

THEME ARTICLE

Trust, Artificial Intelligence–Generated Images, and Health Communication Policy

Finding a Way Forward to Build Policies That Support Public Trust and Scientific Accuracy

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THE INTERFACE OF ARTIFICIAL INTELLIGENCE, IMAGES, AND COMMUNICATION

Artificial intelligence (AI)–influenced images are everywhere. AI is affecting what people see and how they see it. It supports edits in commonly used software, including Adobe products, Google Photos, and Canva. It also enables users to translate text to images through standalone apps such as Midjourney and DALL-E. AI is not only appearing everywhere but is rapidly evolving. As a result, AI-generated photorealistic images are becoming more difficult to tell from “organic” photos.

These technologies create opportunities for health care communicators to improve the availability and quality of visuals to support health communication. However, limitations exist. Understanding opportunities and limitations enables health communicators to influence and craft policies that help their teams and organizations optimize communication that is vitally needed for public and individual health.

WHAT DOES TRUST HAVE TO DO WITH AI IN HEALTH COMMUNICATION?

Communication, especially health communication, is grounded in trust. If audiences do not trust the organization, the organization is in danger of failing to achieve its mission.

In the past, trusted communication has been based on telling the truth.¹ Although truth-telling is still vital in health and medicine, the concept of “truth” in relationship to trust has become more complicated.

“Post-truth” is a term used in contemporary politics. It was the 2016 Oxford word of the year² and is often used by social scientists to describe the shifting dynamics of fact, fiction, and trusted sources. However, post-truth does not necessarily mean “post-trust.” Audiences are still making decisions based on information gathered from sources they trust—but where they put that trust is shifting.³

The Edelman Trust Barometer is a massive public interest survey conducted by one of the world's largest public relations firms. The survey tracks the details of public trust.

In 2024, the survey included 28 countries and more than 32,000 respondents.⁴

The most recent survey shows an ongoing trend of declining trust, and where individuals place their trust continues its shift to the private sector. Government and media sources were viewed as less competent and less ethical than nongovernment organizations and businesses. Respondents still viewed health care as trustworthy (73% report trust). This trust may apply more to direct clinical care because health care innovations, such as AI and gene-based medicine, scored neutrally at 50%.⁴

So, what does this mean in the context of AI-generated images and health communication?

As more communicators incorporate AI tools into their strategies and tactics, policies for guiding the ethical use of AI become increasingly important. Guidance about the use of generative AI has largely centered on generating text-based content, leaving out important conversations about how communicators use AI to create and edit images and the effect of those images on public trust.

HOW ARE SCIENTISTS AND PHYSICIANS USING AI IN THEIR COMMUNICATIONS?

Scientists are innovators, and when it comes to AI-generated images, medical scientists have not shied away from exploring the possibilities. A 2023 editorial in *ATS Scholar* describes potential uses for AI-generated art in medical education. Applications discussed include using AI-generated art to reflect on patient encounters and experiences with medical students, creating images related to patient cases that do not violate Health Insurance Portability and Accountability Act but accurately convey a similar patient or disease, creating illustrations for lectures and presentations that are free of copyright restrictions, and creating visual aids for illness education and management.⁵

The illustrations created by the authors to “demonstrate AI's use and value” were all artistic and conceptual in nature, but none were the medically or scientifically accurate types of

illustrations that would support presenting a case or educating a patient.

Another 2023 study, published in *Anatomical Sciences Education*, evaluated 3 different AI image generators. The researchers used DALL-E, Stable Diffusion, and Craiyon V3 to generate detailed and accurate anatomy illustrations of the human heart, skull, and brain. They reported in their publication that “none of the three generators was able to produce illustrations that met the criteria of being both detailed and accurate.”⁶

Less than a year later in 2024, a letter in *JMIR Medical Education* summarized a team’s work to test ChatGPT-generated prompts for DALL-E 2 and Midjourney to create images for hypothyroidism and Horner syndrome. For hypothyroidism, 120 images were generated, 52 were removed using preset exclusion criteria, and 17 of the

remaining 67 met some criteria for adequate representation of facial features of hypothyroidism. For Horner syndrome, none of the 120 images generated met inclusion criteria, even after using alternative prompts. The team selected the best image and was able to achieve an “adequate” image after performing secondary editing.⁷

These examples highlight the potential for creating engaging images that convey a feeling or concept, potentially useful in presentations or as teaching aids, but use was limited when applied to projects requiring clinical detail and scientific accuracy. See Figure 1 for examples of AI-generated illustrations. Note these illustrations were created using ChatGPT for the purpose of this article. The quality of the prompts and the resulting images are intended for general education only. A tutorial on writing prompts and best practices for generating AI images is outside the scope of this paper.

