CHAPTER 3

Post-Internet Art and Pre-Internet Art Education

Robert W. Sweeny

The launch of Netscape Navigator in December 1994 is a milestone in the history of the internet (Cooper, 2014).[1] The release of Netscape Navigator allowed internet access to an audience beyond academia and the rare techno-hobbyist. Artists had, of course, been using digital media long before this period (Giloth & Pocock-Williams, 1990), and had also been active on the early internet, but Navigator brought increased attention to the internet as a platform for artistic expression, distribution, and dissent. As the internet gained users and developed as a commercial platform, it expanded into what Barabasi (2002) describes as a decentralized network. The expanded ability for a wide range of users to participate in networks of artistic production, distribution, and consumption has led to our current era, where online activities have folded back into offline modes of interaction. In short, the forms of interaction and engagement facilitated by the early internet have led to what some have termed a *post-internet* condition.

R. W. Sweeny (✉)
Indiana University of Pennsylvania, Indiana, PA, USA
e-mail: sweeny@iup.edu

K. Tavin et al. (eds.), *Post-Digital, Post-Internet Art and Education*, Palgrave Studies in Educational Futures,
https://doi.org/10.1007/978-3-030-73770-2_3

The term post-internet as applied to art, while not defined in any comprehensive manner, generally refers to the despecialization of the internet (McHugh, 2010). The practices that were once the domain of hobbyists and scientists were gradually made available to a wider audience, sometime after the turn of the millennium. This chapter looks to the history of art education in a networked era, generally focusing on North American scholarship. It looks to what post-internet art, as a distributed structure of knowledge formation, might mean to formal art education. It will present an overview of some of the ways that art educators helped to theorize the artistic possibilities found in the early internet, through what was termed 'Web 2.0.' and leading up to a post-internet condition.

Art on, Through, About, and in the Internet

Artists working on the internet in 1994 were experimenting with a range of technologies and techniques that had, up until that point, only been used by specialists exploring the potential for this new digital medium. However, well before the launch of Netscape Navigator, artists had already been experimenting with some of the approaches that would later become embedded in digital technological form. For instance, many artists had taken up the notion of 'hypertext,' well before HyperText Transfer Protocol (HTTP) was developed by Tim Berners-Lee beginning as early as 1980.[2] At that time, it was used to describe potential coding structures and approaches to computing. However, before it was applied to digital processes, it was used in literature, going back at least to Vannevar Bush (Bush, 1945). Since that time the concept of hypertext has influenced literature in the form of hypertext poetry and writing in general (Landow, 1989).

Hypertext was influential in the creation of work of visual art during the same time period. One of the first and most influential hypertext-based works of art was Olia Lialina's *My Boyfriend Came Back from the War* (1996), which used the format of the early World Wide Web to construct a multilinear narrative through text and image (Conner, 2016). While early hypertext works such as this were using developing programming languages and visual approaches, they were also borrowing from previous forms of art (Manovich, 2001). Many researchers in the field of art education in the U.S. were, at the same time, exploring the potential for these forms of engagement in art educational settings. Some were interested in the possibilities for hypermedia as a reflective framework

for pre-service art educators (Galbraith, 1996), while others envisioned hypertext as a platform for art criticism (Slawson, 1993) and art history (Koos & Smith-Shank, 1996). Still others saw the potential for curriculum models informed by the branching qualities of hypertext (Efland, 1995).

These hypertextual models for teaching, learning, and making were based upon a closed system of data retrieval: The ability to link and connect was limited by the data access of the associated computer hard drive or CD-ROM. With the emergence of visual culture-based art education and a more robust internet at the turn of the millennium came an interest in the qualities of hypertext, seen as both product and process:

> The theoretical and practical dynamics of the World Wide Web – theoretically defined as hypertextual – in conjunction with a narrative form of education offered a framework for teaching and learning that emphasized the continuous engagement with and evaluation of social and political factors. (Reese, 2002, p. 348)

During this period, Taylor (2000) wrote about the 'liberatory' potential for hypertext-base forms of interpretation and critique, while Taylor and Carpenter (2002) described novel approaches to teaching and learning made possible through hypertext. Wilson (2001) saw the possibilities for hypertext as a robust tool for teaching and learning that extended across disciplines and media in an intertextual manner: "intertextuality in all verbal sign systems has been made infinitely more pervasive and visible through the use of the computer as hypertext or hypertextuality" (p. 11).

