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DEFINING AND TRANSFERRING DIGITAL LITERACIES:
WHAT DOES THIS MEAN FOR HIGH SCHOOL AND COLLEGE EDUCATORS?

by

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DEFINING AND TRANSFERRING DIGITAL LITERACIES: WHAT DOES THIS
MEAN FOR HIGH SCHOOL AND COLLEGE EDUCATORS?

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University of Nebraska, 2023

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This thesis aims to create a digital literacies transfer framework through a discussion regarding current conversations on transfer and digital literacies in the English field, including synthesizing the two ideas to think about the transfer of digital literacies as a concept. This digital literacies framework is made up of five components: the functional skills, critical skills, and rhetorical skills found in digital literacies scholarship and the genre awareness and meta-cognitive ideas found in transfer literature. This digital literacies transfer framework is then used to analyze information gleaned from four college and five high school English educators. The key findings from these interviews are integrated into the current conversation around digital literacies and transfer through the digital literacies transfer framework to think about how educators teach digital literacies and the implications of this teaching in terms of transferability. Finally, this thesis concludes with a discussion of how this research might call for change in how high school and college English educators are supported for promoting digital literacy transfer in their classrooms.

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DEFINING AND TRANSFERRING DIGITAL LITERACIES:

WHAT DOES THIS MEAN FOR HIGH SCHOOL AND COLLEGE EDUCATORS?

On its own, digital literacies encompass many types of communication and knowledge. For some people, this knowledge focuses on more of the technical skills necessary to use technology (such as how to use a trackpad or how to open a new tab on a browser). But these “how to” questions only scratch the surface of digital literacy. Questions centered on the potential social implications of software or the impacts of misconstrued representations of a people group on social media also emerge in digital literacies. Although digital literacies are quite important, many students seem to struggle to transfer their digital literacies skills between tasks, especially as those tasks begin to ask students to perform more metacognitive thinking. As students enter college, they are often asked to transfer knowledge from high school; however, this transfer is not always easy. At times, the transfer of digital literacies requires students to think more critically about their digital environment, especially since their college instructors have no clear notion about what each student (often from different high schools) knows before entering their college classroom.

The idea of transfer is prevalent in current conversations in the field of composition and rhetoric. However, transfer is typically discussed in relation to writing transfer (e.g., how people might transfer writing skills, especially in the transition from high school to college). Scholars and educators such as Anne Beaufort and Kathleen Blake Yancey are among the many individuals who have studied what it means to transfer and how one might encourage students to transfer more easily. Similarly, much research has revolved around the idea of digital literacy, beginning a couple of decades

ago with computer and composition researcher and teacher Stuart Selber who coined computer literacy. In just a few years, Selber's idea of computer literacy has become a branching system of interlocking ideas that includes multiple types of literacies, including computer, digital, media, and information (Apperley & Walsh; Albers; Fields & Hartnett; Ellison & Solomon; Ahram & Falcão).

However, although these two fields of composition and rhetoric have been well-studied and analyzed, the combination of these two areas seems to be left out of many ongoing conversations. Little is being studied about the transfer of digital literacies, especially the transfer that occurs (or does not occur) between high school and college. In today's digitally and technologically driven world, this is an issue. To complicate this concept further, rural areas and rural education are often overlooked in research, perhaps because those commonly performing research are located at larger universities, which are often in urban areas. The following thesis aims to fill these gaps by presenting research at the intersections of rural high schools, first-year composition classrooms, digital literacy, and transfer. The following research is primarily conducted in two manners: 1) through secondary research about current literature and 2) through primary research collected via one-on-one interviews with current rural high school teachers and current first-year composition instructors or directors. These interviews allow the instructors' classroom experiences and observations to be analyzed, which, in turn, helps to identify implications of how one might better support teachers.

This thesis will first create a transferring digital literacies framework through a discussion regarding current conversations on transfer and digital literacies, including synthesizing the two ideas to think about the transfer of digital literacies as a concept.

