Theory of Teaching: Digital Literacy

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Contents

The concept of literacy is highly regarded by many scholars as one of the most important skills a person should have in academia and life. As Matthew Lynch (2017) states, "a person who is illiterate, who cannot read and write, will inevitably struggle to get along in society." Although this will remain true as long as texts are written, published, read, studied, and discussed, a new form of literacy has developed out of society's need for technology that needs to be taught to today's students: digital literacy.

Cornell University, the first university publishing enterprise in the United States, defines digital literacy as "the ability to find, evaluate, utilize, share, and create content using information technologies and the Internet" (Lynch, 2017). Yes, the definition seems broad in nature, but that's because the concept of it is even more vast considering all the Internet provides in the form of texts, graphics, videos, audio files, hyperlinks, and much, much more. Because of this ever growing medium, "students who lack digital literacy skills may soon find themselves at just as much of a disadvantage as those who cannot read or write" (Lynch, 2017). We, as compositionists, need to identify this as a potential problem and make teaching students to be digitally literate required to fully function in today's and the future's society, especially when it comes to finding, evaluating, and writing information.

Oxnevad (2013) states that the "concept of teaching writing skills is shifting, and teachers are faced with adapting their teaching practices to integrate new technologies while redefining writing and learning for the 21st century" (12). The teaching of writing changed drastically in the middle of the 2000s because of the explosion of the Internet. I know because I experienced the other side of the educational process. Using technology in education is not a new topic,

however, as "research done over the last 40 years about the impact of computer and digital

technologies on teaching and learning processes and students` learning achievements proves

their positive influence on various aspects of education" (Zahorec, Hašková, Munk, 2019, p.

378). Although technology has been around in the form of processors, laptops, etc., the one

entity that keeps expanding and is testing everyones' digital literacy skill sets is the Internet.

P. Nithya & P. Muthamil Selvi argues that the "Internet has become the backbone of the

modern education system," and it "provides opportunities for students to develop proactive

approach[es] to their learning" (2017, p. 1). To be digitally literate, students must be able to

utilize the Internet beyond just searching things on Google and social networking. It is ever so

important today that "students to see the power of collaboration through cloud and to learn the

rules about collaborative with each other" (Nithya, 2017, p. 1).

Jewitt, C., Clark, W., & Hadjithoma-Garstka (2011) concludes:

> ...Using digital educational resources provided learners with more time for active
>
> learning in the classroom; with more opportunity for active learning outside the
>
> classroom, as well as providing self-directed spaces, such as blogs and forums,
>
> and access to games with a learning benefit; with opportunities to choose the
>
> learning resources; the resources provided safer spaces for formative assessment
>
> and feedback.

Collaboration requires multiple active participants all working together, yet individually,

in order to reach a common goal. The resources available are plentiful, as many viewpoints and

digital literacy skill sets work together to brainstorm, identify, critique, and decide on which ones

serve the learning process best.

In a conversation with *Integrating Technology into Teaching*, Paul Gilster states it best when he defines digital literacy as "the ability to understand information and - more importantly - evaluate and integrate information in multiple formats the computer can deliver." He later emphasizes you "can't understand information you find on the internet without evaluating its sources and placing it in context" (Pool, 2017). In today's world of the #fakenews and people's inclinations to post clickbait, evaluating and using information in the correct contexts are more important than ever when it comes to how easily information can be spread within seconds using the world wide web.

In 2000, Donald J. Leu argued that "[o]ur era is defined largely by repeated, rapid, and revolutionary changes in the technologies of information and communication" (746). Since then, the Maps app has supplanted the GPS, you're more likely to see someone reading off their SMARTphone than a laptop, and instead of carrying around USB drives, everything is saving documents in the "cloud." In fact, the original iPhone wasn't even introduced to the public until June 29, 2007. According to Dena Cassella (2010), the "Apple iPhone completely transformed the world's idea of what a cellular phone is and what it can do." Students must not only be able to functionally use technology beyond just social networking, but also be able to adapt to new technologies as they arise.

Information Management

When it comes to all forms of communication and composition, information takes the wheel as the driving force. But as Mary Stewart (2014) states, "increased access to and shear amount of information made available on the internet makes information a defining characteristics of digital literacy." There are many ways digital literacy is viewed, but the

majority of them involve the managing of information, so "teaching students to deal with the mass amount of information in the world" should be a focus (Stewart, 2014). This is especially true considering the majority of today's internet users trust what is presented to them.