At the turn of the millennium, hypertext-based artworks were very quickly folded into what was being called 'net.art,' a term popularized by Slovenian artist Vuk Ćosić which was, itself, the product of a computer glitch (Conner, 2016). In the early 2000s, art educators such as Alison Colman (2004) identified the potential for net.art.

While this potential built upon the work of Wilson, Taylor, and Carpenter, some North American art educators were either dismissive of this new artform, or they responded with outright skepticism. Eisner (1972) described the possibilities inherent in specialization brought about by early computer systems, while he warned against the concomitant fragmentation and alienation that such systems might produce. There were those that argued for a measured approach to an uncritical, relentless incorporation every new program and process (Gregory, 1996), and there were energetic supporters such as Dunn (1996). Regardless, the impact of

hypertext theories and practices on the field of North American art education is impossible to accurately measure, specifically because the spread of the internet and the ubiquity of mobile media following the turn of the millennium made it so that everyone, at least in developed countries, were impacted (Castells, 1996).

Inevitably, it seems that the qualities that made net.art alluring were never taken up by North American art educators *en masse*. What was taken up and heartily embraced by a wide variety of art educators were the communicational possibilities that the internet represented. Art educators in public schools in the U.S. used email, online galleries, and eventually participated in social media fora such as Art Ed 2.0 (Roland, 2010). In this regard, it is possible that these networks of communication influenced art educational practices more than digital networks of creation and critique.

Art Education and Network Topologies

Art education as practiced in North American public schools tends to fall in line with the dominant organizing structure found in these school systems. The reasons for resistance to these different pedagogical structures are numerous, and a meaningful discussion of them falls outside of the scope of this chapter. Suffice it to say that the model for U.S. education that was standardized during the Industrial Revolution has remained in place throughout social upheaval and technological change (Spring, 2017). Art education has held a variety of positions within this hierarchical model, as Stankiewicz (2001) and Efland (1990) have both carefully detailed.

Efland (1995) suggests that the model of the computer hypertext might be the most apt to visualize curriculum design in a digital era. As stated earlier, there have been numerous art educators who have suggested that art education as a whole might learn from structures derived from networked digital technologies. However, it must be said that one of the primary barriers to this type of epistemological shift might be attributed to the different organizing structures found in both systems. In order to attend to these different organizing structures, and provide historical context, it is relevant to now discuss the work of Paul Baran. Baran (1964) proposed that a decentralized network model would be the best solution to the threat of widespread damage to military communication. His work helped to form the theoretical basis for

what would eventually become the internet. It is through Baran that we can think about networked technological communication in three variations: centralized, decentralized, and distributed. Centralized networked communication channels all messages through a central point, known as a hub. Decentralized network communication creates numerous hubs, which control the flow of information but allow for flexibility. This model leads to a distributed model, where every node is connected to every other node. There is no center, and there are no hubs that help to channel and control the informational flows.

While there may be limits to applying Baran's topologies, based as they are in communication (Munster, 2013), it is nonetheless worthwhile to apply them to the organizational structures found in educational systems. Many aspects of formal schooling are centralized, from the leadership to the funding structures down to the individual curricula of most school disciplines. While centralized topologies apply to many aspects of formal education, there are examples of decentralized and distributed models that can be identified. Some school systems allow for student participation in governing bodies and rule-making processes, which could be seen as a decentered model (Kohl, 1969). Some school systems allow for a great amount of flexibility in the course offerings that students can choose from to fulfill educational requirements. In addition, the ways that individuals communicate within schools has been dramatically restructured through the introduction of networked digital communication, first in the form of email and now as seen in the proliferating social media platforms.

