



Getting Likes, Going Viral, and the Intersections Between Popularity Metrics and Digital Composition

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Abstract

This article explores how the virality made possible by shareable content and its popularity metrics – Shares, Views, Likes, ♥’s, Tweets, etc. – influences the composition, circulation, and assessment of digital texts. As popularity metrics are increasingly linked to sharable texts, the lines between content designed to inform, inspire, and educate, and the content designed to illicit clicks, earn likes, and proliferate are blurred. Calling attention to the presence of popularity metrics, the frames of contagious content, and their respective impacts can help students (and scholars) better understand how such compositions cross between academic, personal, and professional networks. The article begins in the classroom, moves into a more theoretical analysis of the spread of educational content via platforms like Ted.com, and concludes with a discussion of a “writing viral video” assignment that I use to help undergraduate students examine the affordances and constraints of sharing their multimodal compositions and the possibility of going viral.

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1. The Ambiguous Value of “Likes” and Academics Going Viral

Two classroom observations and two scholarly viral videos highlight the intersections between popularity metrics, virality, and academia that this article explores. The first observation followed a question about “likes.” In order to generate discussion, transparency, and community in an upper division Multimedia Writing course at the University of California Santa Barbara, I asked that each student “follow” the individual Tumblr blogs of each classmate. An issue arose when a student asked whether or not she was also required to “like” (or “heart”) her classmates’ posts (the icon for “liking” on Tumblr is a ♥). She could like if she wanted, I told her, but “likes” did not matter and, I clarified, “likes” would not influence my assessment of an author’s original blog post or a reader’s participation grade. After further consideration, however, I brought the question to a group discussion. The consensus was that ♥’s and likes *should not, in theory* matter in an academic setting, but that they did matter outside of academia, in personal and even professional networks (albeit, as my follow up research shows, to varying degrees). Our ambivalent attitude towards the ♥’s and likes we gave and received seemed to challenge some of the overarching goals for the course—to show students that, first, due to the increasingly multimodal and participatory nature of media production and composition,

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all of our writing and sign-making gestures matter, and second, that our compositions make frequent (and sometimes unintentional) transitions between academic, personal, and professional networks. The ambiguous value of likes and popularity metrics surfaced again later in the course, when students remediated a non-fiction text as part of their “writing with video” assignment, uploaded their videos to YouTube, and posted links to their Tumblr page. I was pleased and excited that a majority of the videos went above and beyond the course requirements, but I could not help but notice that even the most exceptional videos had few “views” and almost no likes or dislikes (which on YouTube is represented by thumbs up and thumbs down). Even after the course had ended, most groups’ videos had fewer than ten views. Although they were not part of the assignment’s requirements or learning outcomes, the lack of “views” bothered me, for, I suspected, largely the same reasons that, for better and worse, they mattered to students. We each had some expectations regarding the “likes” or “views,” but these expectations seemed conspicuously absent from my curricula. Should I have encouraged students to like one another’s blog posts and videos? Should writing assignments posted to a public blog that gain a substantial number of views and likes be rewarded with higher grades? What would be the risks and rewards of encouraging students to aim for virality with their multimodal compositions?

These questions of popularity and virality inspired me to develop a “social media use and expectations” survey and a “writing viral video” assignment that are discussed in the third section of this article. Here, I want to suggest that the issues related to my specific classroom experience regarding likes and views are filtering through academia more broadly. For example, the purpose of composing this article and contributing it to a peer-reviewed journal is to share my ideas and findings with my colleagues, not the masses. Nonetheless, if the article is accepted, I will post the title and links to the abstract to my social media accounts. These posts to my personal and professional networks may earn dozens of likes, shares, tweets, and favorites. Someday, the article might appear on Reddit, Academia.edu or Researchgate.net. It is possible that the increased exposure could lead, over time, tens or even hundreds of readers to download the article. I will be able to see this activity and may even notice if this piece reaches the “Most Downloaded” column on the homepage for *Computers and Composition* [Fig. 1]. The modest number of views, likes, shares, or downloads will not help me earn promotion or tenure, but those metrics and rankings will influence how I will feel about the finished product and how readers will approach my ideas.

The number of views, likes, shares, and downloads attached to this article or any text that is shared through relatively open networks like Facebook, Twitter, or YouTube *could* jump suddenly and exponentially. Scholarly arguments and academic research do (albeit rarely) go viral. Consider Adam Banks’s 2015 Conference on College Composition and Communication Chair address, “Funk, Flight, Freedom” (2015), which, as soon as a videotaped version was uploaded to YouTube, was discussed in highly-trafficked blog columns such as Multimodal Mondays (2015), sparked lengthy debates on the WPA listserv, and accumulated more than 4,600 views in less than one month. Or, for a far more striking example, consider Michael Wesch’s famous “The Machine is Us/ing Us” (2007), which has 11.9 million views on YouTube. Banks’s claim regarding the “centrality of technology to what we do,” is compatible with Wesch’s critique of how “the machine” of online search engines, algorithms, and Web 2.0 tools “use” the inputs from each search, click, and keystroke to refine outputs and influence what and how users subsequently search and gather information. The scholarly arguments created by Banks and Wesch offered intriguing entry points for their colleagues to think about writing studies and literacies in the twenty-first-century; additionally, the virality of these videos illustrates conflicts between social media networks, popularity metrics, and commonly held beliefs about composing, publishing, and assessing academic work. During a talk given at my campus in 2012, Wesch joked that on the morning in 2007 when he realized his YouTube video had gone viral, he called his department chair to ask about his tenure review. Wesch was clearly joking, and the audience laughed at the idea that a viral video could contribute to a tenure case, but this joke could also be understood as cause for serious concern.

The fact that some academic work “goes viral”—along with the ambiguous value of “likes” in academic settings and the challenge of assessing compositions that can be circulated (without using circulation metrics)—underscores two relevant questions for digital pedagogies: First, how do the popularity metrics (the number of shares, views, likes, ♥’s, tweets, etc.) shape our reading practices and metacognitive evaluations of the digital composition process? Second, how might “going viral,” or the sudden, explosive proliferation of academic content (which, for my purposes, includes video-recorded lectures, peer-reviewed articles, and scholarship directed to the public) influence scholarly reward systems or the dissemination of educational content? Bill Cope and Mary Kalantzis (2008) have raised concerns similar the second question: “What would happen to the knowledge and learning of elite institutions, if they stooped to the logic of mass delivery?” (p. 381). Elite institutions already use new *models* of mass delivery that, in general, move away from the brick-and-mortar classroom towards MOOCs and YouTube.edu Channels, and from printed peer-reviewed journals

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Fig. 1. A screen shot of the homepage for *Computers and Composition*, which, similar to many other academic journal websites, prominently displays the “Most Downloaded Articles” and “Most Cited Articles.” Giving popular articles such a prominent position ensures their continued popularity and may also influence how authors understand and evaluate contributions to the field.

towards open-source, self-publishing platforms. These digital models of mass delivery allow teaching, learning, and research to spread quickly, widely, and at relatively low costs. The *logic* of mass delivery is increasingly the logic of social media, which primarily operates under paradigms of popularity and virality. As this logic filters into academia, evaluations of teaching, research, and publications gradually become more firmly rooted in the social media landscape, which tends to value a quantity of clicks more than academic rigor or long-term impact to a field or discipline.

