Article

"A podcast would be fun!": The fetishization of digital writing projects

Stevie Bell York University

Brian Hotson Independent Scholar

Abstract

While digital writing projects (DWPs) like podcasts, videos, and infographics are rigorous sites of scholarly knowledge production, the growth in their popularity as classroom assignments often has more to do with a sense that these are fun assignments. Horner, Selfe, and Lockridge (2015) describe such dismissive attitudes using the term *fetishization*. When DWPs are fetishized by students and faculty, they are celebrated while being dismissed as pedestrian fads. Ultimately, fetishization decreases the amount of support offered by faculty, the effort invested by students, as well as the demand (and budget) for learning service support. This means that disparities between students (including access to technologies, digital literacies, and "normative" abilities) are exaggerated. In this paper, we illuminate four interconnected drivers of fetishization that obscure the realities of DWPs— the myth of digital natives, assumptions about tool-content division, faith in digital tool neutrality, and idealizations of the web. Like all teaching approaches, thoughtful instructional design and learning supports are required for DWPs to create effective, equitable, safe, inclusive, and accessible learning opportunities. This paper enhances writing instructor and tutor abilities to challenge fetishized perspectives of DWPs in their work with faculty and students alike.

Introduction

Over the last two decades, the academic writing that students engage in is increasingly digital and multimodal. Digital writing projects (DWPs) take many forms: web-essays, blogs, wikis, podcasts, videos, memes, comics, infographics, slide presentations, playlists, collages, and 3D printing. In a

survey of faculty at a large Canadian university, Bell and Hotson (2021) find that DWPs are being assigned with regularity across disciplines (p. 9) sometimes in place of what might be considered traditional major and minor writing assignments (p. 11), with slide presentations (increasingly with audio voiceover), videos, websites, and blogs being assigned with the most frequency (p. 10). DWPs may not privilege written text as a primary modality and often call for a broader conception of writing to include meaning-making through design and production, what we describe as *composing*. While they employ different rhetorics that appear less textual, formal, and rigorous, DWPs invite student *composers* to engage in a variety of tasks at the heart of scholarly discourse—explication of abstract concepts, analysis, critique, reflection, argumentation, etc. (Bell & Hotson, 2020, pp. 21-22). Arguably, DWPs enhance these tasks with opportunities to think with and through digital tools, multimodality, multiliteracy, and connectivity. This can involve a journey of "making, playing, and tinkering" with digital tools (Bell, 2017, p. 2) that expands the ways in which writing is a "unique mode of learning" (Emig, 1988, p. 7).

Taking advantage of these opportunities, however, involves a specific skill set. Students need to develop "sensory literacy" (Ceraso, 2014) to design multimodal texts that attend to emotion-laden reader responses to form and content (Shin & Cimasko, 2008). Accomplishing this requires that students not only develop rhetorical awareness of audience, purpose, etc., but also rhetorical "dexterity" (Gonzales, 2015) as they make "technological rhetorical choices" (Sheppard, 2009, p. 128) between modalities and tools. Comfort in these skilled discursive practices is required for students to become what we call *semiotic opportunists* who take advantage of the affordances of modalities to create "richer, fuller" and multilayered meanings (Bezemer, 2012; Prior & Shipka, 2003). Principles of plurilingualism can be used to describe the deep interconnection or *enmeshment* between composition and media production, digital tools, writing supports. *Plurilingualism* refers to those who speak multiple languages and are able to move competently between not only languages, but also associated cultures. With "an uneven and changing competence...plurilinguals have a single, inter-related repertoire that they combine with their general competences and various strategies in order to accomplish tasks" (*Common European Framework*, 2018, p. 28).

The popularity of DWPs as classroom assignments does not necessarily come from a recognition of this plurilingual enmeshment. Rather, they are often posited as fun alternative assignments to traditional papers that students will enjoy. As writing centre directors, we have encountered dismissive sentiments in discussions with faculty, who tend to be enthusiastic about creative digital projects that promise to make their courses more interesting. In some cases, faculty have noted to us

that technical aspects of DWPs can simply be managed outside classrooms by learning support units like the writing centre, library learning commons, or software support centre. This separation of production from meaning-making processes is also captured by Silver (2019), who reports on faculty describing "digital media [as] merely 'technical' know-how" (p. 221). Dismissive attitudes towards DWPs are also apparent in Bell and Hotson's (2021) survey of faculty at a Canadian university, where one faculty member commented that DWPs "sounds like doing an illustrative skit instead of an analytical report. Lots of bells and whistles, very little actual content" (p. 11).

Some students share dismissive attitudes toward DWPs and treat them as easy assignments that do not merit as much time and energy as traditional academic papers. Silver (2019), for instance, has observed students belittling design "as merely 'an art project'" (p. 220). These attitudes may drive low prevalence of students seeking support for DWPs at campus writing centres, as found by Bell and Hotson (2021) and Grutsch McKinney (2009). However, students who do show up at writing centres come with serious concerns about DWPs. In our writing centres, discussions with students about DWPs tend to be less focused on enthusiasm and more dominated by anxiety (see Bell, 2019). Students tend to feel decentered by DWPs, uncertain of genre conventions; instructor expectations; writing, designing, and production processes; workload; access to adequate production tools; and the pressures and risks involved in publishing their work online (when that's a requirement).

Student anxiety and uncertainty is not unfounded. Asking students to publish their work in a public-facing forum without provisions for the extension of the protections afforded by the classroom can cause students to be vulnerable and likely heighten their doubts about the assignment. Assignments published to the Internet can never be entirely removed and can be viewed in perpetuity, especially when published to large, corporately controlled social-media platforms. In addition, students' concerns about public-facing assignments can involve conflicting rhetorical demands: those of an imagined public audience and those of their instructor, which can pull students in separate directions from the instructor. Students remain subject to instructor expectations, dispositions, and assessment strategies even though public-facing DWPs position them as public actors who need to make rhetorically situated decisions about form and content. In addition, DWPs can be inaccessible in unique ways to student learners beyond access to production tools. These assignments tend to be experimental, assigned without attention to principles of universal design, and relatively unsupported by campus services, which have developed to support traditional forms of coursework and assessment (essays and exams).

Further, faculty rarely consider Freedom of Information legislation, and by extension, institutional policies informed by the legislation, which prohibit students' personal information from being published to the Internet. According to legislation, "answers in completed assignments, exercises, exams, etc., are considered to be the personal information of the student," and its publication to social media or a public-facing website, for example, is restricted and protected by legislation (FIPPA - Some Basics for Faculty and Staff, 2022. Also see FIPPA for Faculty 2, 2022; FIPPA – Privacy of Student Info, 2022; *Freedom of Information and Protection of Privacy*, 2022). This legislation can have far-reaching consequences for DWPs.

Horner, Selfe, and Lockridge (2015) describe dismissive attitudes toward the rigour and labour of digital composition using the term *fetishization*. When multimodal forms of communication and knowledge-production are fetishized by students and faculty, they are approached as fads; they are celebrated but ultimately dismissed as being outside of true scholarly work, lacking both rigour and importance. The dismissal of any intellectual rigour of multimodal composing by students and faculty alike obscures the complexities of and vulnerabilities involved in working as a composer (Arola, Ball, & Sheppard, 2014; Ehret & Hollett, 2014; Horner et al., 2011; Silver, 2019). Ultimately, fetishization decreases the amount of support offered by faculty, the amount of effort invested by students, as well as the demand (and budget) for learning service support. Like all teaching tools and approaches, thoughtful instructional design and learning supports are required for DWPs to create effective, equitable, inclusive, and accessible learning opportunities. In this paper, we expand the research on fetishization by illuminating interconnected drivers of fetishization as well as what they obscure about digital composing. Our intention is to enhance writing centres'1 capacity to work with students and faculty on DWPs, which are increasingly prominent sites of meaning-making and discourse within and beyond the university. We conclude with suggestions for approaches to counter DWP fetishization from the writing centre.

