Hip-Hop librarianship for scholarly communication: An approach to introducing topics

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Hip-Hop Librarianship for Scholarly Communication: An Approach to Introducing Topics

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Abstract: Hip-Hop music, business, distribution, and culture exhibit highly-comparable trends in the scholarly communication and publication industry. This article discusses Hip-Hop artists and research authors as content creators, each operating within marketplaces still adjusting to digital, online connectivity. These discussions are intended for classroom use, where students may access their existing knowledge framework of popular media and apply it to a new understanding of the scholarly communication environment. Research instructors and librarians may discover new perspectives to familiar issues through conversations with students engaging with this material in a novel way.

Keywords: bibliometrics, data, fair use, grey literature, hip-hop, impact factor, institutional repositories, open access, piracy, preprints, scholarly communication

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About This Article

The inspiration for this article originally came from an intellectual property (IP) course the author taught in the Spring of 2017. IP from a wide range of industries was covered in the curriculum, with special interest in how the nature of these have been changing during the Information Age. The section taught on scholarly publishing posed particular difficulty because the scholarly communication librarian teaching the course was new to the position, and the students were unfamiliar with the subject. A later section, on digital music was easier to teach since both the teacher and students had more personal experience with the material. In reflection over the following summer, the similarities between the music and scholarly communication industries became clear.

For instance, in 2016, Kanye West posted a “notepad-scrawled track listing” (Caramanica, 2016) for his then-forthcoming album, which he then played a version of during an event at Madison Square Garden. When Mr. West released a very-expensive digital-only copy of this album, it was pirated heavily. Fans discussed their preference online for a different version of the song *Wolves*, which prompted Kanye to later update it. All of these things seemed to have analog in contemporary research: posting an intended track list to social media (pre-registering a hypothesis on the Open Science Framework); previewing a demo for feedback before finalizing an album (presenting an idea at conference for feedback before finalizing an article); music piracy (research piracy); and making post-release edits, leaving fans to wonder to which version they are listening (researchers utilizing CrossMark to see if their PDF-copy of an article is the most up-to-date).

The original manuscript was intended to explore to what degree this notion could be sounded out. This final article is a collection of essays that compares common tropes from the scholarly communication literature with specific instances of similarity in Hip-Hop distribution. It would not be
unfair to call this a comparative analysis. Sections end with explicit or implicit questions that can be used as a jumping off point for conversation in the classroom and in the wider research community.

The intellectual property course where the idea first germinated will be offered again in Spring 2019, at which time the author plans to teach with this article, using the music content to jumpstart conversation with the scholarly publishing content. This might be a useful approach for other instructors and librarians teaching scholarly communication. A simple read-through by those interested in the concept is an equally valid use.

**Literature Review**

The choice of scholarly communication topics discussed in this article is supported by the ACRL Scholarly Communication Toolkit (accessed 2017), *NASIG Core Competencies for Scholarly Communication Librarians* (accessed 2017), and research by Finlay, Tsou, & Sugimoto (2015) which reviewed scholarly communication librarian job postings from 2006-2014. Studies by Riehle and Hensley (2017) support the notion that there exists a clear “opportunity for librarians to support student-researchers in learning about topics and issues related to [studying] scholarly communication,” which may be of importance, as “more institutions implement high-impact educational practices as part of the undergraduate experience.”

Music news and criticism, as a basis of comparative conversation with scholarly publishing, is not without precedent. Jefferson Pooley contends (2016) that the media studies field has the “analytic traditions to scrutinize, and perhaps improve, the way academics go about sharing knowledge.” The scholarly communication agenda is the Open Access Movement, and “OA innovations have sprung from [media studies],” said Pooley. Critical media scholar Douglas Kellner believes (2000) that students and youth, who are usually “more media savvy, knowledgeable, and immersed in media culture than
their teachers,” can “contribute to the educational process through sharing their ideas, perceptions, and insights.” Hip-Hop seemed an apt genre to connect to students with, as it continues a hold at the forefront of popular music among students (BuzzAngle Music, 2016). In 2017, at least five rap songs reached the Billboard No. 1 (Zellner, 2017).

Possibly the earliest writing to highlight commonalities between Hip-Hop sampling and research-based composition writing was *The 1963 Hip-Hop Machine: Hip-Hop Pedagogy as Composition* (2003) by Jeff Rice. Rice showed that juxtaposition of existing materials allows producers to “construct new forms of meaning,” by discussing The Beastie Boys’ song *High Plains Drifter* built with “cultural odds and ends.” Critic Jeff Chang gave another version of this theme at the beginning of the documentary *Copyright Criminals* (2009), where he referred to the record store as an archival repository, describing DJ remixers as giving audiences a “reinterpretation of [our] history to us in the present day” (Franzen, 2010).

Hip-Hop Based Education is growing into a “rich and vibrant site of inquiry” (Hill & Petchauer, 2013), including within the field of library and research-centered instruction. *Sampling* has been used to demonstrate research-based composition and proper attribution to source material (Oswald, 1985; Hess, 2006; Johnson-Eilola & Selber, 2007; Chanbonpin, 2012; Foster, 2014; Arthur, 2015). Hip-Hop lyrics have been used in demonstration of background and primary source evaluation and annotation, including a notable lesson by Dave Ellenwood and Alyssa Berger (Fresh Techniques: Hip-Hop and Library Research, 2016). Dave Ellenwood’s chapter, *Hip-Hop and Information Literacy: Critically Incorporating Hip-Hop in Information Literacy Instruction* (2013) discusses how Hip-Hop may be critically incorporated into information literacy instruction. The Hip-Hop Librarian Consortium...
published *The Leaders of the New School: Hip-Hop Librarianship* (2017), a potentially comprehensive bibliography of articles and writings on the topic at the time of its publication.

**Introduction: Started from the Bottom, Now We’re Here**

*M.C.s get a little bit of love and think they hot, talkin’ bout how much money they got, all y’all records sound the same. I’m sick of that fake-thug, R&B-rap scenario, all day on the radio, same scenes in the video, monotonous material. Y’all don’t hear me though; these record labels slang our tapes like dope. You can be next in line and signed and still be writing rhymes and broke. You would rather have a Lexus or justice, a dream or some substance? A Beamer, a necklace, or freedom?* - Dead Prez, *Hip-Hop from Let’s Get Free* (2000)

While the “well-established musical tradition” of humankind may date back to 35,000 years ago (Conard, Malina, & Münzel, 2009), Thomas Edison’s phonograph cylinder, for recording and replaying sound, was not invented and produced until 1877. This cylinder was improved upon when it was flattened out into a vinyl disc, which helped make widespread distribution and sale of prerecorded music possible. In 1973, DJ Kool Herc’s innovation of the sample-and-loop breakbeat brought about a new music genre and culture: Hip-Hop (Persley, 2007). Run-DMC’s Platinum-selling *Raising Hell* (1989) heralded the start of the genre’s first golden age, characterized by an “explosion of sample-based rap experimentation” (Batey, 2017).

In 1991, Biz Markie lost a copyright lawsuit for sampling Gilbert O’Sullivan’s 1972 single *Alone Again (Naturally)* without permission ([Grand Upright v. Warner 780 F. Supp. 182 [S.D.N.Y. 1991]]). The case helped to blur the lines between good faith intentions of copyright to encourage sharing innovation and bad faith leveraging of the law for profit maximization. The “big six” music corporations who “owned all the sounds” (or at least an outstanding majority) began hunting for potential of infringement cases; Public Enemy’s Chuck D cites this as a cause for a “noticeable difference in Public Enemy’s sound,” which previously “collaged” hundreds of samples into “a sonic wall” (McLeod, 2004).
Professional remixers contracting with labels are asked to provide comprehensive lists of samples (Hogan, Remixers, Do You Swear You Weren’t Inspired?, 2017). Amateur and hobby producers self-releasing free music, incorporating sample work, have been told to stop distribution (Rambarran, 2013), unless they pay copyright clearance fees on samples, which can average at $10,000 (Newton, 2008). If sample-based Hip-Hop did not already exist, it is difficult to imagine how it might form today, unless it were done illegally or by well-resourced individuals.