Academia is not a popularity contest. However, as more student submissions and academic publications are framed by popularity metrics, as more research funding is awarded by Kickstarter and Experiment.com, and more learning takes place on free and open social networks like YouTube and Reddit, it will be increasingly difficult, and thus crucial, to distinguish the content that is designed to teach and educate from that which is crafted to attract clicks and proliferate. The power to read through views, likes, and other digital symbols of approval (and to create content that deserves them) is an important part of appreciating the rich, layered processes of communication in the digital age. This power is now central to a well-rounded education.

The remainder of this article investigates the ways shareable content on social media is framed and how scholars and students might benefit from reflecting on the goals and purposes of “going viral.” Such investigations, I argue, can help us to achieve a type of quarantining, so to speak, from the warm marketing schemes and shock-value tendencies that currently capture broad attention. Popularity metrics and viral texts (even the best and most educational) are something we should study, teach, *and* be worried about if we want to develop curricula that respond to the reality of the ways social networks, digital publishing, and the possibility of virality is changing how we read, write, and understand our roles in broader discourse communities.

2. Framed by “Like” and “Share,” Or, On How TED.com Spreads

To show how popularity metrics and going viral might be influencing students and scholars, this section examines 1) the frames (rankings, share buttons, like buttons) which host and help to circulate digital content (such as TED.com videos) and 2) the increasingly common, worrisome, and practical use of popularity metrics as a rough form of

assessment, and through which practices citation metrics like the Journal Impact Factor seem increasingly similar to “like” phenomena.

The first objective—to study the frames or context of social media content—extends Marshall McLuhan’s (2003) argument that the *medium* in which a message is transmitted may itself be its own message. Of course, the content that spreads virally across social media networks is often vapid, over-emotional, and explicitly non-educational, yet, as McLuhan explained, “Program and ‘content’ analysis offer no clues to the magic of these media or to their subliminal charge” (p. 33). Thus, it is necessary to extend our critical focus beyond the contagious and often overwhelmingly affective viral content and towards the subliminal charge produced by the mediums and, more specifically, the frames, tools, and metrics that help circulate digital texts on social media networks and which influence how they are commonly assessed (i.e. views, shares, likes, tweets, etc.).

The study of these social media frames and how they influence the reading of digital content is most directly related to multimodal literacy and, for my purposes, is inspired by Gunther Kress (2001), who defined the multimodal literacy in terms of reading the “frames” and “framings” produced by a broader cultural shift from printed pages to pixelated screens (p. 149-154). Most social media sites (and most viral texts) are multimodal; they combine text, image, moving image, and sound. Therefore, multimodal literacy can not only help students to analyze YouTube videos or Facebook posts, but can also help them to question the ways that the share, download, and various approval buttons surrounding social media posts—“like” on Facebook, “favorite” on Twitter, “upvote” on Reddit, or ♥on Instagram— frame our readings and evaluations of the content to which the buttons relate. As Kress suggested in *Literacy and the New Media Age* (2003), even “seemingly superficial changes [such as bullet points for displaying text] are altering the very channels in which we think” (p. 16). Jared Lanier (2011) has also argued that slight changes in digital design can deeply modify how we understand and use information: “The slightest change in something as seemingly trivial as the ease of use of a button can sometimes completely alter behavior patterns” (p. 6). In the case of social media networks, popularity buttons guide our engagement with songs, articles, videos, and photos. The data developed from these buttons are used in algorithms that determine which texts are prominently displayed: “Popular” on YouTube, “Top Stories” on Facebook, “Trending” on Twitter, “Most Emailed” on NYTimes.com, “Most Downloaded” on Elsevier. Seeing that ranking or popularity number often leads to a split-second inference about the text’s popularity and subtly influences decisions of whether or not to “read more,” “download,” or click “play.” Again, the number of likes a text receives on YouTube or Facebook may have a spurious connection to its scholarly value or how we use the text, but it is increasingly rare to have a digital reading experience shorn of share buttons and approval metrics. Before, during, or after one “reads” a news piece, a personal post, a tweet, a video, or a journal article, one’s eyes are often drawn to the border, where a metric related to the popularity or social impact helps to shape the experience, and where a decision must be made about whether to click the buttons for sharing and approval [Fig. 2].

Buttons and metrics prime the reader for a specific kind of reaction: approve and/or share as this-many-other-users have done before you. These binary reactions (and the data they produce) occupy the visual frame of digital content, and have conceptually shaped current approaches to virality. Jonah Berger’s article “What Makes Online Content Go Viral” (2012) examined “how emotions shape virality” not by analyzing emotions, but by categorizing the content of approximately 1,400 articles published on the *New York Times* “most emailed list” during three months in 2008. Berger concluded that “rather than targeting ‘special’ people. . . it may be more beneficial to focus on crafting contagious content” (p. 12) which, according to his results, tended to be “more practically useful, interesting, and surprising” than the other content in the *New York Times* (p. 11). A similar quantitative examination of virality learned that Tweets with multimedia content, and especially video clips, are more likely to produce emotions and go viral (Bruni, Fancalanci, & Giacomazzi, 2012). These quantitative studies which draw conclusions about content preferences based on “most emailed” or “most viewed” or “most shared” lists or that link popularity to platform features (e.g. Did the media include photos, GIFs, or #hashtags?), sidestep concerns related to literacy, agency, and the broader influence the social web.

