Creating podcasts with generative artificial intelligence, storing them on Web3, and sharing them open access: Conceptual and theoretical issues for utilitarian digital pedagogy

Scott Jacques, (https://orcid.org/0000-0002-2089-4078), Georgia State University, USA

Abstract

Podcasts are a useful educational resource for improving student success, yet traditional methods of podcasting remain inefficient, vulnerable to censorship and deletion, and access-restricted. One approach to addressing these constraints is utilitarian digital pedagogy, which focuses on the use of digital tools to advance education for the greater good. Framed as such, this article outlines the conceptual and theoretical issues underlying how generative artificial intelligence (genAI), Web3, and open access (OA) improve podcasting's utility relative to the alternatives: manual creation, Web2, and closed access. The article derives practical implications for instructors, institutions, and policymakers, and concludes by looking ahead to the major problems—hallucination, technical complexity, and rights management—to overcome in practice.

Key words: podcasts, generative artificial intelligence, Web3, blockchain, open access, utilitarian, digital pedagogy

Introduction

Podcasts are a new technology in the long history of education.[1] They first appeared in 2003 as a product of digitization, with the term coined a year later (Minooka, 2024). They were quickly adopted as an educational resource because of how they benefit learning (Goldman, 2018; Kay, 2012; Kelly et al., 2022; Köhler et al., 2024). Compared to readings, students find them more engaging and an easier entry point on a topic. Unlike live lectures, podcasts can be heard any time and with the option to rewind. These strengths make podcasts a productive way to reinforce lessons (Bajaj, Rana, and Sharma, 2024; McCarthy, Porada, and Treat, 2023).

Podcasting is the act of creating and sharing a podcast (e.g., see Boehm, Canfer, and Salazar, 2025; Copeland & McGregor, 2021). Its potential utility as a pedagogical tool has never been greater due to three other inventions of the digital era: generative artificial intelligence (genAI), Web3, and open access (OA). GenAI is software that creates original content based on a natural-language instruction, known as a prompt (Stryker & Scapicchio, 2024; Wheeler, 2026; Yu and Guo, 2023). Web3 is a decentralized digital ecosystem based on blockchain technology (Dixon, 2024; Kaczynski & Kominers, 2024). OA refers refers to resources that are digital, online, free of charge, and free of most copyright and licensing restrictions (see Suber, n.d.).[2]

To improve education, we should make podcasts. To improve their utility, we should create them with genAI, store them on Web3, and publish them OA. To explicate why and how, I wrote this article as a contribution to utilitarian digital pedagogy. Digital pedagogy is the study and use of digital technologies to design, implement, and enhance education (Silva & Schofield, 2024; Tan, Voogt, and Tan, 2024). When viewed through a utilitarian lens, emphasis is put on utility for the greater good (Bentham, 1984).

This article addresses a practical problem: podcasting is inefficient, vulnerable to censorship and deletion, and access-restricted. The central argument is organized around three ideas: (1) genAI improves podcast creation by reducing production cost and expanding who can produce quality content; (2) Web3 improves storage by eliminating dependence on centralized operators with the power to delete and censor; and (3) OA publishing maximizes dissemination by removing barriers to use, resharing, and adaptation. Methodologically, this article employs conceptual analysis and theoretical synthesis: I define key constructs, compare alternatives along a utilitarian cost-benefit framework, and derive implications from established theory rather than from original empirical data. I conclude with a summary that briefly looks forward to practical questions raised by the conceptual and theoretical ones.

Conceptual and theoretical issues

A couple centuries ago, there was no such thing as an educational audio resource. The ability to teach and learn with vinyl records, cassettes, and radio broadcasts was revolutionary (Betts et al., 2021; Watters, 2021). These analog inventions made education more accessible by expanding who could participate beyond the bounds of shared physical space. Yet physicality is also their biggest problem: the cost of specialty machines, materials, manufacturing, space, and shipping increases the cost of production, storage, and dissemination (Goldfarb & Tucker, 2019). This limits who can benefit.

Digitality led to greater affordability, which in turn expanded inclusivity (Warschauer, 2003). Assuming someone already has an internet-connected computer or smart device, they have everything needed to make, store, share, use, reshare, and adapt educational audio content.

Podcasts are utilitarian digital technology. Their digitality makes them infinitely scalable and this expands access to knowledge. They can be heard anytime, anywhere, by anyone, usually for free (Figueroa, 2022; Goldman, 2018; Kay, 2012; Köhler, Serth, and Meinel, 2024). As educators, we can and should maximize podcasts' utility for the greater good.

This section develops a utilitarian understanding of three tools—genAI, Web3, and OA—for podcast creation, storage, and dissemination. There is one subsection per tool, covering its defining properties, types, and alternatives. GenAI contrasts with manual production, Web3 with Web2, and OA with closed access.

In terms of benefits, I focus on a podcast's usage—its impact. For example, this varies in the number of listeners, of listens (e.g., starting a podcast), and listening time (e.g., minutes spent). Other examples are resharing and adapting a podcast. Also relevant but harder to measure is how much listeners learn, comprehend, and apply a podcast's lessons. All of these usages should be considered as altmetrics.