Debuting in 1665, the first printed science periodicals, Philosophical Transactions and Journal des sçavans, helped transmit and store scientific knowledge (Kronick, 1962), in a much more effective manner than earlier systems of idea circulation, which were conducted through postal services (Guédon, 2014).

Early scholarly publishing mostly depended upon “the generosity of sponsors” to subsidize systems of “circulating knowledge,” until an influx of Cold War-era academic professionals, dependent on access to and publication in peer-reviewed outlets, helped cause academic publishing to become “a highly profitable industry.” An “oligopoly” of four commercial firms, each publishing more than 2,000 journals apiece, account for upwards of 70% of all articles in some fields (Fyfe, et al., 2017).

Today, most scholarly research is publicly-funded by scholars who wish to “develop and disseminate their research with no expectation of direct financial reward” (ACRL Scholarly Communications Committee, 2003), though many of the products of research are sold commercially. Scholarly journal subscription prices have inflated, for four decades, “twice as fast as the price of
healthcare” (Suber, 2012). Reed Elsevier (Elsevier\(^1\)) alone has global revenues comparable to “the recording and the film industries in size” (Buranyi, 2017).

Technology has made connectivity and communication between users relatively inexpensive. Growth of household internet rose to 77.2% by 2015, compared to just 18% in 1997 (US Census Bureau, 2016). From such connectivity, Hip-Hop has experienced a shift in “both its infrastructure and its approach to musical production,” as independent artists are able to bring to audiences “music that radically breaks from the traditional norms” without reliance on or input from the music industry infrastructure (Johnson, 2007).

The “multinational media conglomerates” control of music publishing has been found to be similar to the “bottleneck” that commercial publishers created in the dissemination of scholarly content” (Pyati, 2007). Following the vinyl record, the costs of recorded music increased with each new medium, from the eight-track, cassette tapes, compact discs, up until the introduction of consumer internet technology, which made physical media optional and piracy possible (Harmon, 2003).

Today, music is selling at historically low prices (Hogan, How Much Is Music Really Worth?, 2015). Content from commercial scholarly publishers is pirated at remarkable rates, but unlike the music industry, this has not resulted in lowered prices. A prime question for those who care about scholarly communication is how can its practitioners act more like Hip-Hop’s practitioners, who have “historically challenged the status quo and fought for more self-control” (Runcie, 2017).

1. Copyright and Violation of Academic Tradition (featuring Danger Mouse & JAY-Z)

“They don’t, paint pictures, they just, trace me. You know what? Soon they forget where they plucked their whole style from, then try to reverse the outcome. I’m like, ‘TAA!’ I’m not a biter, I’m a writer for myself and others. I say a B.I.G. verse, I’m only bigging up my brother.”

\(^1\) Since 2015, Reed-Elsevier is now called the RELX Group, but will be referred to simply as Elsevier throughout the article for convenience.
Mac Miller's *Kool Aid & Frozen Pizza* (2010) heavily samples the Lord Finesse song, *Hip 2 Da Game* (1996). Though Miller's mixtape was a free release, his sample of *Hip 2 Da Game* was unlicensed, and the shirt Miller wore in the music video was one of the few hints of credit to Finesse. When lawyers for Lord Finesse filed a copyright infringement lawsuit for 10 million dollars against Miller and associated parties (Hall v. McCormick et al, 1:12-cv-05296-HB, S.D.N.Y. 2012), Miller's side argued the sample was within the bounds of traditional conventions of Hip-Hop practice. More importantly, they argued, the sample was within Fair Use, a legal exception to US copyright law, based on a balance of four factors: 1. The purpose and character of the proposed use; 2. The nature of the work being used; 3. The amount of the work being used; and 4. The effect of the use upon the market for the copyrighted work.²

Miller used a substantial and unaltered portion of Lord Finesse's commercially-released copyrighted work without permission. Miller's derivative work was also arguably commercial in nature as the video was posted to YouTube, where it generated ad revenue and promotional buzz for Miller's debut album released soon after. The suit was settled outside of court for an undisclosed amount, including a proper credit for Finesse on Miller's track.

Librarian Craig Arthur (2015) uses this example to teach information literacy (*scholarship as conversation*) in an undergraduate one-shot instruction session, building around the idea that the "academic research process is very similar to the traditional method of Hip-Hop music production" as

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² U.S. copyright law allows creators a monopoly over their intellectual property. Copyright incentivizes sharing by ensuring the market in favor of the copyright holder, but it also makes fair use exceptions, including where scholarship and research are concerned.
both require that “consumers become producers by building on and synthesizing that which came before them.”

After describing the Miller and Finesse case, Arthur asks his class to move to opposite ends of the room based on whether they believe Miller’s use violates either Hip-Hop convention or academic convention, facilitating a conversation differentiating between plagiarism (falsely claiming authorship of material), copyright infringement (use of material without permission of copyright holder), and fair use (statutory exception to copyright).

Now with Craig Arthur’s research sampled and attributed, we can remix it for scholarly communication learning objectives.

When Danger Mouse released promotional copies of The Grey Album (2004), a mash-up of JAY-Z’s The Black Album (2003) and The Beatles’ The White Album (1968), it was unlike with the Miller and Finesse scenario in one key distinction. Paul McCartney and Ringo Starr (of The Beatles), and JAY-Z, seemed to be in approval of the unlicensed derivative work (York, 2014). However, even while The Grey Album was introducing the back catalog of The Beatles to a new market of Hip-Hop fans, EMI, the British media conglomerate that held the rights to the master recording, issued orders to Danger Mouse to cease-and-desist distributing The Grey Album.

Danger Mouse’s work was similar to a research article in practice: it incorporated quoted selections from previous works, had no mechanism for earning direct profits for its author, found its widest impact from being openly-available, and posed no market substitution threat to the original
works.\(^3\) The Grey Album differed from a subsection of research articles because, to date, no one has paid the sample clearance fees to make the freely-released mashup work legally available.

In scholarly publishing, authors might pay an article processing charge (APC), to make their article available for readers who could not otherwise afford to purchase single articles for $35 (Rosenwald, 2016), or rent short-term access to them for $42.50-$105.00 (Taylor & Francis Group, 2015). For scholarly authors, the opportunity for widened readership and citation that open access brings can be enough of an incentive to pay an APC, which run $964 on average (Morrison, Salhab, Calvé-Genest, & Horava, 2015).\(^4\) Funders sometimes mandate their funded authors publish open access, and if the publication being considered is not open access by default, then payment of APCs becomes necessary.

While it is understood in scholarly tradition that research works will cite relevant works that have come before—by mention, quote, or paraphrase—such access costs, as charged by some scholarly publishers, may make it unaffordable for scholars to fully perpetuate the scholarly conversation. Therefore, when authors sign over copyright to commercial publishers that operate on such models, could that be considered a violation of academic convention?\(^5\) When universities and funders create tenure and grant logistics that either incentivizes or mandates faculty members publish in such a way, does this signal a shift in how the academy effectively perceives the nature of written scholarship—as a commercial, rather than educational, endeavor?

2. Piracy and Access (featuring Kanye West)

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\(^3\) For a more thorough legal discussion about the failures of current copyright law to account for sample-based Hip-Hop music, see either Sampling, Looping, and Mashing . . . Oh My!: How Hip Hop Music is Scratching More Than the Surface of Copyright Law (Evans, 2011), or Give Me a Beat: Mixing and Mashing Copyright Law to Encompass Sample-Based Music (Shappell, 2011).

\(^4\) APC costs may range from $65 to $5,000 (Socha, 2017).

\(^5\) The question that Craig Arthur asks his class, regarding Miller and Finesse.
“Girl, you know you ain’t gotta pay nothin’ around me. I’m the bootleg queen. I’ll give it to you for free ninety-nine.” - Candis Brown, Brandi Kuykenvall, and Tiera Singleton, *Workout Plan* (Skit) from Kanye West’s The College Dropout (2004)

While paywalls can pose a prohibitively high barrier to research, many researchers are utilizing other means toward access: piracy. This need not be the case.