Then, after a brief explanation of the research methods, key findings from the interviews will be integrated into the current conversation around digital literacies and transfer to think about how educators teach digital literacies and the implications of this teaching in terms of transfer. Finally, this thesis will conclude by discussing how this research might call for change in how educators are supported for digital literacy transfer.

Building a Framework of Digital Literacy Transfer

This thesis lives at the intersection of two main areas: high school to college transfer and digital literacies. Because it is important to understand where and how the field presently looks regarding these topics, this framework will explore current relevant research, and then determine how these two topics unite in digital literacies transfer.

Transfer

Although there is some debate about whether transfer truly occurs (Smith et al. 4-5; Barnett and Ceci 612), Susan M. Barnett and Stephen J. Ceci's transfer taxonomy helps solidify its existence and gives some ideas about how one might assess whether a learned skill can be or has been transferred (634). Additionally, Wenqi Cui states that "transferability is a key issue for both educators and learners because the goal of education is to help students apply learned knowledge to other situations beyond classrooms" (1115). Anne Beaufort asserts that "learners need guidance to structure specific problems and learnings into more abstract principles that can be applied to new situations" (*A New Framework* 151); learners need support and structure to transfer.

Kathleen Blake Yancey wrote in a collaborative 2019 article that writing transfer is "the ways previous learning influences current and future learning, and how past or current learning is applied or adapted to similar or novel situations" (Yancey et al. 270).

In a research summit hosted by Elon University, 45 other writing researchers mostly agree with Yancey in their "Elon Statement on Writing Transfer" when they say that "[w]riting transfer is the phenomenon in which new and unfamiliar writing tasks are approached through the application, remixing or integration of previous knowledge, skills, strategies, and dispositions." In commenting on Elon University's definition, Kevin G. Smith, Kristi Girdharry, and Chris W. Gallagher note that each of the terms used to define "transfer" (application, remixing, integration, etc.) "is arguably more complex than transfer" (6). Although fully defining transfer is difficult and at times "inadequate" (Smith et al. 6), many scholars agree that something occurs when students (or people in general) apply previous knowledge to current or future tasks.

In her book *College Writing and Beyond*, Anne Beaufort says this type of application occurs because of an understanding of overarching discourse communities, undergirded by specific writing process knowledge, subject matter knowledge, rhetorical knowledge, and genre knowledge (*A New Framework* 19). Genre knowledge, which will become an important aspect of this thesis, is described by Beaufort as "knowing what content is required, what is not; how best to sequence the content; what specific needs [...] readers will have, and how common or technical a vocabulary to use" (*A New Framework* 21). Understanding these concepts requires students to critically think about "how to frame the inquiry, what kinds of questions to ask or analytical frameworks to use in order to 'transform' or inscribe documents with new meaning(s)" (Beaufort, *A New Framework* 19). In a follow-up essay five years after her book was published, Beaufort adds to her original discussion by mentioning a key principle for promoting transfer: "[t]each the practice of mindfulness, or meta-cognition, to facilitate awareness of learning

and transferable knowledge and skills.” She also adds that, when trying to teach for transfer, it is important for instructors to “[b]uild in meta-cognitive thinking throughout the course on what is being learned and how” (Beaufort, “Five Years Later”). As such, it seems meta-cognition plays an important role in transfer as it asks students to think critically about the why and how of their learning.

To complicate this definition further, there are two sub-types of transfer. Bianca M. C. W. van Bers and colleagues call the first near transfer (van Bers, et al. 1), but Perkins and Salomon call it low-road transfer (25). This transfer "reflects the automatic triggering of well-practiced routines in circumstances where there is considerable perceptual similarity to the original learning context" (Perkins and Salomon 25). Basically, the transfer activity immediately reflects or mimics the original activity. The second is far transfer according to Mark Andrew James (70) or high-road transfer according to Perkins and Salomon (25). Far or high-road transfer "depends on deliberate mindful abstraction of skill or knowledge from one context for application in another" (Perkins and Salomon 25). In other words, the transfer activity seems "remote and alien" from the original (qtd. in Cui 1117). These two variations of transfer will become extremely important as the research in this thesis is analyzed.