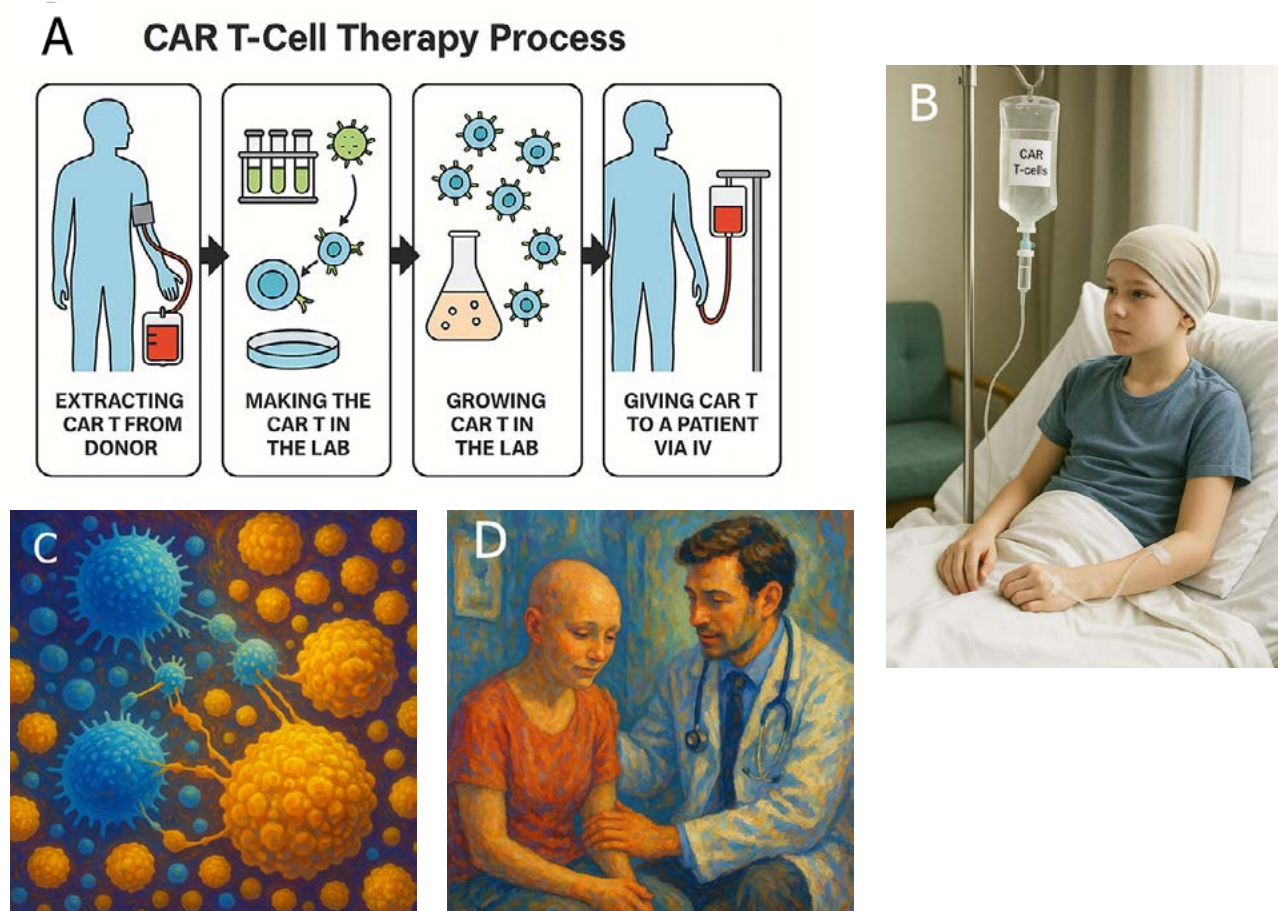


Figure 1. (A) CAR-T manufacturing process illustration created by ChatGPT/OpenAI. This illustration used an example from the Cancer.gov website as reference. The prompt used for this image is as follows: Using the image at this site as a reference (<https://visualsonline.cancer.gov/details.cfm?imageid=11776>), create an image showing the process of making a CAR-T cell. Steps should include (1) collecting cells from a donor, (2) making the CAR-T in the lab, (3) growing CAR-T in the lab, and (4) giving them to a patient via intravenous (IV) infusion. (B) Photorealistic illustration of a child with cancer receiving an infusion of CAR-T cells by ChatGPT/OpenAI. This image highlights common problems of “realistic” AI images, including the IV pole coming out of the bed instead of standing beside it, wrong placement of the IV tubing, and waxy skin. The prompt used for this image was to create a realistic-style illustration that respectfully depicts a generalized hospital setting with a child receiving a CAR-T-cell infusion. (C) Artistic illustration of CAR-T cells and cancer cells interacting by ChatGPT/OpenAI. The prompt used for this image was to create an artistic image of CAR-T cells and cancer cells interacting. Make the cancer cells yellow and the CAR-T cells blue. (D) Artistic illustration of a doctor with a patient who has cancer. The prompt used for this image was to create an image in an artistic style that shows a doctor interacting with a patient who has cancer.

WHAT COMMUNICATORS NEED TO KNOW ABOUT AI-GENERATED STOCK IMAGES: ADOBE STOCK AS AN EXAMPLE

Even if a communicator does not use an AI tool to generate new images as described in the cases above, AI-generated images are becoming more commonplace on stock image sites. Health communicators and health care organizations commonly use these sites to provide easy access to a variety of images.

Adobe Stock sources images from individual artists, photographers, and other contributors.⁸ Increasingly, Adobe Stock and other stock image sites accept submissions of AI-generated images. Adobe Stock says that the organization reviews all submitted content, including AI generated, for “quality, technical aspects, legal compliance and adherence to contributor guidelines.”⁹ It is important to note that subject matter expert review and scientific accuracy is not part of the review process—regardless of the use of AI.

Policy Considerations for AI-Generated Stock Images