Drivers of Fetishization

Belief in Digital Natives

The fetishization of digital composing is possibly driven by assumptions about *digital natives*, a term coined by Prensky (2001) to describe those who grew up living with internet-connected devices. The widespread belief that digital natives have an innate understanding of how digital tools operate and how to make the most of their functionalities has been thoroughly discredited (see for example,

Bennett, Maton, & Kervin, 2008; Helsper & Eynon, 2010; Judd, 2018; Passanisi & Peters, 2012). Yet, Prensky's concept remains widespread. Helsper and Eynon's (2010) study of technology use among university students finds that the term *digital native* is a misnomer. In fact, they find that instead of a natural expert, "the opposite is true—contemporary society is a continuation of the past" (p. 518); knowledge is not innate. They warn against belief in the abilities of "young 'techy' generations" propelling a harmful deterministic view that technology represents "the 'fix' or 'solution'" to many educational challenges, and they call for additional research on the ways that both "younger and older generations learn through, and engage with, technology" (p. 518). We have found this in our own experiences working with students in DWP production.

While nearly all students have basic access to wifi or computers, in their study of undergraduate students in the US, Gonzales, Calarco, and Lynch (2018) found that "about one fifth of students" had difficulties "maintaining access to laptops and cellphones" (p. 24), which interrupted half of the survey respondents' ability to complete coursework (p. 20). Unsurprisingly, poor functioning and unreliable devices—disproportionately affecting students who are Black, Indigenous, and People of Colour (BIPOC)—correlated with lower GPAs among survey respondents (p. 20).

Ironically, efforts to address disparities in digital access now mean that print resources (from hard copies of textbooks to printers) can be more expensive and difficult to obtain, which privileges wealthier students because print remains the most preferred and effective learning format (Mannheimer, 2016, p. 310); students have better information recall reading in print than on screens (Mizrachi, 2015). Gonzales, Calarco, and Lynch (2018) also emphasize that digital inequities go beyond access to literacy—"the divide among information 'haves' and 'have nots,' resulting from the ways in which people use the internet" (Gonzales, Calarco, & Lynch, 2018, pp. 5-6, quoting Ragnedda & Muschert, 2013). Aptitude for learning applications, platforms, and software is not a given (Link, 2002). Many students have not learned the languages and cultures inherent in digital technologies and applications, a situation that goes back to the earliest days of computers and communication (Brown, 1994, p. 9). This research on access and aptitude reveals the relationship between digital inequity and socio-political inequalities (Gonzales, Calarco, & Lynch, 2018, p. 5).

Assumptions about digital natives also obscure the need for inclusive assignment design, perhaps in line with the principles of "universal" design (UDL). Issues of access to multimodal composing and production also include sensory and physical access. The fetishization of digital technologies tends to perpetuate their idealization as promising enhancements of human ability. In order to actually be inclusive, Goodley et al. (2020) argue, the use and development of new technologies must involve

conscious considerations of ableism and disability exclusion (p. 515). The alternative is that instructors recognize disability exclusion when it arises as a problem, and they retrofit their assignments in light of the problem. Leaving this aspect of inclusion as an afterthought, then, promises to perpetuate the trope of disability as a problem, constituting "disability in terms of human failing" (p. 518). Instead, DWPs should be designed with principles of universal design for learning in mind at the outset, with provisions for multiple means of access to representation, expression, and engagement in learning. UDL promises to benefit all students not only in the access and engagement it affords, but also in the critical approaches it offers learners by de-centering normative ways of teaching and learning to "situate crip/queer students at the foundation of our teaching methods rather than as failed exceptions to the rule" (Baglieri, 2020, pp. 54-55 quoting Mitchell et al., 2014).

These issues of access and equity are also obscured by the persistence of the belief in digital natives (Judd, 2018, p. 115). The notion of the digital native is perpetuated both in academia (e.g., Akçayir, Dündar, & Akçayir, 2016; Bowman, 2020) and popular culture, where it has become part of a lexicon (e.g., "digitally native brands" (Taylor, 2020); "digital immigrant" (Joy, 201)). The misconception about digital natives continues to drive assumptions that most students do not need support with digital composing tools or digital production. Without a strong understanding of the need for support, there will continue to be a lack of attention on funding resource development. In addition, inevitable issues with student performance on DWPs that result from a lack of support may reaffirm and perpetuate fetishized perspectives that dismiss the intellectual rigour of DWPs.

Belief in Tool-Content Divide

The dismissal of the need for tech support is not only fuelled by assumptions about the inherent abilities of digital natives but also by misconceptions about the role of production tools in content development. The fetishization of technology and fun digital composing projects (see fig. 1) renders invisible the meaning-making value of "tooled-up" multimodal composition (Hotson & Bell, 2020, pp. 19-21). This aspect of fetishization is all too evident in faculty requests for writing centre workshops on production (such as audio editing using web-based tools such as Audacity or creating a website using Google Sites) to support the DWPs they're assigning without instruction on ways to make use of tooled-up processes of invention and discovery. In this way, the fetishization of digital composing exists along with the dismissal of the "actual labor of teaching [its] production" (Horner, Selfe, & Lockridge, 2015, p. 30).

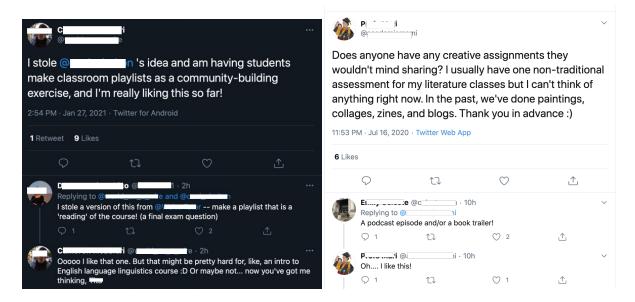


Figure 1. Social media posts of fetishized assignments

Media are epistemological and ontological, bound up in the construction of our knowledge and selves. Meaning-making occurs through and within technical tools as technical objects, tools that are not neutral but rather authorial participants in meaning-making. Composing tools can be said to be co-authors due to the ways they shape the human writer's experience of reality and influence thinking. Consider, for instance, what happens when different composing tools are used in order to tackle a writing task from a different perspective. Think of times when you've printed a draft to highlight, draw on, and cut up, or left the linearity of the word processor for other digital applications like Scrivener or OneNote that allow authors to tag and rearrange content. These tool changes lead to changes of experience and perspective that modify authorial thinking and, therefore, shape content. The fetishization of digital tools as simple and neutral obscures their co-authorship roles and limits acknowledgement of the extent to which writing is "more-than-human" (Wargo, 2018, p. 4). A more-than-human perspective insists that "technology, environs, and human beings can no longer be conveniently or neatly distinguished" (Brooke & Rickert, 2011, p. 169).