For the purposes of this research, transfer is a construct that students deploy when attempting to use their high school knowledge in a college context. In particular, high school-to-college writing transfer is the far or high-road transfer that occurs when students try to apply previous mastery of writing concepts to new college-level expectations. Students specifically need genre awareness and meta-cognition as foundational aspects for this type of transfer.

Digital Literacies

In the introduction to their co-edited book, L. Fedeli and L. Tomczyk state that “it is currently difficult to provide a clear and complete definition of digital competence;” however, “the formation of digital competencies cannot be separated from the school reality” (4B). As such, digital literacies (and the necessary competencies of digital literacies) are inextricably linked to education. These two scholars have published many texts regarding digital literacy in recent years, and their research shows that “recent months” (i.e., the COVID-19 pandemic resulting in virtual education) “have particularly highlighted the role of [digital literacies] in education” and “the efficient use of new media in educational contexts requires not only the possession of technical skills related to the operation of the relevant equipment, but also the updating of acquired knowledge, as well as reflection on the mechanisms of the impact of new media on individuals and social groups” (244A). They also state that this moment in education where schools are intensifying their media use should be a “moment when an attempt should be made to resolve existing issues related to [digital literacies]” (244A).

Even almost 20 years ago, this idea of education and digital literacies being intertwined was developing. Stuart A. Selber is one of the founding scholars of digital literacies; however, in his 2004 book *Multiliteracies for a Digital Age*, the term “digital literacies” is not commonly found. Instead, Selber uses the term “computer literacy.” He says that “computer literacy is a vexing and ongoing problem even for teachers who have good support systems” (2) and that “[f]or better or worse, computer environments have become primary spaces where much education happens” (3). Thus, teaching and digital literacies have been interwoven for quite some time.

Fedeli and Tomczyk say that digital literacies are “somewhere between the possibilities of new media and didactic activities” and that they “are not a closed catalogue of the skills of using particular pieces of software and websites, or specific items of hardware” (244A). Chetty, et al. agree when they say, “digital literacy involves more than the ability to use software or operate a digital device,” but they add that “it also includes a large variety of complex cognitive, sociological, and emotional skills that end-users need in order to function effectively in a digitally driven environment” (10). This means that digital literacies are more than just interfaces, coding, and tangible technologies. They encompass a much wider lens that “refer[s] to the awareness, attitude and the ability of an individual to use digital tools for communication, expression and social action in specific life situations” (10). This broader lens helps to push against Julia Gillen’s problem with the term “digital literacies,” that it “is connected with its strong exclusionary aspect, its apparent assumption of a wall between the digital and non-digital” (33). Incorporating cognitive, sociological, emotional, and individual abilities into digital literacies combats this idea of a divide between the digital and non-digital spheres.

Selber agrees with this more complicated version of “computer literacy” that goes beyond running and controlling physical technology. After detailing Florida State University’s circa 2005 computer competency requirements which promote “skills for working productively in practical terms,” he goes on to say that these “practical terms” fail “to offer the perspectives needed for making *rhetorical judgments*” (20, emphasis mine). So not only is it important to understand how to use technology, but it is also imperative to comprehend the rhetorical implications and potential effects of such usage.

This concept is the backbone of Selber's conceptual model for computer literacy, which can be used to understand digital literacy. This model includes three parts: functional literacy, critical literacy, and rhetorical literacy. Functional literacy aims to put students in the driver's seat as they become "users of technology;" critical literacy aims to make students "questioners of technology;" and rhetorical literacy aims to have students be "producers of technology" (25). These three categories provide what Selber coins as the "landscape" for computer multiliteracies, which requires teachers to "emphasize different kinds of computer literacies and help students become skilled at moving among them in strategic ways" (24).

The resulting synthesized self-aware, person-centered, and rhetoric-familiar definition from these scholars' ideas leads people to build new skills as new digital literacies arise. Gillen says that "digital literacies always involve learning new skills" because "tools constantly evolve and challenge us all, whether or not we choose to buy a new gadget or try out a new software" (38). In the classroom environment, this necessity of a constantly evolving digital skill set is at times unevenly matched with teachers and students: "at least some children come to the classroom with out-of-school literacy practices that lie beyond teachers' competencies" (38).