This last example is the one that is currently proving to be the most disruptive of traditional, centralized forms of communication in school systems. Teachers can communicate through SMS messages to individuals and groups, and vice versa. Students can engage in robust backchannel conversations between and during classes, even as teachers, administrators carry on with lectures and discussions, seemingly as usual. This last point is one that should be reiterated, as it speaks to the application of network topologies in educational settings: In the same given physical educational space, there can be numerous models of communication operating simultaneously. While that has always been the case in educational spaces—think of the existence of tabletop graffiti and note-passing—this complexity is multiplied through the use of digital platforms that help to facilitate multitasking. As such, the digital/analog binary is

complicated to the point where is it not necessarily useful. Such complications are directly tied to a post-internet condition which will be discussed in the following section.

As mentioned earlier, North American art educators by and large were not captivated by the work of net.artists during the early 1990s. The reasons for this are undoubtedly numerous; one reason that I would like to offer, based upon this discussion of network topologies, is that net.art did not fit into the art educational frameworks that predominated at that time. Net.art relied upon unfamiliar forms of interaction and visualization. Early net.art such as *My Boyfriend Came Home from the War* (1996) had more in common with videogames of the era than art of the era. So-called 'Interactive Art' (Gansing, 2016) was common in the realm of media art and design, but there were no model for interaction that could be drawn from the fine arts. Even if art educators were to find value in net.art, the possibilities for making such artwork in the public schools would be challenging at best, requiring the use of computer programs that would be cost-prohibitive and require extensive training. This would also require that the art educator enter into relationships with those involved with computer programming and computer design, fields that generally exist outside of pre-K 12 public school art programs.

As a result, approaches to teaching digital media in art education have, at best, made reference to decentralized forms of production and distribution, but have not made structural changes, regardless of attempts to 'deschool' (Illich, 1972) or make art education more rhizomatic (Wilson, 2003). This relationship between the content of art education and its structural characteristics (curriculum, instructional methods, etc.) has been discussed throughout a variety of time periods and through substantial cultural shifts. The primary difference between these relationships and that of net.art and art education is that net.art was tied to larger sociocultural shifts that had an impact on many varied aspects of daily life the world over. Net.art was, in this regard, part of a larger *society of flows*, as Castells (1996) has theorized. Net.art did not seem to have a measurable impact on North American art educational practices at the same time that the internet was restructuring many aspects of education. However, the ways that net.art propagated and proliferated *within* digital networks makes it possible that the influence was felt, even if it was hard to measure.

If art educators are to address the dynamic, socially-engaged qualities of net.art practices, they must view them from a historical perspective. The internet of the mid-1990s has been all but forgotten, having been

revised and revised again by decades of advancements in coding and interface design. The once-decentralized structure of the World Wide Web has been centralized through digital monopolies. The Information Superhighway has been paved over by social media sites, streaming media, and cloud-based computing. Net.art has, in turn, been reconceptualized, distributed on a variety of platforms, and monetized, by post-internet art.

Post-Internet Art and Pre-Internet Art Education

What, then, might art educators learn from post-internet art? If net.art was not addressed for the reasons provided above, then what is the likelihood that the same would be the case for post-internet art? Is it possible to incorporate, in a structural manner, the strategies used by post-internet artists, with art educational practices that have, in large part, been in existence long before the launch of Netscape Navigator in 1994?

This is not a likely possibility, given the histories of digital technology theory and practice discussed previously. The promises represented by hypertext were largely confined to the theoretical enclaves of higher education. Hypermedia such as WebQuests (Kiefer-Boyd, 1996) and StorySpace (Taylor, 2000) were not adopted by large numbers of art educators, most likely due to the most basic of factors: time and money. Art educators did not have the time to learn new programs, nor did they have the money to purchase new software or hardware, especially when these expensive purchases fall victim to planned obsolescence. In fact, this seems to be one of the most frequent responses shared by art educators when discussing the reasons why digital technologies are not implemented in the art classroom (Wilks et al., 2012). However, if art educators are willing to see post-internet art for what it is, then perhaps there might be opportunities to be found. If art educators were to attend to the internet as it is currently being used, then the related art would be just another part of daily life.