Wargo's (2018) study of writing from a "more-than-human perspective" elaborates a theory of *withness*, where writing technologies, discourse, and composers are inseparable, at once "elliptical, immersive in diverse environments, dispersed, ordinary (not rarified), mediated, ongoing, and coexistent with other activities" (Wargo, 2018, p. 2 quoting Micciche, 2014). In his observations of children writing with cameras, Wargo illustrates this material-discursive withness in action. For this study, he asked children to wear GoPro cameras on a nature walk to "make the walk more 'real"

(Wargo, 2018, p. 6). As children authors "passed the pen—in our case, the GoPro head harness—the possibilities and potentials of wearable writing were marked by the periodic pulses in collaborative and multispecies composition" (p. 12). Writing with the camera, one child author, Iris, simultaneously became an ant, the ground, and trees on the walk in the study: "I'm writing with the ground and with the tree,' Iris replies. 'This is the perspective of an ant. I am the ant. The GoPro's sounds are the ant's sounds. They are our sounds'" (p. 13). In reflection, Wargo adds that as "an ant," Iris transformed into "an assemblage of space/place/time/nature that effectively pushed her writing with wearables as a felt moment… Iris transformed from the singular I-subject into a we-subject of withness. It was no longer Iris as author, but **IrisGoProGroundSound**" (p. 13, emphasis the author's). In these moments it is possible to recognize the ways in which "composing is distributed across time/space/materials" and "withness is a conduit for collective experience, an entanglement of human and more-thanhuman actors" (Wargo, 2018, p. 4).

Recognition of this withness will empower these developing writers to become plurilingual with the capacity to make strategic choices of co-authors, intentionally inviting digital and technological tools into their writing. At first, Wargo explains, the children treat the wearables as passive. But then, through their use, the tools transform into active co-authors, and the children experience the wearable as "writing with us" (p. 1). If digital composing tools are co-authors, composition "from a more-than-human" or post-human perspective is a plurilingual "writing *with*" (p. 3). Fetishization that obscures the more-than-human nature of plurilingual digital composing can reduce writers' sensitivity to the power of their writing tools. Bell (2019) observes that undergraduate students producing podcasts tend to think of recording and post-production as final stages of a linear project rather than as tools in an iterative writing process. When left to their own devices, students focus on writing podcast scripts in word processors, and they leave the microphone as a day-before-the-deadline task. Inevitably, the withness involved in hearing their script through a speaker leads to revelations of the need for substantive content revision. Student composers need to be explicitly taught more-than-human plurilingual writing processes involving withness.

In writing studies, teachers and scholars are used to countering the misconception that writing is a practice of simply writing up what we have already learned and then decided to communicate. Writing centres are continuously doing this work through the ways they frame their practice in communications materials, to the choices they make for workshop curriculum, and the goals that inform their work with each student writer. At the heart of writing centre practice is an understanding that writing is a multi-sensorial technology of learning and thinking (Emig, 1988). It

slows the writer down as their words become tactile experiences, pen on paper, fingers on keyboard, stylus on screen. It helps them visualize and take stock of their thoughts assembled together in their field of vision; offers a script to read from as they re-consider words from the perspective of a listener; and grants them the opportunity to impose structure and visual design as they consider the reading experience. In these ways writing is rarely a straightforward process of capturing predetermined content. What writing scholars know is that writing is an embodied and multi-sensorial process of thinking, creating, and producing with as well as inside of production tools (Kyburz, 2019; Livingstone, Mascheroni, & Staksrud, 2018; Moeggenberg, 2018; Pigg, 2014; Wargo, 2018).

Faith in Tool Neutrality

Recognizing their influence as co-authors in more-than-human writing invites instructors to acknowledge that the technological tools used to write are built objects, products of human understanding and intention. Roderick (2016) explains that technological objects are products of their social environments, reflecting cultural values and power dynamics, with power to influence how users think and interact. In essence, our non-human co-authors have agendas of their own (or rather, of their engineer creators). This contrasts with the typical, fetishized understanding of the word *technology:* "a pragmatic means to a utilitarian end" (Roderick, 2016, p. 9). The function of this understanding is to allow "us to do things and make changes in the world and, at the same time, believe that the tools that we use to make these changes are somehow politically neutral" (p. 9).

This notion that technological tools are neutral and immaterial is as dangerous as it is wrong, as all technology is a human activity (Heidegger, 1977, p. 4) and all human activity is political (Belliotti, 2016, p. 143, referring to Gramsci). As human activity takes place in sociodigital spaces, the activity in these spaces is political. Take, for example, using built-in dictionaries in Google suite and browser extensions such as Grammarly. When students are instructed or required to use Grammarly to ensure that their writing "correct" for everything from student-instructor email correspondence to major assignments, Grammarly, as a browser extension, surveils and intervenes in their languaging practices across all contexts of online communication—from personal email to Facebook to comment forums—regardless of whether they're writing for the purposes of the course or for personal or professional reasons. The software provides students context and choice for implementing suggestions, featuring tone detection to tell students how their draft emotes and presents the author's intention through mood. However, student agency in deciding whether to accept these suggestions is circumscribed by the authority of the machine and the institution-backed instructor

endorsing it, as well as by the socio-political clout of whatever is the current version of Standardized English. The danger and injustice inherent in Grammarly result from its smoothing out of linguistic difference to have all communication conform to a hegemonic standard by applying a homogeneous concept of English across all digital communication contexts. The argument that Grammarly does or does not teach writing becomes irrelevant; rather, the issue is *what* it teaches about writing as language justice, cultural practice, and sociodigital justice.

Here again, students, more specifically their data, are Grammarly's commodities in a system of surveillance capitalism (Zuboff, 2015), which allows the application to remain free to users. Grammarly's privacy policy explains that it collects users' personal data, data about users' contacts, as well as everything the user writes—"all text, documents, or other content or information uploaded, entered, or otherwise transmitted by you in connection with your use of the Services and/or Software" (Grammarly, 2021, p. 3). Grammarly uses this data to maintain and enhance the operation of the software itself. It also shares student data with third parties, such as public authorities and law enforcement when lawful requests for user data are made (p. 7), and through third-party agreements with platforms such as Facebook, which is mentioned specifically (p. 8). As a private company, in the case of the sale or merger of Grammarly "some or all of your Personal Data may be shared with or transferred to another entity" where new owners may or may not necessarily abide by Grammarly's privacy policy. Government oversight is not clear on the responsibilities of the purchasing company's need to honour the original user agreements (See, National Cyber Security Strategy (Canada), 2018; Canada's Digital Charter in Action: A Plan by Canadians, for Canadians, 2019).

These tools are not neutral actors. These tools are, as in the case of Grammarly, the widespread privileging of a standard English targeting a consumer need for Grammarly's profits, a corporation now valued at more than \$13 billion USD (Novet, 2021), "placing it among the 10 most-valuable startups in the U.S." (Molot, 18 November 2021). What is also clear is the sociodigital injustice in using such software in an educational praxis, to which instructors must attend and consider before deciding to require or promote them as course or institutional tools. Roderick (2016) asks us to put aside the material reality of the machine for a moment to "understand how technologies are, in fact, confluences of knowledges, activities, and materials that extend beyond the immediate physical tests of the device" (p. 24). The significance of this is evident in the roles technological apparatus play as "semio-material mediators of knowledge and action" (p. 25) that influence the ways individuals organize, relate to, and interact with information and each other (as information) online.