Cost-wise, I focus on the amount of time, effort, and money spent by a creator to create, store, and disseminate a podcast. Also, I account for restrictions on usage like resharing and adaptation that affect end-users. These restrictions drive-up the cost of accessing and building on a podcast.

Finally is what I mean by utility and utilitarianism (Bentham, 1996; Schofield, 2019). Utility is benefit minus cost. Another way to think of it is as return-on-investment (ROI). In this context, a podcast's ROI equals its impact divided by its cost. To the extent a podcast generates greater

impact at lower cost, it has better ROI. Because our impact metrics are focused on the greater good, higher ROI is one way to operationalize being more utilitarian.

Given the choice between two or more ways to create, store, and disseminate a podcast, the best option is that with the highest ROI. In this article, my goal is to explain why the digitality of genAI, Web3, and OA promote the greater good. I am not arguing that they are the only good ways to go about podcasting; what is depends on a podcaster's goals, resources, and so on. Rationality is bounded (Simon, 1955). I just want to make sure you are aware of the options so you can make an informed decision.

Generative artificial intelligence

From a utilitarian perspective, an educator's primary motive for making a podcast should not be personal gain (e.g., popularity, profit). Their goal should be to educate listeners. They should want to be heard so they can impart knowledge. This purpose is what should guide their decisions on how to make a podcast.

I focus on two broad ways of creating a podcast: with human intelligence, or what I will refer to as manually, and with genAI. The production process is manual when a human performs the steps involved in making the final product. For example, a person may pick the topic, research it, outline and write the script, say it aloud, edit the audio, and so on.

Manual production has benefits. It can be faster, easier, and less expensive than using genAI if the creator wants more control over the outcome and already has podcasting experience. Another benefit of manual production is some audience members prefer manmade creations (Horton et al. 2023; Simon, Nielsen, and Fletcher, 2025).[3] This preference may affect their usage, such as the choice to listen and for how long.

Manual podcast creation is still the norm and most popular approach, but it is no longer the only option. In the early days of podcasting and until recently, a creator had to record themselves. To make a high quality recording, they needed to buy and set up a microphone, edit clips, and perform other technical tasks. This is a significant entry barrier due to the time, effort, and often expensive equipment.

With genAI, the cost of creating podcasts is brought down many fold. Tools may remove the need for microphones and editing software, for example. Creators no longer need to struggle with writing a script and saying it the right way. GenAI does the cost-intensive work by converting source material (e.g., an article) into a realistic-sounding and educationally useful podcast. This expands who can create podcasts.

GenAI is efficient because it is automated. Automation has a long history: from ancient imagined machines (Mayor, 2018) and medieval mechanical devices (Truitt, 2016), to the printing press (Eisenstein, 1980), industrialization (Frey, 2019), and the assembly line (Nye, 2015). As automation evolved, production costs fell, making goods and services more affordable for everyone.

Physical automation led to digital automation. Whereas the former is machine-based and acts upon the physical world, digital automation uses software and electronics to act upon information represented as 0s and 1s (Brynjolfsson & McAfee, 2014; Carpo, 2023). It was first used during World War II to break encrypted messages and make mathematical calculations (Swade, 2022).

We have come to take it for granted in spreadsheets, with spell-check, and everything we do on computers.

A type of digital automation is AI: software that mimics human capabilities by learning patterns and using it to produce outputs (Brynjolfsson & McAfee, 2014; Kelleher, 2019). There are different types of AI and our focus is genAI. GenAI is software that creates original content based on a prompt (Stryker & Scapicchio, 2024; Wheeler, 2026; Yu & Guo, 2023). Empirical reviews of genAI in instructional settings find consistent benefits for learning efficiency, engagement, and content creation, while also noting challenges related to accuracy and academic integrity (Deng et al., 2025; McNeill et al., 2025; Xiaoyu et al., 2025).

GenAI was originally invented to predict which word comes next in a sequence based on prior words (Kelleher, 2019). Then it became able to make images, video, music, audiobooks, and podcasts. It became ingrained in work, education, and recreation with the release of ChatGPT in 2022, as it was the first such tool widely accessible to and easily useable by the general public (Raaijmakers, 2025).

The method behind these creative outputs is training (Kelleher, 2019; Raaijmakers, 2025; but see Miller, 2019). With podcasts, for example, a model is fed existing instances of the desired output. The software uses them to identify statistical patterns in what podcasts sound like, what they talk about, how they are structured, and what they involve on average. Training also includes iterative, corrective steps based on feedback that labels outputs as good or bad (or acceptable and unacceptable, better or worse, etc.) relative to the trainer's goals.

For end-users, sometimes there is the option to further train the genAI model but others are frozen (Kelleher, 2019; Raaijmakers, 2025). For the best results, a user should pick a model made for the job in question, such as making a podcast versus something else. What models can do (well) is very specific to their training, as are human skills. To make educational resources, it is important to select models with minimal propensity to make stuff up and, related, to avoid overloading them with more context than they can reliably process. Hallucination is more likely when a user exceeds a model's context window (i.e., token limit).

