

Science is everywhere: unexpected science encounters in the course of everyday life



Mock up of a potential advertisement at a bus stop. Image modified from www.lacma.org. Credit: Creative Commons.

There is an acclaimed art exhibit that announces “ART IS EVERYWHERE.” Inscribed in black block letters, this sentiment is a reminder that art can be found everywhere and art should be easily accessible. This push was a direct response to perception of art as exclusionary and elitist, terms similarly hurled at academics and scientific research. One provocative approach to counteract this problem was to display noteworthy art in public spaces at bus stops, billboards and movie trailers across all fifty states.¹ For those interested, a free downloadable phone app and website immediately provided more information about the art pieces, historical background and related works.

Future approaches to make scientific research more accessible to the general public could begin by disseminating current research findings in innovative ways in public spaces such as (1) billboards and bus stops, (2) murals, and (3) larger installations and exhibitions. These approaches infuse learning about new scientific findings into part of the daily commute and lifestyle, requiring scientists to distill their research into meaningful and stimulating snippets. A more detailed analysis of the scientific findings, related research, podcasts and blogs can be instantly accessed in the accompanying phone app and online.

Imagine encountering a subway advertisement of a human heart parallel to an artificial, mechanical heart^{2,3,4} with the lines “BUILDING A BETTER HEART” (Figure 1). You could point your phone at the QR code on the bottom of the ad to read a detailed description of the artificial heart, watch a short video of the authors explaining their research, and scroll down for the accompanying press release and research article. You could sign for updates about related research, follow the scientist on Twitter, and find related content, on the website and app! This ad can be quickly and easily swapped so new research findings can be regularly disseminated, allowing for updates on current ongoing research. Furthermore, ads in public spaces such as bus stops and subways stations are owned by the local government, substantially reducing the cost of implementation.

Similarly, vibrant urban art murals can assist in communicating new scientific discoveries. Paralleling current murals addressing social issues⁵, future potential murals could elaborate on the current research conducted by local universities and hospitals. For example, a colorful anatomical painting of a human body containing artificial organs could include information about the current research and long-term feasibility of artificial organs. Using these pre-existing programs, murals can communicate dry research findings into compelling images and critically reach and interest underserved and underprivileged communities.

Temporary public art installations can also display scientific research in novel and innovative forms. For example, in Chicago, there was a 7-foot-tall sculpture of feet that would relocate

throughout the city to bring attention to the Art Institute⁶. This exhibit was quite popular, a hotspot for Instagram and Snapchat photos while dangling off the feet. A companion art installation of Purkinje cells alongside these feet could draw attention to the role of the cerebellum in motor control. This could be accompanied by a large screen with updates on current cerebellar research and diseases, information also available through the application and website. Utilizing open public spaces such as parks and airports could provide space for rotating exhibits of current scientific research. Displays such as an interactive car running on algae as a biofuel⁷ or mechanical bionic legs⁸ provide an opportunity to present stimulating new devices to the general audience. Presently, airports across the nation already collaborate with local museums and artists to display rotating art and sculptures⁹, allowing utilization of this existing infrastructure to display new inventions would be a feasible proposal.

Engaging in scientific dissemination is critical to persuade the public that science matters. Scientists are often encouraged to give public talks, tweet, create podcasts and blogs but these methods both lack centralization and often attract followers who already support science. By interspersing new scientific discoveries into public spaces, casual encounters with groundbreaking research can occur while people perform their daily routine. Effortless scientific engagement can occur while waiting for a flight or metro, walking through the park and en route to work. Even casual absorption of this information would increase awareness of the current research endeavors, but for the more interested individuals, there is a continuous source of organized information made accessible on every person's phone. Using the phone app and website, additional information about new scientific findings and relevant podcasts, Twitters and academic blogs would be available, providing an accessible centralized source of material for continued learning and discourse. Critically, this proposal strives to communicate scientific discoveries by reaching a larger non-scientific audience through unexpected encounters in the course of everyday life.

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4. Image modified from photograph from LACMA ©, www.lacma.org, used under the Creative Commons Attribution.

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