The fetishized treatment of technologies as neutral tools remains widespread both because they play on (and commodify) communicative needs (such as the commodification of American English as the *lingua franca* of science, commerce, and ESL instruction) (Canagarajah, 2006; Donahue, 2009, p. 216; Drubin & Kellogg, 2012; Jenkins, 2009), and because they become invisible to us. When they work well, we stop seeing them as material, including their language of technology. Authors of algorithms for apps such as Grammarly use invisible coding language, purposefully written to obscure the intentionality of program design, in this case, to scrape data from users. Because of this, ways through which programs engineer and create user experiences of digital composing tools and communication environments is lost (Beck, 2018), not knowing "what's beneath the hood" of the process, a problem that dates to the beginning of the Internet, the Web, and digital communication (Brown, 1994, p. 9). When instructors fail to engage students in careful consideration of digital composing tools, they limit students' ability to be critical tool users, which makes them vulnerable. As such, these tools reposition our own ontological idea of ourselves as "subjects who know, do, and make against a neutral, objective background" (Rickerts, 2013, p. 41) making such a position increasingly untenable and difficult to reconcile.

Idealization of the Web

Even when these "surveillance capitalists" (Zuboff, 2015) and their digital tools are exposed as intentionally deceiving and manipulating users for their personal data, and when it is recognized by governments that the digital surveillance "needed to create and capture data potentially conflicts with the need for individual privacy in a healthy liberal-democratic society," use of these tools does not decrease (Tusikov & Haggart, 2020). As urban geographer Edward Soja (2010) reminds us, we either create our own spaces or we have spaces created for us (p. 18). This confluence of the materiality and semio-material aspects of digital tools create sociodigital spaces. Because these spaces are created through human activity, they are necessarily political spaces. As such, they are occupied a priori, as no human space is neutral or empty of political activity or influence (Soja, 2010). DWPs ask students to enter into the constructed geography of these sociodigital spaces. What writing centres can provide is an ability to reveal to students the social injustices of the digital composing tools they are asked to use. Writing centres can provide conceptual shifts for students who may not know of these inequities and biases and reveal the complicity and condonation of the institution within these injustices when the institution requires these tools to participate in the institution's knowledge acquisition and production processes. As Zuboff (2019) points out, users of the tools—

students and instructors—"are the abandoned carcass" of surveillance capitalists (p. 377), a baitand-switch to obtain data on a massive scale in which colleges and universities not only condon but actively participate.

One aspect of writing instructor and tutors' responsibilities to student composers, then, is to support their embodied experiences of navigating sociodigital spaces during uniquely digital composing processes: to (re)commit to social justice—a *sociodigital justice*. DWPs often require students to create accounts with media corporations like Google, Facebook, and Microsoft, which not only means that such projects require them to provide those platforms with their data, but also to enter the sociodigital spaces created and controlled by corporations. The purposeful construction of these spaces give the appearance of user-controlled, but, in reality, these spaces are not "more democratic," and their "centralized power has instead been reconfigured, power split off from authority" (Sennett, 2007, p. 181). Facebook, for example—or Instagram, Reddit, and TikTok—can claim that they have no control over content posted (which, in actuality, they do) while maintaining immense power in their capacity to influence individuals and societies on a global scale (See, for example, Wong, 2019).

The view of the Web as a utopian space with cosmopolitan values stems back to the early days of the Internet (See Brown, 1994, p 11; History of the Web, 2022; Shirky, 2009). While this was never the case as the Internet was invented by DARPA (Defense Advanced Research Projects Agency) for the US military (Jubin, & Tornow, 1987; Kling, 1991) and access to the early Web was limited to university IT departments and science labs, writing centres' work with students in digital spaces can move in the direction of the struggle for sociodigital justice. Constant awareness that digital spaces only appear democratic and cosmopolitan—a kind of sociodigital Potemkin village—is vital when it is in these spaces that the injustices we struggle against occur with intention and with the condonation and participation of the institution. Any introduction of digital composing tools in the classroom must involve consideration of the ways sociodigital space has unique potential for continual injustices and the erosion of democratic principles.

Conclusions: Countering Fetishized Perspectives from the Writing Centre

Because of the enduring prevalence of beliefs in digital natives, the invisibility of biased and discriminatory algorithms, the economy of surveillance capitalism, naiveté or ignorance about the

ways in which tools, platforms, and design shape the knowledge produced through the process of writing, students are neither demanding nor being encouraged to seek support for DWPs from writing centres. It is possible that this dearth of support-seeking for DWPs is causing writing centres to underestimate the prevalence of DWPs across the curriculum, leading to the development of very few writing centre supports in the Canadian context of higher education (Bell & Hotson, 2021). This makes sense as writing centres tend to become aware of assignments through encounters with support-seeking students; such encounters are rare for DWPs due to fetishized perspectives. It is in this disconnect that students are set adrift with these assignments.

Regardless, Bell and Hotson (2021) find some interest from writing centre directors and multimodal specialists for an increase in supports for DWPs (p. 15). This corresponds with the hidden demand for these supports that Bell and Hotson reveal in their survey of faculty: in some instances, faculty who are *not* assigning DWPs refrain from doing so because of concerns about the "unevenness of digital literacies among students, including production knowledge and experience as well as attitudes of resistance" as well as "a lack of institutional support equalizing student and faculty access to reliable technology, resources, and production space" (p. 11). Such concerns regarding assigning DWPs are well-founded, and they contrast with the fetishized perspectives held by many faculty who assign DWPs as fun and easy projects for their digitally native students.

Both the interest in developing DWP supports among writing centre directors and the signs of faculty demand for them may indicate that there is fertile ground for writing centres to develop supports on the basis of student need rather than student demand. This is especially the case for those writing centres whose funding is based on student demand. Faculty and student support for increased funding for writing centres for DWPs can be vital; however, acting in the interest of need rather than demand is justified in the case of DWPs because their fetishization obscures their potential dangers. DWPs have the potential to limit student learning as well as cause experiences of vulnerability and inequity. These stakes call upon writing centres (and other learning support units) to invest in curbing fetishized perspectives among faculty and staff by developing DWP-focused supports and outreach. It is our hope that research on fetishization will assist writing centre administrators in advocating for financial support to fund such need-based (rather than demand-based) initiatives.

It is difficult to change deeply set viewpoints of knowledge production, especially those wellestablished within the structure of institutions of higher education. Writing centres will have to work hard and with intention on a potentially multi-faceted outreach approach with the aim of raising

awareness of the value of writing tutoring for DWPs. We can imagine any number approaches, including new programming tailored to the support of DWPs, which may involve the development of technology-enriched student writing and production spaces; changes to staffing and professional development to integrate digital composing in writing centre praxis; and institutional advocacy work among faculty, university senate and leadership, perhaps in collaboration with other teaching and learning centres on campus.

Imagining DWP-Focused Programming

U.S. higher education institution writing centres offer many (endowment-supported) models of DWP programming and support that Canadian writing centres might look to as they consider their own initiatives (see Appendix A for a list). In particular, lessons about multimodal writing processes from Carpenter and Apostel (2017) in the Noel Studio at Eastern Kentucky University are noteworthy. Carpenter and Apostel find that tech-enriched writing spaces provide support not simply for DWP products, but also for multimodal *thinking*. This programming counters assumptions about tool/content divide, encouraging multimodal thinking and supporting students as they develop practical skills for integrated knowledge production processes.