The term ‘post-internet’ was used as the title for a blog operated by Gene McHugh, starting in September 2010 (Rhizome). In his first post, he states that Marisa Olson, former editor and curator at Rhizome.org, used the term sometime between 2007 and 2009. The blog served as a forum for McHugh’s reflections upon the relationship between the Internet and art at the time; a relationship which, for McHugh, had become problematic at best:

> Any hope for the Internet to make things easier, *to reduce the anxiety of my existence*, was simply over – it failed – and it was just another thing to deal with. What we mean when we say "Internet" became not a thing in the world to escape into, but rather *the world one sought escape from*… sigh… It became the place where business was conducted, and bills were paid. It became the place where people tracked you down. [italics in original] (2010, para. 5)

Consider the aspects of the internet that McHugh decries: The internet as a place where business is conducted, and bills were paid and the internet as a place where people tracked you down. McHugh cites them as evidence that of the failure of the promises of the internet. What if, however, art educators took these markers of digital failure and folded them back into everyday art educational practices, reframing them as possibilities for artmaking, for critical reflection?

The first aspect of the internet confronts an aspect of contemporary artistic production that many find to be unseemly: art as business. Critics of this aspect of contemporary art markets found, in late 2019, the perfect encapsulation of these base desires: *The Comedian* (2019) by Maurizio Cattelan. In some ways, *The Comedian* is the perfect post-internet work of art; while the material composition consists of a banana duct-taped to a gallery wall, its image is one that is simple, clean, easily identifiable. One could not imagine a better image to translate into an internet meme, or, perhaps better yet, an emoji.

It is, of course, the value that was attached to this work of art which resulted in confusion and outrage. *The Comedian* sold, in an edition of three, for 120,000 dollars per work. Now it must be said that *The Comedian* is not what most might think of when discussing digital art in general, or its many specific variants: Interactive art, new media art, net.art, etc. However, if we consider the way that this work was received, distributed, critiqued, and perhaps even eventually purchased, we see that it enters into the almost-unavoidable networks of exchange that the internet currently represents.

There are, perhaps, examples that speak more to the specific qualities of post-internet art as the commercial product of digital media. One early net.art example that highlights aspects of commercial exchange that is now central to the structure of the internet is *Blackness For Sale* (2001) by Keith Obadike. In this work, Obadike created an auction site for his 'blackness,' which ended after three days when eBay stated that it violated

its rules for postings. *Blackness for Sale* utilized the commercial networks of eBay to produce a 'commodity' which was outside of the parameters of acceptability as determined by the site designers. Obadike's description of the item is as follows:

> This heirloom has been in the possession of the seller for twenty-eight years. Mr. Obadike's Blackness has been used primarily in the United States and its functionality outside of the US cannot be guaranteed. Buyer will receive a certificate of authenticity. (Obadike, 2001, para. 1)

This description begins to clearly mark the project as social satire. In a 2001 interview, Obadike frames the way in which race is questioned in the piece:

> While watching what many were doing with net.art, I didn't really see net artists dealing with this intersection of commerce and race. I really wanted to comment on this odd Euro colonialist narrative that exists on the web and black peoples' position within that narrative. I mean, there are browsers called Explorer and Navigator that take you to explore the Amazon or trade in the ebay. It's all just too blatant to ignore. (Fusco, 2001, para. 4)

This notion of play as described by Obadike is very much in line with current post-internet art practices, where approaches based in the extremes of technological exuberance or neo-luddite revulsion are blurred, or ignored. As stated in the introduction, the widespread use of the internet had a polarizing effect on many at the time. Proponents tended to hail the ability to connect and share information across vast distances as a utopian platform for a new global community. Critics saw what would come to be known as online interaction as an alienating process, one that distanced the user from others, and perhaps most dangerously, from ones' self.

We are in a period where these oppositional responses to the internet still exist. However, the opportunities to create a new platform for digital exchange have long since passed. The internet has become a space that is largely controlled through monopolistic corporations and overbearing state actors. The result of this centralization has been that artists using the internet have taken up networked digital interaction as a medium, to be used, remixed, mashed up, monetized and further marginalized.