In the 1990s, albums usually were purchased in full, with retail CDs costing $17 on average (Strauss, 1995). Music consumption in the early digital era was defined by the use of piracy sites, like Napster. Music piracy was so predominant, it actually helped drive demand for the early growth of the internet (Lessig, 2004). Strong enforcement of U.S. copyright law eventually cleared the brush, which created an economy receptive to new legal models of online music consumption, especially Apple’s iTunes online music store. In the iTunes model, it was possible to purchase individual album tracks for $1, which brought whole albums down to $10. In the years since, music consumer behavior has shifted toward all-you-can-stream subscription models like Spotify and Apple Music, with monthly plans running around $10.

Kanye West, who is known for innovations in music production and apparel design, took a regressive step when pricing his seventh studio album, *The Life of Pablo* (2016). Fans wanting Ye’s latest had two legal options to hear it: purchase the digital-only album for $20, or start a monthly streaming subscription with Tidal. Tidal is Spotify and Apple Music’s much smaller competitor, which meant, in many cases, fans would need to start a second streaming account, or switch music streaming ecospheres entirely, if they did not want to pay on two nearly-redundant services.

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6 Kanye is one of Tidal’s founding co-owners.
By the second day of release, *Pablo* had been illegally downloaded about 500,000 times (Kleinman, 2016). After seeing piracy numbers equivalent to an RIAA Gold Record Certification in a single day, the album was made unavailable for purchase completely. Instead, it widened to stream on all popular platforms (like Amazon Music, Apple Music, and Spotify), and made history by becoming the first streaming-only album to achieve a Platinum certification (Yoo, 2017). The example of Kanye demonstrates that, even with piracy options still ubiquitous, consumers are nonetheless willing to spend money for content when the pricing is equitable and access methods convenient.

Experts like Lawrence Lessig (2004) predicted a system like Spotify would appear in a post-Napster world, based on the assertion that when it becomes “extremely easy to connect to services that give access to content, it will be easier to connect to services that give you access to content than it will be to download and store content on the many devices you will have for playing content.” Spotify CEO, Daniel Ek, said his reason for starting the service was not “love of music” necessarily, but what he saw as “an opportunity to create something that made it easier for people to do the stuff that they were already doing,” like music file-sharing, “but legally” (Pollack, 2010). Early-adopters saw Spotify as “an elegant application,” indeed; “faster and more responsive than iTunes, torrents, or Pandora” and providing “by far the simplest, easiest way to listen to digital music” (Pollack, 2010).

In 2016, streaming became the “leading driver” of U.S. music revenue and gave the industry its first double digit growth in nearly two decades (Christman, 2017). In March 2017, Spotify grew its base of paying customers from 12.5 million to 50 million (Music Business Worldwide, n.d.). In short, streaming (compared to purchasing-to-‘own’) presents a business model that both publishers and customers may agree on, which should provide insight toward those considering solutions to provide researchers much more affordable access to the literature.
Psychedelic folk harpist Joanna Newsom saw Spotify from the perspective of a music listener as a “genius idea,” but otherwise, alleged it to be a “villainous cabal of major labels” that was “built from the ground up as a way to circumvent the idea of paying [content creators]” (Roberts, 2015). While not all musicians embraced the Spotify model, the content creators in scholarly research—authors, reviewers, and editors—may be less likely to express umbrage about lack of financial remuneration, as they are traditionally not paid for their services.

There has been discussion about the need for “seamless, centralized access to content” in publishing, based on the example of the music industry’s successful regroup in the wake of Napster (Schonefeld, 2018). The Napster of scholarly literature is Sci-Hub. Advocacy groups, like the Scholarly Publishing and Academic Resources Coalition (SPARC), have expressed appreciation for Sci-Hub’s “shining a light on just how out-of-whack the system is of providing easy access to basic information that our universities and scholars need to advance science and research” (Rosenwald, 2016). Some researchers use Sci-Hub, even with legal options available to them because of its convenience (Cochran, 2017). Researchers make 200,000 requests for articles daily on Sci-Hub, from as many as 3 million unique IP addresses across the globe (Bohannon, 2016), and the pirate service is able to deliver about 68.9% of the 81.6 million scholarly articles estimated to exist (Himmelstein, Romero, McLaughlin, Tzovaras, & Greene, 2017).

While iTunes had “changed the economics of music publishing a great deal,” critics, noting the instructiveness of the music industry toward the publishing industry, were doubtful if this had made music retailing “actually better than it was” (Anderson, 2010). Demand Driven Acquisition (DDA) models

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7 The Music Modernization Act was signed into law in October 2018, which updated the Copyright Act for the streaming era.
8 Though they do not “condone fraud and using illegal sources,” which has been sometimes associated with content-gathering methods for Sci-Hub, (Rosenwald, 2016).
not unlike iTunes allow à la carte article purchases. In DDA, automatic purchases may be triggered by user-initiated request or crossing set browse-time thresholds, but this does not address the issue of individual item costs, nor does it solve the problem of access for those researchers not affiliated with an appropriately-funded institution. No current models for content have reached widespread adoption comparable to a music streaming service. The pricing and content coverage of ‘big deal’ subscription packages that libraries subscribe to are not commensurate to that of Spotify or Apple Music.

Commercial publishers seem to understand the persistence of tools like Sci-Hub, but are nevertheless “adamant” that such piracy will not evolve academic publishing’s business model in the same way “Napster ultimately led to Apple’s iTunes” (Rosenwald, 2016), much less a Spotify. It is understandable why some publishers might be committed to maintaining status quo, but why others in the research ecosphere have been unable to effect satisfactory disruption is a separate question. One which comes down possibly to libraries’ subsidization of publishers. Libraries, who hold one set of the scholarly publishing purse-strings, are hamstrung by the constituencies they serve.

Individual consumers (unlike libraries) are free to opt in and out of any model at will. When the deal is bad, like $20 for a single Kanye album, they reasonably opt out. When the deal is good, like $10 to stream all Kanye albums, customers opt in. If Kanye had contractual agreements with a large enough number of his fans to purchase each of his albums at extreme markup, would he voluntarily lower prices or worry much about piracy? As long as libraries pay a premium, publishers are shielded from perceivable losses of revenue from piracy.

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9 Interlibrary loan has historically helped institutions share the burden of these costs, but as content acquired by institutions is increasingly digital, the Digital Rights Management software or related user agreements can negate such practice.
For evidence of this, consider that Elsevier publications are available through Sci-Hub at a rate of 98.2% (Himmelstein, Romero, McLaughlin, Tzovaras, & Greene, 2017), yet recent profit margin and operating margins of Elsevier parent company (RELX) are still often higher than Amazon (AMZN), Apple (AAPL), or Google (GOOG). (Respective profit and operating margins of RELX were recently 22.66/25.77 as compared to, in the same time period, the 4.03/4.87 of AMZN; the 22.41/26.69 of AAPL; and the 14.45/23.76 of GOOG.)

Libraries have the collective purchasing power to cause publishers the necessary sort of pain to spur change, but individually, libraries remain responsible to serve the immediate needs of their users. While libraries provide what they can, and pirates provide what they cannot, the publishers get paid no matter what. Which groups, then, are left in any adequate position to force a change to the scholarly publishing economy—individual scholars, institutions, funders?

3. Author’s Rights (featuring Beyoncé)

“*She don’t gotta give it up cause she professional.*” Beyoncé, *6 INCH* from Lemonade (2016)

The visual aspect of Beyoncé’s *Lemonade* premiered April 23, 2016 on HBO. Librarian Jenny Ferretti described the work as “an hour and five minutes of music, poetry, and references to history, literature, and art” (n.d.). Moments after airing, *Lemonade* (the album) was released. Access was exclusive to Tidal (Cox & Singleton, 2016), the music streaming platform co-owned by Beyoncé. Initially the album appeared as if it would remain solely available on Tidal until, on April 25, 2016, both the album and individual songs became available for sale on the iTunes Store, Amazon Music, and Google
Play. Tidal kept exclusive *streaming* rights, but the album could now be *purchased* online from all the usual web retailers.

