may provide more environmentally sustainable methods of obtaining news than traditional print newspapers or Internet news. However, without further research into the life cycle and disposal methods of e-readers, it is impossible to be certain. Future technological innovations may also allow more energy efficient computer operation. Until then, environmental sustainability can be supported by encouraging paper newspaper sharing, recycling, and reforestation.

### **Works Cited**

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