Other discussions of virality focus on the novel ways information is shared within and across digital networks. Indeed, learning how to “design and *share* information for global communities” is included in NCTE definition (2008) of 21st Century Literacies (my italics, NCTE). The digital sharing that helps information go viral is often described with one of three analogies: gatekeeping, infecting, or spreading. Nahon and Hemsley (2013) focus on gatekeepers who share information from the top-down or bottom-up. According to this model, we all choose certain gatekeepers to help control our social media feeds: top-down gatekeepers like CNN or the *New York Times* or bottom-up gatekeepers like a family member or co-worker. Our gatekeepers will ignore or consciously stunt the majority of what appears in their own feeds and networks and only pass along select information. Gatekeepers post, share, and forward through

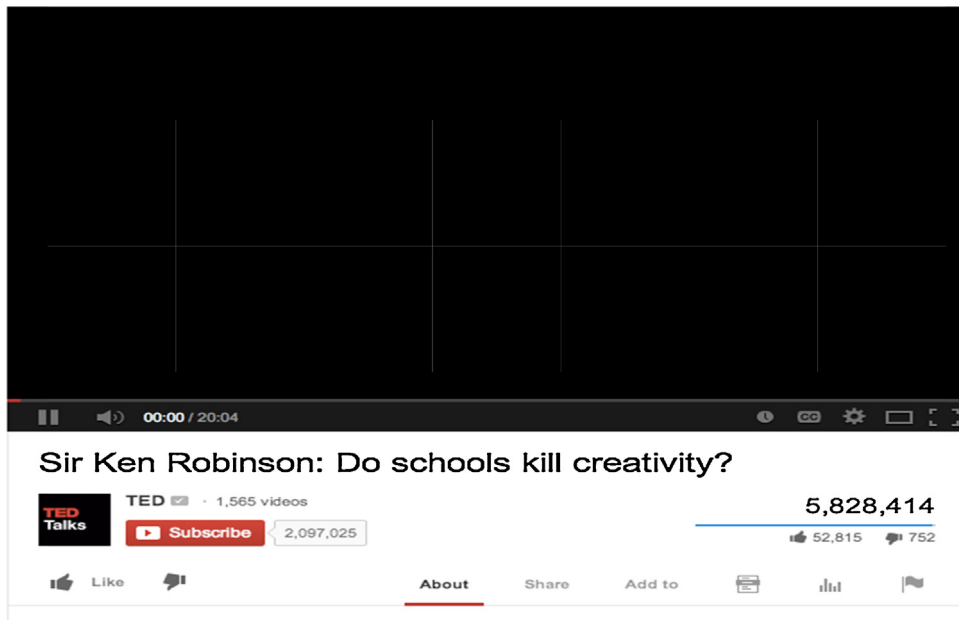


Fig. 2. The blank screen before the content appears for Sir Ken Robinson's TED Talk posted to YouTube. At this moment (and possibly during the talk), a user's attention is drawn to the corners. The "Thumbs Up/Like" and Thumbs Down/Dislike" button are in the left corner. In the other, a metric shows how many millions have viewed, how many thousands have "Liked," and hundreds have "Disliked."

the gates what they deem as timely, interesting, useful, or emotionally stimulating content. If that content goes viral, a digital record of such acts can be analyzed and segmented, either in real time or after the fact, to show which specific top-down gatekeeper (e.g. The White House, TMZ, Oprah, etc.) or bottom-up gatekeeper (e.g. 18-24 year olds), helped to spark the viral event, how fast the viral content spread, and through which networks.

The gatekeeper analogy is certainly more benign than the original posed by [Richard Dawkins](#) regarding cultural transmission in which "memes" spread like a contagious virus. Dawkins presented his famous analogy in *The Selfish Gene* (1976). Like a virus that infects a healthy cell and uses its nucleus to replicate its own DNA or RNA before moving on to infect the next cell, content that goes "viral" does so by attaching to individual users who then replicate the message and pass it along. Dawkins explained, "When you plant a fertile meme in my mind, you literally parasitize my brain, turning it into a vehicle for the meme's propagation in just the way that a virus may parasitize the genetic mechanism of a host cell" (p. 192). While "meme" is now commonly used to speak about units of cultural reproduction, the ruthlessness of Dawkins's "parasitizing" virus analogy has been rightfully challenged. In their most recent book, *Spreadable Media* (2013), Henry Jenkins and co-authors Sam Ford and Joshua Green used the adjective "spreadable" in the title to signal their rejection of the viral metaphor (although their book cover does advertise the somewhat brash blurb, "If it doesn't spread, it's dead"). The term "viral," they argue, implies that viewers and users passively transmit and infect others without conscious consent. The term "spreadable" suggests that we knowingly spread and keep alive articles, photos, videos, and other information by posting and sharing that which we believe will make a positive and advantageous impact on others and ourselves. Advocating for "spreadability," the authors argue, reasserts "the importance of social connections among individuals, connections increasingly made visible (and amplified) by social media platforms" (p. 6). However, their work does seem to conceal the possibly undesirable effects of exponential "spreading." As Robert [Payne](#) (2013) theorizes with his concept of "Virality 2.0," the current "language of intimacy and generosity" attached to digital phenomena such as "sharing," "spreading," or "participating" obscures the fact the content that spreads seemingly instantaneously and unchecked is not always safe, consciously shared, or actually deemed likeable by those who spread it (5). The distinction between the dangerous and "viral" transmission of content that ostensibly overcomes our own autonomy, and the safer and intentional "spreading" of digital content to our visible networks, seems to hinge on questions of agency and intent that cannot be fully unpacked here; nonetheless, the three dominant models—gatekeeping, infecting, spreading—offer distinct understandings of the sharing that makes content go viral.

The second objective for this section concerns popularity metrics as a form of assessment. A caution issued by Peter Elbow in “Ranking, Evaluating, and Liking: Sorting out Three Forms of Judgment” (1983) applies. Long before the advent of social media made possible the near instantaneous calculation of views, shares, or likes, Elbow described his own processes of assessing student writing, and argued against “that crude, over simple way of representing judgment—distorting it, really—into a single number, which means ranking people and performances along a single continuum” (p. 191). Instead, he encouraged instructors assessing student writing to take account “of the complex context for writing: who the writer is, what the writer’s audience and goals are, who we are as readers and how we read, and how we might differ in our reading from other readers the writer might be addressing” (p. 192). Indeed, the ability to constructively care about student writing and its “complex context” is made more complex (as it seems in my experience assessing Tumblr blogs and YouTube videos), by social media, which exponentially expands the possible audience and makes a writer’s goals more ambiguous.

The issues that concerned Elbow have only been exacerbated with the advent of digital liking and sharing. The buttons and metrics are especially problematic for students, increasing numbers of whom seem to rely on the number of views, likes, shares, hearts, or tweets to decide which content to value and trust. A survey I conducted with undergraduates regarding their uses of social media (which is more fully discussed in the next section) revealed that 45% (34 of 75) “frequently” use YouTube videos to complete homework and supplement class lectures (primarily in STEM courses). In response to a short essay question that asked how they decide if the information they found in the educational YouTube videos was reliable, students mentioned “the source or author” and “the number of views” an equal number of times. Comments related to “checking against another source” and “the number of likes” appeared less often, but also an equal number of times. These responses suggest potentially unqualified content producers or YouTube “educators” are being deemed a reliable and valuable source due only to the number of views and likes they are able to generate.