Bhatt & MacKenzie (2019) stated:

> The Pew Internet and American Life Project that 73% of search engine users say that most or all the information they find through search engines is 'accurate and trustworthy' and 66% of users regarded search engines are a 'fair and unbiased source of information' (306).

Instead of "dealing with the mass amount of information" provided by search engines, most users just accept what is given to them as fact - gathering and evaluating isn't even a "ritualised practice" (315).

Paul Gilster refers to the "gathering and evaluating materials" as knowledge assembly - "an activist way… of integrating network material with traditional materials, and then creating a finished project" (Pool, 1997). I vividly remember in high school and college sitting at a table with piles of books using post-it notes and notecards taking actual text, typing it into a word processor, and then citing it freehand. Sometimes this process would take two hours, sometimes it would take a whole weekend. Now, using knowledge assembly, "it's very easy to simply find lots of discrete items of information and cut and paste, producing a cobbled-together collection of quotes" (Pool, 1997). This is an important skill to learn, but "students need to learn how to assimilate the information, evaluate it, and then reintegrate it" i.e. digital literacy. The problem is, this has become so easy for today's secondary students that actually researching has been dumbed down into three words: just google it.

Obtaining information isn't a one-size-fits-all approach, as "how students use digital technology will vary across different social, age, and subject groups" (Bhatt & MacKenzie, 2019, 303). In that same vein, how Google is used for research and writing purposes redefines digital literacy "through a categorical classification of [skills and strategies] students have (or have not), rather than something which they do" (304). Bhatt & MacKenzie (2019) concluded that after "captur[ing] the diversity and richness of digital literacy and writing practices of [four] students," it was found that Google provides a plethora of opportunities and decisions for students to make, but how they "make use of [those] opportunities, and how they come to make sense of [possible] constraints and work through them (or not) is a challenge facing educators" (315). It is then up to the educator to teach students how Google uses algorithms and how they actually work, and "how they guide their choices and shape their experiences online," so students can become "critically aware during their digital searches for information, research and critical argument… and to be reflective about their practices with digital literacy" (315). Through this collaboration and understanding between the educator, the student, and Google is where the true benefits of digital literacy on writing and learning takes place.

The Collaborative Use of Google Docs

Google Docs was created by accident. In 2005, Sam Schillace built Writely, a web-based text editor, which was eventually acquired by Google in 2006. Within 30 days, the vast majority of the company was using it. *Writely* quickly transformed into Google Docs and, under its new moniker, took online collaboration into hyperspace (Hamburger, 2013). As stated by Kenneth Bruffee (1984), collaborative learning "provides a social context in which students can experience and practice [different] kinds of communication (642). Through the digital literacy

that is Google Docs, students, as peers, have an opportunity to go through the writing process

digitally by either editing or suggesting on "a peer's paper…[and either] paraphrase or comment

on what seems well done and what the author might do to improve the work" (638). The most

unique part of this form of peer criticism is that both students do not need to be in the same place

due to the remote nature of Google Docs.

Before this editing process even begins, the entire concept of process theory is done in a

collaborative manner as brainstorming can be done collaboratively through comments, the

writing can be done collaboratively and simultaneously, and then the editing and revising occurs

remotely, as aforementioned. "Human conversation takes place within us as well as among us,

and that conversation as it takes place within us is what we call reflective thought" (Bruffee,

1984, p. 639), but instead of reflective thoughts remaining hidden and potentially forgotten,

Google Docs automatically saves them for all shared doc users to see, reflect, and itemize for

potential composition.

Di Zou and Haoran Xie (2019) studied the impact of Google Docs by "flipping an

English writing class with technology-enhanced just-in-time teaching and peer instruction." The

basic pedagogy of a flipped classroom involves the "exchange of the in-class time teachers" with

the "out-of-class time students used to apply knowledge or do homework" (1127). The two

theories that were focused in on are peer instruction (PI) and Just-in-time-teaching (JiTT). With

Google Docs, there is a stronger emphasis on PI as it is "a student-centered approach which

provides students with rich opportunities to teach each other through collaborative classroom

activities like group discussions and projects" (1128). Both of which occur directly inside a

shared document online.

Di Zou and Haoran Xie (2019) acknowledged the benefits of using Google Docs by clarifying:

> Google Docs was selected as the platform for in-class group writing practices
>
> because it allows simultaneous and multiple editing. Students can easily format
>
> text and paragraphs using their phones, tablets, or laptops.