Paul Mihailidis in his book *Civic Media Literacies* says that "the value of digital media is the ability for platforms, tools, and spaces to offer connections, to bridge divides, and to bring humans together. They offer a potential for exploration and discovery, empathy and caring. The potential drives use, not the product that results from potential" (158). This means that digital literacies not only involve the complexities of

software, hardware, and individuals, but they also involve creativity and the potential for unearthing new ideas and connections.

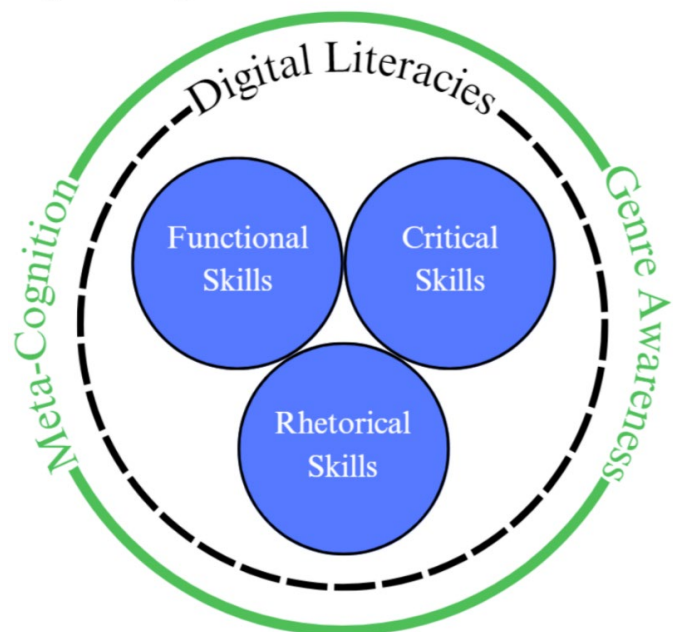
Even though definitively defining “digital literacies” is extremely difficult and “any attempt to limit the definition of [digital literacies] to a list of specific applications or platforms would be a fool’s errand” (244A), it is important to set a definition for this thesis. As such, for the purposes of this research, digital literacies are the synthesis of digital information and the use of digital skills that constantly evolves as innovative technologies enter the field. This evolutionary aspect of digital literacies requires functional, critical, sociological, emotional, and rhetorical skills be developed to understand, use, and create digital technologies.

Digital Literacies Transfer

When thinking about digital literacies and transfer as one concept (digital literacies transfer), Selber gives an intriguing notion: “[a]s with any form of literacy, computer practices do not travel seamlessly or unproblematically across contexts, cultures, and communities” (22).

As such, he instructs educators "to develop a disciplinary approach that is not too prescriptive, one that is generative and directive while acknowledging the fact that every specific instructional situation may very well call for a unique solution,

Figure 1: Digital Literacies Transfer Framework



or at least one that accounts for local social forces and material conditions” (22-23).

Although Selber provides a great starting point when thinking about digital literacies transfer, it is imperative to synthesize transfer and digital literacies to create a unique framework for this thesis. This framework combines two components of transfer (genre awareness and meta-cognition) with Selber’s three ideas of digital literacies (functional, critical, and rhetorical skills). Figure 1 provides a visual representation of this framework. The transfer concepts of genre awareness and meta-cognition surround the digital literacies skills because, to transfer digital literacies, it is necessary to back up from the digital literacies that apply to one specific digital situation and think about those skills in more abstract terms through meta-cognitive and genre awareness methods.

For example, most colleges use a learning management system (LMS). In recent years, many high schools have also begun using LMSs. Because there are so many LMS options available (and at varying price points), students will likely encounter multiple different LMSs in their academic careers. In classrooms, it is common to teach students how to use the system specific to that class. However, this type of instruction does not set up students for high-road transfer when they are introduced to a new LMS. By only thinking about how to functionally use one LMS, students do not always recognize how LMSs are quite similar, which would aid in their transfer.

