Alfonso Gil

EDITORIAL

Resistance to change

The only constant is change: Although this adage is well known and established, humans offer an innate resistance to change. One of the reasons is a natural tendency toward familiarity and routine, which provides a sense of security and comfort. Additionally, fear of the unknown is a human response rooted in our instinct for self-preservation. Throughout different ages, development and inventions have effectively brought positive disruptions to the status quo, improving people's work and livelihoods. However, all these changes were initially met with hesitation, avoidance and, often, fierce opposition.

The printing press versus hand-written books: When Johannes Gutenberg invented the printing press in the mid-15th century, he faced opposition from all possible flanks, primarily because it represented a profound shift in the way information would be produced, disseminated, and accessed. The Church was worried about losing its monopoly of knowledge. Scribes and copyists resisted the technology as it heavily disrupted their profession, starting the "Luddite Movement." Governments were wary about potential seditious content being shared without censorship. Even though presented with such an important communication revolution, the hegemony of the time fought to suppress what was to become the most profound shift in literacy and democracy of knowledge. Its implications changed society, religion, and politics forever, giving birth to rationalism and the Renaissance.

Internet knowledge versus printed knowledge: The advent of the internet in the 1990s brought about serious concerns in its early stages. The concept of "the web" promised instant access to any information, connecting people and ideas across borders at the touch of a button. This event was made possible by the creation of multiple companies that were determined to change the world. Unfortunately, this meteoric start was halted by excessive economic speculation, resulting in the "dotcom bubble," with negative consequences for the economy and the overall confidence in technology. Questions about security, privacy, and misinformation arose, and the internet was condemned as a fraud for fools. Dissenters claimed that knowledge should only be derived through books or human

Why a leopard on the cover?

Small patches of color are an effective means of camouflage used by the military worldwide because they make a person difficult to spot against a similarly colored background. Nature shows us how – the art of creating invisibility is widespread in the animal kingdom. The trick is small patterns that visually dissolve the outline of the animal's body. For example, the leopard is camouflaged by a spotted coat that makes it blend into the background.

Cover photograph: © Eric Isselee/ Shutterstock.com

interaction; little did they know about the far-reaching implications of "the web" that would develop around education, finance, communication, and culture, laying the foundations of today's society.

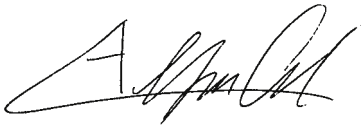
Artificial intelligence (AI) versus human reason: We have come to understand the world around us through human reasoning. We have learnt to observe it, test it, and develop advancements, thanks to logic and reasoning; in other words, science. These attributes are unique to the human mind, and, as Plato pointed out, our perceptions are inherently flawed by the use of our human senses. What would happen if we could access the truth and experience the world differently, through the means and capabilities of an artificial mind or super-computer? Would the world look the same to us? Would technology remain the same and develop at the same speed? Thanks to AI, a new world has opened up, one of endless possibilities. There have been examples of AI systems (AlphaGo) consecutively beating the greatest masters of the popular game Go, or AI research coming up with new antibiotics that are effective against resistant bacteria. Naturally, the trend, our instinct, is to push back. AI is dangerous. AI will potentially take our jobs and make us redundant. AI will produce killer robots that will end humankind. The doubt, the concern, is legitimate. It has happened before. But let's not forget the many ways that this technology will help us. Unimaginable advances in science, medicine, security, art, and language are around the corner, waiting to be developed. And this includes dentistry.

AI-augmented dental care: In dentistry, we already use AI features for controlled tooth movement, caries detection, implant identification, smile design, and bone density analysis. The integration of AI into dentistry is poised to enhance treatment planning with a level of precision and personalization previously unattainable. AI-driven color matching and restoration fabrication could offer perfect esthetic outcomes, while robot-assisted surgeries promise to enhance accuracy and safety, including tooth preparation, bone grafting, and implant placement. The potential for AI to automate and optimize routine tasks also presents an opportunity to elevate the role of dental professionals, allowing them to focus more on patient care and less on procedural tasks. The future of dentistry, augmented by AI, offers a vision of more accurate diagnosis, more effective treatments, and significantly improved patient outcomes. It is a future where the collective goal is not to replace human dentists with machines, but to leverage AI as a tool that complements and enhances the human element of dental care.

Our new issue is, of course, human made. But what if I told you that it wasn't?

I invite you to read it and make up your own mind.

Enjoy reading!



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