McHugh (2010) describes the idea of 'painting as meme' in an early blog post. In this post, he cites David Joselit's (2009) *Painting Besides Itself*. As he writes:

> Julia Koether, Stephen Prina, and Wade Guyton have developed practices which allegorize their objects' own "transitivity" or continuous in-between-ness as they shuttle from one node of the network to another—from object, to photograph of object, to source material for another artist's appropriation and re-circulation, and back again, in an ongoing circulation. Works of art—here—are never situated in a static context; rather they are situated in continuous state of *passage* between contexts in a broader network of multiple contexts. (para. 5)

This quality of in-between-ness is surely important to note when discussing post-internet art, and while McHugh refrains from defining post-internet art, or listing post-internet artists, the painters cited certainly can be seen as using the internet as medium.

The second aspect of a post-internet condition that McHugh describes is the ability for people to 'track you down.' While this quality of internet use was surely problematic in 2010, it has now, ten years later, been seen by many as a crisis for civil liberties and freedom of expression across the globe. The revelations brought about by whistleblowers Edward Snowden and Chelsea Manning have shown the extent to which contemporary digital networks can allow for the monitoring of individual users, on a global scale and to a granular level. Many of these issues have been identifies, critiqued, and played with, by numerous artists and activists for some time. The Surveillance Camera Players (SCP) stand as a prominent example of the play that Obadike described earlier, operating at the time that the internet was proliferating around the globe. Beginning in 1996, and disbanding in 2006, SCP was a loosely-defined collective made up of active members located around the world (Harding, 2015). Their primary goal was to utilize existing surveillance camera networks in order to present short skits and plays, which often had direct references to the politics of surveillance, civil liberties, and constitutional rights in the United States.

The mixing of artistic strategies by the SCP—combining street theatre, performance art, agitprop, and civil disobedience—fits within the characterization of post-internet art as a folding together of binary categories:

private/public, digital/analog, art/life. What truly makes the SCP relevant within a discussion of post-internet art is the fact that they, as an artistic collective, operate according to a decentralized network model, using existing CCTV technology to transmit ideas and actions of these very technologies. They both use the network and become the network.

Brown expands upon his description of internet use by the SCP when he says, in the same interview: "The Internet is a great surveillance device, but this surveillance to an extent works two ways. Though the US military is spying on me using the Internet, I can use the Internet to detect and denounce such spying" (Baumgaertel, 2001, para 39). This mid-1990s era optimism is not held by many in the second decade of the twenty-first century. What was once seen as a flexible, decentralized platform for visibility and visuality has become centralized, with large state actors such as the National Security Agency (NSA) in the U.S monitoring all electronic communication (Abdo & Toomey, 2013). This centralized control can also be seen in extreme relief in authoritarian regimes; the Chinese government, for example, has monitored and removed images that are critical of the regime (Ables, 2019). Still, as these images are actively removed from circulation, new ones emerge, if only momentarily.[3]

Laura Poitras is a filmmaker, artist, and journalist who has helped to bring these issues of surveillance and control to a wide audience, most famously through her film *Citizenfour* (2015). As a visual artist, she created *Astro Noise* (2016), which combined "documentary footage, architectural interventions, primary documents, and narrative structures to invite visitors to interact with the material in strikingly intimate and direct ways" (Whitney Museum of American Art, 2020, para. 2). Again, we see post-internet strategies of in-between-ness and pastiche evident in the work of Poitras. We also see that the work—especially Astro Noise—reflects the hybrid, decentralized nature of contemporary digital networks. One aspect of Poitras' practices that does not fit into the theory of post-internet practices developed in this chapter is her work is decidedly stark and serious. Although the work utilizes strategies of juxtaposition and pastiche, it refuses to engage in the ironic distancing that was central to postmodern art practices. The play that SCP incorporate is nowhere to be found, and the oscillation between utopian promise and dystopian danger is unwaveringly rooted in the latter.

