

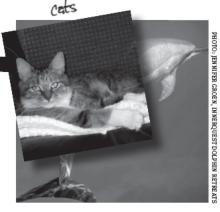




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WITH A FOREWORD BY ERIK SPIEKERMANN

Design matters: design for all

In 2003, Steven Rosenberg (a cofounder of the Graphic Designers of Canada's Social Action Committee in the 1990s), convinced me that if dolphins had thumbs they would rule the world. But since they



can't grip a pen, they can't draw pictures or write stuff down. That inability to record information forces the species to freshly reinvent their history in every generation.

Humankind's dominion over the Earth is due to our species' unique gifts: our innate mastery of language and our ability to record it. These qualities allow us to

share information over great distances and across generations. We imagine the future, designing civilization on the shoulders of those who came before us.

Professional communicators and designers have stewardship of the huge responsibility that accompanies these gifts, and we have much to be proud of.

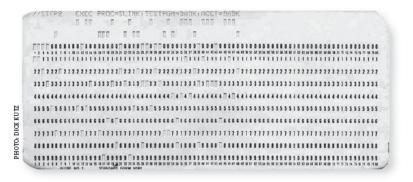
For those humans who can't grip a pen, we invent tools that remedy this challenge. The girl pictured on this page is using technology designed for quadriplegics. A person without the use of their arms or legs can surf the Internet by combining neck movements with sipping or puffing air through a tube.

Such innovations represent perhaps
the greatest liberation in human history. In
the past 50 years, more people with disabilities and difficulties
have been liberated from marginalized lives by technology and
design than the number liberated by any revolution or war.⁴⁸



When the idea of cutting an angle in the curb at street corners was first proposed to help people in wheelchairs, the cost was widely considered extravagant, as so few people in wheelchairs were in the streets. However once curb ramps were in place, more wheelchairs turned out to use them. A market for ruggedized electric wheelchairs emerged, and the ramps are now appreciated by anyone who has ever had to drag their luggage onto the subway.

Time and again, designing for the extremes results in benefits for all. In 1886, after having trouble remembering things in school, Herman Hollerith designed punched cards to help compensate for his cognitive processing deficit. At that same time, the U.S. Census Bureau was struggling to comply with the U.S. Constitution's requirement that a census be taken every 10 years. Hand counting the growing number of Americans would take more than a decade to finish! So they turned to Hollerith's punch cards for help. His Tabulating Machine Company would later be rebranded IBM.



Here's another case of how accommodating disabilities and difficulties can help everyone. In 1948, three Bell Labs scientists in New Jersey sought to build a hearing aid that would be less conspicuous, cheaper, and consume less power. They created the transistor. A Japanese company, now Sony, licensed the technology for \$25,000 and invented the transistor radio. Later the transistor was essential to putting people on the moon and computers in our laps.

"Over the next 10 to 15 years, technology has the capacity to virtually eliminate barriers faced by people with disabilities in the workplace." STEVE BALLMER, MICROSOFT

Vinton Cerf, the "father of the Internet," has been with Google since 2005. Back in 1972, he was working on the core protocols of ARPANET, the Internet's predecessor. Cerf had a hearing impairment, and his wife was deaf. He was so intrigued with the possibility of sending text messages to her through the computer network that he invented an electronic mail protocol.

The couple had unknowingly given birth to the Internet's "killer app." The resulting proliferation of the Web has transformed the delivery of most content to a medium that can easily be designed to transcend visual, auditory, dexterity, and cognitive impairments.

Brainchild: beyond DNA, beyond instinct

We live in a post-Darwinian world where the human species has all but stopped evolving genetically, due to advances in medicine, technology, and recorded knowledge. Genes that would tend to disappear due to "survival of the fittest" are now almost as likely to continue on, because society has become so much better at not leaving anyone behind. At the same time, we have figured out how to accelerate cultural change with mass-produced goods and mass communication. While our natural urges drive us to reproduce, our professional urges drive us to create ideas (and activate them through design). Survival is increasingly dependent on technology, and less so on natural forces.

Indeed, we live in a time where we can easily leave a greater mark by propagating our ideas than by propagating our genetic material. Though so much human activity is driven by the instinct to reproduce our personal DNA, we can now pass on a more influential legacy by designing an idea and sharing it with millions, whether through mass production or the reach afforded by information technology such as Vinton Cerf's brainchild.