The period in which Beyoncé allowed Tidal the exclusive *temporary* right to distribute her album was part of an overall pattern by artists like Chance The Rapper, Drake, and Rihanna, giving the New York Times reason to call 2016 the “year of the windowed\(^{14}\) exclusive” (New York Times, 2016). Distribution *windowing* creates a bargain for creators and distributors to achieve more equanimity in the benefits they receive from their partnership. This, compared to when creators sign over *full* copyright (or license *perpetual* exclusive rights) to distributors or publishers. Tidal would have welcomed perpetual exclusive rights to distribute *Lemonade*, but in order for Beyoncé “to land her sixth straight No. 1 album on the Billboard 200, the album’s availability in digital outlets like the iTunes Store within the week” was an inevitability (Rys, 2016).

*Lemonade* might have made a larger impact on popular culture had it been made *streamable* everywhere. Presumably, her financial stake in Tidal was a prime motivation for this. Research authors, on the other hand, do not have a direct financial stake in their works (beyond the fact of the works, which may make the author marketable to employers or funders). We may understand Beyoncé’s position, but what is incentivizing authors not to make their research as accessible as possible, if impact on their chosen field is of the main concern?

When authors have articles accepted by a journal, the publishers often present a contract of agreement, which seeks to transfer copyright fully to the publisher. These would not only restrict the author’s “subsequent usage of his or her published work, including reuse of the work in teaching and further research” but “restrict the dissemination of one’s scholarship” thus, lessening the work’s

\(^{14}\) A windowed release is when an album streams exclusively on one site for a temporary initial period of time.
potential for impact (Association of College and Research Libraries, n.d.). In such circumstances, the author should be aware they have room to negotiate. One option is for an author to include an addendum clarifying the author retains all rights, excepting that the publisher gets the right to first distribution.

When authors receive a *lemon* of a publishing contract, authors should consider attaching a *lemon addendum*, like one SPARC (n.d.) offers for reuse, informing publishers of the author’s intention to retain their rights “to reproduce, to distribute, to publicly perform, and to publicly display the Article in any medium for non-commercial purposes; the right to prepare derivative works from the Article; and the right to authorize others to make any non-commercial use of the Article so long as Author receives credit as author and the journal in which the Article has been published is cited as the source of first publication of the Article.” Call this the Beyoncé option.

4. Traditional Metrics and Cheat Codes (featuring Drake)

“*Got a crib with a studio and it’s all full of tracks, to add to the wall full of plaques, hanging up in the office in back of my house like trophies.*” - Dr. Dre, *Forgot About Dre* from 2001 (1999)

Drake’s 2016 album *Views* debuted at No. 1 on the Billboard 200 chart “with an explosive first week,” where it stayed for 13 weeks (Caulfield, 2016). Without the constraints of physical media dictating album length, Drake could afford to make his album as long as he wanted. 20 tracks-long, in the case of *Views*. Were the motives for making an album of this length purely an artistic decision, or was there a more commercial objective in mind?

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15 Open access articles in ecology have a “citation advantage of approximately one citation per year” across a four-year period (Tang, Bever, & Yu, 2017); law review articles, “when made freely available on the Internet,” can expect a third citation for “every two citations an article would otherwise receive” (Donovan, Watson, & Osborne, 2015); and political science articles also were found to have a “clear OA citation advantage” (Atchison & Bull, 2015).
Fact magazine accused Billboard of being “in cahoots” with Nielsen SoundScan and the Recording Industry Association of America, for encouraging artists to “dispense with all quality control” in favor of bloated albums aimed at boosting digital streaming counts (Allen, 2016). Both Billboard and the RIAA recently incorporated on-demand streaming and digital track sales to their respective algorithms for charts and awards (Billboard, 2014; Recording Industry Association of America, 2016). In the RIAA’s updated calculation, 1,500 on-demand audio or video streams count as one album-equivalent unit sold, but lack of transparency left an open question of “whether one stream of a 17-song album will count the same as 17 streams of a single taken from the album” (Gordon, 2016).

Anthony Tiffith, CEO of Kendrick Lamar’s label, Top Dawg Entertainment, made clear in a tweet that he was not in favor of the new streaming-era RIAA metrics, calling them a “cheat code” (Gordon, 2016). The term cheat code originates from video games, where a player is able to manipulate a series of commands to gain advantage in some manner above or beyond the ostensible rules of a game.

Critics in music are not alone in their concerns; experts in digital libraries and information worry “a great deal about quantitative metrics” of scholarly impact, both established and alternative, for their technical issues, transparency, and reproducibility of metric calculations (Lynch, 2017). Reformers in the area of scholarly metrics who have “watched with increasing alarm the pervasive misapplication of indicators to the evaluation of scientific performance,” have concluded that “the abuse of research metrics has become too widespread to ignore” (Hicks, Wouters, Waltman, de Rijcke, & Rafols, 2015).

Since the 1970s, Journal Impact Factor (JIF), as developed by Eugene Garfield has been culturally embedded in scholarly publishing in a similar way Billboard or the RIAA has been to music. Designations meant to calculate a particular usage of articles (citation, namely) have become
synonymous with a measure of their quality. While many highly-cited works may be of high-quality, there is not a one-to-one correlation. Conversely, high-quality works can have low citation counts, or be published in outlets that do, for any number of reasons, not related to their quality.

JIF was traditionally intended to guide library serials purchase and renewal decisions. It has come to influence researchers’ decisions of where to read or publish, and reifies the thinking of “tenure and promotion committees” who labor “under the assumption that publication in a higher impact factor journal represents better work” (Arnold & Fowler, 2010). When viewed as a research assessment tool, JIF has many “well-documented deficiencies” and limitation, including highly-skewed citation distributions within journals, high variance across fields, system-gaming, and data calculations that the “are neither transparent nor openly available to the public” (Way & Ahmad, 2013).

Let’s return to Drake to think through one reason that JIF as a quality measure is limited. Drake’s single *Hotline Bling* amassed 573 million streams on Spotify in the nine months before it was tacked to the end of “his already saggy” *Views* album as a bonus track (Mapes, 2016). While certainly, Drake’s track earned those numbers on its own steam, its addition to *Views* nearly a year later immediately elevated all of the nineteen other tracks simply through association. The moment the album made its online debut, it technically then had more than 500 million countable streams from *Bling*’s individual, prior performance. Song singles have traditionally been released in advance of full album releases, but this tactic seemed especially calculated in light of the metric adjustments.

Before Drake ever used this numbers-boosting tool, scholarly publishers had long proved its utility. In the online-digital age, journals have engaged in deliberate efforts to artificially inflate their

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16 The video for *Bling* made for some of the most viral memes of 2015 (Sena, 2017), and was parodied on Saturday Night Live featuring then-presidential candidate Donald J. Trump.
impact factor by lengthening the time between their articles’ online appearance and print publication. Articles first posted online are given extra time to receive citations before the full journal issue is put out, artificially inflating the length of the year measured by impact factor.\textsuperscript{17} Since IF measures the journal as a whole, it may only require an individual article to be particularly successful in its citations in order to help that journal maintain its JIF standings. Anyone that was ever disappointed that a full CD did not live up to the promise of a lead single may recognize the flaw here.

The singles topping Spotify charts during the mid- to late-2010s appeared to some critics as uniformly frontloaded with guest-artists, structured with lower beats-per-minute, emanating vaguely tropical-house vibes, and engineered with small speakers in mind. (Hogan, Uncovering How Streaming Is Changing the Sound of Pop, 2017). In short, these songs were all attempting to reverse-engineer and replicate characteristics of the era’s popular music. The content was owing its design to calculations for maximum impact in the new music-streaming economy.