A range of personal preferences and illogical forces can shape the split-second decision to like, heart, upvote, tweet, or retweet. We could still benefit from the research Elbow (1983) imagined (decades before Facebook) related to “the mystery of liking—the phenomenology of liking” (p. 201). Ostensibly, in the pre-digital age, approving or liking a book, a film, a song, or an essay required some form of direct engagement—displaying the book on your shelf, recommending the film to friends, playing the song on repeat, writing feedback on the essay. Of course, it is not necessarily true that presenting a text through the medium of print means increased engagement—many of us own and display on our shelves books we have never read and may have no intention of reading. The point is that “liking” a book, film, song, or student blog post has a different connotation in the digital age, as a (perhaps not insignificant) percentage of ‘likes’ for any article, photo, or video represent users who clicked without ever engaging the text or feeling any sense of agreement, approval, or enjoyment. As Robert Payne (2013) explained: “‘Like’ flattens out this multiplicity [of emotional responses] and becomes more about technical functionality, an unreflexive bodily response, a way of interacting with the media object without having to express individual motivation” (p. 10). Even those we might assume are experts are sometimes guilty of retweeting links without opening them or clicking the like button to support a colleague.

Share tools, approval buttons, and popularity metrics are not only influencing how we create and evaluate videos and articles on social media, they are also beginning to overlap with more traditional notions of “information literacy,” (e.g. how we search for, evaluate, and use information) and scholarly reference. Just as users may like popular content on YouTube or Facebook without actually caring for it, some scholars cite popular research in their articles simply to raise the perceived quality of their own work. Arguing against a system that encourages citation padding, Cope and Kalantzis (2010) argued that Thompson Reuters’s Journal Impact Factor [JIF] currently, “operates in the same way as best seller lists, or top forty hit lists, or media ratings. They measure a quantum point where aggregate demand equals aggregate supply, assuming that more [citations] must be better” (p. 166). The JIF, (which Cope and Kalantzis also claimed should be called the “Network Popularity Score”(p. 167)), privileges immediacy, is “biased towards disciplines with more transitory knowledge and faster uptake. . . [and] favors shooting stars rather than knowledge whose uptake is longer-term and more durable” (p. 164). The JIF privileges citations of more recent and more popular research as well as more shocking and potentially ground-breaking results. In short, citation-padding seems analogous to the search optimization techniques used by companies to advance their Google Page Rank or to gain followers and likes on their Facebook page. A *New York Times* article on the increasingly common phenomena of academics orchestrating a “media splash” to correspond with release of their findings voiced concerns that “the benefits to academics of generating media attention may be subtly skewing their research” (Scheiber, 2015). The JIF and the suggested alternative, Altmetrics (which argues that “that dog-eared (but uncited) article that used to live on a shelf now lives in Mendeley, CiteULike,

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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inspiring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Longwinded
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Beautiful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Obnoxious

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Fig. 3. This new feature of TED.com makes it easier for users to respond to the TED content. Such metrics are helpful to TED's curators and, could conceivably be used by administrators to gain feedback about courses and professors.

or Zotero—where we can see and count it” (2011)) seem to reward research that mimics the latest trends in social media, which, of course, is rewarded with a high number of shares, likes, tweets, and other means of defining virality. In such a situation, one may find herself thinking, “The results in this article do not seem reasonable, but it did it get thousands of upvotes and hundreds of shares” or “This research project may be not be relevant to our mission, but its Kickstarter page has over 10,000 likes!?” The metrics and the ways they hint towards an initial, explosive spread can obscure our ability to understand the novelty of an idea or the long-term impact of research.

To put the intertwined elements of social media design, popularity metrics, and scholarly impact into practice, I next turn to a specific example of an educational platform that has become a massive cultural (and pseudo-academic) institution—TED Talks. TED Talks are recorded during live presentations at TED and TEDx conferences. The speakers champion educational innovation, social reform, technological breakthroughs, and cutting-edge research. The talks are designed to cross between academic, personal, and professional contexts. Some speakers relay an inspirational message of self-triumph; others include historical context, clear methods, citations, graphs, published results, and other conventions of peer-reviewed conference presentations and publications. The length and depth of a TED Talk does not currently compare to a typical journal article or scientific report; still, many TED speakers are university professors and many teachers, myself included, have asked students to watch relevant TED Talks either as homework requirements or as supplements to class discussions. In short, TED videos seem, on the surface, like legitimate educational resources.

How is this resource accessed and circulated? The motto of TED is “ideas worth spreading,” and the videos sponsored by TED.com consistently garner hundreds of thousands of views and go viral. Popularity metrics and other design features are prominently displayed next to the digital videos and help them to spread. Visitors/viewers see the numbers, which seem to offer proof that the “idea” espoused in the video has or has not spread. Apart from the difference between attending a live lecture and watching a video of that lecture (and certainly, TED’s set design and video production are superior to any of the video lectures recorded in a college or university that I have seen), the defining innovation of TED may be the sophistication with which it draws viewers’ attention to the borders of its videos. The ubiquitous like and share buttons are augmented by a feature that allows viewers to rate the videos based on a preselected list of fourteen qualities including “Inspiring,” “Jaw-dropping,” “Long-winded,” and “OK” [Fig. 3]. These ratings alone suggest that the purpose of a TED Talk is more, or different, than the purpose of a peer-reviewed journal article (which typically offers only “download” or “cite” and only sometimes a “most downloaded” column). Similar to an email list server or group forum, registered users can also respond to videos by starting TED conversations in which they can “propose an idea,” “ask a question,” or “begin a debate.” Participation in TED conversations can lead to “TEDcred” and “TED Badges.” After watching designated TED-Ed videos, users can select the “Think” tab which reveals multiple choice and rhetorical questions about the video and a “Dig Deeper” tab which presents additional resources and questions that promote dialogue. Educators are encouraged to customize what Ted.com calls “lesson plans” related to their videos.

Even if one is skeptical that the ideas found in TED Talks are worthy of spreading when compared to the ideas fostered in conventional academic settings (lecture halls, classrooms, labs, etc.), one must admit that the buttons and design features that help the ideas in TED videos to spread seem to fall outside traditional notions of course instruction, peer review, and even most traditional online courses. Teachers, scholars, and administrators may still believe in fixed lines of distinction between university-sponsored courses populated by registered students and the type of badge-driven curriculum offered by TED.com, but those lines are being blurred. While the majority of the educational content on TED.com, YouTube EDU, and other social media networks does not go viral, the increased use of these sites and channels as teaching and learning platforms has been accompanied by what I view as a related shift: from *posting* educational materials to social media networks to *promoting* them as potential viral events.

