

Arts + Social Impact Explorer Fact Sheet

ARTS + TECHNOLOGY

OVERVIEW

Arts and technology have always had a symbiotic relationship. Enhancing technological development with principles from creative and design processes drives innovation, and in turn new technologies are adapted and transformed by artists to create new art forms that challenge our world views and provide new ways of interacting with art.

Creativity generates new ideas and approaches while innovation implements them. Because the arts are so firmly rooted in creative expression, they have an immense possible impact on technology and innovation, as well as on the economy. Creative industries that use and expand new technology generate billions of dollars each year. Technologists and artists often collaborate on projects that create new tools and technologies, while inventing entirely new artistic media.

Technology is also inspiring artists as they find new means of expression through technology, and has democratized the process of creating. From digital art to kinetic pieces, and works that tap into the internet, artists are creating provocative new and interactive art forms. The proliferation of technology into the hands of every individual carrying a smart phone has also begun to reshape the definition of the artist. As the disciplines of art and technology continue to grow in tandem and fuse, they will jointly produce the innovations of tomorrow.

AMERICANS
for the
ARTS

IMPACT POINTS

60%
SAY CREATIVITY IS
MOST IMPORTANT

When asked, 60 percent of CEOs cite creativity as the most important leadership quality needed today.¹

\$28 BILLION
IN STREAMING MUSIC
PER YEAR BY 2030

Artists' work online is central to the future of the digital economy. A Goldman Sachs report estimates revenue from streaming music will rise to \$28 billion per year by 2030.²

**ARTS GRADUATES
2X MORE
ENTREPRENEURIAL
THAN OTHER U.S. WORKERS**

Between 10 and 20 percent of arts school graduates founded organizations, demonstrating that arts alumni are 2x more entrepreneurial than the national average of 5 percent of U.S. workers who are self-employed in their or business.³

77%
OF ARTS ORGANIZATIONS
AGREE: TECHNOLOGY
BROADENS WHAT'S
CONSIDERED ART

The notion of art is changing: 77 percent of arts organizations strongly agree with the statement that digital technologies have "played a major role in broadening the boundaries of what is considered art."⁴

78%
OF ART ORGANIZATIONS
SAY DIGITAL TECHNOLOGIES
INCREASE ENGAGEMENT

Most of the participating organizations strongly or somewhat agree with the statements that technology and social media have made art a more participatory experience (92 percent), and that they have helped make art audiences more diverse (83 percent).⁵

65%
GROWTH IN DESIGN TALENT IN
TECHNOLOGY INDUSTRY

According to LinkedIn, the highest echelon of the technology industry is vying for more design talent. Facebook, Google, and Amazon have collectively grown art and design staff headcount by 65 percent in the past year, with much headroom to hire more.⁶



EXAMPLES OF PRACTICE

NEW INC, New York, NY



NEW INC, an experimental initiative of the New Museum, is an incubator for art, design, and technology.

The shared workspace offers artist-technologists professional development and a unique environment to create their work. Tools for Show, founded in 2017, is one example of an interdisciplinary team based at NEW INC.

<http://www.newinc.org/news-posts/museum-technology-bika-rebek-2018>

incubator@newinc.org

image: The newinc space (circled) found next to the New Museum in the Bowery, New York City.

New Frontier at Sundance Institute, Park City, UT



New Frontier is an initiative that identifies and fosters independent artists working at the convergence of film, art, media, live performance, music, and technology. It features artists using technologies such as 3D printing, virtual reality, and augmented reality.

sundance.org/programs/new-frontier

newfrontier@sundance.org

image: A Sundance Film Festival Power of Storytelling panel participant tries out a Samsung Gear VR headset. Sundance Institute.

ve°, New York, NY

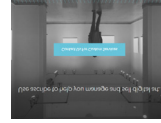


Fashion designer Camila Chiriboga is redefining fashion with accessible technology. From self-navigating shoes for the blind to hidden pockets for dialysis machines and medication, Chiriboga's men's fashion line, ve° empowers peoples' unique abilities, allows them to become more independent, and inspires others toward inclusive universal design.

