

# LADDERS

THE WHOLE HUMAN

## Turn the page: The emotional value of paper

Olaf Lorenz August 14, 2019



SHUTTERSTOCK

A tearjerker of a movie. A dark painting of a war-ravaged village. The series finale of a multi-season, character-driven television drama.

It's not unusual if someone claims to have an emotional connection to any of these; items like art, music, movies, books and television are vessels through which creators translate their ideas and feelings into a physical form, hoping to develop a similar reaction in their audience.

But people can also have emotional reactions and connections to other, less typical physical objects – and one of those is paper.

Surprised? Hear me out.

### **Paper creates an emotional connection**

While printers and print devices are not necessarily emotionally charged, their output often is.

Say you've worked for months on a research paper or white paper – writing, editing and revising within a word processing program on a computer – and the time comes to proofread your final draft.

Imagine watching your 30-page document come out of the printer, seeing the physical representation of your hard work as you edit each page, and feeling the literal weight of your words in your hand. A document sometimes doesn't seem like much when it only exists digitally, but when you can physically feel and see what went into it, it's going to produce emotions – relief and satisfaction that you're finished, excitement that your thoughts are about to go out into the world, and so on.

This is just one example of the ways paper and printed documents drive emotions. Think about the times you've received a wedding invitation in the mail, or received a thank-you note from a colleague, or printed out concert tickets. A printed document gives the ability to hold in your hand the physical embodiment of something like an experience or a memory that might be otherwise intangible.

Multiple studies confirm that paper creates emotions more than digital mediums do. A [joint study from Temple University and the United States Postal Service](#) measured subjects' heart rates, sweat, movement, and breathing while reading to determine their emotional responses. Not only did paper documents elicit a more substantial emotional response, but readers also remembered more clearly what they read.

Other researchers have found, using functional magnetic resonance imagery (fMRI), that paper seems to make information more "real" to the brain. When [study participants](#) viewed the same material on cards and on screens, they registered higher activity in the area of the brain that integrates visual and special information with the physical media – meaning printed material leaves a deeper footprint in the brain.

And it's not just about emotions, either. Paper affects people in ways that digital means simply can't or don't.

### **Paper: More reliable**

With the rise of "fake news," and in a world that can feel like it's [becoming more untrustworthy](#) by the day, paper can seem more reliable, because of how easy it is to present an opinion as fact via digital means. Some of the most reputable news outlets still maintain a paper version as well as a digital one, and knowing those exist may lend more credibility to their digital versions for readers – after all, it takes a lot of effort and money to print out newspapers.

Studies back up the theory that [readers trust print more](#): According to an October 2016 survey by MarketingSherpa, 82% of U.S. internet users trust print ads when making a purchase decision – more than any other medium.

### **Paper engages the senses**

David Sax, author of "[The Revenge of Analog: Real Things and Why They Matter](#)," said, "We seem to forget that we gauge the world with all of our senses — with sight, with smell, with touch, with sound," and something printed on paper can engage multiple senses in ways that digital copies can't.

While both mediums engage the sense of sight, paper also engages touch and sound. When you heft a heavy tome in your hand, or turn the crisp pages of a glossy magazine, you're able to feel and hear the physical incarnation of the content – something a digital book or magazine can't give.

With new printing technology, advertisements in magazines have become three-dimensional and tactile. Certain printing machines can add elements like the pebbling on a basketball to create a sensory experience for readers, making a normally flat image pop into the third dimension and encouraging consumers to touch the page – which, [some evidence suggests](#), can boost a product's brand image.

Another new printing technology is “foiling.” Including an element like gold foil can increase a customer's perception of a product's value, and this new style is being used extensively in advertisements for luxury products like cosmetics, travel, perfume and more.

Paper can also engage the sense of smell – think of a perfume sample in a magazine that invokes memories of person or place or time in one's life. Many people even [treasure the smell of books](#): “Old books have a sweet smell with notes of vanilla flowers and almonds, which is caused by the breakdown of chemical compounds in the paper, while new books smell like they do because of the various chemicals used when they are manufactured.”

### **Paper helps us remember and focus**

While digital mediums lend themselves more easily to skimming, anything that needs to be read for deeper comprehension or understanding is better consumed via paper.

In part of a [2016 study from Dartmouth](#), participants read a short story on either a screen or a piece of paper before researchers asked them questions about it. The participants using printed matter scored high on inference questions (66% correct), while screen readers scored higher on concrete questions (73%). This seems to indicate paper helped readers better understand the “why” parts of the story (the abstract elements), while the digital medium helped them understand the concrete, “how” elements.

A [Norwegian study](#) tested 50 readers on their ability to recall important aspects from a 28-page short story, with 25 participants reading the story on a Kindle, and the other half reading a paperback version. When asked to remember details about the characters and setting, the two groups performed mostly the same. However, when researchers asked participants to reconstruct the plot, Kindle readers were notably worse at placing the main 14 story events in the right order.

Additionally, everything about the digital realm is engineered to distract, from the constant pinging of instant messages and texts to social media notifications and email popups – even flashing digital ads in the margins of news articles. It takes a lot of mental energy to ignore these types of distractions, especially because they [provide your brain with a hit of dopamine](#) not unlike what some drugs do.

While digital screens have become common in classrooms, [studies have shown](#) students have increased reading comprehension and metacognition, and test significantly better, when they read on printed paper versus on tablets or screens. In a [recent survey](#), 71% of respondents believed they were more likely to remember their notes later if they took them on paper versus digitally.

These kinds of studies – of which there are many – seem to indicate that while screens work well for some applications, like reading an email or skimming a document for key phrases or points, paper is better suited to deeper learning and thinking. Anything that requires a certain type of knowledge work or concentration – documents like contracts, white papers or studies – is better consumed on paper, which minimizes distractions and supports focus.

### **Paper connects us all**

Printed paper not only creates deep emotional connections to the content it holds, but it also engages multiple senses; creates a sense of reliability; and helps us retain information and focus our attention.

Workplaces these days contain four generations – from Baby Boomers all the way to the emerging workers of Generation Z – meaning the age span of knowledge workers has never been as great as it is now, and each one prefers to communicate differently.

Yet, paper is the great equalizer when it comes to ensuring information is equitably distributed. With its continued power to bond people to content through emotions, paper – not social media or email – may be best suited for ensuring all generations are on the same playing field, information-wise, and the best way to connect to them all.

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