Limitations notwithstanding, the opportunity to produce podcasts with genAI makes the process more inclusive than ever. GenAI enables educators to create more podcasts than is typically possible manually, with higher quality content that features better accuracy, improved structure, and more engaging audio. This capacity can increase educational impact and improve ROI.

Consider a concrete example: an instructor in a criminology course uploads a peer-reviewed article to NotebookLM (Google, n.d.), which within minutes converts it into a realistic two-host podcast episode—without a microphone, script, or audio editor. The instructor reviews it for accuracy, publishes it OA on Odysee (n.d.), and assigns it as pre-class listening. Students can rewind difficult passages and engage with the material on their own schedule. This is utilitarian digital pedagogy in practice.

To be clear, genAI carries real risks: hallucinated content can spread misinformation, outputs may reflect biases in training data, and questions of transparency and academic integrity remain unresolved (Deng et al., 2025; McNeill et al., 2025; Xiaoyu et al., 2025). Creators bear responsibility for verifying accuracy before publishing. These risks must be weighed against the potential rewards in any honest utilitarian calculus.

Web3

Once an educator creates a podcast, they need to decide how to store it—a question of hosting (Thompson, 2021). If something is not stored then it cannot be disseminated, which means it cannot accrue impact. Where and how it is hosted also shapes who can find it, how reliably they can access it, for how long, and under what conditions.

Two types of digital hosts are Web2 and Web3 (Dixon, 2024; Kaczynski & Kominers, 2024).[4] Both store information and deliver it to an end-user or application or "app" for usage. The hosting is done on a server, which is a type of computer system for storing files. On request, the server also sends and delivers the data via the internet to end-users and apps (Ruparelia, 2023).

As with automated production machines (see prior subsection), content-storage has historically been analog. Information was carved or impressed into/onto physical media such as rock walls, paper, canvas, magnetic tapes, and vinyl records. Libraries and warehouses functioned as the servers, with people and physical transport systems moving the data to end-users.

There is generally greater ROI in storing content digitally than in analog form (Borgman, 2007). Data are a valuable resource. The economic value of Fort Knox's gold can sit on a thumb-drive as Bitcoin, just as the information on the shelves of the US Library of Congress can be compressed into PDFs. Because digital storage is less expensive at scale, it multiplies the ROI of data usage.

How Web2 and Web3 differ is in network design (i.e., system architecture).[5] This refers to how hardware, software, and data interact to perform a task (Nisan & Schocken, 2021). Put bluntly, Web2 is centralized and Web3 is decentralized (Dixon, 2024; Kaczynski & Kominers, 2024; van Schewick, 2010; on possible internets, see Clark, 2018).

In a centralized system, information (e.g., a podcast) is stored and delivered from a single operator's server. The data can be delivered to any user or app, but it always comes from the same place and people (Ruparelia, 2023). Web2 dominates digital storage (Sprogis, 2025), examples of which are AWS, Azure, Google Cloud, and, for podcasts specifically, Buzzsprout, Spotify, and YouTube.

By contrast, a decentralized system is spread across many independent servers without a single locus of control. Instead of relying on an operator, the tasks are fulfilled by a protocol: computer code with rules for consensus that dictate how independent servers complete tasks (Dixon, 2024; Kaczynski & Kominers, 2024). Trust shifts from institutions to software (De Filippi, Reijers, and Mannan, 2024; Werbach, 2018). Anyone can potentially store the data, deliver it to others, and receive it themselves.

Web3's decentralization is based on blockchain technology (Dixon, 2024; Kaczynski & Kominers, 2024). What a blockchain does is use code—specifically cryptographic hashing and distributed consensus mechanisms—to record, preserve, share a history of data (Day, 2018; Narayanan et al., 2016). A block is a time-stamped dataset containing content and transactions plus associated metadata that links it to the previous block. As time unfolds, new blocks are created, each referencing its predecessor, and together they form a chain.

Blockchain's first implementation is Bitcoin, invented in 2008 (Nakamoto, 2008) and made operational with the mining of its genesis block in January 2009 (Bitcoin Wiki, n.d.). There are

now thousands of operational blockchains. They are distinguished by their protocols (e.g., proof-of-work vs. -stake), architecture (e.g., public vs. private), and function (e.g., money, gaming).

All blockchains have a storage component but they do not have the same storage capacity. This is because they are optimized for different things. Bitcoin is for financial transactions and Ethereum for smart contracts, for example. They were not optimized for storing large files, a result of which is they are prohibitively expensive to use for this job (Fenbushi, 2025).

Web3 storage comes in two types: temporary and permanent. In this article, I am only interested in permanent hosting because educational content and other scholarly resources should be preserved in perpetuity. Before going on, I should make clear that there is no such thing as *guaranteed* permanent storage. Everything has an expiration date—the sun will expand and consume Earth, eventually. One of the only guarantees in life is death.

Arweave (n.d.) is the best option for permanent storage. It was optimized for long-term, censorship-resistant file storage (Williams et al., 2019; Williams et al., 2023). It works by distributing large files across many independent nodes in what is known as a blockweave (Reno, Roy, and Tabassum, 2025). A podcast stored on it is designed to be immutable and persistent—deletion is computationally prohibitive by design, though longevity ultimately depends on the network's ongoing viability. It is pay-once to store indefinitely using an endowment model.