<https://www.camichiriboga.com/veo>

image: Camila Chiriboga shows a client how to use cell phone app to get description of the clothes she designed for him.

Ascribe, Berlin, Germany



Ascribe is an arts and technology start up that lets artists create a unique cryptographic ID that permanently links the artist to their work. The ID enables artists to establish authenticity

and authorship of digital content and lets them control the way their work is used after a sale. The Portfolio Review and Ascribe joined forces to combine a shared vision that supports photographers and puts them back at the helm of their creative practice.

<https://www.ascribe.io/uncategorized/portfolio-review-elevating-emerging-photographers/>
carly@ascribe.io

image: Ascribe website

Mycelia, London, England



Mycelia is a "think-and-do-tank" which seeks to empower a fair, sustainable, and vibrant music industry ecosystem involving all online music interaction services using blockchain. Its blog, What can blockchain really do for the music industry, explores its work.

<http://myceliaformusic.org/2017/07/26/midem17-can-blockchain-really-music-industry/>

image: Mycelia's Carlotta de Ninni giving her views on blockchain

top image: A Sundance Film Festival Power of Storytelling panel participant tries out a Samsung Gear VR headset. Sundance Institute.

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5. ibid.
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READING LIST

Arts Organizations and Digital Technologies



The survey by the Pew Research Center looks at how arts organizations use the internet and other digital technologies.

<https://www.americansforthearts.org/node/100688>

Creativity Enhancement with Emerging Technologies



The article suggests that a holistic strategy, combining technology and creative action, may extend the boundaries of human thought and action.

<https://www.americansforthearts.org/node/100708>

Information Arts: Intersections of Art, Science, and Technology



This compendium offers the first comprehensive survey of international artists who incorporate concepts and research from mathematics, the physical sciences, biology, kinetics, telecommunications, and experimental digital systems.

<https://www.americansforthearts.org/node/86789>

Design in Tech Report 2017



This report identifies and defines computational design as a key driver in the growth of tech businesses. Computational designers are those who deal mostly in code and build constantly evolving products that impact millions of people's lives.

<https://www.americansforthearts.org/node/100704>

Are Artists the New Interpreters of Scientific Innovation?



This article in the *New York Times Style Magazine* discusses the resurgence of interest in the idea of inviting artists to observe, learn, and work within mainstream government agencies and institutions, among entrepreneurs and scientists as well as among the artists themselves.

<https://www.americansforthearts.org/node/100746>

top image: In the past five years, Girls Who Code has reached 40,000 girls in all 50 states teaching young women coding skills to help increase the number of women in the computer science field.



ORGANIZATIONS

Zero1

A Silicon Valley hybrid arts organization that connects creative explorers in art, science, and technology to provoke and explore new ideas that build engaged and vibrant communities.

<http://zero1.org/>

Gray Area

Gray Area is a San Francisco-based arts and technology organization that creates positive social impact through applying art and technology to education, civic engagement, and public programs.

<https://grayarea.org>

Network for Good Bridging the Digital Divide

This group seeks to decrease the gap between those who have access to technology and the skills to benefit from it in the United States.

<https://www.networkforgood.org/topics/education/digitaldivide/>

Empower Change Foundation

Connects, empowers, and champions efforts of progressive individuals by developing and leveraging leading-edge technology, focusing on education, technology, cultural maturity, health and health sciences to promote human advancement as well as donor and partner visibility via collaborative efforts to expedite solutions.

<https://empowerthechange.org>

STEM to STEAM

Championed by the Rhode Island School of Design (RISD) with support from teachers, researchers, policy makers, students, and business people, a team of student research assistants works to apply their firsthand knowledge of Art + Design education to exploring new avenues for STEM to STEAM.

<http://stemtosteam.org/>

top image: Gray Area Creative Code Immersive Project: "Water Pixels" by Francis Li

THANK YOU TO OUR SPONSORS



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