How does TED make its curriculum go viral? Nahon and Hemsley (2013) claim each “easy to digest” TED video “has the potential to impact individuals and start a chain reaction: by simply increasing awareness of provocative and critical topics, and suggesting alternative ways of thinking about them” (p. 100). This mission to spark these viral chain reactions was also implied by TED founder Chris Anderson (2014), who said TED videos “go viral” because they tap “into something amazing and primal” that causes viewers to “resonate with the same insight and excitement felt by the originator.” TED would seem to be achieving the idealistic dream of a social media network with global reach—raising awareness and generating excitement about key issues in such a way as to incite action and promote social change. TED seems to be approaching the kind of “spreadable MOOC” which Jeff Rice (2014) has imagined: “a spreadable pedagogy whose content and sharing is determined by students” (p. 95), a course which “taps into the disruptive nature of media formations” (p. 96). Nevertheless, it seems pertinent that Anderson’s praise for TED’s power to spread “the amazing and primal” excitement felt by TED speakers and transmitted via viral videos was published in response to criticism from Benjamin Bratton (delivered in a TED talk) that TED speakers, in an attempt to unleash the next viral storm, tend to dangerously oversimplify complex issues and, instead of scholarly discourse, promote “middlebrow megachurch infotainment” (Bratton, 2014).

The debate about the quality and purpose of TED’s content is ongoing and it remains to be seen if and how TED might morph into an accredited MOOC, but it is clear that TED’s highly produced videos, interactive web design, and savvy use of share tools and popularity metrics help their videos outshine traditional scholarly publications and online learning platforms. Therefore, whether or not one believes in the academic credibility of TED’s ideas, the very success of TED’s tools, buttons, and metrics may have unintended consequences for academia. For example, a new feature on the TED.com website allows the sharer to “track your influence” by recording “how many views you sent our way.” When and how will such “tracking” be offered to students enrolled in an online college course? When will the views for lectures posted to YouTube or the upvotes for a Reddit thread be included in promotion and tenure materials? It may seem far fetched, but such a situation seems possible, as the design of the most popular social media networks and learning platforms are being imitated as much, if not more, than the content. As the patterns for calculating impact and framing academic content—prominently displaying shares and views, offering options such as “Ted-Cred,” and “track your influence”—continue to spread, it will become increasingly difficult to develop modes of online education and digital publication with alternative models, or at least platforms that are not, like TED, positioned to tap into the power of digital shares, metrics that seem to mimic consensus, and the possibility of making a sweeping impact by going viral.

Eminently deserving writers and scholars should be able to gain sudden popularity via quantifiable share and approval metrics, but the very presence of such metrics may ultimately end up harming other writers, teachers, and publications that, for a wide variety of reasons, are not as “likable” (i.e. tailored to go viral). How can students, educators, and academic publishers remain attentive to the problematic aspects of these new digital mediums and the assessments that embrace the quantity of the clicks over the quality of contributions to a particular field or public discourse? A unit on reading and writing viral texts that I developed for my Multimedia Writing course begins working towards answers.

3. Teaching Viral Literacy, and the Potential Role of Popularity Metrics in Digital Curricula

Following my initial classroom observations about the ambiguous role of like buttons in the digital composition classroom and the challenge of producing texts that cross academic, personal, and professional networks, I began asking students in my Multimedia Writing class to complete a “media use and expectations” questionnaire during the first week of the course. After collecting surveys from four sections over two years, I found that students enrolled in this course, unsurprisingly, regularly used social media to stay in touch with family and friends—90% (76/84) reported that they

check Facebook at least a few times a week. Nor was it surprising that they use social media religiously—60% (51/84) reported spending 1 to 2 hours on social media on a typical day — or that they have relatively broad networks—60% (50/84) had “400 or more ‘friends’” on Facebook. Responses about the importance of views and likes were more mixed. In addition to the previously mentioned short answer question about how they determine the validity of information in a YouTube video (for which 47% (35/75) of respondents, without prompting, mentioned the number of views or likes), the questionnaire asked about the importance of likes to what they post to Twitter or Facebook. In response to the question, “How important is the number of ‘likes’ your posts to social media receive to how you feel about yourself and your posts?” only a handful of students selected the extremes: “very important” or “very unimportant.” The most common response was “somewhat important” (41% or 31/75). One of the primary goals of the “viral literacy” discussion was have towards the conclusion of this course is to clarify the “somewhat important” value of likes and other signifiers of popularity.

My study of likes and their relationship to (and facilitation of) viral content falls under the umbrella of digital literacies, or what has been called the “nexus between literacy and technology” that has transformed how reading and writing are taught, evaluated, and researched (Mills, 2010, p. 247). Defining digital literacy as a “nexus” between traditional, print-based reading and writing and new, digital technologies implies it is different (and more) than a fixed list of computer-related skills, but a malleable skill set that allows individuals to access, contribute, and make connections between websites, blogs, wikis, databases, multiplayer online games, message boards, and various social media networks. As Rodney Jones and Hafner Christoph (2012) explained, digital literacy means “not just being able to ‘operate’ tools like computers and mobile phones but *also* the ability to adapt the affordances and constraints of these tools to *particular* circumstances” (Italics in original, p. 13). To better understand these possibilities, scholars have argued for particular circumstances such as Facebook and/as literacy (Swartz, 2011; Davies, 2012; Coad, 2013), Twitteracy (Greenhow & Gleason, 2012), remix literacy (Stedman, 2014), and a range of other niche literacies related to the actors, operations, and circumstances that constitute fluency with particular online technologies, lexicons, and networks. Following this trend, it seems the study of likes and frames of viral phenomena might be regarded as “viral literacy” (or even “like literacy” or “shareable literacy”) yet, siding with the arguments made in by Anne Wysocki and Johndan Jonshon-Eilola (1999) regarding the complex “bundle” of beliefs and preconceptions the term “literacy” carries with it, I hesitate to suggest we need yet *another* literacy. In addition, I cannot help but feel that attaching the amorphous and catchy label “viral” to any curriculum would be counter instructive. For my purposes, it seems adequate to show students that our individual and collective *reactions* the videos, memes, and other content and experiences that can be clicked and liked and “go viral” (which we can recognize primarily by sudden and exponential quantity of shares and likes) are fundamentally different than the traditional reactions to printed words, linear text, film, or television (one generation ago, viewers did not “like” or “share” television programs as we can now, and rarely did an article or recording “go viral” in the modern sense). The difference between responding to traditional texts and texts that *can* go viral (even if it they do not) I believe, is already adequately signaled by our field’s collective attention to multimodal, digital, and other 21st Century literacies.