My sense is most creators host their podcasts on Web2 instead of Web3 without thinking about the choice. All of the most popular podcast-hosting platforms are Web2 because they are built this way by default. Web2 has a decade head-start, and that is a very long time in the digital world.

In addition to Web3's awareness barrier is its technical complexity. This is quickly becoming less true, but many Web3 platforms require understanding cryptocurrency for payment, which requires setting up a wallet with a seed phrase and keeping it safe offline. Web2 options are generally faster, easier, and more intuitive for podcast creators (Connors & Sarkar, 2024). They come with customer support, familiar interfaces, and integration with popular discovery platforms like Apple Podcasts and Spotify.

A primary reason that creators become interested in Web3 storage is to mitigate censorship and deletion risk (Khobzi, Canhoto, and Ramezani, 2025). As previously mentioned, the operators of Web2 hosting platforms choose whether to keep files. They can remove content that violates the platform's terms of service or if a creator stops paying for the service. Sometimes they get accidentally deleted. If the podcasts were not backed-up, they are gone. Impact and ROI stop accumulating.

What makes Web3 utilitarian is operators do not have as much power over creators. By putting podcasts on blockchains, creators and by extension their users avoid dependency on a sole operator's terms of service and fees. The greater good cannot be unilaterally dictated by a centralized, usually for-profit company. Decentralized storage is a hedge on gatekeeping that promotes freedom of speech and democratic dissemination. It makes content more resilient by combatting realistic fears of losing creations when platforms shut down, change policies, close accounts due to nonpayment, or face political pressure. A podcast that cannot be deleted generates impact indefinitely—and thus better ROI. This is utilitarian.

Open access

Podcasters generally want to maximize the size of their audience and engagement with their content. A self-centered creator wants to do this for personal gain, like popularity or profit. Whereas a utilitarian-creator's main aim is to provide users with the greatest opportunity to use, reshare, and adapt the podcast.

These motives correspond with two types of sharing: closed and open (Suber, n.d.). A podcast is closed access if left unpublished—i.e., "file-drawered"—or published with "all rights reserved" and paywalled (Jacques, 2023). A podcast is OA if, in addition to being digital and online, it is free of charge and of most copyright and licensing restrictions (see Suber, n.d.).

An educator may leave a podcast unpublished for several reasons. Perhaps they think its quality is too low to warrant publication and could damage their reputation. Or maybe they perceive user-demand as too low to put time and effort into sharing it. Or even when the resource is good quality and would be useful to other instructors, a creator may prefer to retain exclusive use in their courses. Assuming a podcast does not amount to misinformation or has otherwise harmful content, the least utilitarian option is to leave it unpublished because this severely restricts impact and ROI.

If a creator publishes a podcast with all rights reserved or behind a paywall, their motivation may be personal profit. This route protects their potential to monetize the content with ads and subscriptions, for example. The default in podcasting is to publish with free listening but otherwise all rights reserved (Livewire Labs, 2025; Paterson, 2024; e.g., Spotify, n.d.). Users are prohibited from resharing or adaption.

It is utilitarian to publish a podcast OA. This maximizes the public benefit by ensuring everyone can reshare and adapt the podcast, not only listen to it. This produces more impact and better ROI than all rights reserved. To free a podcast of the more restrictive status, what needs to happen is for the creator to rollback the prohibitions with a license (Stanford Libraries, n.d.; Suber, n.d.).

Not all licenses make a work OA. For an author to have their work published in a journal, for example, they will need to formally grant the publisher a right to do so—this is a license. Their agreement may furthermore specify whether the rights are exclusive and limited. In turn, the publisher of a paywalled journal will grant access to users who pay for the privilege. This situation may be profitable for the publisher, but it limits the work's reach and return for both creator and the public (Suber, n.d.).

The publisher of a paywalled publisher journal may also decide to make an article "free to read." This is not OA. It is bronze access: free to read but not to reshare or adapt. The majority of podcasts fall into this category. An academic podcaster, Figueroa (2022, p. 41), wrote about this and the benefits of no-cost digital access:

> The advent of podcasting has transformed information dissemination in numerous ways. The most obvious is that it allows researchers to partake in *something akin to open access*. … Consuming podcasts is … financially accessible and convenient. Podcast episodes and subscribing to the RSS feeds of podcasts are free. … Starting a podcast is also free (or relatively cheap) and disseminates information more widely than journal publishing. Consuming podcasts is also convenient. (My emphasis.)

In short, bronze-access podcasts are free for users to hear, but not licensed for resharing and adaptation. They are akin to but not really OA (Jacques, 2025). Users cannot even be sure that the creation will remain freely available, as the creator or publisher/platform may take it down or put it behind a paywall.

From a utilitarian perspective, it is better for a podcast to be gratis *and* libre: free to use in other ways (see Suber, n.d.). By assigning an OA license to a podcast, its creator explicitly grants other people the right to distribute, and sometimes adapt, the work in specific ways and under certain conditions. Think of it as changing "all rights reserved" to "some rights reserved." Creators have different licenses to choose from, like those of Creative Commons (n.d.).