As an increasing share of research discovery takes places through Google Scholar, scholarly publishers seek to undertake what is called Academic Search Engine Optimization (ASEO) strategies (Beel, Gipp, & Wilde, 2010). As one journal management system blogged, having “search-engine friendly content is obviously of paramount importance to online-only journals as, aside from word of mouth, searches will be the primary way that scholars unfamiliar with your journal learn about it” (Scholastica, 2018). In their article, titled “The Scientometric Bubble Considered Harmful”, the authors wonder: “how many readers may have been attracted to start reading this article by our marketing-wise title” (Génova, Astudillo, & Fraga, 2016). When higher readership is shown to lead to higher

\textsuperscript{17} IF is calculated by taking “the number of citations in a given calendar year to articles published in a journal over the two preceding years, divided by the total number of citable articles published by the journal in the same period” (Tort, Targino, & Anarak, 2012).

citation rates, then it only makes sense to craft article titles with characteristics common to journal articles with very high-rates of online sharing such as “result-oriented positive framing” and “no wordplay” (Lockwood, 2016).^{18}

While the addition of well-designed “clickbait with footnotes” (Roelofs & Gallien, 2017) to the scientific corpus is not great, more nefarious ASEO strategies may include editors knowingly engaging in “selective publication of highly cited types of articles” over other worthy types of research (Tort, Targino, & Anarak, 2012). This type of editorial selection practice may result in redundant literature of one type and a dearth of another, leaving researchers an inaccurate “map of their field of inquiry” (Buranyi, 2017).

When albums reach a top chart or record sale benchmark, how might this affect general music listening habits for casual fans, or resource decisions made by record labels? If any at all, what implications might these questions have toward research literature?

5. Article-Level Metrics and Altmetrics (featuring Nicki Minaj and Taylor Swift)

“Inflating numbers like we ’posed to be happy about this. We was praisin' Billboard, but we were young. Now I look at Billboard like, ‘Is you dumb?’”-JAY-Z, What’s Free from Meek Mill’s Championships (2018)

When Billboard added Nielsen SoundScan data to its calculations in 1991, the change meant that when consumers purchased music, they were effectively “voting for a hit record” (Phillips, 2009). As retail purchases enhanced the existing metric, which had been dependent on corporate-influenced

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^{18} This article’s working title was *I’m ‘a let you publish*, wordplay based on Kanye’s infamous interruption of Taylor Swift.
radio stations airplay, Hip-Hop measurably rose in chart prominence. N.W.A. earned their first top spot on Billboard, a first for any rap group (Thompson, 2015).

The rise of Hip-Hop has been seen as “the single most important event” to shape “the musical structure of the American charts” since 1960 (Mauch, MacCallum, Levy, & Leroi, 2015). While the chart update helped uncover a more accurate sense of Hip-Hop music’s cultural popularity, that same empirical measure likely had a snowball effect. Labels, seeing the chart success, would have found it less of a risk, and more of an investment, to sign more rap acts and better promote those already on its rosters. With more artist releases, better promoted, customers would be likelier to buy more.

In early 2013, Billboard decided it was time again to update its calculations to include YouTube music video play data (Billboard, 2013). Immediately, the “viral smash” Harlem Shake went to the number one spot (Trust, 2013). Music critics became concerned for a future where “all our big hits are goofy YouTube-incubated one-offs” (Rosen & Molanphy, 2013). Six months later, the creatively “provocative” video (Brandle, 2014) for Nicki Minaj’s song Anaconda broke the Vevo record for most views in under 24 hours with 19.6 million (Lewis, 2014). Anaconda remained in the top ten of the Hot 100 chart for eight weeks, dethroned only by the 20.1 million views of Taylor Swift’s star-studded Bad Blood remix video featuring Kendrick Lamar (Strecker, 2015).

Nicki Minaj and Taylor Swift had histories of Billboard chart success prior to the inclusion of video streams, and likely would have continued to without the change. But given the model of instant success by Harlem Shake, it might be naïve to be surprised by artists considering social media virality as a chart strategy.

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19 To 2010.
A few years after the update, YouTube announced the site had paid out $1 billion to the music industry from ad revenues during 2016 (Elder, 2016). Perhaps video play inclusion was perfectly reflective of how a substantial portion of contemporary listeners consume music. Even with YouTube’s autoplay mechanism in place, the videos are ultimately on-demand choices that users have agency in choosing to play or not; certainly more agency than a previous generation had, when music video programming was out of their control and only available on a select few televisions channels.

Growing dissatisfaction with traditional research metrics, like Journal Impact Factor, has led to “ever more sophisticated measures” which have “accelerated rapidly, fueled by the ready availability of online databases such as the Web of Science from Thomson Reuters, Scopus from Elsevier and Google Scholar” (Noorden, 2010). Prominent research groups, like signees of SF DORA, the Leiden Manifesto, and Metric Tide, are working toward reforms for improving how scientific research is evaluated by funding agencies, academic institutions, and others.

One article-level citation-based metric, Relative Citation Ratio (RCR), is an attempt to normalize the number of citations within fields (Hutchin, Yuan, Anderson, & Santangelo, 2016). This corrective comes as a reaction partially to the issue for niche or emerging fields, which usually have fewer active researchers available to cite works, possibly resulting in undervaluation of some highly-significant works. The intended effect is similar to rankings on genre-specific charts (E.g. Country, Latin, Gospel), which ranks albums relative to other albums of the same kind, providing more equitable comparison within niche genres.

While genre charts face difficulty to keep pace with blurring genre-confines (Molanphy, I Know You Got Soul: The Trouble With Billboard’s R&B/ Hip-Hop Chart, 2014), RCR defines research fields as a “cluster of papers that [an article] has been co-cited with,” thus creating “a dynamic cohort that grows
all the time” (Naik, 2016). This is reflective of scholarship, where fields often combine to create new, interdisciplinary fields.

Even as innovations such as RCR demonstrably improve citation-based metrics, metrics based on citation count do not account for other ways work can demonstrate impact. Alternative metrics (or just altmetrics) are another type of article-level metric that attempt to add to a fuller view. Altmetrics are not based upon citation count, but instead, take into account the variety of platforms and media types where researchers may encounter information online, measuring how often articles are “downloaded, shared, commented on, and cited in social media outlets” in the hopes of providing a “meaningful indicator of the impact an article has among different user populations” (Association of College and Research Libraries, 2017).

For instance, imagine a screenshot of a passage from an article posted on social media, circulated among medical practitioners. That work could potentially have consequence in actual medical practice, without ever receiving a proportionate number of formal research citations. If a funding body or tenure committee were to assess that article’s impact solely on citation count, they would be missing the larger picture.

In light of increasing adoption of alternative metrics, commercial publishers have tried to help their authors take full advantage of social media in order to promote articles. Research shows social media activity is able to “predict highly cited articles within the first 3 days of article publication” (Thelwall, Priem, & Eysenbach, 2011). The article’s success is the publisher’s success, just as a music video’s success is the video streaming platform’s success.

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20 Where labels utilize geographic download data from streaming sites to help plan a musician’s tour itinerary, academics may likewise consider using similar download data of their works to search for prime conference opportunities.
Elsevier, for instance, provides its authors a guide to ‘Get Noticed’ that instructs how to utilize Facebook, Twitter, LinkedIn, blogs, and other sites to “make your article stand out” amongst the more than 2.5 million scientific articles published every year (Elsevier, 2016). Taylor & Francis offers, as part of its ‘Author Services,’ a how-to guide for tweeting one’s research; Twitter, being “one of the most valuable tools you can use to publicize your work, reaching people who may never have heard of you or your research before, increasing downloads of your article, citations (in time), and impact” (Taylor & Francis Group, n.d.).

Still, measuring alternative levels of engagement, just like measuring traditional ones, does not have a direct correlation to a work’s quality. High engagement could potentially mean something quite the opposite to high-quality (imagine a work being lambasted on social media for poor methodology), or only tangentially related to it (like an institution running a PR campaign highlighting its researchers’ recent publications).