Even without “viral literacy,” applying multimodal and digital literacies to the context of viral media can be instructive. Of course, the application is challenging—viral texts typically center on fleeting events, pop culture references, and emotional appeals (e.g. shocking stories, cute cat videos, manipulative advertising). Indeed, in their early article on developing critical reading skills through “web literacy,” Sorapure, Inglesby, & Yatchisin (1998) warned instructors that students would have difficulty evaluating online content because most websites are “superficial,” and “intended primarily to be entertaining and catchy” (p. 413). Viral content is *exceptionally* superficial, entertaining, and catchy. This content seems to exemplify Max Horkheimer and Adorno Theodor (1944/2004) mid-twentieth-century critique of a “culture industry” that produces hit songs, soap operas, and sound films with an all subsuming formula: “designed so that quickness, powers of observation, and experience are undeniably needed to apprehend them at all; yet sustained thought is out of the question if the spectator is not to miss the relentless rush of facts” (p. 1244). Today’s culture industry may not encourage “sustained thought,” but the “subsuming formula” now includes the directive to gain views and get those viewers to click like, or, even better, to comment, remix, repost, and ultimately share. In an attempt to crack the viral code, some individuals and media outlets produce “click bait”: sensational stories, images, or videos only designed to snatch attention, gain popularity, elevate a brand, or manipulate consumer behavior. Still, not everything that goes viral is culturally bereft. Sometimes going viral is the result of complex rhetorical choices. To understand these choices, our class reads selections from academic analysis of viral events such as Nahon and Helsmley’s *Going Viral* and Payne’s “Virality 2.0.” Other shorter readings include danah boyd’s “How Invisible Children Orchestrated

Kony 2012,” Jayson Harsin’s “WTF was KONY 2012?” and Kevin Ashton’s “You Didn’t Make the Harlem Shake Go Viral: Corporations Did.” Considering the goal of developing in students the ability to “design and share information with global communities” as outlined by the NCTE (2008), contextualizing viral events like KONY 2012 or the Harlem Shake can illuminate the different ways user-generated compositions spread worldwide, and how seemingly “grassroots” videos might be manipulated by corporations for profit.

In addition to videos that have been shared globally, we discuss websites such as *Viral Nova* that purposefully and effectively curate viral content by repurposing original content with a particular style of headlines and images. Analyzing these remixes, remediations, and manipulations of digital content can teach writers about the choices they make when composing multimodal content. Even sites with a more scholarly focus than *Viral Nova*, such as the “New Reddit Journal of Science” also seem to obey the viral logic, as exemplified by the thread with the exciting title, “Scientists discover second code hiding in DNA.” The title helped the thread get upvotes and the research article to go viral, despite the fact that the title was not exactly accurate. One commenter, “EpistaxisPHD,” debunked this “amazing PR move” by pointing out the difference between a headline suggesting a second code in DNA—“Genes encode information in two languages!”—and what would have been the “natural headline”—“There are transcription-factor binding sites inside exons” (2013). Analysis of the intersection of text, titles, images, tags, and interactivity that help a text go viral can be helpful to young writers that want to reach a broader audience.

The discussion of these viral events, websites, and articles helps students to better consider the costs and benefits of education going viral. We watch viral videos such as “Randy Pausch[sic] Last Lecture” (2007) and Michael Wesch’s “A Vision of Students Today” (2007) and “Web 2.0 . . . The Machine is Us/ing Us” (2007). Then, students watch and write about some of the more popular education channels on YouTube such as Minute Physics, VSauce, and Crash Course. Students’ written responses to their examinations of these channels are guided by questions that I adapted from Chanon Adsanatham’s (2013) “Going Multimodal” (p. 304–308):

1. How much of the video shows authentic content (e.g. the author talking into the camera) and how much is a mashup, remix, or meme of a text composed for an alternative purpose?
2. Is the author/creator of this video an amateur, professional, institution, or corporation? How do you know?
3. What elements in the context (names, logos, #hashtags) reflect the author’s rhetorical stance?
4. Does the author make an explicit or implicit appeal to Share, Like, or Subscribe?
5. If this video is viral, what groups, organizations, or demographic likely helped to make it go viral? If it isn’t viral, what groups, organizations, or demographic might help it go viral?

These questions encourage students to examine the borders of the educational content, the areas where the title, metrics, share tools, and other features form a particular context. Again, some educational videos are primarily aimed at a small audience, yet others seem ready to appeal to the masses. Another way to highlight the importance of the context of educational video content is to have students watch the same video on YouTube and then on Vimeo. One can access share buttons and popularity metrics on Vimeo, but they are not featured, implying that the site is not as concerned with helping the videos uploaded to it go viral.

To conclude the unit, students compose a video remediation and attempt to make it go viral. This “writing viral video” assignment is the culminating project in a curriculum that teaches digital literacies by writing with and about blogs, wikis, photos, image/text, and, finally, videos. As outlined in the prompt (Appendix A), groups of two or three students select a somewhat technical text (official government document, tourist brochure, medication warning label, grammar lesson, etc.) and remediate it into a short video (1 to 4 minutes) that *could* go viral. The percentage of all YouTube videos that go viral is next to nil, but, as an added incentive, those groups who adhere to the assignment parameters and are able to get 3000 views on YouTube within 72 hours of being published receive an automatic A on the video assignment. To prepare for the challenge (and to put it into perspective), students write a short reflective piece to describe what they perceive to be their social media influence (What number of family, friends, colleagues, and the public would you expect to ‘like’ your best writing sample?) and their expectations and fears of going viral (How would you define “viral” success? Would you want your writing to go viral? What type of writing? In which context?).

After students upload their video to social media, they are invited to consider unique ways to spread their multimodal text including hashtags, tweets, links, and list servs. Even with this added incentive to get the automatic A, only 3 of the 37 student groups that composed videos for this assignment over three years received view counts above 3,000 in

72 hours. One particularly popular video, “Before I leave UCSB,” (2012) shows the members of the group engaging in a writing project that involved their community. They filmed themselves setting out chalkboards near campus and asking passersby to complete the sentence, “Before I leave UCSB_____.” The project was inspired by Candi Chang’s public art project “Before I die” (2011). The video gained over 3,000 views in the days after it was uploaded. The authors posted the work to their social media accounts, but they reported that their video gained so much initial attention because they told those who stopped to see what they were doing to watch their video on YouTube.

Again, only a few videos were able to gain enough views to get the automatic A, but approximately half of the groups over the three years earned an A grade based on a holistic assessment of their compositions. I believe that these high marks for videos that received fewer views relates to the ways the students responded to the challenge of thinking as writers, editors, publishers, and producers, even if some of them consciously choose not to promote their work. In fact, one of the best compositions submitted for this assignment over the years was purposely posted to Vimeo and received less than 10 views. “Remediation of Demetri Martin’s ‘Dammit I’m mad’”(2014) begins with a title slide showing the definition of a palindrome: “a word, line, verse number, sentence, etc. reading the same backwards as forwards” against the backdrop of the ocean. After a few seconds, viewers realize the wave is moving backwards. In the next shot, the narrator begins to read Martin’s palindrome poem as the poem’s text scrolls up the screen. The video shows one of the students moving around his apartment in a somewhat normal way. Only after a minute does it become clear that the video recording has been reversed. The source of their video (a palindrome poem) was used to play with notions of backwards and forwards in the text shown on the screen and the actions of the video. The two students did not engage the challenge to go viral, but they creatively engaged the possibilities for video remediation.