OA is relatively new to scholarly publishing because it was only invented at the millennium's turn (Suber, n.d.). Computers and the internet made it practically feasible. Digitization drives the incremental cost of sharing copies to zero. Pre-21st century, the physicality of publication made it more expensive. Words were copied onto paper, tapes, and vinyl records, for example. A creator or publisher could give these away for free, yes, but not infinitely because the cost would be prohibitive due to the price of materials, manufacturing, shipping, labor, et cetera.

Analog publishing still exists, of course, but it is no longer a necessity. Basically all audio recordings are "born digital." There are advantages to physical media, but they are a luxury that not everyone can afford. An academic system that requires physical resources will have less impact than its digital twin. The same is true of a system that requires purchasing materials over providing them for free.

OA materials are more inclusive than the alternatives. It eliminates the choice between obtaining them and affording rent, groceries, and other needs. Better yet, because digital materials move at the speed of light, students can obtain them instantly instead of physically traveling to a bookstore or wait on a physical delivery. In short, publishing OA is the utilitarian choice.

On a personal level, I have been disappointed by the relatively slow implementation of OA in my field, criminology (e.g., Ashby, 2021; Jacques, 2023, 2025). For the aforementioned reasons and others—such as much of our work being publicly funded—I think it is important to ensure there is at least some form of OA to all of our work products. This is why I am happy that published genAI creations are often OA by default (Thaler v. Perlmutter, 2023; US Copyright Office, 2023).

Obviously the law varies somewhat jurisdictionally (Cooley, 2024), so please allow me to focus on the US because this is where I work. First is the issue of whether genAI podcast is published. This depends on the platform and whether the software is run locally. There is no legal requirement for a creator or platform to publish its creations.

But *if* a creator publishes a podcast made purely by genAI, it is automatically in the public domain (Thaler v. Perlmutter, 2023; US Copyright Office, 2023).[6] The defining feature of public domain works is they are not under copyright and, therefore, are entirely free for use, resharing, and adaptation. This is utilitarian.

The US legal system is common law, which heavily depends on judicial precedent to figure out what should be permitted and prohibited. The law that purely genAI creations are not copyrightable follows the prior decision that nonhuman creators do not have copyright over their creations

(Naruto v. Slater, 2018). However, if a human makes a significant manual contribution, the creation belongs to them.

How much work is enough to matter is an interesting legal issue but I will leave it aside because, from a utilitarian perspective, it is irrational to do extra work to obtain copyright simply for the sake of obtaining it. Even if you did, I would still encourage you to put the work in the public domain or at least give it a very liberal OA license.

There is an argument to be made for/against publishing all genAI creations. In-favor, the thinking is more information is always good, so long as we weigh it appropriately based on its validity. In that case, we should publish all genAI podcasts regardless of their accuracy. The opposing view is educators should consider quality in addition to quantity, and this is where I stand in the debate.

Summary and practical questions

Podcasts are a useful educational resource (Kay, 2012; Köhler, Serth, and Meinel, 2024; Minooka, 2024). An invention of the digital age, they were quickly adopted by instructors to improve student success (Wood & Breach, 2021; Xiaoyu, Zainuddin, & Leng, 2025). Podcasting involves creating, storing, and sharing a podcast. Its utility as a pedagogical practice can be improved by using genAI, Web3, and OA to make more podcasts of higher quality with greater usage than possible with manual production, Web2, and closed access.

This article focused on conceptual and theoretical issues. My aim has been to describe, explain, and weigh the utility of genAI, Web3, and OA versus their alternatives. This is a contribution to utilitarian digital pedagogy (Bentham, 1984, 1996; Schofield, 2019; Silva & Schofield, 2024; Tan, Voogt, and Tan, 2024). I emphasized how digitality generally increases the benefits and reduces the costs of designing, implementing, and enhancing education.

I began by tracing how educational audio moved from nonexistent, to revolutionary but expensive due to its analog nature, to now infinitely scalable and widely affordable (Betts et al., 2021; Goldfarb & Tucker, 2019; Watters, 2021). Podcasts are an example of how digitization democratized learning for the greater good (Figueroa, 2022; see also Cecil, 2023). Podcasting is more utilitarian to the extent it generates greater impact—such as listeners, listening time, reuse, adaptation, learning and application—with less time, effort, and money to produce, store, and share.

Case-to-case, the best way to do podcasting is a bounded choice (Simon, 1955). I think it is prudent to consider genAI, Web3, and OA as options in the decision-making process. By using genAI for creation, instead of limiting ourselves to human intelligence, we can make more podcasts of higher quality at lower cost. By publishing on Web3, in lieu of centralized storage, we mitigate the risk of not accruing impact due to censorship and deletion. By publishing OA, not with "all rights reserved," we ensure anyone can use, share, and adapt our creations.

These utilitarian choices were made possible by the digital revolution. For instructors, the practical implication is straightforward: use genAI tools to produce podcasts to supplement required readings, publish them on a permanent Web3 host, and release them under a public domain or Creative Commons license. For institutions, the implication is to support infrastructure and training that makes it easier for instructors to do this. For policymakers and scholarly

organizations, it is to recognize and reward OA podcasting as a legitimate form of educational output.

