

Print and Paper The Facts

Electronic communication

“Go paperless, go green” is a common theme these days as many corporations and governments encourage their customers and employees to switch to electronic transactions or communications. But are appeals to help the environment by eliminating paper based on sound science or on marketing strategies aimed at cost cutting? Organizations that truly want to make responsible environmental choices should do so based on rigorous, peer-reviewed and verifiable life cycle assessments of each alternative.

Rather than asking which is better – paper or electronic communication – we should be working to determine which combination of the two provides the most effective means of communication as well as the least impact on the environment. As the population and resulting demand on resources continues to grow, a sustainable future will necessarily depend more heavily on the use of renewable and recyclable products and less on non-renewable materials and the use of fossil fuel energy.

Because the responsible manufacture and use of print and paper contributes to long-term, sustainable forest management and helps mitigate climate change, it will remain an important element in our media mix. It will also continue to provide social and economic benefits that contribute significantly to the well-being of businesses and citizens alike.

- “Paper has been an integral part of our cultural development and is essential for modern life. Paper helps to increase levels of literacy and democracy worldwide and plays an important role in protecting goods and foodstuffs during transit. Paper is made from renewable resources, and responsibly produced and used paper has many advantages over other, non-renewable alternative materials.”¹
- “The direct impact of information communication technology (ICT) products and services replacing paper is far from negligible, and the trade-off between the two “technologies” depends on conditions such as use frequency, source of energy, end-of-life management of the products, etc...”²
- A recent study estimates that developing countries will produce at least twice as much electronic waste (e-waste) as developed countries within the next six to eight years. The authors, who are based in China and the United States, forecast that in 2030 developing countries will discard some 400 million to 700 million obsolete personal computers per year compared to 200 million to 300 million in developed countries. This is significant because uncontrolled toxic emissions result from the informal recycling practices that are often used to deal with e-waste in the developing world. The resulting emissions, which can include dioxins, furans, and cyanide, can harm the recycling workers and pollute local environments.⁸



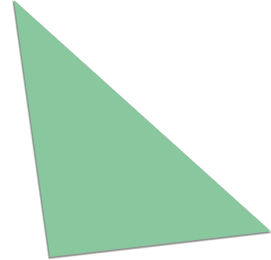
- With a reading time of 30 minutes per day the environmental impact of the web based newspaper was in general in the same range as the printed newspaper environmental impact.³
- A study commissioned by the Internet security software company McAfee estimated spam wastes 33 billion kilowatt-hours annually, with the same greenhouse gas emissions as 3.1 million passenger cars using 2 billion gallons of gasoline, or enough to drive a car around the globe 1.6 million times.⁴
- Over one billion internet-connected devices were sold worldwide in 2012.⁵ In Europe, the total collection rate [of all electronic and electrical items] achieved so far is around 37%.⁶ This compares to a European paper-recycling rate of 71.7% in 2013.⁷
- A study by Two Sides found that half the 100% leading Fortune 500 telecommunications companies, banks and utilities were making unsubstantiated claims about the environmental benefits of electronic billing. In response, Two Sides initiated a campaign to educate senior executives and their corporate general counsels on the sustainability of paper and to encourage them to abandon misleading environmental claims. To date, over 20 companies have either changed or removed their online environmental claims and several more are working with Two Sides to develop language that does not contain misleading or factually incorrect environmental claims about the use of online transactions and communications.⁹
- “It is estimated that the production and running of the ICT sector equates to 2% of global GHG emissions, similar to the airline industry, and this is expected to double by 2020.”¹⁰ The pulp, paper and print industry accounts for only 1% of global carbon dioxide emissions.¹¹
- In 2013, a relatively small portion of the global population relied on more than 14 billion network-enabled devices in homes and offices. As more people use a wider range of

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devices for increasingly diverse purposes, the total is expected to sky-rocket to 50 billion network-enabled devices by 2020. Left unchecked, by 2025 the corresponding energy demand would soar to 1,140 terawatt hours per year (TWh/yr) – more than the current annual electricity consumption of Canada and Germany combined.¹²

- Today, 96.4% of electricity is produced on-site in paper mills using the energy-efficient combined heat and power method. Although the sector is energy intensive, it is less carbon intensive than other sectors. Bioenergy accounts for 58% of our energy use.¹³ Our sector is the largest industrial producer of bioenergy, generating 20% of the biomass-based energy in Europe.¹⁴

1. [WWF, 2010](#)
2. [Arnfolk, P, 2012](#)
3. [Moberg, A. et al, 2009](#)
4. [McAfee, 2009](#)
5. [The Telegraph, 2013](#)
6. [European Environment Agency, 2013](#)
7. [European Recovered Paper Council, 2014](#)

8. [Williams, E., et al, 2010](#)
9. [Two Sides N.A., 2013](#)
10. [Gartner, 2007](#)
11. [World Resources Institute, 2005](#)
12. [International Energy Agency \(IEA\), 2014](#)
13. CEPI, 2014
14. [CEPI, 2013](#)

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