This approach is likely a product of Poitras' career as a journalist. Regardless, the tracking that McHugh criticized in 2010 has become a central feature of the internet, ten years later, with no indication that

things will change any time soon. The hypertext-based work of Lialina (1996) is still relevant, because the internet is still a platform for work that is poetic and hyperlinear, as seen in the work of the contemporary painters Koether, Prina, and Guyton. The net.art practices of Obadike (2001) that confronts issues of race and commodity on the internet are still relevant because the internet remains a space where cultural bias and white supremacy operate. One can look to Tracking Transience (2002–present), by Hasan Elahi, as a contemporary work of post-internet art that speaks to these issues, in real time. Additionally, the issues raised by the SCP are perhaps even more relevant in an era of rampant electronic monitoring described by Poitras, as well as the self-surveillance enabled by contemporary social media.

The artworks discussed in this writing are not intended as a definitive listing of post-internet works. And, of course, there are numerous additional aspects to the internet as it is currently configured that are not identified by McHugh. There are the possibilities that the internet allows for a variety of forms of communication. There are the opportunities for social interaction that are facilitated by the internet. There are also the numerous examples of digital games that are played on and through the internet. However, if art educators are to learn from post-internet art, then they might be attentive to the aspects of the internet that are most frustrating, most confusing, and most troublesome. They might attend to the ways that daily life folds together online and offline interactions in increasingly complex and confusing ways. They might be aware of the ways that digital technologies offer models of communication that fluctuate between centralized, decentralized, and distributed forms of interaction. Furthermore, they might acknowledge the in-between-ness of current artistic practices, practices that blur previous notions of commerce and politics. Inevitably, these are the qualities of post-internet art that are most ripe for educational exploration and artistic navigation.

Notes

1. In this chapter I will use the term 'internet' exclusively, although some artists and theorists use the term 'World Wide Web.' It is important to distinguish between the two, as the internet is the infrastructure that allows for global networked digital communication, while the World Wide Web is the content that is accessed through the internet.

2. The term hypertext was first used by Tim Nelson around 1965 (Hoffman, 2017).
3. There is a similarity to the centralized forms of communication in educational spaces here, although labeling the centralized control in education as authoritarian is a conversation that extends beyond the scope of this chapter.

References

Abdo, A., & Toomey, P. (2013). The NSA is turning the internet into a total surveillance system. *The Guardian*. Retrieved from https://www.theguardian.com/commentisfree/2013/aug/11/nsa-internet-surveillance-email.

Ables, K. (2019). *The forbidden images of the Chinese internet*. CNN. Retrieved from https://www.cnn.com/style/article/chinese-internet-censorship-images/index.html.

Barabasi, A. L. (2002). *Linked: How everything is connected to everything else and what it means for business, science, and everyday life*. Plume.

Baran, P. (1964). *On distributed communications*. RAND.

Baumgaertel, T. (2001). *Interview with Bill Brown (surveillance camera players)*. Retrieved from http://www.notbored.org/rhizome.html.

Bush, V. (1945, July). As we may think. *Atlantic Monthly*, Vol. 176, pp. 101–108.

Castells, M. (1996). *The rise of the network society*. Blackwell.

Cattelan, M. (2019). *The comedian* (work of art).

Colman, A. (2004). Net.art and Net.pedagogy: Introducing internet art to the digital art curriculum. *Studies in Art Education, 46*(1), 61–73.

Conner, M. (2016). *Speaking in net language: My boyfriend came back from the war*. Retrieved from https://rhizome.org/editorial/2016/nov/10/my-boyfriend-came-back-from-the-war/.

Cooper, S. (2014). Whatever happened to Netscape? *Engadget*. Retrieved from https://www.engadget.com/2014-05-10-history-of-netscape.html.

Dunn, P. (1996). More power: Integrated interactive technology and art Education. *Art Education, 49*(6), 6–11. https://doi.org/10.2307/3193617.

Efland, A. (1990). *A history of art education*. Teachers College Press.

Efland, A. (1995). The spiral and the lattice: Changes in cognitive learning theory with implications for art education. *Studies in Art Education, 36*(3), 134–153. https://doi.org/10.2307/1320905.

Eisner, E. (1972). *Educating artistic vision*. Macmillan.

Elahi, H. (2002–present). *Tracking transience (work of art)*. Retrieved from http://trackingtransience.com.