As with any important advancement, there are upsides and downsides of using genAI, Web3, and OA for podcasting. In this article, I identified the biggest problems as hallucination, technical complexity, and control over publication and users' rights. These are genuine limitations, not minor inconveniences: genAI can produce inaccurate or biased content; Web3 remains technically inaccessible for many educators; and OA does not guarantee quality or discoverability.

A fully utilitarian assessment requires honest accounting of these costs relative to the benefits. Stated as practical questions: How do I mitigate the risk of creating a genAI podcast that contains misinformation? Store it on Web3 without getting overwhelmed by the intricacies? Control its publication and communicate its rights status? I will address these questions in a future article on how to use NotebookLM (Google, n.d.) and Odysee (n.d.) with Creative Commons (n.d.) licenses.

References

Arweave. (n.d.). *Arweave: A community-driven ecosystem*. https://arweave.org

Ashby, M. P. (2021). The open-access availability of criminological research to practitioners and policy makers. *Journal of Criminal Justice Education, 32*(1), 1–21. https://doi.org/10.1080/10511253.2020.1838588 (OA postprint: https://osf.io/preprints/socarxiv/wnq7h)

Bajaj, S., Rana, P., & Sharma, T. (2024). The effects of podcasting on exam preparation and academic performance. *ShodhKosh: Journal of Visual and Performing Arts, 5*, 815–824. https://doi.org/10.29121/shodhkosh.v5.i5.2024.2201

Bentham, J. (1984). *Chrestomathia* (M. J. Smith & W. H. Burston, Eds.). Clarendon Press. (Original work published 1816)

Bentham, J. (1996). *An introduction to the principles of morals and legislation*. Clarendon Press. (Original work published 1789)

Betts, K., Delaney, B., Galoyan, T., & Lynch, W. (2021). Historical review of distance and online education from 1700s to 2021 in the United States: Instructional design and pivotal pedagogy in higher education. *Journal of Online Learning Research and Practice, 8*. https://doi.org/10.18278/jolrap.8.1.2

Bitcoin Wiki. (No date). *Genesis Block.* https://en.bitcoin.it/wiki/Genesis_block

Bitcoin Wiki. (n.d.). *Genesis block.* from https://en.bitcoin.it/wiki/Genesis_block

Boehm, C., Canfer, T., & Salazar, C. (2025). *Podcasting and education: Concepts, communities and case studies*. Focal Press.

Borgman, C. L. (2007). *Scholarship in the digital age: Information, infrastructure, and the Internet*. MIT Press.

Brynjolfsson, E., & McAfee, A. (2014). *The second machine age: Work, progress, and prosperity in a time of brilliant technologies*. W. W. Norton & Company.

Carpo, M. (2023). *Beyond digital: Design and automation at the end of modernity*. MIT Press.

Cecil, D. K. (2023). Transcending prison walls: Prison podcasts, the listening experience, and narrative change. *Crime, Media, Culture, 20*, 179–199. https://doi.org/10.1177/17416590231196128

Clark, D. D. (2018). *Designing an Internet*. MIT Press.

Connors, C., & Sarkar, D. (2024). Benefits and limitations of Web3. *arXiv*. https://arxiv.org/abs/2402.04897

Cooley LLP. (2024). *Copyright ownership of generative AI outputs varies around the world*. https://www.cooley.com/news/insight/2024/2024-01-29-copyright-ownership-of-generative-ai-outputs-varies-around-the-world

Copeland, S., & McGregor, H. (2021). *A guide to academic podcasting*. Amplify Podcast Network. https://scholars.wlu.ca/books/2

Creative Commons. (n.d.). *About CC licenses*. https://creativecommons.org/share-your-work/cclicenses

Day, M. S. (2018). *Bits to bitcoin: How our digital stuff works*. MIT Press.

De Filippi, P., Reijers, W., & Mannan, M. (2024). *Blockchain governance*. MIT Press.

Deng, R., Jiang, M., Yu, X., Lu, Y., & Liu, S. (2025). Does ChatGPT enhance student learning? A systematic review and meta-analysis of experimental studies. *Computers & Education, 213*, 105087. https://doi.org/10.1016/j.compedu.2025.105087

Dixon, C. (2024). *Read, write, own: Building the next era of the Internet*. Random House.

Eisenstein, E. L. (1980). *The printing press as an agent of change*. Cambridge University Press.

Fenbushi. (2025, August 29). *Hot DA on cold storage: Building cost-effective DA on Filecoin*. https://fenbushi.vc/2025/08/29/hot-da-on-cold-storage-building-cost-effective-da-on-filecoin/

Figueroa, M. (2022). Podcasting past the paywall: How diverse media allows more equitable participation in linguistic science. *Annual Review of Applied Linguistics, 42*, 40–46. https://doi.org/10.1017/S0267190521000118

Frey, C. B. (2019). *The technology trap: Capital, labor, and power in the age of automation*. Princeton University Press.