We should instead think of LMSs as a genre. By thinking in this manner, educators can instruct their students about the various ways an LMS operates in a digital environment. By meta-cognitively framing the understanding of this genre, the digital literacies skills become less focused on a specific LMS and more focused on the idea of an LMS. This gives students the tools necessary to complete high-road transfer when they

are faced with a new LMS in the future. For instance, rather than teaching students the functional skill of how to navigate to and submit an assignment in a particular LMS, one could also teach students to ask meta-cognitive questions about how to learn the functional skills needed to operate a new LMS and what to do when they try to navigate a digital tool become stuck. Teachers could guide students in identifying questions that are often useful to ask about tools that fit the LMS genre, such as how an LMS is organized, how this organization leads to easier or harder functionality, and for whom the LMS is organized. This then bleeds into questions regarding critical skills: does the organization of the LMS reinforce typical power dynamics in a classroom? Does the LMS adapt to learners who are often marginalized? If so, how well does it adapt? If not, what does that say about the intended audience for the LMS or about the creators and publishers of the LMS? From this, rhetorical skills can be reflected upon: what implications are there for posting a discussion post that the entire class and instructor can see? How does a typically points-focused (and thus grade-focused) system impact overall purpose when navigating the course and completing assignments? What questions need to be asked when assessing the rhetorical situation of an LMS?

In the end, this digital literacies transfer framework is geared towards asking questions that prepare students for high-road transfer, the transfer that is often seen in the high school to college transition, perhaps because college instructors often are unfamiliar with all their students have learned before entering their classroom, and thus they cannot feasibly make low-road transfer an option in every situation. High-road transfer (e.g., transfer that is “across contexts, cultures, and communities”) is key because the digital and technological world is constantly evolving. For example, Selber did not know what

an iPhone was when his book was published in 2004, but since its release in 2007, there have been 21 iterations of the iPhone in less than 20 years (Birrell). However, each new product builds upon its predecessor. Users (typically) can learn to navigate the newer iPhone without too many issues because they are familiar with the general interface. Thus, they are only called to complete low-road transfer. Although one might think the “interface” between high school and college is also similar, often students are asked to complete tasks and assignments in college that require them to think more critically and with less support than they received in high school. For example, a student might have learned how to use Google Docs in high school. However, when they get to college as a math major, their professors might have them use LaTeX. Google Docs and LaTeX are both used for preparing and creating documents, and thus are similar in some respects; however, there are enough differences that cause the transfer to not be easy. This type of transfer requires students to use previous knowledge *and* build upon it or adapt it to create new knowledge. Thus, it is high-road transfer.

As such, students must understand digital literacies transfer basics: genre awareness, meta-cognition, functional skills, rhetorical skills, and critical skills. By first being able to meta-cognitively reflect upon their prior knowledge about genre, students can recognize the similarities and differences between what they know and the new digital space in front of them. If a student is knowledgeable about these transfer skills, then they are more likely to successfully complete the high-road transfer we often ask of our students as they transition from high school to college.

Methodology

This research began in the spring of 2022 as an interest in the intersections of writing transfer, technological literacy, and rural high schools. As I acquired more knowledge about the topics, I realized the field of digital literacy encompassed technological literacy (in some ways), and it centered more on the use of technology in the English classroom to produce learning. This learning concentrated more on how to use *and* think about technology and its impacts on society, rather than just how to use technology.

My first step in analyzing the digital literacies transfer occurring in the high school to college transition was to interview rural high school junior and senior teachers. To ensure the interview questions were well-worded and understandable, I completed a pilot interview with a rural high school English teacher from Missouri. This pilot interview showed me how to craft better questions for this target audience, including limiting (or even eliminating) technical jargon from my questions. After the pilot interview, I reframed my questions to focus more on how high school English teachers might apply the concepts, rather than on the concepts themselves.

To qualify for an interview, these teachers had to currently teach or have taught 11th and/or 12th grade English, as well as work or have worked in a rural school, as described in the above definition of rural. One avenue of finding qualifying teachers was to send out a list-serv email to the Nebraska Writing Project association, which includes many rural teachers. One teacher responded to this mass call, but an interview did not occur.