When asking students to “write” a viral video, it is not my intention to stoke their lust for fame or to reinforce the unfortunate status quo that judges media solely by the number of views or likes it has accrued in a relatively short period of time. This challenge is made because it encourages students to reconsider audience and their approach to the multimodal composition process. For some students, like the ones who remediated the palindromic poem and received few views, the challenge may in fact be a distraction. The majority, however, seems to embrace the struggle to figure out how to transform the writing process or a written text into a dynamic, animated video while simultaneously thinking about the rhetorical moves (e.g. exigencies that draw “shares”) and whether or not to take advantage of the design features (e.g. hyperlinks and hashtags) that are increasingly important to attracting readers online. Before uploading their videos we discuss what they believe writers should and should not do to attract attention online, starting with a warning about YouTube comments (and how to disable them) and moving to an analysis of the Instagram users who add dozens of popular hashtags to the caption for each uploaded photo, regardless of the content, in hope they will get more hearts (During one spirited class discussion, we decided that this kind of rampant tagging seems #hashtagtrashy).

Asked to submit reflections (which I have received permission to publish) on the writing viral video assignment, my students show awareness of the challenges virality poses to online communication. They commented on the difficulty of composing “something to excite the masses, so that they would not only view...but share.” Some students were inspired and made a strong personal investment in the writing and production of their videos: “I had no hesitation showing my friends, family, and girlfriend what I had been sinking my time into...Getting to see that others genuinely enjoyed something I had a hand in creating was a lot more gratifying than simply seeing an A posted up...with no feedback.” Others expressed frustration and anxiety about the pressures induced by the competitive nature of both school assignments and YouTube: “In this age of likes, retweets, favorites, and shares, it seems as though everything has become a competition: against ourselves, against friends, and even against complete strangers. We strive for recognition and stop at nothing to achieve it.” The recognition they achieve online, most students recognize, is ephemeral, and potentially overwhelming. As one student explained: “It’s very obvious that the number likes, hearts, stars, and favorites are used by us to determine if content we find online is good. Although I definitely validate my posts by the number of likes they receive, I only want to receive a number of likes within a certain range. 1 like is not enough but 100+ likes makes me uncomfortable because that’s too much attention for me.” That desire to be popular, but not exposed to the masses, works both ways. Another student admitted that when the video she posted and promoted on her Facebook wall did not get enough views, likes, or comments she was inclined to delete it. Without instant approval from both close friends and her broader network of “friends,” it seems she felt that her work was unfit for sharing.

Based on this negative reinforcement and the implications about the value of anonymous approval, I wonder: Is 3000 views on YouTube or 100 hearts on a blog post a more effective way to build a young writer’s confidence than marginal comments and letter grade? If, for better or worse, social media content is ranked by the views, likes, and hearts it has accrued, how can we better help students value our written feedback and understand that “liking” powerful

writing requires more than pressing a button? Assuming the popularity metric and approval rating systems is becoming an increasingly common phenomenon (from everything I have seen, I suspect it is), are we, as a profession, adequately prepared to respond to it? Or are we drifting towards a new paradigm for knowledge production and proliferation ill suited to the intellectual and affective needs of our students and society?

Like any social phenomena tied the advent of new technologies, having a high number of likes or going viral is not inherently positive or negative. If the situation calls for it, young scholars should be encouraged to tweet links to their blog posts, to tag their video responses with keywords that may attract a global audience, and to make their research results go viral. We may want the scholarly works (or links to them) we post on Facebook, Twitter, or YouTube to reach past an immediate network of friends, family, and colleagues and spark interest on a broader scale; however, we must also be ready to debunk the myths of likes, shares, and other popularity metrics and to clearly see the forces and frames that promote viral fame.

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Appendix A.

Writing Viral Video Assignment

Groups of 2-3 students will work together to plan, script, shoot, edit, and upload a video on YouTube that is between 1-4 minutes. The “content” of the video should remediate a text that falls into one of the following categories:

- 1) A video that shows you engaging with the community to create a writing project
- 2) A visual interpretation of an “official” document such as a statement from the White House, a letter from the Dean, or a parking ticket.
- 3) An infomercial that outlines the ingredients of prescription drug (other than marijuana) or the parts of a specific machine (such as a toaster).
- 4) A grammar lesson: show your audience how to do something useful with the English language (use a semicolon, correct a run-on, etc).
- 5) A video that re-envision and sheds light on the process of writing something (other than a text) such as song lyrics, notes for class, or an email.

This project is designed to help you to use video to both remediate text and rethink rhetoric. Questions you might ask yourself during the process: As a writer, how can you appeal to “readers” on YouTube or Vimeo? What strategies from writing (planning, drafting, researching, organizing, revising) are germane to the different narrative devices used in short videos? How are the ways that text is composed similar or different than the ways that videos are captured (flip cameras, cell phones), edited (clipped, spliced, layered with text, etc.) and finally distributed (tagged, embedded, etc.)?

Assessment

Proposal: 5% (of total course grade)

Write a 600-word analysis of the text and describe why it lends itself to video remediation and how you plan to remediate it (what shots, effects, narrative techniques do you plan to use). In the last paragraph, sketch out a work schedule and what you see as your individual contribution to the completion of the video.

Video: 15% (of total course grade)

Your video will be graded holistically based on 1) The critical thinking and creativity displayed by selection and interpretation of the text** 2) The rhetorical moves used to remediate the text 3) The overall quality of the edited text (photography, soundtrack, transitions, animations).

Final Reflection: 10% (of total course grade)

After your video has been uploaded and had a few days to settle in on YouTube or Vimeo, write an analysis of the video you have uploaded and your involvement in the process of writing, capturing, and editing it. While analyzing the

finished product, consider the following questions: Who is your audience? Who (besides your classmates and friends) might “view” or even like this video? What are some of the best qualities of the video and what would you like to correct if you had more time? How does your video interpret the process of reading and writing?

*As an added incentive to make an appealing remediation, if your video receives a little “viral” fame and gets 2000 views in the first 48 hours, your group will receive an automatic A for the video. (Note: Only 3% of all Youtube videos get 1000 views in the first month. A low number views, likes, or comments will not negatively impact how I grade your video.

** We will discuss your proposal to determine how your video will display critical thinking and an appropriate remediation of text. If your final video deviates from that plan (i.e. lack of critical thinking or belligerent interpretation of the text) your video will not qualify for the automatic A.