The plethora of assessment tools researchers may come across will require information literacy skills to unpack their contextual values and uses. Whatever is presently considered a best practice can change or diminish with time, and should be questioned often because of this. Any measurement based on a set formula will have been constructed with particular purposes at specific times, and their original intents may change or degrade over time (or were possibly flawed or misused from the get-go). Formulas measuring behavior become less effective once the formula is understood by those who are being measured. Keeping a formula confidential can be problematic, too, if fairness and lack of bias is of concern, which it should be. Transparency is vital in science and meta-science communication.
Given the knowns detailed here, the lingering question remains as to how to reconfigure an assessment for tenure, promotion, or funding, so that it could be broadly adopted by institutions charged with the responsibility of weighing vast amounts of publications.

6. Open Data (featuring Illmind)

“I’m ahead of my time, sometimes years out, so that the powers that be won’t let me get my ideas out. And that make me want to get my advance out.” -Kanye West, Gone from Late Graduation (2005)

Ramon Ibanga Jr., who makes Hip-Hop beats under the professional name Illmind, produced a library of short musical sounds with tambourines, shakers, and drums, which was so thorough, it included 46 variations of a single snare drum hit. These serve as the basis for his original instrumental tracks, which spares the expense of paying copyright clearance fees for samples of previously-recorded songs. In 2011, Illmind decided to upload his full collection to his blog for other producers to use as building blocks in their music (Illmind, 2017).

Though online sharing of drumkits is now a regular practice in Hip-Hop circles, this was uncharted territory for Illmind, who feared that his sound as a producer might lose its distinctiveness if made widely available. This turned out not to be the case. As Illmind a told NPR’s Planet Money, he listened to tracks produced with his library, and had “a big revelation,” that other producers were “putting their own unique twist” on the collection, without taking his characteristic “sound” (Illmind, 2017). Ibanga now hears his drum and cowbell in songs by Bruno Mars, Kendrick Lamar, and Taylor Swift on radio and Spotify. Placement in such songs has served as a calling card, leading to further production work for artists like Drake, J. Cole, and Kanye West.
Publishing’s shift to digital dissemination makes it more technically and financially feasible to widely circulate grey literature, or “non-formally published scholarly or substantive information” (Cornell University Library, n.d.). Grey literature encompasses a variety of information packages, including student theses and dissertations, technical or evaluative reports, conference proceedings, and preprints, which can be “especially important in all kinds of sciences” (GL'99 Conference, 1999).

Research data, the “basis for scientific publications” (Farace & Schöpfel, 2010), is an especially important type of grey literature. Research data “includes information about the context in which it was produced” without which, a dataset “may be obfuscated, inaccessible, and lack interoperability” (Association of College and Research Libraries, n.d.). Stated another way, “all research objects should be Findable, Accessible, Interoperable and Reusable (FAIR) both for machines and for people” (Wilkinson, et al., 2016). It is possible to consider proper research data as Ibanga’s drumkits: a collection of data, organized for reusability by others, to form the basis of new, original works.

Biology researcher Daniel MacArthur utilized an online discipline repository to post a petabyte-sized dataset of human gene sequence data. As one of the biggest libraries of human gene sequences ever, this was “the kind of flashy, blockbuster project that would secure MacArthur a coveted spot in one of science’s top three journals, launching his new lab at the Broad Institute into the scientific spotlight” (Molenti, 2017), or the biological research world’s equivalent of getting production credits on a Drake or Kanye track.

Prior to the introduction of online research servers, like arXiv, researchers would share data and preprints by email, which led to many “clogged mail boxes” (Luther, 2017), mirroring early researchers who relied on postal services for circulating knowledge (Guédon, 2014).
MacArthur is as likely to open up a biology journal and find his data cited in articles as Ibanga is to open the Rap Caviar playlist on Spotify and hear one of his tambourine shakes. Genomic data from MacArthur’s lab has been cited over 800 times, which may be utilized in any number of potential applications, be it a cure for cancer or Alzheimer’s disease. The possibilities for such moonshots become more probable by multiple labs having access to this data. By posting his data and findings to a preprint server nine months before the peer-reviewed article was published in Nature, MacArthur demonstrated his lab’s contribution immediately, providing the scientific community a jump of “months or even years before they would otherwise” had the “slow, rigorous process” of formal peer-review, revision, copyedit, and format processes been awaited.

Researchers using the MacArthur dataset may arrive at different conclusions or uses, wholly separate from any of MacArthur’s initial hypotheses. While data or preprints uploaded prior to formal peer-review may lack traditional quality control, this openness may enable a more rigorous vetting, as an entire field is permitted to weigh in, “in public, instead of an anonymous few talking in a vacuum” (Molenti, 2017). Science moves as fast as it can be communicated; and while formal publication is the currency of research, sometimes the value of rapid idea-exchange is worth more.

The next section on preprints will further the argument made in this section, concerning the notion that early previews of work before a final-published product can lead to more rigor in review, diversity of perspective, and quicker establishment of ideas. Could this be a hard and fast rule? What exceptions or full counter-arguments might exist?

7. Preprints (featuring Future)

“Tryna make a pop star and they made a monster.” -Future, I Serve the Base from DS2 (2015)
Atlanta trap-rapper Future released three full-length, album-quality mixtapes online for free, during a six month period between 2014 and 2015. This milestone mixtape run provided Future the creative freedom to come into his own “as a stylist and a technical rapper,” and eventually operate “on a level unmatched in his five-year discography” when it came time to release his major label album *DS2* released just four months after (Garvey, Future: Dirty Sprite 2, 2015). A contributor on web-annotation site Genius.com broke down an iconic *DS2* lyric (“Tryna make a pop star and they made a monster”), which contextualized the entire mixtape trilogy:

Future was originally known for more pop structured songs like *Turn On The Lights* formulated in a more familiar, basic, radio friendly matter. But that’s not him; he knows he can be a monster on the mic and in the game. And with the release of a mixtape of the same name, Future began honing a sound that cut the commercial appeal in favor of a more gritty and visceral sound. All the while keeping the blissful emotion, street bangers and catchy songwriting we’ve all come to love in his music (DukeAM, 2015).

Mixtapes freely-distributed online, allow for experimentation and create opportunities to test ideas outside mainstream tastes. Music and media professor Casey Rae cites streaming mixtape sites for addressing the “tension that artists once felt in navigating gatekeepers and other barriers to entry” when labels and radio were the only way to gain exposure (Runcie, 2017). The term *soundcloud rapper* has been losing its once negative connotation, as mixtapes have been “increasingly surpassing the quality and popularity of label releases” (Carmichael, The Disruptors: Best Rap Album Nominees Bask In Hip-Hop’s Digital Dominance, 2017).

Comparably, “preprint servers seem to be gaining new traction in scholarly disciplines that have previously largely rejected them” (Lynch, 2017). The slow and unpredictable speed of publication, from the submission of a manuscript to actual publication, is a prime motivator for those in the

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scientific community increasingly sharing preprints. Research groups, like ASAPbio, find that preprints have the potential to “empower younger scientists to move their work and careers forward” (Berg, et al., 2016).

Future had a little-matched experimental and creative steak in his freely-distributed mixtape series that would have lost vitality if not immediately pushed to fans. Fans, in turn, provided the feedback that steered Future to eventually put out his masterpiece studio album, DS2. Preprint servers provide a legal means of getting scholarly ideas out promptly to an audience “beyond the few scientists who see the manuscript during peer review” (Berg, et al., 2016) which may result in better research products, once at the stage of finalized, peer-reviewed articles.

Mirroring the question posed at the end of the previous section about open research data, what could be the counterargument or contradicting examples?

8. Commercial and Open Access Publishing (featuring Chance The Rapper)

“I don’t make songs for free, I make ‘em for freedom.” -Chance The Rapper, Blessings from Coloring Book (2016)

Roc-A-Fella Records was started by JAY-Z and partners in 1995, a time when the rap record label had become a meaningful cultural entity, in addition to a business venture. At the height of its reign, artists would shout out Roc-A-Fella on songs and wear Roc necklaces, signifying the accomplishment of their becoming affiliated to the label (Simmons, 2017).23 Interdependency, where labels supported their artists in exchange for content to distribute, is standard, but, during this era, the connection was particularly bald.