To aid in the search for rural high schools, Nebraska and Missouri's rural school associations were utilized: Nebraska Rural Community Schools Association (NRCSA)

and Missouri Association of Rural Education (MARE). Both associations had publicly available lists of school members, which, in combination with my prior knowledge of a few rural schools, were used to email 52 teachers from 30 schools. Of the 52 emailed, six agreed to participate and five completed the interview process. All participants who completed interviews taught in Nebraska.

These five high school teacher participants will be called Kylie, Dylan, Lisa, Mary, and Teresa. At the time of their interviews, all five interviewees worked in what this research study qualified as rural schools. However, the types of courses these rural schools asked their teachers to instruct varied. Kylie's rural school had her teaching fifth and twelfth grade students. Dylan and Lisa taught ninth, tenth, eleventh, and twelfth grades (all high school students) at their respective schools. Mary taught tenth and twelfth grade students. Teresa taught primarily eleventh grade, but at the time also taught one tenth grade class. According to each school's website and their Nebraska Education Profile (NEP), below is a compilation of the number of high school English teachers and students in each respective district and building:

Table 1: High School Participant School Breakdown			
Participant	High School English Teachers <i>including participant</i>	2021-22 High School Student Population <i>rounded numbers</i>	Notes
Kylie	2	280 students <i>*including junior high</i>	There are also two junior high English teachers, with seemingly no course overlap.
Dylan	1	40 students <i>*high school only</i>	Junior high seems separate, including no English-specific junior high teachers.
Lisa	1	70 students <i>*including junior high</i>	The junior high English teacher seems to help Lisa with high school yearbook.

Mary	4	340 students <i>*including junior high</i>	Two teach junior high and high school, one (Mary) teaches only high school, and one is also the librarian.
Teresa	3	380 students <i>*high school only</i>	There are also two junior high English teachers, though there seems to be no course overlap.

Based on the above information, Teresa and Mary's schools were the largest, followed by Kylie, and ending with Lisa and Dylan. This is important because each teacher's interview answers may have varied depending on the size of their district and the number of students in their classroom. It is also interesting to note the wide variance of what qualified as "rural" in this research. For instance, Teresa's school likely had graduating classes the same size or larger than Dylan's entire high school.

Since the goal behind this project was to understand the potential differences in high school and college first-year digital literacy expectations (and thus determine how easily transfer might occur), I decided to also interview first-year composition instructors. Unlike the high school teachers, I only contacted five college professors, four of whom agreed to participate. Since a rural high school student can go to basically any college (if they choose to go to college), it was important to gather interviews from different types of institutions. The one professor who did not respond to my email was from a private university, which is why this type of collegiate institution was not included in the interviews. The four professors who responded work for institutions in Nebraska, Missouri, and Kansas.

The four college instructor participants will be called Marissa, Claire, Hilda, and Reese. At the time of their respective interviews, Marissa and Hilda worked at

community colleges, Claire was a graduate student at an urban R-I/D-I university, and Reese was actively a Department Chair at a rural D-II university. It is important to note all four college participants were women, but they did have varying age ranges and ethnicities. At the beginning of each collegiate interview, participants were asked to name the course(s) they currently or have previously taught. As I sought participants who had experience in first-year composition, all answers included some variation of Composition I and Composition II. However, Marissa also discussed teaching Composition II courses aimed at healthcare professionals, a course about writing for interactive media, and various literature courses. Claire had also taught a writing in communities course as well as a uses of literacy course. Hilda was also involved in her college's two-sequence basic writing course and ethnic literature courses. Like Hilda, Reese taught developmental writing. She had also taught accelerated composition (for those students with "high-level language competency"), digital literacy, pedagogy of composition, and professional and technical writing courses, as well as a variety of graduate coursework.

Both high school and college educators were asked a series of questions via a one-hour Zoom interview. Copies of both sets of questions are in the appendices. High school teachers were asked 19 main questions, and college instructors were asked 12 main questions. These questions were split into four overarching groups: "Setting the Stage," "Context," "Practices," and "What Now." Setting the stage questions focused on the teacher and their definition of digital literacy. Context questions asked about their school, technology available to them and/or their students, and the use of and impacts of that technology. The "practices" questions focused on the instructor's general teaching philosophy and classroom practices surrounding reading and/or writing digital texts.