Supporting process (rather than product) when it comes to DWPs calls for studio-type programming and maker-inspired models of composing (Bell, 2017). On-campus studios might invite student composers to bring their own personal devices or to use tech-enriched stations as they workshop design decisions with their peers and available writing tutors in a study-hall type setting. Virtual studios might bring students together in synchronous and asynchronous writing-designing groups focused both on tutor guidance and peer-to-peer support. The presence of peers and tutors can provide student composers with access to quick user responses to their design decisions, which is valuable given that user testing is central to designing processes. In either scenario (on-campus and online), studio-model approaches will benefit from investment in software licences as well as devices in rooms with access to software otherwise inaccessible to students. These spaces and resources might be shared on campus with classes and other learning support centres, such as libraries, many of which have invested in creating tech-enriched studio spaces.

One benefit of offering DWP-focused writing programs is that outreach about them offers an opportunity to counter fetishized perspectives across the university or college community. DWP support programs also serve as stable resources to which students can be directed after one-off DWP-focused workshops or asynchronous resources (videos, webinars, etc.), and they make it easier to

decline faculty requests for course-specific resources when there is limited capacity to take them on. As outreach succeeds and student participation in DWP-focused programming increases, it may become possible to solicit and feature student-produced DWPs on writing centre websites, perhaps annotated to reveal how and why they are rhetorically effective. This would further the goal of educating the university community on the need for DWP support.

Imagining Tech-Enriched Tutoring Environments for DWPs

While purpose-designed spaces are not necessarily required, arranging a tutoring space in advance of or designating a specific space for DWP tutoring will help maximize tutoring time. For one-to-one tutoring, simple adjustments to an existing tutoring space will help to mitigate technology issues, as well as use of students' personal technologies. A large table might be considered to accommodate laptops/tablets, microphones, and headphones. Additionally, a wall-mounted monitor synched and connected to the student's and tutor's computers to project student work will allow for both the tutor and student to speak to the composing process without having to look at each other's screens and to provide focus for the tutoring session (see Figure 2). Students can send the DWP to the tutor in advance, so that the tutor can arrange a setup like that in Figure 2.

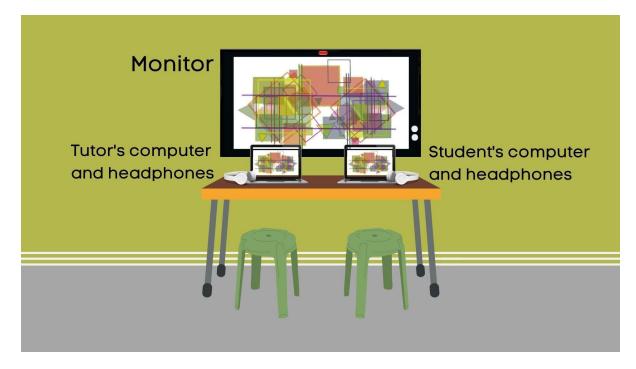


Figure 2. One-to-one tutoring space

For group tutoring or workshops, where the students are working on a project collaboratively, the set-up of the tutoring space can involve more preparation time, staff, as well as technology. In Figure 3, students and tutor(s) all connect to the same wall monitor. Using software such as Solstice (see https://www.mersive.com/products/solstice/), students and tutors can share their screens on the wall monitor while working on different aspects of the same project. A microphone for the space can be set up and connected to the students' computers for audio recording. Students can listen to the audio together. This setup requires staff trained in the specific software and technologies, as trouble-shooting will be inevitable. Using a tools such as Solstice, tutors can support multiple students at the same time on the wall monitor, while still maintaining a view of the overall project.

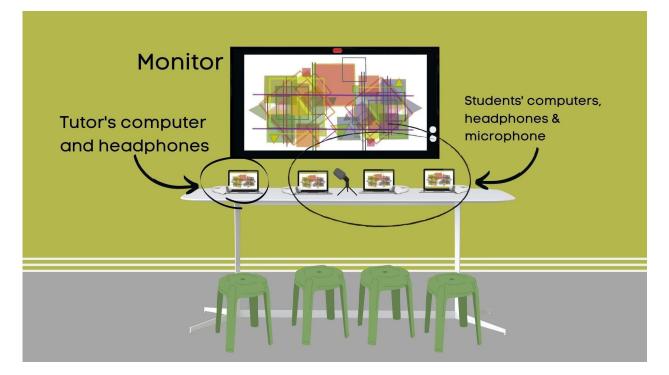


Figure 3. Group projects and workshop space

Setups such as those depicted in Figures 2 and 3 allow for cooperation with IT, software support centres, on-campus studio and maker spaces, and digital librarians expanding the writing centre's network of relationships and potential collaborations. As DWPs require digital technologies, including IT departments in digital literacies initiatives and programming can lead to funding opportunities and intra-institution partnerships, including co-developing and delivering technology

and user programming, training, and resources, expanding reach of the writing centre into the institution.

IT Help Desks can also provide opportunities for writing centre outreach to students, as Help Desks support students and instructors from every faculty and department. Speaking anecdotally, it is often the case that Help Desks receive questions about DWPs that they cannot answer, and they don't know where to send students for help. For these reasons, writing centres should be working with their IT Help Desk services to share their knowledge of the ways the writing centre supports students with digital productions.

Imagining Institutional Advocacy for DWP Support

Writing centre leadership that addresses the fetishization of DWPs might also include advocacy among teaching faculty and institutional administrators (who might, for instance, be in the position to fund writing centre programming or to make curricular policy). Advocacy that counters the fetishization of DWPs may involve proposals to Senate and appropriate subcommittees to amend concepts, definitions, and iterations of literacies as well as to update curricular policies and academic planning to account for the unique learning experiences afforded by DWPs. Advocacy with faculty might feel more comfortable, as many writing centres have established connections with faculty and can extend their established methods of collaborating to DWPs, such as providing workshops for faculty (in collaboration with a campus teaching commons, for example) and making assignment design guides available for their reference. Educational materials for faculty should prompt instructors to consider issues of institutional policies on inclusion, equity, as well as institutional data and information privacy policies and access, as well as writing process, guidelines, etc.

Workshopping the design of DWP assignments and offering in-class, course-specific workshops can be an effective way of making deep connections with individual faculty. Of course, this will first mean identifying faculty who are using DWPs in their teaching through surveys or tapping into established networks. Writing centres might anticipate requests from faculty that represent a fetishized perspective; for instance, they might be asked to address tool use apart from content development as described by Horner, Selfe, and Lockridge (2015). How might a response to this request counter the fetishized perspective? Can saying "yes" lead to an opportunity to inform the teacher as well as students? While most writing centres focus exclusively on students, it is possible that countering the fetishized perspective among faculty will require working with faculty writers. Taking faculty through the transformative experience of producing scholarship as a composer will give them the experience necessary to understand the intellectual rigour of DWPs.

Celebrating digital composing with the introduction of a digital composing award is also a promising strategy for raising the profile of DWPs among students, faculty, and administrators. An award offers the writing centre the opportunity to critique winning entries in ways that reveal how they work as intellectually rigorous and meaningful "texts." Working to add such an award to other institutionally-administered writing awards will also mean that your advocacy for the award itself works to counter fetishized perspectives among another group of faculty and administrators.

Implications for staffing, professional development & development of DWP-integrated praxis

An issue with supporting DWPs is the capacity of writing centres to make trained staff available to students and faculty. In Bell and Hotson's study (2021), "80% of [writing centre] directors and 62% of [self-identified] multimodal specialists reported having no training for the support of multimodal DWPs" (p. 20). Of all writing centre staff surveyed, including multimodal specialists and directors, only 27% indicated that they had "training and/or experience for tutoring DWPs" (p. 20), while 47% of directors reported that staff training to support DWPs is one of their current or future plans (p. 18). While training is indicated, only 3% plan to hire staff with specific skills and experience for supporting DWPs (p. 20).

