Established & Emerging Technology: Art Education

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Summary

One of the greatest challenges to art educators both novel and experienced is the velocity at which technology is advancing, and the key decisions that need to be made about the role of technology in the classroom. To complement the national core visual arts standards, the national core media arts standards create an avenue of approach to new media for art educations. In 2017, working with the National Center for Education Statistics (NCES), a team from the National Coalition for Core Arts Standards Media Arts Committee was able to provide a series of Media Arts course codes which can be used by state and local departments of education as a sorting system for collecting data on course instruction. (What is Media Arts, 2017). There are several different levels of technological integration.

Level One Integration

On the most basic level, I am referencing the integration of computers, moving images, sound, and design into the art classroom. This would involve the integration of experimental media that allows for the creation of work that is not limited to 3D space/time. This level of integration involves the student (user) storing the work either locally on the machine, or in the cloud. Explorations at this level can incorporate projects that discover animation, cinematography, and environmental design. Sonic Arts that incorporate sound design and engineering could act as another avenue of exploration. Another aspect of exploration is the space of mixed reality (MR/XR). This includes spatial, animated, non-linear, and interactive environments, structures, and experiences (What is Media Arts, 2017). What is required to integrate this level of technology into the classroom, is:

I. Computer II. Software III. Recording device IV. Playback device

Example One:

1. Desktop computers
2. Photoshop
3. Camcorders and microphones
4. A large viewing screen

Example Two:

1. iPads
2. Procreate App
3. .Apple Pencil
4. Apple TV sharing (AirPlay)

Example Three:

1. Oculus Quest VR
2. Google Tilt Brush
3. Hand Controllers
4. Sharable VR Video File

Web 2.0

Another approach to the integration of technology in the classroom is the integration of Web 2.0 technologies such as social media, YouTube, Flickr, blogs. *In the 21st year of the 21st century,* I find this approach lacking imagination, I'll touch on that later. When Myspace was first created in 2003 the literature and understanding of the idea of a social networking service were limited, if not non-existent. Peer-to-peer sharing became a reality with Web 2.0, allowing users to share information in the form of pictures and rich format websites beyond the HTML and site directory format of the read-only Web 1.0.

The past eighteen years have seen a similar pattern within social media platforms, from Myspace to Tok-tok. First, the platform starts out as a way for communities to connect,

individuals to share their ideas or media. After acquiring some success, the creators of the platform begin to pay their most influential users to gather more users. This leads to more user growth. Over time, with the transition away from photo sharing and towards video sharing, combined with corporate greed the internet saw the birth of the *influencer.*

As pew research data suggests, more than 50% of U.S. teens ages 13 to 17 use Facebook. While 95% of teens surveyed reported access to a smartphone, with 45% saying they are online on a near-constant basis (Lenhart, 2018). This creates a moral dilemma, should educators be encouraging the use of a platform owned by individuals with little to no background in education, psychology, teaching, or learning. As an equalist, I believe the answer is a resounding, No. Technology in the classroom can be either a convenience or a nuisance depending upon how it is (ab)used. This is especially true when looking at the growing problem of student's personal communication devices. When students, adults and children alike are enveloped in their own world; headphones in, head down, mouth shut, they are unable to investigate big ideas (Testa, 2017).

Firstly, it is well known in 2021 that social media platforms are breeding grounds for bullying, targeted advertising, and over-sexualized content. In March 2020 Facebook published the report, *Comparisons on Instagram can change how young women view and describe themselves.* The findings included, "Thirty-two percent of teen girls said that when they felt bad about their bodies, Instagram made them feel worse". One slide from the report summarizing research about teens who experience self-image issues, "We make body image issues worse for one in three teen girls"(Wells, Horwitz, & Seetharaman 2021). Disillusionment of self-identity and worth is not limited to adolescent female users. Boys are also affected, with 14 percent reporting that Instagram made them feel worse about themselves (Wallace, 2021). Further pew

research studies from 2018, illustrate that 59% of U.S. teens have personally experienced at least one of six types of abusive online behaviors. (Anderson, 2018).

Web 3.0

The simplest solution to the problem created from a handful of corporations controlling, influencing, and monitoring user data; is to move toward a decentralized model. Web 3.0 the (current) and next evolution of the internet seeks to solve the problems created by proponents of web 2.0. Web 3.0 is being deliberately designed to address the prevalent, potentially problematic issues inherent in today's internet ecosystem. However, there is no centralized authority overseeing the development of this new and open internet. Instead, progress is being made through the efforts of a loosely aligned assortment of private businesses, non-profit organizations, and individuals (Cryptopedia Staff, 2021).

This new model of the internet prevents large corporations like Facebook from ever becoming a controlling entity that can influence our youth through targeted advertising, anonymous bullying, and endless advertising. A key component of Web 3.0 is blockchain technology, which pins a *wallet address,* like an *email address* to every transaction on the network. This means all actions are traceable (non-anonymous) and irreversible, each user is the centralized authority within the decentralized network. Simplified: you own your data and media, not Facebook and their team of addiction specialists. An example of this in practice for the past several months, for myself personally is the minting of NFTs, this simple means uploading a file to a decentralized minting-hosting service such as Foundation or OpenSea. After this simple process of uploading a file, the user is asked to sign a notification with their connected wallet. What this translates too is a file that is permanently tethered to its creator. Anyone who interacts

with the (NFT) file does so through a similar process of signing their actions. This leaves a digital trail, of wallet addresses (think email addresses). The idea of hiding behind a screen-name is removed. This accountability of ownership disrupts the need for a centralized authority like Facebook, that can do whatever you agree to in the multidimensional user agreement & terms of service. Web 3.0 is a technological revolution unlike many others in that it is specifically engineered to empower individuals and local communities rather than amplify the hierarchies that have long dictated society's trajectory (Cryptopedia Staff, 2021).

Virtual Learning Platforms

One of the most helpful platforms I used at the start of the ongoing epidemic was Discord. Discord allows the educator to create a "server" that students can join. I enjoyed this platform because it keeps an ongoing "chat" box that allows students to share comments, reply to a specific text, share in-line pictures and other media. The chat feature is always saved and doesn't go away after each meeting. Essentially, the beginnings of a decentralized social-network, or a place where students can connect anytime, look back at previous messages, pictures, links. For educators it is helpful too see an icon either green, yellow, or blank to denote if the student is interacting with their computer/smartphone/tablet. The platform features the same video conferencing technology seen from Skype, Zoom, etc. plus the added benefit of allowing students to customize their username, and avoid messy zoom login screens. I believe many students of Gen Z, already use Discord for non-educational purposes of streaming YouTubers, and video gamers. What I enjoyed most about this platform is the lack of seeing a whole bunch of "blank boxes" or empty zoom cameras. The main screen is that chat, which allows students to share text, images, and video as they have been taught to do on social media platforms. This alleviates the social awareness of using a lesser platform like zoom. Zoom, a

camera-based platform does not accommodate students who do not wish to be on camera but also need an easy way to *have a voice.* In my opinion zoom, and the chat feature of zoom is one of the worst platforms for something like a k-12 class that is a direct continuation of the previous session. For this reason, I am an advocate of the Discord platform. I believe "servers" run through a program are an enjoyable way to foster community as well. I also feel Discord is an excellent platform to connect students, whose primary means of person-to-person communication-learning is vis-text-ual.

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