AI images in Adobe Stock are tagged as AI generated, and it is possible to exclude AI-generated images from search results. Communicators using stock image sites should be aware and intentional about selecting and using AI-generated images. Additionally, the AI-generated tag may not travel with the image to a local storage system. If an organization is using a digital asset management system, how AI-generated images are labeled and stored is an important consideration.

AI TOOLS EMBEDDED IN ILLUSTRATION AND PHOTO EDITING SOFTWARE

Generative AI also can be introduced in the editing process. AI tools are embedded in common technologies that health communicators use every day, such as Adobe Photoshop, Adobe Illustrator, Google Photos, Canva, and many other tools. With AI, users can easily adjust a photograph’s exposure or color, retouch images with skin smoothing or remove background objects, and complete even more complex tasks.¹⁰ Illustration software, including Adobe Illustrator, also have embedded AI tools that can handle simple tasks, such as filling in a background pattern based on a text description, generating simple icons or line art, recoloring art, or generating scenes or subjects.¹¹

Policy Considerations for Using AI Tools in Illustrating and Photo Editing Software

The benefits and pitfalls of using embedded AI editing or generation tools in these platforms require careful consideration. Benefits include increased efficiency and potentially reduced costs. For example, a novice user can adjust a photo without needing to engage an expert editor or create a unique icon for a presentation without worry of licensing or copyright. For

freelancers or small organizations, this could be an important gain in efficiency and cost savings.

Unintended consequences of AI editing of photos could do significant damage to audience trust. For example, some filters may lighten skin color. Facial characteristics that are clinically relevant could be removed if the AI sees them as “blemishes.” Close attention to detail and proofing the altered image against the original is essential to ensuring that only the intended changes were made.

LEARNING FROM OTHERS: JOURNALISM AND PROFESSIONAL ORGANIZATIONS

Understanding the policies and approaches to AI images in adjacent fields and from professional organizations can help health communicators produce guidelines and policies that are well researched and informed. Additionally, having the support of outside professional organizations and experts in similar fields can bolster recommendations to leadership.