Training tutors and multimodal specialists to counter DWP fetishization must incorporate writing tutoring and writing instruction pedagogies and practices, but also includes working knowledge of digital tools, and a plurilingualistic approach to the comprehension of the multiple languages of these digital tools. It is important to provide training to writing centre tutors and multimodal specialists within this digital plurilingual enmeshment.

Training requires an investment on the part of writing centre administration to understand digital tools, how they work, and how they affect composition. Creating a bespoke multimodal specialist position within the centre provides a solid foundation for DWP support and resource development, a train-the-trainer champion, as well as staff with technical know-how and digital plurilingualism. A multimodal specialist should possess

- An understanding of writing tutoring pedagogies and practices
- An understanding of composing and writing pedagogies and practices
- Demonstrated design abilities

- Experience with audio and video production
- Experience training in digital media production
- An understanding of the injustices of digital tools
- An understanding of how digital tools shape composition

As training is both costly in terms of time and resources, coordinating and integrating training, especially for technology and software, with other areas of the institution, such as the IT department and digital librarians, can be a means to provide writing centres with significant, in-house expertise. In turn, writing centres can develop train-the-trainers programming with faculty to create DWP champions outside the centre as well as create a DWP training and information network. As faculty are often a key to encouraging students to use the writing centre's tutoring and programming, involving faculty is important when implementing any new support programming. Making the institutional community aware of the centre's DWP-focused programming, designated specialists, dedicated space, and equipment provides incentive for students to visit with their DWPs. Such programming and related outreach work can also work to mitigate fetishization of DWPs by disrupting myths of digital natives, a cosmopolitan web, neutral tools, and a straightforward tool-content divide and describing them as vital aspects of scholarly knowledge production and composition in higher education.

Endnotes

1. In this article, the personification of *writing centre* as agent and actor is used when describing actions taken by writing centre communities, which are typically comprised of administrators, instructors, and tutors in various staff, faculty, and peer positionings. Usage of the personified *writing centre* as agent and actor is a norm within writing centre communities.

Appendix A: DWP support centres at higher education institutions in the United States

Institute	Name and URL	Mission statement, description, and/or vision
Florida International University	Digital Writing Studio <u>http://digitalwritingstudio.fiu.edu/</u>	" a media lab meant to support digital writing projects for English department. design guidance for the creation of

		multimedia texts like websites, ePortfolios, presentations, blogs, wikis, posters, photo essays, smartphone apps, and more"
University of Mount Union	Digital, Written and Oral Communication Studio <u>http://www.mountunion.edu/dwo</u> <u>C</u>	"provide[s] a space, technologies, and peer consultations to students who are working on writing, oral presentations, and multimedia projectshelp with critical thinking at the beginning stages of a project and with support through the writing, speaking, and production process"
University of Michigan	Sweetland Center for Writing https://lsa.umich.edu/sweetland	"a comprehensive writing center, exists to support student writing at all levels and in all forms and modes."
Ball State University	Digital Writing Studio https://www.bsu.edu/academics/c entersandinstitutes/writingcenter/ digital-writing-studio	"a working and tutoring space for students, faculty, and staff who want to learn how to use digital technologies and to create digital projects. Tutors are available to help explain how to navigate and use effectively digital composing tools as well as troubleshoot tech impasses"
University of Mary Washington	Digital Knowledge Center http://dkc.umw.edu/	" provides peer tutoring to all students on digital projects."
Eastern Kentucky University	Noel Studio for Academic Creativity https://studio.eku.edu/	" a multiliteracy center offering integrated support for writing, speaking, research, and multimodal communication"
Florida State University	Williams/Johnston Digital Studio <u>https://wr.english.fsu.edu/William</u> <u>s-Digital-Studio/About-Us</u>	"supporting, promoting, and showcasing writing in its many modalities."
University of Texas at Austin	The Digital Writing and Research Lab <u>https://www.dwrl.utexas.edu/</u>	"positioned at the intersection of rhetoric, writing, and technology, and dedicated to the practice, teaching, and theory of emerging digital literacies."
Texas Christian University	Center for Digital Expression http://cdex.tcu.edu/about-the- nmws/	" supports digital composing, research, and teaching while exploring the intersection between emerging technologiesto encourage digital expression and authorship."
Virginia Tech	360 Digital Studio https://360digitalstudio.github.io/	For English students to print assignments, work on group projects using large screen workstations, use computers with production software.
Stanford University	Hume Center for Writing and Speaking, Digital Media	Comprehensive writing centre

	Consultations https://undergrad.stanford.edu/tu toring-support/hume- center/resources/resources- faculty-and-instructors/digital- media-consultants	
Carnegie Mellon	Global Communication Center https://www.cmu.edu/gcc/	"to create better written, visual, and verbal communicators for today and tomorrow"
DePaul University, Chicago	University Center for Writing- Based Learning <u>https://condor.depaul.edu/writing</u> <u>/</u>	"to support writers and to promote the use of writing in teaching and learning."
Georgia Tech	Communication Center http://communicationcenter.gatec h.edu/	"to find the most effective way to communicate your message."
Massachusetts Institute of Technology	Writing and Communication Center <u>https://cmsw.mit.edu/writing-</u> <u>and-communication-center/</u>	"Our consultations help you produce outstanding written, visual, and spoken communication."
Michigan Tech	Multiliteracies Center http://mtmc.hu.mtu.edu/	"to help you build confidence and thoughtfulness in your writing and speaking projects by negotiating communication differences in your personal, professional, creative, and academic lives."
Rhode Island School of Design	Center for Arts and Language https://artsandlanguage.risd.edu/	"Fortifying and amplifying artists' and designers' voices at RISD and in the world "
University of California, Channel Islands	Writing and Multiliteracy Center https://www.csuci.edu/wmc/	" a range of free support services and programs that help them address 21st Century challenges of creatively thinking about and composing in written, oral, visual, and digital forms of communication."
University of North Carolina at Greensboro	Multiliteracy Centers https://multiliteracycenters.uncg.e du/	"To support students, faculty, and staff in their awareness of how multiple literacies (written, oral, spatial, visual, gestural, and multi-modal) impact ways of learning, communicating, and composing."
University of Massachusetts, Dartmouth	Multiliteracy & Communication Center https://www.umassd.edu/multilite racy-communication-center/	"to help all UMassD students grow as independent and confident communicators—on the written page and across a variety of current and emerging platforms and technologies."

Elon University	Writing Center in the Center for Writing Excellence: <u>http://www.elon.edu/cwe</u>	We define writing broadly. From our website on Writing Center support: "All types of writing are encouraged, from traditional academic essays to mixed-media projects such as research posters, slideshow presentations, or even videos."
University of Louisville	University Writing Center http://louisville.edu/writingcenter	"Writing Center consultants can work with any piece of writing, whether for a specific course or for professional or personal development. We also welcome collaborative projects and multimedia projects."
Iowa State University	Writing and Media Center https://www.wmc.dso.iastate.edu	Mission Statement: The WMC strives to inspire students, staff, faculty, and community members to develop in all forms of communication by promoting the values of critical thinking, creativity, and lifelong learning. Strategic Priorities 2019-2021 #3 Digital Composition: Provide services for stakeholders that address the latest technologies. Train consultants to work with digital composition and expand the services of the Writing and Media Center in order to engage with a wide variety of disciplines.