Fusco, C. (2001). *An interview with Keith Obadike*. Retrieved from http://blacknetart.com/coco.html.

Galbraith, L. (1996). Videodisc and hypermedia case studies in preservice art education. *Studies in Art Education, 37*(2), 92–100. https://doi.org/10.2307/1320510.

Gansing, K. (2016). 1995: The year the future began, or multimedia as the vanishing point of the net. In R. Bishop, K. Gansing, & E. Wilk (Eds.), *Across and beyond: A transmediale reader on post-digital practices, concepts, and institutions* (pp. 29–43). Sternberg Press and Transmediale e.V.

Giloth, C., & Pocock-Williams, L. (1990). A selected chronology of computer art: Exhibitions, publications, and technology. *Art Journal, 49*(3), 283–297. https://doi.org/10.2307/777121.

Gregory, D. (1996). Art education reform: Technology as savior. *Art Education, 49*(6), 49–54. https://doi.org/10.2307/3193623.

Hoffman, J. (2017). *A brief history of hypertext*. The history of the web. Retrieved from https://thehistoryoftheweb.com/brief-history-hypertext/.

Illich, I. (1972). *Deschooling society*. Marion Boyars.

Joselit, D. (2009, October). *Painting Beside Itself*, Vol. 130, pp. 125–134.

Keifer-Boyd, K. (1996). Interfacing Hypermedia and the Internet with Critical Inquiry in the Arts: Preservice Training. *Art Education, 49*(6), 33–41.

Kohl, H. (1969). *The open classroom*. Vintage Books.

Koos, M., & Smith-Shank, D. (1996). The World Wide Web: Alice meets cyberspace. *Art Education, 49*(6), 19–24. https://doi.org/10.2307/3193619.

Landow, G. (1989). Hypertext in literary education, criticism, and scholarship. *Computers and the Humanities, 23*, 173–198. https://doi.org/10.1007/BF00056142.

Manovich, L. (2001). *The language of new media*. MIT Press.

McHugh, G. (2010). *Post-internet art (blog)*. Retrieved from https://122909a.com.rhizome.org.

Munster, A. (2013). *An aesthesia of networks*. MIT Press.

Obadike, K. (2001). *Blackness for sale. (artwork)*.

Reese, E. (2002). Investigate and re-envision teaching strategies: Linking individuals, communities, and organizations through the visual arts. In Y. Gaudelius & P. Spiers (Eds.), *Contemporary issues in art education*. Prentice Hall.

Roland, C. (2010). Preparing art teachers to teach in a new digital landscape. *Art Education, 63*(1), 17–24. https://doi.org/10.2307/20694809.

Rosenberg, J. (2007). The interactive diagram sentence: Hypertext as a medium of thought. In E. Kac (Ed.), *Media poetry: An international anthology* (pp. 15–24). Intellect.

Slawson, B. (1993). Interactive multimedia: The gestalt of a gigabyte. *Art Education, 46*(6), 15–22. https://doi.org/10.2307/3193404.

Spring, J. (2017). *American education* (17th ed.). Routledge.

Stankiewicz, M. A. (2001). *Roots of art education practice*. Davis.

Taylor, P. (2000). Madonna and hypertext: Liberatory learning in art education. *Studies in Art Education, 41*(4), 376–389. https://doi.org/10.2307/1320680.

Taylor, P., & Carpenter, B. (2002). Inventively linking: Teaching and learning with computer hypertext. *Art Education, 55*(4), 6–12. https://doi.org/10.2307/3193962.

Wilks, J., Cutcher, A., & Wilks, S. (2012). Digital Technology in the Visual Arts Classroom: An [un]Easy Partnership. *Studies in Art Education, 54*(1), 54–65. Retrieved from http://www.jstor.org/stable/24468130.

Wilson, B. (2003). Of diagrams and rhizomes: Visual culture, contemporary art, and the impossibility of mapping the content of art education. *Studies in Art Education, 44*(3), 214–229.

Wilson, M. (2001). Our Creations Re-creating Us. *Arts Education Policy Review, 102*(3), 11–12. https://doi.org/10.1080/10632910109599996.