Through these benefits, they both concluded two results. First, "peer instruction [through Google Docs] led to better development of students' writing skills, motivation, and tendency of critical thinking than conventional flipped classrooms" (Zou & Xie, 2019, 1137). Second, they concluded that "Google Docs-enhanced [PI] created a sharing culture among the participants" and within this experience, the students displayed a "better sense of audience and more multiple interactions" and showed a better understanding of the "four levels of learning (apply, analyse, evaluate, and create)" (1138). With Google Docs, "a cloud-based tool for real-time collaboration," educators end up better connected with their pupils, and due to heightened ability to "monitor their learning progresses, address their difficulties individually [and collaboratively] and deepen their understanding" (1140).

This connective, collaborative aspect is what separates the old definitions of literacy and the new ones. Stewart (2014) argues that "because the community is emphasized over the individual, meaning making and the production of knowledge are collaborative activities.. [it] marks a clear difference between literacy in the age of mass printing and literary in the internet age." As aforementioned, the old ways of obtaining information was to find published works, usually individually. The only time collaboration would enter the conversation was if the author

went out and searched for it. Now, using the internet, everything from the filtering of information

all the way down to the rewording of findings can be done collaboratively.

Digital Literacy Application in My Curriculum

Although digital literacies focuses on responsibly searching and using information from

the Internet, the use of Google Docs as a digital literacy focuses the collaborative organization of

the information molded around the process theory of composition in a digital sense. In my

college-bound, Advanced English II classes, I use Google Docs as a vehicle for all forms of

composition to help develop digital literacy skills and encourage the importance of collaboration

in the writing process, especially during the pre-writing and editing stages.

Before a prompt is provided, I create a Google Doc with all pertinent information needed

for each student to adequately complete the assignment at hand. By doing this, it begins the

collaborative dialogue as I am now officially a member of their writing process. I require all

students to use their document as the source for every step - as I want to see their note taking,

development of ideas, outlining, source finding, etc. before the actual writing begins. In true

process theory form, I give each student a week to work on this step. I frequently enter their

papers digitally during my preparation periods, as I have full access to their documents via

Google Drive. While reading their findings, I usually comment with other notable and reputable

sources for them to peruse. This emphasizes the digital literacy concept of locating and

organizing good Internet sources and makes them question the ones that they find in comparison.

After a week, my students then get another week to compose their first drafts. The only

instruction that I give is that they must hit the length requirement before the editing stage, which

is done via Google Docs collaboratively with a fellow peer. While writing, I again enter their

documents whenever I can and read paragraphs or sentences to provide feedback as a suggestion or comment. Ownership is then given to the student, as they have the option to "Accept" or "Deny" my suggestions. Through this collaborative activity during the writing stage, writing is improved by teaching sentence-level syntax, a form of the process theory - which I've found is the best way to teach composition.

The last step is where Google Docs truly shines, the editing process. Each student's paper is shared with a fellow classmate, and he/she reads and revises the paper through suggestions. These can be in the form of offering different sources to look at, checking for readability, or simply editing for grammatical errors. Knowledge of the G-Suite helps tremendously, as Google Docs is widely known for developing add-ons on a consistent basis to help users better utilize the program.

Using Add-Ons. According to Google, add-ons "provide users with new tools that will give them access to more features - especially features that aren't currently available through Google's own products" (Lardinois, 2014). Some of these add-ons include: EasyBib's Bibliography Creator, which creates bibliographies for MLA, APA, and Chicago simply by typing in the article, author, or website; Letter Feed, for tracking changes in documents; UberConference, for live video chats in documents; or SAS Writing Reviser, which does everything from analyze sentence variety all the way to locate weak verbs for stronger diction. "With the help of add-ons," Lardinois (2014) argues, Google "creates a developer ecosystem around Docs," which also helps develop stronger digital literates.

Conclusion

While there are many ways students can write papers and teachers to teach the writing process from the old-school way of using the card catalog in the library to allowing students to use Wikipedia, I find that the most real-world approach to teaching composition is with the development of digital literacy skills through the use of Google Docs as a collaborative tool. From the 21st century necessary skill set of knowledge assembly to the remote, collaborative peer editing that Google Docs provides, all of the steps of the writing process are covered in an individualistic, yet modern manner. And, while my pedagogy does touch on other theories of writing such as collaborative and process, I view digital literacy as the one which will prepare students into the 21st century and beyond, not only in academia, but in their respective lives as a fully-functional, well-informed, literate adult.

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