Goldfarb, A., & Tucker, C. (2019). Digital economics. *Journal of Economic Literature, 57*(1), 3–43. https://doi.org/10.1257/jel.20171452

Goldman, T. (2018). The impact of podcasts in education. *Pop Culture Intersections, 29*. https://scholarcommons.scu.edu/engl_176/29

Google. (n.d.). *NotebookLM*. https://notebooklm.google

Horton, C. B., Jr., White, M. W., & Iyengar, S. S. (2023). Bias against AI art can enhance perceptions of human creativity. *Scientific Reports, 13*, 19001. https://doi.org/10.1038/s41598-023-45202-3

Jacques, S. (2023). Ranking the openness of criminology units: An attempt to incentivize the use of librarians, institutional repositories, and unit-dedicated collections to increase scholarly impact and justice. *Journal of Contemporary Criminal Justice, 39*, 371–386. https://doi.org/10.1177/10439862231172737 (OA postprint: https://doi.org/10.21428/cb6ab371.69930b9a)

Jacques, S. (2025, May/June). Making your articles open access: Opportunities and choices. *The Criminologist*. https://asc41.org/wp-content/uploads/ASC-Criminologist-2025-05.pdf

Kaczynski, S., & Kominers, S. D. (2024). *The everything token: How NFTs and Web3 will transform the way we buy, sell, and create*. Penguin.

Kay, R. H. (2012). Exploring the use of video podcasts in education: A comprehensive review of the literature. *Computers in Human Behavior, 28*(3), 820–831. https://doi.org/10.1016/j.chb.2012.01.011

Kelleher, J. D. (2019). *Deep learning*. MIT Press.

Kelly, J. M., Perseghin, A., Dow, A. W., Trivedi, S. P., Rodman, A., & Berk, J. (2022). Learning through listening: A scoping review of podcast use in medical education. *Academic Medicine, 97*(7), 1079–1085. https://doi.org/10.1097/ACM.0000000000004565

Khobzi, H., Canhoto, A. I., & Ramezani, A. (2025). Content creators at a crossroads between decentralized and centralized social media. *Business Horizons, 68*(1), 109–120. https://doi.org/10.1016/j.bushor.2024.04.010

Köhler, D., Serth, S., & Meinel, C. (2024). Promoting content variety in MOOCs: Increasing learning outcomes with podcasts. *Frontiers in Education, 9*. https://doi.org/10.3389/feduc.2024.1339142

Livewire Labs. (2025). *Top podcast hosting companies by episode share*. https://livewire.io/podcast-hosts-by-episode-share/

Mayor, A. (2018). *Gods and robots: Myths, machines, and ancient dreams of technology*. Princeton University Press.

McCarthy, J., Porada, K., & Treat, R. (2023). Educational podcast impact on student study habits and exam performance. *Family Medicine, 55*(1), 34–37. https://doi.org/10.22454/FamMed.55.183124

McNeill, L., Uddin, M. M., Pei, M., & Regalado, L. (2025). Generative AI in instructional design: Adoption, benefits, and best practices. *Journal of Applied Instructional Design, 14*(3). https://doi.org/10.59668/2223.22720

Miller, A. I. (2019). *The artist in the machine: The world of AI-powered creativity*. MIT Press.

Minooka, L. (2024). The rise of podcasting: Evolution, impact, and future directions. *Global Media Journal, 22*. https://doi.org/10.36648/1550-7521.22.72.471

Nakamoto, S. (2008). *Bitcoin: A peer-to-peer electronic cash system*. https://bitcoin.org/bitcoin.pdf

Narayanan, A., Bonneau, J., Felten, E., Miller, A., & Goldfeder, S. (2016). *Bitcoin and cryptocurrency technologies: A comprehensive introduction*. Princeton University Press.

Nisan, N., & Schocken, S. (2021). *The elements of computing systems: Building a modern computer from first principles* (2nd ed.). MIT Press.

Nye, D. E. (2015). *America's assembly line*. MIT Press.

Odysee. (n.d.). *Odysee*. https://odysee.com

Paterson, K. (2024). *Survey finds only 1 in 4 indies monetize their podcast*. The Podcast Host. https://www.thepodcasthost.com/business-of-podcasting/how-indies-monetize-their-podcast

Podcastle Team. (2025). *Podcast statistics and trends you should know for 2025*. Podcastle Blog. https://podcastle.ai/blog/podcast-statistics

Raaijmakers, S. (2025). *Large language models*. MIT Press.

Reno, S., Roy, S., & Tabassum, M. (2025). Blockweave: An Arweave-based decentralized storage solution to tackle the blockchain trilemma. *Engineering Reports, 7*, e70259. https://doi.org/10.1002/eng2.70259

Ruparelia, N. B. (2023). *Cloud computing* (Rev. & updated ed.). MIT Press.

Schofield, P. (2019). Utilitarianism. In *The Cambridge history of modern European thought*. https://doi.org/10.1017/9781316160855.006 (OA postprint: https://discovery.ucl.ac.uk/id/eprint/10053949)

Silva, A., & Schofield, S. (2024). *Digital pedagogy in early modern studies: Method and praxis*. Iter Press.

