

THE POWER OF PRINT

Print vs. Digital Communications: Print wins. Again.

Intergraf’s recent “Print and Digital Media” report supports conclusions from numerous other studies over the past decade that show distinct advantages of print over digital communications in the areas of sustainability, reading comprehension, marketing effectiveness and consumer access.

0.6%

Pulp, paper and print industry contribution to global carbon emissions, 2023²

3.7%

Digital communications’ contribution to global carbon emissions, 2023³

With higher reading comprehension and lower carbon impact, a growing body of data is showing that print is more sustainable and effective than digital, screen-based communications.

82%

of university-level students say they focus better on print-based than screen-based materials⁴

72%

of university-level students say they remember what they read better with print-based materials⁴

As the world moves continuously from print toward digital, an increasing number of studies are consistently saying “not so fast.”

For starters, statistics show that screen-based communications have a significantly larger carbon footprint than print, both in terms of energy intensity and waste. There’s also compelling data indicating that printed learning materials out-perform those presented on screens in terms of attention depth, reading comprehension and recall.¹

A June, 2024 report from Intergraf, a European print industry advocate, supported these and other findings after a review of more than 75 studies across four areas—sustainability, reading, marketing and accessibility.

DIGITAL HAS A BIGGER CARBON FOOTPRINT THAN PRINT¹

According to the Intergraf report, the digital sector is responsible for approximately 3.7% of the world’s CO₂ emissions, a percentage that increased by 50% between 2013 and 2019. The report also says that digital media’s energy intensity is increasing at an annual rate of 4%, with data centers alone accounting for 1% of the world’s electricity consumption in 2021.

And then there’s the negative impact that many forget: e-waste. Outdated electronic devices represent the world’s fastest-growing solid waste stream with tonnage increasing at a 3.5% annual rate. And with increasing technology sophistication comes increasing complexity of composition. The more than 70 stable metals found in modern smartphones make e-waste recycling more challenging.

The pulp, paper and print industries, on the other hand, collectively generate just 0.6%—a little over a half percent—of the world’s CO₂ emissions each year.² And paper and cardboard are among the world’s most recycled materials at 70% and 94%, respectively.¹

And yet, 68% of respondents to a 2023 Two Sides survey mistakenly believe that e-communications are more environmentally friendly than paper communications, with 44% thinking that paper is bad for the planet.⁵ Go figure.

PRINT DELIVERS BETTER READING OUTCOMES THAN DIGITAL¹

The second section of the Intergraf report provides an overview of arguments that make the case for print in an increasingly digitized reading landscape.

Among them: the notion of “deeper reading” versus “shallow reading” presented in a groundbreaking 2023 study from neuroscientists at Columbia University Teacher’s College. Their conclusion was that, in an educational setting, reading text from paper was associated with deeper comprehension and learning, while “shallow reading,” defined as skimming or scanning text, was consistently observed among study participants reading from a screen.

The Intergraf report also cites the 2021 Academic Reading Format International Study, which is the world’s largest study of students’ format preferences and behaviors. The study compiled responses from over 21,000 university-level students in 33 countries and found that 78% prefer print for reading, 82% said they focus best with print, and 72% said they remember what they read better when it’s on a printed page.

The Intergraf report is just the latest to point out the areas where paper consistently outperforms screen-based communication, including carbon impact, reading comprehension and brand recall.

PRINT HAS SOME BIG ADVANTAGES OVER DIGITAL IN MARKETING¹

The Intergraf report summarizes the positives and the negatives of digital versus print marketing in the third section.

With digital’s positives—interactivity and personalized relevance being two—come some significant negatives, including intrusive advertising and data privacy concerns, the latter both among consumers and, increasingly, regulatory authorities.

Print does not share those issues. In fact, print has shown some cognitive and reading retention benefits among consumers that echo Columbia University’s findings in the education setting. Intergraf cites neuroscience data from a *Canada Post* study showing that the brain’s “default network” remained more active when viewing direct mail.

— Source 1: “Comparing Print and Digital Media Project,” Intergraf, June 2024
— Source 2: Our World in Data, 2023
— Source 3: “Climate crisis and the technology sector,” CI&T, April 23, 2023
— Source 4: Academic Reading Format International Study, 2021

Among the *Canada Post* report’s findings: Physical media requires 21% less cognitive effort to process than digital and elicits a much higher brand recall rate (75% for physical; 44% for digital). In addition, the study found that physical media’s motivation response was 20% higher than digital.

PRINT’S “LOCK-IN” POWER: GRABBING ATTENTION IN THE AGE OF DIGITAL DISTRACTION²

Digital marketing, if opened at all, is deleted quickly. By contrast, consumers tend to keep print catalogs, magazines and direct mailers for a period of time before taking them to the recycling bin. In fact, print marketing is typically kept an average of 17 days, providing repeated exposure to the brand message and enhancing brand recall over time.

These strengths are consistent with increased attention duration and action—in a recent attention study by JICMAIL, the average direct mail item generated 108 seconds of attention across 28 days and prompted over five minutes of website usage.⁶

PRINT IS AN IMPORTANT BRIDGE ACROSS THE “DIGITAL DIVIDE”³

The fourth section of the Intergraf report discusses the phenomena it calls “the Digital Divide.” As society moves increasingly to digital marketing and communications, a sizable portion of the population are being left behind due to lack of internet access, devices and digital skills.

The report has the facts: Over four million households with children lack consistent access to computers for online learning, and 14% of American school-aged kids don’t have internet access at home. A third of Americans lack the basic digital skills needed to engage successfully with the modern economy.⁷

PRINT WORKS HARDER AND BETTER FOR MARKETERS AND CONSUMERS ALIKE

Lower carbon footprint. Deeper reading and stronger recall. Longer attention duration (“lock-in”). Wider accessibility. By each of these measures, all of which have a bearing on both education and marketing success, print wins.

— Source 5: Two Sides Trend Tracker Survey, January 2023
— Source 6: “The Time We spend with Mail,” A JICMAIL Attention Study, June 2023
— Source 7: “America’s Digital Skills Divide,” Third Way, 2023



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