References

- Akçayir, M., Dündar, H., & Akçayir, G. (2016). What makes you a digital native? Is it enough to be born after 1980? *Computers in Human Behavior*, *60*, 435–440. https://doi.org/10.1016/j.chb.2016.02.089
- Arola, K. L., Ball, C. E., & Sheppard, J. (2014). *Writer/designer: A guide to making multimodal projects*. Macmillan Higher Education.
- Baglieri, S. (2020). Toward inclusive education? Focusing a critical lens on universal design for learning. *Canadian Journal of Disability Studies*, 9(5), 42–74. https://doi.org/10.15353/cjds.v9i5.690
- Beck, E. (2018). Implications of persuasive computer algorithms. In J. Alexander, & J. Rhodes (Eds.), *The Routledge handbook of digital writing and rhetoric* (1st Ed.) (pp. 291–302). Routledge.
- Bell, S. (2017). High impact creative pedagogy using a maker model of composition. *Journal of Faculty Development*, *31*(1), 1–6.

- Bell, S. (2019). Learner-created podcasts: Fostering information literacies in a writing course. *Discourse and Writing/Rédactologie, 29*, 51–63. https://doi.org/10.31468/cjsdwr.747
- Bell, S., & Hotson, B. (2020). Tooling up the multi: Paying attention to digital writing projects at the writing centre. *Canadian Journal for Studies in Discourse and Writing/Rédactologie, 30*. https://doi.org/10.31468/cjsdwr.785
- Bell, S., & Hotson, B. (2021). Where is the support? Learning support for multimodal digital writing assignments by writing centres in Canadian higher education. *The Canadian Journal for the Scholarship of Teaching and Learning*, *12*(1).
- Belliotti, A. R. (2016). *Power: Oppression, subservience, and resistance.* State University of New York Press.
- Bennett, S., Maton, K., & Kervin, L. (2008). The "digital natives" debate: A critical review of the evidence. *British Journal of Educational Technology*, 39(5), 775–786. https://doi.org/10.1111/j.1467-8535.2007.00793.x
- Bezemer, J. (2012, March 15). What is a mode? Berit Hendriksen and Gunther Kress discuss the notions of 'mode', 'resource', 'affordance' and 'sign'. [Video]. YouTube. https://www.youtube.com/watch?v=kJ2gz_OQHhI
- Bowman, S. (2020). Educating the digital native: Teaching students in a binge-watching world. *Faculty Focus*. Retrieved from https://www.facultyfocus.com/articles/teaching-with-technology-articles/educating-the-digital-native-teaching-students-in-a-binge-watching-world/
- Brown, P. (1994). Hype, hope and cyberspace -or- paradigms lost: Pedagogical problems at the digital frontier. *eCAADe*, 7–13.
- Brooke, C., & Rickert, T. (2011). Being delicious: Materialities of research in a Web 2.0 application.In S. Vastola, M. Rice, & J. A. Dobrin (Eds.), *Beyond Postprocess* (pp. 163–183). Utah StateUniversity Press.
- Canada's Digital Charter in Action: A Plan by Canadians, for Canadians. (2019). Her Majesty the Queen in Right of Canada (pdf). Retrieved from

https://www.ic.gc.ca/eic/site/062.nsf/eng/h_00109.html

- Canagarajah, A. S. (2006). Negotiating the local in English as a lingua franca. *Annual Review of Applied Linguistics*, 26, 197-218. doi:http://dx.doi.org/10.1017/S0267190506000109
- Ceraso, S. (2014). (Re)educating the senses: Multimodal listening, bodily learning, and the composition of sonic experiences. *College English*, *77*(2), 102–123.

- Common European framework of reference for languages: Learning, teaching, assessment companion volume with new descriptors. (2018). Council of Europe. Retrieved from https://rm.coe.int/cefr-companion-volume-with-new-descriptors-2018/1680787989
- Council of Europe. (2004). From linguistic diversity to plurilingual education: Guide for the development of language education policies in Europe. Strasbourg. Retrieved from https://rm.coe.int/16802fc1c4
- Donahue, C. (2009). "Internationalization" and composition studies: Reorienting the discourse. *College Composition and Communication*, *61*(2), 212-243.
- Drubin, D. G., & Kellogg, D. R. (2012). English as the universal language of science: Opportunities and challenges. *Molecular Biology of the Cell*, *23*(8). https://doi.org/10.1091/mbc.E12-02-0108
- Ehret, C., & Hollett, T. (2014). Embodied composition in real virtualities: Adolescents' literacy practices and felt experiences moving with digital, mobile devices in school. *Research in the Teaching of English*, *48*(4), 428–452.
- Emig, J. (1988). Writing as a mode of learning. In V. Villaneuva (Ed.), *Cross-talk in comp theory: A reader* (pp. 7–15). National Council of Teachers of English.
- FIPPA for Faculty 2: FIPPA and Student Information. (2022). York University. Retrieved from https://ipo.info.yorku.ca/tool-and-tips/fippa-and-student-information-best-practices-for-instructors/
- FIPPA Privacy of Student Info. (2022). North Island College. Retrieved from https://teachanywhere.opened.ca/teaching-digitally/fippa-privacy-of-student-info/
- FIPPA Some Basics for Faculty and Staff. (2022). University of Western Ontario. Retrieved from https://www.uwo.ca/vpfinance/legalcounsel/privacy/fippa.html
- *The Freedom of Information and Protection of Privacy Act: R.S.O. 1990, CHAPTER F.31 Consolidation.* (2022). Government of Manitoba. Retrieved from https://www.ontario.ca/laws/statute/90f31
- Gonzales, L. (2015). Multimodality, translingualism, and rhetorical genre studies. *Composition Forum*, *31*(31).
- Gonzales, A. L., Calarco, J. M., & Lynch, T. K. (2018). Technology problems and student achievement gaps: A validation and extension of the technology maintenance construct. *Communication Research*, (August), 1–38. https://doi.org/10.1177/0093650218796366
- Goodley, D., Cameron, D., Liddiard, K., Parry, B., Runswick-Cole, K., Whitburn, B., & Wong, M. E.
 (2020). Rebooting inclusive education? New technologies and disabled people. *Canadian Journal* of Disability Studies, 9(5), 515–549. https://doi.org/10.15353/cjds.v9i5.707

