Selected Papers of #AoIR2024:
The 25th Annual Conference of the
Association of Internet Researchers
Sheffield, UK / 30 Oct - 2 Nov 2024

TAPPING THE "UNTAPPED RESOURCE": HOW TWENTIETH-CENTURY INDUSTRIAL PRIORITIES HAVE SHAPED CONTEMPORARY NEW MEDIA ART PRACTICES

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Contemporary artists who use emerging technologies in their work are often positioned as innovators, mavericks, and diagnosticians. They are seen as brilliant minds who, by virtue of working "outside" of the technology industry, bring a unique and sorely needed perspective that will help us both imagine new and heretofore unforeseen possibilities for technological tools, and transcend the growing crises we face in the digital world. This view is common among both scholars of technology and society (Raley, 2009; Gitelman & Jackson, 2013; Raley, 2013; Browne, 2015; Brunton & Nissenbaum, 2016; Chun, 2016; McGlotten, 2016; Cheney-Lippold, 2017; Benjamin, 2019; Zuboff, 2019; D'Ignazio & Klein, 2020; Fisher, 2020; Hu, 2022; among many others) but also among artists themselves in their own assessments of their work (see Grosser, 2014; Koërner & Earle, 2020; Lavigne, 2021; Guler, 2022). However, viewing new media artists as fully independent actors, devoid of any connection to industrial and corporate aims, serves to eclipse the long-standing and substantial ties that the field has to the protocols and priorities of the mainstream technology industry. These, in fact, have existed for as long as artists have attempted to integrate computation, electronics, networking, or other high-tech components into their work—both when these tools are owned and operated by corporations, but also in more diffuse, ideological ways.

This contribution outlines the findings from the second chapter of my doctoral dissertation, *High-Level Creativity: New Media Art and the Priorities of the Tech Industry*, which argues that, rather than operating wholly autonomously or externally to the tech industry, new media artists instead rely on an infrastructural foundation that greatly depends on its standard practices and routine protocols. The study draws from theories of art worlds and creative labor (Becker, 2008; Gell, 1992; Bourdieu, 1993; Kondo, 2018) and scientific and technical infrastructure (Bowker & Star, 1999; Latour, 1987; Gitelman, 2014) to argue for a relational take on the new media art field, as opposed to viewing exemplary objects as representative of the genre. In this chapter, I trace the evolution of the cultural imaginary surrounding new media artists, defined in

Suggested Citation (APA): Vasudevan, R. (2024, October). *Tapping the "untapped resource": How twentieth-century industrial priorities have shaped contemporary new media art practices*. Paper presented at AoIR2024: The 25th Annual Conference of the Association of Internet Researchers. Sheffield, UK: AoIR. Retrieved from http://spir.aoir.org.

my research as practitioners who expand, reinvent, or misuse technological expression. The chapter, which builds on the work of scholars investigating Silicon Valley's relationship with counterculture (Turner, 2006; Turner, 2009; Marwick, 2013) emphasizes the foundational connections that new media artists have to industrial practices; furthermore, this relationship can be traced back to the first attempts in the twentieth century to place artists into collaborations with industry. As a result, industrial mandates have, to a large degree, shaped the popular conception of the new media art field—guiding both practicalities of working with digital systems as well as notions of what artists "should" be doing with their work.

The chapter is based on archival studies of three twentieth-century programs in the United States which sought to foster collaboration between avant garde artists and the burgeoning tech industry: Experiments in Art and Technology, or E.A.T. (1967–1978, based in New York City); the Los Angeles County Museum of Art's Art and Technology program (1967–1971); and the Xerox PARC Artist in Residence (PAIR) program (1993–2001, based in Palo Alto, CA). I place these archives into conversation with data collected from 53 interviews with new media artists, curators, and administrators who work in the field in the present day, conducted between 2019 and 2023, as well as autoethnographic analysis of my own career as a practicing new media artist. By doing so, I demonstrate that many key motivations behind the first art and technology initiatives carry through into the current moment, shaping the ways in which artists perceive themselves and their work. While arts-industry collaboration has been studied extensively in prior literature (Beck & Bishop, 2020; Lee, 2020; Sandberg, 2020; Duval, 2019; Schnugg, 2019; Kuo, 2018; Turner, 2018; Ryan, 2017; Shanken, 2005; Bijvoet, 1990; Burnham, 1980), these analyses have largely been constrained to the immediate contexts of the initiatives being explored, without much attempt to investigate the indirect effects of these collaborations on the field at large. My work represents one of the first efforts to actively bridge the temporal gap and suggest that the earliest collaborations, in fact, directly set the stage for the creative and social expectations of broader new media art practices today.

Of particular note are the imagined affordances (Nagy & Neff, 2015) that it is believed that artists bring to tech development. Beginning with E.A.T. founder Billy Klüver's positioning of artists as an "untapped resource" (Klüver, 1967) that might offer novel insights and perspectives, artists have consistently been seen as providing new modes of thinking about technology that are not visible to those who work in a more standard industrial context. As PAIR Director Rich Gold put it in 1995, artists were envisioned "like bees, pollinating the scientists. We're beginning to get feelers that the scientists are thinking in new ways, trying things they normally wouldn't" (Kelley, 1995, p. 22). This perspective is evidenced throughout the twentieth century programs that I investigated, but it has also notably shaped how artists think of their societal role in the present day. Almost universally, the practitioners that I spoke with saw their purpose as bending, breaking, reshaping, or expanding technology beyond its established functionalities and usages. Interviewees spoke of needing to stake claim to novel and unexplored territory with their work, echoing the "pioneer paradigm" (Loveday, 2022) present in broader tech practice; using technology against itself as a mode of critique or diagnosis (or, as Raley (2013) terms it, the "reiterative aesthetic"); and "being ahead of the curve" or "going beyond the possible" in their use of emerging media.

Additional and related key findings from this work include a clear and persistent distinction between the role of the artist (imagination, creativity) and the role of the engineer (logistics, implementation); an adherence to the often dizzying hype cycles surrounding technology (Steinert & Leifer, 2010; Gartner, 2023), where artists feel compelled to adopt the very latest tools and systems as they emerge and race to keep up with the fast pace of tech development; a forefronting of technology in the work's reception, which artists often found takes away from what they originally intended to communicate with their work; and a deprioritizing of the long-term impact of artwork in favor of the splash or awe that using new technology can produce in the immediate. By putting the past into conversation with the present, I demonstrate that these conceptions of the role of artists and artwork in tech development, both practical and ideological, stem from the nascent incorporation of artists into industry in the twentieth century. Together with the larger project, my findings suggest that, far from being an independent "check" on industrial dictates, the new media art field is guided by (and often reinforces) the goals and ideologies of the mainstream tech industry. This suggests the need within broader scholarship to view these practices in a more nuanced light—and, in turn, has larger implications surrounding the industry's often unseen influence on wider intellectual and artistic production. The work points to ongoing and evolving questions surrounding what happens when conceptions of creativity and cultural impact are so heavily tied to the decisions of powerful industrial firms.

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