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23 Similar practices were performed by artists at Bad Boy, Cash Money, Death Row, and No Limit Records.
On the extended final track of his debut *The College Dropout* (2004), Kanye West delivered an oral history of his storied path to becoming a Roc-A-Fella signee. This was marked by difficulties in gaining acceptance as a rapper, as his personal style and lyrical content were quite outside of the norms for Hip-Hop at the time. In 2007, when Kanye’s third album *Graduation* outsold 50 Cent’s *Curtis* put out by Dr. Dre’s label, it signified to many critics that the era dominated by N.W.A.-style gangsta-rap finally had waned in favor of Kanye’s “progressive cocktail of genres and influences” (Swhear, 2017).

Kanye West destabilized the stylistic homogeneity of Hip-Hop culture, enabling liberation for a new generation in their expression of ideas. Chance The Rapper considers himself part of “the generation that really experienced Kanye as more of an icon and a representative of Hip-Hop” (Drake, 2013). Drake called Kanye a “major influence, if not the biggest influence” in his career (REVOLT TV, 2013). Future’s “deserted-astronaut image would not exist without” the influence of Kanye (Green, 2015). "Kanye taught me to never to downplay your ideas," said Kendrick Lamar, adding “I learned to always stay as creative as possible and never have any boundaries” (Weis, 2014).

Many from the Kanye generation are utilizing new technological solutions to destabilize outdated industry ideas of when, where, and how music should be released. Free online mixtape website DatPiff (launched in 2005), and online audio distribution website SoundCloud (founded in 2007), have facilitated mixtape culture to influence the music industry. Even prior to the internet, “the immediacy of mixtape culture has always been an inseparable part of its appeal” (Carmichael, 2017); the instant connectivity of the Internet has allowed mixtape culture to grow and evolve.

In April 2012, Chance The Rapper released his debut mixtape *10 Day* for free to fans on DatPiff (contrabandking, 2012) and SoundCloud (Chance The Rapper, 2013), without record label support or distribution. One year later, Chance released his second mixtape *Acid Rap* (2013) in the same manner.
As of 2018, *Acid Rap* has achieved “Universal acclaim” by critics, with a score of 86 out of 100 (Metacritic, n.d.).

After *Acid Rap*, Chance told *Vanity Fair* (2017) that he had planned to “sign with a label and figure out my music from there. But after meeting with the three major labels, I realized my strength was being able to offer my best work to people without any limit on it. My first two projects are on places where you can get music for free.” The Rapper added, “I honestly believe if you put effort into something and you execute properly, you don’t necessarily have to go through the traditional ways.”

Chance did not sign anywhere, but he did make an agreement with Apple Music to exclusively-stream *Coloring Book* (2016) from their site for a two-week window. Chance won Best Rap Album at the 2017 Grammy Awards, as the first streaming-only album of any genre to receive a nomination or a win (Recording Academy, 2016). All three of Chance’s mixtape albums are available to stream for free on DatPiff and SoundCloud (Rys, Chance the Rapper Switches Up His Release Strategy With 'Coloring Book', 2016).

Preprint servers have played “a transformative role over the last 20 years in accelerating the creation and dissemination of knowledge” (Lynch, 2017). For tenure- or grant-seeking researchers, making expedient use of these new options may appear impractical “due to the ‘enforced loyalty’ imposed by infrastructure, whose reward systems are intricately tied to outmoded metrics (Lagoze, Edwards, Sandvig, & Plantin, 2015). As such infrastructures experience disruption by “profound changes in the technological, economic, cultural, and political climate,” scholars may choose to exit the mainstream system in favor of one of the “proliferation of newly available alternative infrastructures.”
Nobel prize-winning scientist Randy Schekman announced in 2013 that “his lab would boycott the major scientific journals *Nature, Cell, and Science*” as a protest of the “distorting effects on the scientific process” that pressure researchers to publish in “high-prestige journals.” Shekman saw these pressures as encouraging insufficiently confirmed submission of papers focused on attention-grabbing topics (Lagoze, Edwards, Sandvig, & Plantin, 2015). Schekman would instead involve himself in starting up a peer-reviewed open access alternative. Involvement from Shekman, a Nobel Prize winner, may provide a “boosting effect” to such endeavors (Mazloumian, Eom, Helbing, Lozano, & Fortunato, 2011).

Since Shekman, other editors have also left posts at commercially-produced journals in protest of publishing policies they found harmful to scholarship. Four editors of the *Journal of Algebraic Combinatorics* informed Springer via press release that they would not renew their soon-expiring contracts in 2017 to instead start a new rival journal, *Algebraic Combinatorics*. One of the editors stated it was “more and more clear that commercial journal publishers” were “charging high subscription fees and high Article Processing Charges (APCs), profiting from the volunteer labour of the academic community” while “adding little value” (MathOA, 2017).

Chance The Rapper has managed to prove himself in traditional measurements like Billboard charts, win recognition from traditional gatekeepers like the Grammys, and influence mainstream artists like Kanye West, in part, by releasing work that is free in all senses of the word. Publications and subject servers are increasingly publishing scholarship free to the reader, publishing new types of scholarship, and experimenting with new distribution and peer-review models. Open access publications and preprint servers, in short, are bringing mixtape ethos to scholarship, where immediacy and wide access are of paramount importance to progress. Like Chance, as editors match
their expertise with newly-available technology, there may be “very high payoffs in terms of better, more effective scholarship” (Lynch, 2017).

9. Undergraduate Research Journals / Conclusion

“Remember when you praisin’ the butterfly, don’t you ever disrespect the […] caterpillar.”

-Royce Da 5’9”, Caterpillar from Book of Ryan (2018)

As an experiment, count how many of the following names you recognize. And if you are a Hip-Hop fan, count how many are in your top five. 2 Chainz; 50 Cent; A$AP Rocky; Big Sean; Cam’Ron; Chance The Rapper; Chief Keef; Clipse; Danny Brown; Drake; Earl Sweatshirt; French Montana; Future; Gucci Mane; J. Cole; Jadakiss; JAY-Z; Joey Bada$$; Juelz Santana; Kanye West; Kendrick Lamar; Kid Cudi; Lil B; Lil Wayne; Lupe Fiasco; Max B.; Meek Mill; Migos; Nicki Minaj; Rick Ross; Run the Jewels; T.I.; The Weeknd; Tyler, the Creator; Wale; Wiz Khalifa; Young Jeezy; Young Thug.

Whatever number is in your head represents the number of artists you would be less likely to know had they not released a mixtape at an early or pivotal stage of their career (Baker, et al., 2018; Pitchfork, 2016; Stern, 2014). SoundCloud has served for many as a “startup incubator” by providing artists with “basic tools and exposure for early-stage growth” (Runcie, 2017). All professional artists had to begin somewhere, just as professional researchers once practiced as undergraduate and graduate students.

One “of the most disruptive effects of streaming culture” is “the way it brings the periphery to the center” (Garvey, 2017). And while mixtapes may be “rough around the edges” and lack “the sheen of high-cost record company studio time,” that is “what makes a great mixtape great” (Baker, et al., 2018). A mixtape “should be a totally uninhibited creative space” where artists “impulsively exhibit” unique talent, cultivated and tailored toward “a more focused and passionate audience.” The mixtape
has been a “very reliable vehicle for hip-hop, especially in the digital era where free information spreads feverishly” (Stern, 2014).

A possible downside to information influxes, as media scholars like Clay Shirkey (2008) have cautioned, is that “the average quality of written material falls” when “the abundance of written material spikes.” Which should not dissuade efforts to publishing more, but rather encourage understanding that this will require “complex, and occasionally revolutionary, change” when it comes to “institutionalizing the new abundance” (Shirkey, 2008). As the future of information and knowledge curation is shaped, it will be necessary for data science and the humanities to be in alliance, involving “cultural criticism of the mathematical models shaping our world, and mathematical inquiry about culture” (Underwood, 2018). Mixtape sites, like SoundCloud and DatPiff, now host large volumes of content, leaving it to the users to judge the quality or value of the music. Scholarly communities may need to coalesce around centralized hubs to do the same.