- *Grammarly Privacy Policy*. (2019). Grammarly. Retrieved from https://www.grammarly.com/privacy-policy
- Grutsch McKinney, J. (2009). New media matters: Tutoring in the late age of print. *Writing Center Journal*, *29*(2), 28-51.
- Heidegger, M. (1977). The question concerning technology. In *The question concerning technology and other essays* (W. Lovitt, Trans.) (pp. 3–35). Harper & Row.
- Helsper, E. J., & Eynon, R. (2010). Digital natives: Where is the evidence? *British Educational Research Journal*, *36*(3), 503–520. https://doi.org/10.1080/01411920902989227
- Horner, B., Lu, M., Royster, J. J., & Trimbur, J. (2011). Language difference in writing: Toward a translingual approach. *College English*, *73*(3), 303–321. Retrieved from https://ir.library.louisville.edu/faculty/67/
- Horner, B., Selfe, C., & Lockridge, T. (2015). Translinguality, transmodality, and difference:
 Exploring dispositions and change in language and learning. In *Faculty Scholarship* (Vol. 76).
 Retrieved from
 - http://ir.library.louisville.edu/faculty%5Cnhttp://ir.library.louisville.edu/faculty/76%5Cnhttps ://works.bepress.com/bruce-horner/20/
- History of the Web. (2022). World Wide Web Foundation. Retrieved from https://webfoundation.org/about/vision/history-of-the-web/
- Hotson, B., & Bell, S. (2020). Three foundational concepts for tutoring digital writing. *WLN: A Journal of Writing Center Scholarship*, 44(1–2), 18–25.
- Jenkins, J. (2009). English as a lingua franca: Interpretations and attitudes. *World Englishes*, *28*(2), 200–207.
- Joy, O. (2012). What does it mean to be a digital native? *CNN Business*. Retrieved from: https://www.cnn.com/2012/12/04/business/digital-native-prensky/index.html
- Jubin, J., & Tornow, J. D. (1987). The DARPA Packet Radio Network Protocols. *Proceedings of the IEEE*, 75(1), 21–32. https://doi.org/10.1109/PROC.1987.13702
- Judd, T. (2018). The rise and fall (?) of the digital natives. *Australasian Journal of Educational Technology*, *34*(5), 99–119. https://doi.org/AE 2013029
- Kling, R. (1991). Cooperation, coordination and control in computer-supported work. *Communications of the ACM*, *34*(12), 83–88. https://doi.org/10.1145/125319.125396
- Kyburz, B. L. (2019). *Cruel auteurism: Affective digital mediation towards film-composition*. University Press of Colorado.

- Link, M. (2002). Transforming support: From helpdesk to information center. *Proceedings ACM SIGUCCS User Services Conference*, 272–274.
- Livingstone, S., Mascheroni, G., & Staksrud, E. (2018). European research on children's Internet use: Assessing the past and anticipating the future. *New Media and Society*, *20*(3), 1103–1122. https://doi.org/10.1177/1461444816685930
- Lunden, I. (2019). Grammarly raises \$90M at over \$1B+ valuation for its AI-based grammar and writing tools. *TechCrunch*. Retrieved from https://techcrunch.com/2019/10/10/grammarly-raises-90m-at-over-1b-valuation-for-its-ai-based-grammar-and-writing-tools/
- Mannheimer, S. (2016). Some semi-deep thoughts about deep reading: Rejoinder to "digital technology and student cognitive development: The neuroscience of the university classroom." *Journal of Management Education*, 40(4), 405–410. https://doi.org/10.1177/1052562916630771
- Mizrachi, D. (2015). Undergraduates' academic reading format preferences and behaviors. *Journal of Academic Librarianship*, *41*(3), 301–311. https://doi.org/10.1016/j.acalib.2015.03.009
- Moeggenberg, Z. C. (2018). Keeping safe (and queer). In J. Alexander & J. Rhodes (Eds.), *The Routledge handbook of digital writing and rhetoric* (pp. 225–236). https://doi.org/10.4324/9781315518497
- Molot, C. (18 November 2021). Grammarly is now the 10th most valuable U.S. startup. Blomberg. Retrieved from https://www.bloomberg.com/news/articles/2021-11-18/grammar-checkingapp-is-now-the-10th-most-valuable-u-s-startup
- National Cyber Security Strategy. (2018). Her Majesty the Queen in Right of Canada (pdf). Retrieved from https://www.publicsafety.gc.ca/cnt/rsrcs/pblctns/ntnl-cbr-scrt-strtg/index-en.aspx
- Novet, J. (17 Nov 2021). Text-checking software maker Grammarly is worth \$13 billion in latest funding round. *CNBC.* Retrieved from https://www.cnbc.com/2021/11/18/text-checking-software-maker-grammarly-is-worth-13-billion.html
- Passanisi, J., & Peters, S. (2012). Being a digital native isn't enough. Retrieved from Scientific American website: https://blogs.scientificamerican.com/guest-blog/being-a-digital-native-isnt-enough/
- Pigg, S. (2014). Emplacing mobile composing habits: A study of academic writing in networked social spaces. *College Composition and Communication*, 66(2), 250–275.
- Prensky, M. (2001). Digital natives, digital immigrants part 1. *On the Horizon: The Strategic Planning Resource for Education Professionals*, 9(5), 1–6. https://doi.org/10.1108/10748120110424816

- Prior, P., & Shipka, J. (2003). Chronotopic lamination: Tracing the contours of literate activity. In C.
 Bazerman, & D. R. Russell (Eds.), *Writing selves / writing societies: Research from activity perspective* (pp. 180–238). Fort Collin, CO: WAC Clearinghouse.
- Rickerts, T. (2013). *Ambient rhetoric: The attunements of rhetorical being*. University of Pittsburgh Press.
- Roderick, I. (2016). *Critical discourse studies and technology: A multimodal approach to analyzing technoculture*. Bloomsbury. https://doi.org/10.5040/9781474258487.0005

Sennett, R. (2007). The culture of the new capitalism. Yale University Press.

- Sheppard, J. (2009). The rhetorical work of multimedia production practices: It's more than just technical skill. *Computers and Composition*, *26*(2), 122–131. https://doi.org/10.1016/j.compcom.2009.02.004
- Shin, D. S., & Cimasko, T. (2008). Multimodal composition in a college ESL class: New tools, traditional norms. *Computers and Composition*, *25*(4), 376-395.
- Shirky, C. (2009). *Here comes everybody: The power of organizing without organizations*. Penguin Books.
- Singer, N., & Merrill, J. B. (28 June 2015). When a company is put up for sale, in many cases, your personal data is, too. *New York Times*. Retrieved from https://www.nytimes.com/by/natasha-singer
- Silver, N. (2019). My writing writing: Student conceptions of writing and self-perceptions of multimodal compositional development. In A. R. Gere (Ed.), *Developing writers in higher education: A longitudinal study* (pp. 217–246). University of Michigan Press.
- Soja, E. W. (2010). Seeking spatial justice. University of Minnesota Press.
- Tusikov, N., & Haggart, B. (2018). Policy Brief No. 142 October 2018: Implementing a national data strategy: The need for innovative public consultations. Retrieved from https://www.cigionline.org/documents/1522/Policy Brief No.142web.pdf
- Taylor, G. (2020). Why lever style shifted production to digital natives [Video]. Sourcing Journal. Retrieved from: https://sourcingjournal.com/topics/sourcing/lever-style-apparelmanufacturer-digitally-native-brands-stanley-szeto-214894/
- Wargo, J. M. (2018). Writing with wearables? Young children's intra-active authoring and the sounds of emplaced invention. *Journal of Literacy Research*, 50(4), 502–523. https://doi.org/10.1177/1086296X18802880

- Warner, J. (2020). Another terrible idea from Turnitin. *Inside Higher Ed*. Retrieved from https://www.insidehighered.com/blogs/just-visiting/another-terrible-idea-turnitin
- Wong, J. C. (23 August 2019). Document reveals how Facebook downplayed early Cambridge Analytica concerns. *The Guardian*. Retreived from https://www.theguardian.com/technology/2019/aug/23/cambridge-analytica-facebookresponse-internal-document
- Zuboff, S. (2015). Big other: Surveillance capitalism and the prospects of an information civilization. *Journal of Information Technology*, *30*(1), 75–89. https://doi.org/10.1057/jit.2015.
- Zuboff, S. (2019). Surveillance capitalism and the challenge of collective action. *New Labor Forum*, *28*(1). 10–29. doi.org/10.1177/1095796018819461