[AN HCG THOUGHT LEADERSHIP PIECE]

Information design

DRIVING HOME THE POINT

Anyone who has ever driven or ridden in a car owes their life to good design. Think about it. What if merging traffic signs were just blocks of black text on a white background rather than clear, big black directional arrows on a bright yellow surface? What if all street signs were text only, in curvy script fonts, on white backgrounds? Driving is enough of a sensory overload as it is; without good information design it would become exponentially more dangerous.

The situation in healthcare communications and education isn't all that different. Lives quite literally depend on how well we communicate our messages, just as our lives depend on those street signs. And yet poring through healthcare communications can feel exactly like a frustrating driving experience, complete with long blocks of text, confusingly formatted data points in difficult-to-find places, and conflicting information that the driver—the HCP audience—isn't sure whether to trust.

Of course, health care is a lot more complicated than driving. The pool of medical knowledge, data, and content is growing by the day and continues to do so. The number of channels targeting HCPs is growing rapidly, too. Treatment complexity is increasing, and so the content describing treatment becomes more complex alongside it. With all those new channels broadcasting more and more complex messaging, HCPs are developing information fatigue. Every message has to compete for smaller and smaller slices of already-limited HCP attention spans. Meanwhile, the stakes of regulatory scrutiny and legal liability are rising alongside that growing pile of content. Put it all together, and being an HCP in 2025 is like driving down an unlit highway without seeing any road signs, or without even knowing that the signs are there.

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So, why do road signs look the way they do? Because information designers researched and tested their designs to ensure traffic kept moving and that drivers—their audience—were well-informed and felt safe. As healthcare communicators it is our obligation to do the same. Doing so is growing more crucial every day. Facilitating the information flow from pharma research to HCPs helps the right treatments reach the right patients and save lives, just like those well-designed road signs help drivers reach their destinations safely. Solid, evidence-based information design is a uniquely equipped practice that ensures this flow happens as efficiently as possible. And given the potential cost in suffering and lives, not taking advantage of information design principles would be just as negligent as a three-lane highway without road signs.

Our information design team has adopted a framework for good information design in the healthcare context—in fact, in any context. We've done in-depth research into cognitive psychology and how it relates to design principles in order to optimize the communication of medical and scientific concepts effectively to those road-blind HCPs.

Our approach specifically addresses three core components of information design: appeal, comprehension, and retention.

Appeal

First impressions matter, even in (maybe especially in) healthcare communications. Audiences assess sources of information based on look and feel first; then they assess the content to determine whether to trust it. And that initial impression will continue to influence subsequent impressions.

If a campaign or a communication starts with a visually appealing infographic that makes a block of data easy to understand, the viewer will be more inclined to view any subsequent outputs more positively, even if those outputs aren't so visually impactful. Such designs are also perceived as being easier to understand, and can build trust in the viewer, encouraging a feeling that the task of engaging with the content is worthwhile so that they will dedicate more time and energy to whatever comes next.

An interesting, startling, or attractive image draws the audience in and gives the impression of being easier and more enjoyable to digest. In an environment of data exhaustion and information fatigue, visual appeal and simplicity are force multipliers for communicators.

A smart information designer should always keep in mind the quirks and limitations of the brain that will be consuming their communications. Our brains have evolved to seek shortcuts, to make snap assumptions based on limited information, to use the least possible amount of processing power, and to only complete a task if the benefit, judged quickly, seems greater than the cost. Also, the easier it is to obtain information, and the closer the end of a task seems, the more the brain will want to engage with it, or at least not give up right away. Since visual load demands less brain processing power than cognitive load, aesthetically pleasing designs are perceived as easier to use than those less so. A good information designer works to reduce the effort required to understand information, encouraging viewers to perceive a more positive cost/benefit to engaging with the task. Well-crafted information design condenses information while increasing the ratio of visual to cognitive load, reducing mental processing and the perception of time. Its visible structure makes the size of the task clear, motivating viewers as the progress towards its end is clearly apparent.

Comprehend

The human brain can only process a limited amount of information at a time—it is wired to consume a maximum of about 20 percent of our metabolic energy at any given time no matter how

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much we throw at it. Good information design organizes information into bite-size chunks with clear hierarchy for easy understanding. Brains also come with mental and conceptual models of how things work as learned from past experience, and thus will recognize, understand, and remember concepts better when presented through the use of images that match or parallel those conceptual models.

For example, nearly everyone in the healthcare world has certain visual cues in their past experience—familiar forms of data visualization like a Kaplan-Meier or control chart. If an HCP has been slogging through mountains of verbiage and numbers and suddenly sees one of those charts, it's almost like an announcement to the brain saying, "I'll be able to understand this quickly, the effort-to-gain ratio should be favorable, so this will be worth my time." Thus, in order to amplify comprehension, an information designer will seek the visual cues and forms with which their audience is most comfortable when attempting to process information, and find ways to express the message using them. Also, identifying recurring relationships and patterns is a key step towards comprehension. This can be aided by the use of color, which attracts attention, or the grouping of elements, indicating meaning, to help identifiable commonalities.

Retain

Convincing a human brain to file something in long-term storage is a significant challenge for information designers, given that very little information that we consume actually makes it there. To achieve retention, our communications have to be memorable, and being memorable requires a combination of tactics. Aesthetic appeal is a first step toward that, but to encourage retention the viewer needs to be able to explore the substantive depth underneath the aesthetics. We choose from two different pathways to achieve this. Infographics accompany data with text to tell the story and provide a step-by-step guide for the audience. Data visualization shows the audience all of the data, in visuals that can be beautiful, surprising, or humorous without narrative guidance, which allows the viewer to explore in the order or sequence they desire to reach their understanding.

Data visualization done properly can provoke greater curiosity and facilitate deeper analysis, thus being more effective at encouraging retention. Whether in infographic or data visualization form, the use of simplicity, concreteness, credibility, emotion, and story offer the information designer room to encourage greater recognition, recall, and unsolicited sharing.

It is self-evident that good information design can tell a story in a simpler and more surprising, concise, credible, and emotional way than text. And while everyone knows the cliché that a picture is worth a thousand words, our research has shown that, yes, pictures are better than words in order to encourage retention. But pictures and words together provide the road to retention.

Through our detailed study, exploration, and application, we developed a sound set of principles that can transform the way data are communicated and consumed. Our research demonstrates that these principles can be successfully implemented across a wide range of medical communications, including journal articles, slide presentations, websites, social media, or interactive congress materials. If you feel your communications are stuck on a constant red light or are aimlessly driving in circles, pull over, get in touch and we'll provide you with tools to get you to your destination. Safe travels! ■

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