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References

- Adsanatham, Chanon, et al. (2013). *Going multimodal: programmatic, curricular, and classroom change*. In Tracey Bowen, & Carl Whithaus (Eds.), *Multimodal literacies and emerging genres* (pp. 282–312). Pittsburgh: U of Pittsburgh P.
- Anderson, Chris. (2014, January 8). TED isn't a recipe for 'civilizational disaster.' The Guardian. Retrieved from <http://www.theguardian.com/commentisfree/2014/jan/08/ted-not-civilisational-disaster-but-wikipedia>.
- Banks, Adam. [National Council of Teachers of English]. (2015, March 24). Funk, Flight, and Freedom- 2015 CCC Chair Adam Banks' Address [video file]. Retrieved from <https://www.youtube.com/watch?v=EYt3swrvnwU>.
- Berger, Jonah, & Milkman, Katherine. (2012). What makes online content viral? *Journal of Marketing Research*, 49(2), 192–205. <http://dx.doi.org/10.1509/jmr.10.0353>
- Boyd, danah. (2012, March 14). The power of youth: how Invisible Children orchestrated Kony 2012. *Huffington Post*. Retrieved from http://www.huffingtonpost.com/danah-boyd/post_3126_b_1345782.html.
- Bratton, Benjamin. [TED.com]. (2013, December 30). *New Perspectives - What's Wrong with TED Talks? Benjamin Bratton at TEDxSanDiego 2013*. [Video file]. Retrieved from <https://www.youtube.com/watch?v=Yo5cKRmJaf0>.
- Bruni, Leonardo, Francalanci, Chiara, & Giacomazzi, Paolo. (2012). The role of multimedia content in determining the virality of social media information. *Information*, 3(3), 278–289. <http://dx.doi.org/10.3390/info3030278>
- Coad, David. (2013). *Developing critical literacy and critical thinking through Facebook*. *Kairos PraxisWiki*, 18(1). Retrieved from http://kairos.technorhetic.net/praxis/index.php/Developing_Critical_Literacy_and_Critical_Thinking_through_Facebook
- Cope, Bill, & Kalantzis, Mary. (2008). The social web: changing knowledge systems in higher education. In Debbie Epstein, Rebecca Boden, Rosemary Deem, Fazal Rizvi, & Susan Wright (Eds.), *Geographies of Knowledge, Geometries of Power: Framing the Future of Higher Education* (pp. 371–384). London: Routledge.
- Cope, Bill, & Kalantzis, Mary. (2010). Evaluating webs of knowledge: a critical examination of the 'Impact Factor'. *Logos: The Journal of the World Book Community*, 21(3–4), 117–132. <http://dx.doi.org/10.1163/095796511X559954>
- Davies, Julia. (2012). Facework on facebook as a new literacy practice. *Computers and Education* 59.1, (pp. 19-29). doi:10.1016/j.compedu.2011.11.007.
- Dawkins, Richard. (2006). *The Selfish Gene*. Oxford: Oxford UP (Original work published 1976).
- Elbow, Peter. (1993). Ranking, evaluating, and liking: sorting out three forms of judgment. *College English*, 55(2), 187–206.
- EpistaxisPHD. (2013, December 12). Re: Scientists discover second code hiding in DNA [Web log comment]. Retrieved from <http://redd.it/1sqj63>.
- Greenhow, Christine, & Gleason, Benjamin. (2012). Twitteracy: tweeting as a new literacy practice. *The Educational Forum*, 76(4), 464–478. <http://dx.doi.org/10.1080/00131725.2012.709032>
- Harsin, Jayson. (2013). WTF was Kony 2012? Considerations for communication and critical/cultural studies (CCCS). *Communication and Critical/Cultural Studies*, 10(2), 265–272. <http://dx.doi.org/10.1080/14791420.2013.806149>
- Horkheimer, Max, & Adorno, Theodor. (2004). The Culture industry as mass deception. In Julie Rivkin, & Michael Ryan (Eds.), *Literary Theory: An Anthology* (pp. 1242–1246). Malden, MA: Blackwell Publishing (Original work published 1944).
- Jones, Rodney, & Hafner, Christoph. (2012). *Understanding Digital Literacies: A Practical Introduction*. New York: Routledge.
- Kress, Gunther, & Leeuwen, Theo van. (2001). *Multimodal Discourse: The Modes and Media of Contemporary Communication*. Oxford: Oxford UP.
- Kress, Gunther. (2003). *Literacy in the New Media Age (Literacies)*. London: Routledge.
- Lanier, Jared. (2011). *You Are Not a Gadget*. New York: Vintage.
- McLuhan, Marshall. (2003). In W. Terrence Gordon (Ed.), *Understanding Media: The Extensions of Man*. Berkeley: Ginko Press (Original work published in 1964).
- Mills, Kathy Ann. (2010). A review of the 'digital turn' in the new literacy studies. *Review of Educational Research*, 80(2), 246–271. <http://dx.doi.org/10.3102/0034654310364401>
- Nahon, Karine, & Hemsley, Jeff. (2013). *Going Viral*. Cambridge: Polity Press.

- NCTE Executive Committee. (2008, February 15). The NCTE Definition of 21st Century Literacies. Retrieved from <http://www.ncte.org/positions/statements/21stcentdefinition>.
- Payne, Robert. (2013). Virality 2.0. networked promiscuity and the sharing subject. *Cultural Studies*, 27(4), 540–560. <http://dx.doi.org/10.1080/09502386.2012.707219>
- Pausch, Randy. [Carnegie Mellon]. (2007, December 20). *Randy Pausch Last Lecture: Achieving Your Childhood Dreams* [Video file]. Retrieved from http://www.youtube.com/watch?v=ji5_MqicxSo.
- Rice, Jeff. (2014). MOOCversations: commonplaces as argument. In Steven D. Krause, & Charles Lowe (Eds.), *Invasion of the MOOCs: promises and peril of massive open online courses* (pp. 86–97). San Francisco: Parlor Press.
- Sorapure, Madeline, Inglesby, Pamela, & Yatchisin, George. (1998). Web literacy: challenges and opportunities for research in a new medium. *Computers and Composition*, 15(3), 409–424. [http://dx.doi.org/10.1016/S8755-4615\(98\)90009-3](http://dx.doi.org/10.1016/S8755-4615(98)90009-3)
- Stedman, Kyle D. (2012). Remix literacy and fan compositions. *Computers and Composition*, 29(2), 107–123. <http://dx.doi.org/10.1016/j.compcom.2012.02.002>
- Swartz, Jennifer. (2011). MySpace, facebook, and multimodal literacy in the writing classroom. *Kairos PraxisWiki*, 15(2). Retrieved from http://praxis.technorhetoric.net/tiki-index.php?page=Multimodal_Literacy.
- Wesch, Michael. (2007, January 31). *Web 2.0...The Machine is Us/Using Us* [video file]. Retrieved from <http://www.youtube.com/watch?v=6gmP4nk0EOE>.
- Wysocki, Anne, & Johnson-Eilola, Johndan. (1999). Blinded by the letter: why are we using literacy as a metaphor for everything else? In Gail E. Hawisher, & Cynthia L. Selfe (Eds.), *Passions Pedagogies, and 21st Century Technologies*. (pp. 349–368). Urbana, IL: NCTE.