Simon, F., Nielsen, R. K., & Fletcher, R. (2025). *Generative AI and news report 2025: How people think about AI's role in journalism and society*. Reuters Institute. https://doi.org/10.60625/risj-5bjv-yt69

Simon, H. A. (1955). A behavioral model of rational choice. *The Quarterly Journal of Economics, 69*(1), 99–118. https://doi.org/10.2307/1884852

Spotify. (n.d.). *Respecting everyone's rights: Podcasts and copyrighted content*. https://creators.spotify.com/resources/create/copyright-creator-education

Sprogis, J. (2025). *38 booming cloud adoption statistics. 2025*. HostingAdvice. https://www.hostingadvice.com/how-to/cloud-adoption-statistics

Stanford Libraries. (n.d.). *Permission tools: Licenses and releases*. https://fairuse.stanford.edu/overview/introduction/permission-tools-licenses-and-releases

Stryker, C., & Scapicchio, M. (2024). *What is generative AI?* IBM. https://www.ibm.com/think/topics/generative-ai

Suber, P. (n.d.). *Open access (the book)*. https://cyber.harvard.edu/hoap/Open_Access_(the_book)

Swade, D. (2022). *The history of computing: A very short introduction*. Oxford University Press.

Tan, S. C., Voogt, J., & Tan, L. (2024). Introduction to digital pedagogy: A proposed framework for design and enactment. *Pedagogies: An International Journal, 19*(3), 327–336. https://doi.org/10.1080/1554480X.2024.2396944

Thompson, J. B. (2021). *Book wars: The digital revolution in publishing*. Polity Press.

Truitt, E. R. (2016). *Medieval robots: Mechanism, magic, nature, and art*. University of Pennsylvania Press.

U.S. Copyright Office. (2023). Copyright registration guidance: Works containing material generated by artificial intelligence. *Federal Register, 88*, 16190–16194. https://www.federalregister.gov/documents/2023/03/16/2023-05321

van Schewick, B. (2010). *Internet architecture and innovation*. MIT Press.

Warschauer, M. (2003). *Technology and social inclusion: Rethinking the digital divide*. MIT Press.

Watters, A. (2021). *Teaching machines: The history of personalized learning*. MIT Press.

Werbach, K. (2018). *The blockchain and the new architecture of trust*. MIT Press.

Wheeler, A. P. (2026). *Large language models for mortals: A practical guide for analysts with Python*. Crime De-Coder LLC.

Williams, S., Diordiiev, V., Berman, L., & Uemlianin, I. (2019). *Arweave: A protocol for economically sustainable information permanence*. https://arweave.org/yellow-paper.pdf

Williams, S., Kedia, A., Berman, L., & Campos-Groth, S. (2023). *Arweave: The permanent information storage protocol* (Draft 17). https://www.arweave.org/files/arweave-lightpaper.pdf

Wood, M., & Breach, S. R. (2021). Assessing the impact of a high impact practice: Implementing a criminal justice shared learning experience using the true crime podcast *Serial*. *Journal of Criminal Justice Education, 32*(4), 464–478. https://doi.org/10.1080/10511253.2021.1912797

Xiaoyu, W., Zainuddin, Z., & Leng, C. H. (2025). Generative artificial intelligence in pedagogical practices: A systematic review of empirical studies, 2022–2024. *Cogent Education*, *12*(1). https://doi.org/10.1080/2331186X.2025.2485499

Yu, H., & Guo, Y. (2023). Generative artificial intelligence empowers educational reform: Current status, issues, and prospects. *Frontiers in Education, 8*, 1183162. https://doi.org/10.3389/feduc.2023.1183162

United States Case Law

Naruto v. Slater, 888 F.3d 418 (9th Cir. 2018).

Thaler v. Perlmutter, 687 F. Supp. 3d 140 (D.D.C. 2023).

Notes

[1] For histories of technology in education, see Betts et al. (2021) and Watters (2021).

[2] True OA is distinct from bronze access: content that is free to read but still restricted from resharing and adaptation (Suber, n.d.). Most podcasts are bronze access, as discussed later in the article.

[3] This is anti-utilitarian anthropocentrism, a new digitally-based type of discrimination. My expectation is that with time, genAI will outperform all human podcasters and, accordingly, the bias will go down. It will be like watching someone do calculus by hand: impressive, yes, but most people will opt for a calculator and trust it more.

[4] Web1 websites were “read-only” or “static” (Connors & Sarkar. 2024). Users could consume a site’s content but not contribute to it. To publish digitally, users had to know how to code (e.g., HTML) and operate a server or pay someone who did. The ability to create and publicly disseminate media at scale was out of reach for

most people, as true for analog publishing as well. Then came Web2, the internet we know today. In addition to consuming content, users easily can interact with it, create their own, and share it globally. These "read-write" or "dynamic" websites gave rise to the podcast era, which recall started in the early 2000s. This advancement served the greater good by democratizing digital publishing.

[5] A stepping-stone between Web2 and Web3 are peer-to-peer (P2P) networks (e.g., BitTorrent). They enable independent computers to work as servers, sending and receiving data without an intermediary (Schewick, 2010). This decentralized approach puts them outside Web2, but they are not Web3 because they do not use blockchain.

[6] This relates to the ongoing debate over whether and how genAI can be said to be truly creative (Miller, 2019).