Where traditional library reference and instruction largely concerns the use of existing information sources, more contemporary librarianship is expanding the service scope into information creation. Traditional librarianship may be viewed as having a disposition of web 1.0’s ‘read-only’ nature, whereas new librarianship has more ‘read-write’ characteristics associated with web 2.0. Librarianship focused on bringing student-created information out of the dark and into publication might be thought of as librarianship 2.0.

The focus of scholarly communication librarians to unlock pay-walled research is simply extended through efforts to publish new or never-before-available student research works. While

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24 Consider various machine-learning schemes gone sour, from Amazon’s hiring algorithm (BBC, 2018), to Microsoft’s problematic chat bot (Wakefield, 2016).
operating in “the domain of traditional publisher services,” librarians should recognize the opportunity to advocate “for new directions in scholarly information access” which may “combat the hegemony of the dominant information society” (Pyati, 2007).

Helen Walkington (2015) described “a gap in the research cycle /research process” for undergraduate students, where the results of their research are never put into wide circulation to join the conversation they are intended to be part of. Undergraduate research journals, may address such a gap. While students gain new understanding from partaking in a journal publication scheme, the rest of scholarship may also gain in exposure from their fresh perspectives. Hensley, Shreeves & Davis-Kahl (2014) found that only 28.4% of academic libraries (based on 758 responses) were currently hosting undergraduate research journals. Many resources exist to get a journal off the ground (Ho, 2011).

There is not total “agreement across the academy regarding the benefits of undergraduates’ publishing, especially for publishing in undergraduate-only research journals, or about the educational and scholarly value/resource expense proposition” (Caprio, 2014). Any new library-initiated publishing efforts will surely add to the sheer volume of information available on the Internet. And, if we supposed that on average, student-produced research may be of lower quality than faculty-created research, there may be valid critique to be addressed.

Critics acknowledge “several positive arguments for undergraduate research journals,” but express concerns as to how these “could easily become a journal of not-ready-for-prime-time studies,” further questioning whether undergraduate students are “prepared to review articles written by their peers and to comment on them in a constructive way,” and if they “have enough time during their undergraduate careers to respond to reviewer criticisms of their own papers” (Gilbert, 2004).
Conversely, in reply to these questions, we may ask at what stage we expect students to transmogrify into knowledge workers, fully-equipped to perform these hallmarks of scholarly activity?

Bower, Fisher & Gerodetti (2017) described how starting their undergraduate journal opened up “many opportunities for discussions” relevant to teaching on scholarly communication topics, like “sharing research, open access, the cost of information, the ethical use of information, copyright and creative commons licensing.” They added that the digital literacy skills “which had previously been theoretically discussed during lectures, were put into practice, with noticeable results.”

Students motivated to gain hands-on experience with knowledge-creation should to seek out the tools and mentors who may help to bring such a project to fruition. Not every experiment will yield successful results (Khoo, 2018), but that is just how science works. Perhaps studying the early-career mixtapes from established Hip-Hop artists, alongside their popular mainstream works, may provide the empathy, courage, and understanding necessary for such exploration.

For Further Study

One of the challenges of writing this article was hitting lots of target concepts. These have been generalized in some areas, and in others, positions on a matter were taken consciously and unconsciously. For further study, readers should identify areas in this article that may have felt incomplete and perform a more extensive review of the literature, or identify areas of argument that felt convincing, and seek out opposing literature.

Areas recommended for exploration within the Hip-Hop and Scholarly Communication comparative framework this article operated in, but not explored here, include: archives, artificial intelligence, and information privilege.

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25 A student should recognize and comprehend their significant information privilege, when they are in a position to call upon resources sufficient to bring about a knowledge production scheme, as well as the general ability to access pre-existing, proprietary knowledge through subscription databases (Booth, 2013; Hare & Evanson, 2018). Thank you to Reviewer 2 for correctly pointing this out.
intelligence, censorship, conferences, data privacy, feminism, metadata, the replication crisis, retraction, self-citation, and social justice issues. Also, beyond librarianship, users regularly use the Twitter hashtag #HipHopEd to post ideas for teaching about or with Hip-Hop.

Examples for topics that were not explored in this article, include:

- Shawn Carter (who has performed as JAY-Z, JAY Z, and Jay-Z, and referred to himself as Hova, Hov, and Hovito) may highlight a benefit of utilizing ORCID identifiers, of capturing variants of author names over the course of a career.

- Kanye West argued a case for making textbooks more affordable, in a Twitter rant, where he stated “Education puts Americans into debt before they even get a chance to get started…” (Platon, 2016). No clever connection is necessary here to introduce Open Educational Resources, as Mr. West is literally speaking to the topic of lowering textbook prices.

- The #MuteRKelly campaign to boycott R. Kelly’s music due to his many alleged abuses of underage females (Coscarelli, 2018) finds kinship in the moral and intellectual dilemma of whether or not to cite known abusers in academia (Usher, 2018).

- BbyMutha, Cardi B, City Girls, CupcakKe, Dej Loaf, Leikeli47, Little Simz, Megan Thee Stallion, Nicki Minaj, and Rapsody are a new generation of female rappers “showing up and doing the work […] often better than many of their male counterparts,” which the New Yorker chalks up to “the insidious requirement for women and minorities to be twice as good for half the reward” (Younger, 2018). In a 2017 scientometric analysis of Publons data, young women scholars were found to be possibly “more committed to the peer-review process, writing stricter reviews” and “have the strictest acceptance criteria,” than men (Ortega, 2017), who represent a higher number of review, which owes to the fact that they have more opportunity to do so (Lerback & Hanson, 2017).
Self-piracy is a twist on the standard idea of piracy. Experimental rap group Death Grips (2012) announced on Facebook that they would self-pirate their completed second studio album, *No Love Deep Web*, because their label, Epic, “wouldn’t confirm a release date” until sometime the following year. Epic then dropped the group (Billboard, 2012). Whereas research literature piracy via Sci-Hib was discussed in this article, authors who post their articles to academic social media sites, like ResearchGate and Academia.edu, perhaps only intending to increase readership, are technically breaking copyright. 51.3% of articles posted by authors to ResearchGate are out of compliance with the policy of the publisher, which is tantamount to self-pirating, which need not be the case, as 88.3% of journals researched did allow authors to do “some form of self-archiving” (Jamali, 2017).

Future nearly lost two years’ worth of music when the sole copies of the digital files were confiscated while traveling overseas. In a separate instance, SoundCloud nearly went out of business in 2017 raised questions of what would happen with all of the music content (and culture) should this ever occur (New York Times, 2017). Both cases highlight the importance of archival practice for content. Future should have kept lots of copies in multiple locations, and SoundCloud users should consider what may happen to the content they upload to the site, should it suddenly shutdown or be acquired by a company with a different vision. Scholarly communication librarians often find themselves inadvertently in positions of responsibility for their institution’s archives, through their IR administrator roles. Basic preservation principles, like those presented by Stanford University’s LOCKSS (lockss.org/about/preservation-principles) are worth understanding, as scholar-led repositories become acquired by commercial outlets (Elsevier, 2017) and community
leadership groups in digital preservations pivot strategies (Digital Public Library of America, 2018) or shutter (Digital Preservation Network, 2018).

Updated examples for topics that were explored in this article include:

- The example of “Hotline Bling” boosting streaming counts for Drake’s Views album could be retold with a more recent example. Four days after her album Queen was released, Nicki Minaj added the 6ix9ine single “Fefe” (on which she is a guest feature) as the twentieth track. “Fefe” had earned 1.6 million streams prior to its addition to Queen (Leight, 2018).

- Discussion of mixtape culture’s similarity with the ethos behind preprint sharing, could be introduced with a more recent example, which also happens to also touch on sex equality. Ariana Grande told Billboard that her “dream has always been […] to put out music in the way that a rapper does. I feel like there are certain standards that pop women are held to that men aren’t. We have to do the teaser before the single, then do the single, and wait to do the preorder, and radio has to impact before the video, and we have to do the discount on this day, and all this shit. It’s just like, ‘Bruh, I just want to […] talk to my fans and sing and write music and drop it the way these boys do.” (Weiner, 2018).

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