Journalism

The Society of Professional Journalists describes ethical journalism as “accurate and fair. Journalists should be honest and courageous in gathering, reporting and interpreting information.”¹²

Many journalism organizations around the world have publicly shared their AI guidelines. A select group was reviewed in a 2024 publication¹³ and are summarized in Table 1.

Table 1. Selected AI Image Recommendations from News Organizations

Organization	Recommendation
WIRED	OK to use AI tools to spark ideas and publish AI-generated images or video with disclosure but not to use AI images instead of stock photography (2023).
Associated Press	OK to use AI-generated images if they were the subject of the news story and clearly identified. Otherwise, do not use AI audio, video, or photography in news stories.
Deutsche Welle	OK to use AI images to create or improve illustrations and/or data visualizations. Do not use photorealistic AI images.
Thomson Reuters	Use of data and AI are informed by “Trust Principles.” Will implement practices that make the use of data and AI in their products and services understandable (disclosure) (Data and AI ethics principles n.d.).
The Guardian	Use of AI should focus on what can improve quality of work: interrogating large data sets, assisting with corrections or suggestions, creating ideas for marketing campaigns, or reducing bureaucracy. Protect what is valued by the Guardian: “serious reporting that takes time and effort, carefully uncovers facts, holds the powerful to account, and interrogates ideas and arguments.”

AI, artificial intelligence.

Many health communicators work closely with journalists, and these fields share similar values. Because journalists and health communicators share a commitment to accuracy, truthfulness, and trust, understanding how journalists view and use AI images can help guide policy formation.

Professional Organizations

The AMWA highlights the importance of aligning AI usage with the organization's Code of Ethics and highlights the principle that states, "Medical communicators should apply objectivity, scientific accuracy and rigor, and fair balance while conveying pertinent information in all media."¹⁴

The Public Relations Society of America released official recommendations regarding generative AI in November 2023.¹⁵ The guidelines highlight the need for subject matter expert verification for any generative AI product, the importance of deliberate choices in the ethical use of AI, and the need for transparency regarding the use of AI. Specifically, "humans shouldn't claim ownership of work generated solely through AI."

Evaluating existing policies from communications and health care organizations provides a foundation for developing a personalized policy. Showing how a policy aligns with industry leaders can help to sway reluctant leaders who may not understand the importance of the policy or the nuances that should be considered.

DEVELOPING AN AUDIENCE-FOCUSED POLICY FOR AI IMAGE USE

An effective policy will support effective communication with the target audience. Audience and consumer attitudes and opinions about AI-generated images should influence how health communicators use them. This information can be gathered by conducting market research among a target audience or looking for secondary research that has been shared online.

A survey conducted by iStock/Getty reports that AI-generated images contribute to distrust on social media platforms. Most respondents (98%) say that authentic images and videos are crucial for building trust; 90% of respondents say they want to know if an image has been created with AI.¹⁶

An effective AI image policy will consider the following:

- Does this recommendation support organizational communication goals?
- Does this recommendation align with the tools and capabilities of the organization?
- Does this recommendation account for situational uses of images (ie, inspiration, education, patient care, etc)?
- Does this recommendation reflect the attitudes and preferences of the organization's intended audience(s)?

- Does this recommendation support accuracy and accountability?
- Does this recommendation support transparency and build trust with the organization's audiences and stakeholders?

As the technology and cultural attitudes about AI shift in the coming years, health communicators will be required to adapt.

Organizational leaders need the expertise of health communicators to guide policy making and implementation. Health communicators understand there is no "one-size-fits-all" approach to communication in today's complex world. It follows that no one policy or set of recommendations will fit every organization. As the technology and cultural attitudes about AI shift in the coming years, health communicators will be required to adapt. However, the key principles outlined above remain guideposts for policy development and evolution.

Acknowledgments

Mention of specific tools, such as Adobe products and services, is not an endorsement. These examples were selected for their widespread use and the author's familiarity with their functions. No AI tools were used in the writing of this article, excluding the creation of images in Figure 1.

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The background image of the banner shows several teal-colored round pills scattered on a surface with a blurred medical chart or document in the background.