What now questions thought about the future and what would make teaching digital literacy easier or more seamless. Both sets of interviews also had follow-up questions that varied based on the conversation.

These interviews were recorded and autotranscribed via the Zoom platform. These auto-generated transcriptions were then checked to ensure the words were correct and encoded to find similar themes and key ideas. The resulting analysis comes out of these transcripts.

Transferring Digital Literacy in High School and College Classrooms

When thinking about the digital literacies transfer framework in conjunction with the high school and college interviews, it is important to note that, for most of each interview the educator worked from their own definition of digital literacies. This allowed the teachers to answer questions based on their current practices and thoughts about digital literacies, which gives them room to start and join the conversation. If my definition of digital literacies was given to them from the beginning, then it might have been more difficult for the interviewees to connect the idea of digital literacies to their classroom practices because they would need to understand a definition and then also apply it to their contexts. Thus, their discussion of teaching practices and ideas about digital literacies during their interviews were based on their own perceived definition, though still guided and slightly informed by the interview questions. Therefore, the upcoming conversation about the instructors' responses to interview questions works to synthesize the digital literacies transfer framework with that of the educators' answers to the interview questions which revealed their thoughts on digital literacies and how they attempted (or did not attempt) to implement digital literacies into their curriculum.

With this in mind, the following three sub-sections detail some of the digital literacies teaching practices of the educators, as fits with the digital literacies skills laid out in this thesis (e.g., functional, critical, and rhetorical). In addition, each section attempts to determine what it might look like to teach these digital literacies skills for transfer by implementing the transfer components of the digital literacies transfer framework (e.g., genre awareness and meta-cognition).

Functional Skills

When discussing functional skills, the instructors (especially the college interviewees) often gave responses that included the phrase “how-to.” For instance, Hilda talked about helping her students understand “how to type a paper and post it into the learning management system.” After years of working with first-year composition students, she believed sometimes the biggest barrier her students had was understanding how to do things others might assume are already understood. Marissa, on the other hand, often assumed her students knew some of these functional skills, but sometimes had to backtrack when she realized her students did not know how to, for example, add a hanging indent in their works cited. This results in two ways to go about learning digital literacies functional skills: student-centered and teacher-centered. Typically, teacher-centered learning occurred more in the high school sector where teachers were the ones instigating learning, but college educators typically assumed their students should figure out a digital tool or resource on their own, which resulted in student-centered learning of functional skills.

As a college instructor, Claire often opted for student-centered learning. She assumed quite a bit about her students’ understandings of technology, even when she

introduced a technology that might have been new to her students, and typically did not backtrack to explain this assumed knowledge. For example, Claire used the social annotation software Perusal. In the very first semester she used the technology, she created an introductory video. However, since that semester, she had not given her students a how-to video and said she will likely never give them a video again because she assumed they already knew how to use it. If they did not already know it, then she had them teach each other, rather than her being the sole source of knowledge. Although Claire did teach her students a few how-to digital literacies (including how to see her feedback on Canvas), she typically wanted her students to either figure it out on their own or teach each other. Reese similarly did not focus much of her classroom instruction time on functional skills. She was “happy to help them out” if she knew how to do it herself, but this resulted in an “as-needed” basis rather than a formal classroom lesson.

In the high school sector, teachers tended to lean more toward teacher-driven functional skills rather than student-driven functional skills. They seemed to focus part of their functional skills teaching how to access and navigate databases, including how to filter to narrow (or broaden) search results. Many of the instructors talked about having their students navigate databases through a dual credit institution or through those databases freely available to Nebraska residents through NebraskAccess. Teresa also discussed wanting her students to be able to use various educational technology like Zoom because she felt those types of platforms would be important in college. Finally, troubleshooting, which required students to have some understanding of how a program works, how to navigate the interface, and how to generally use a program, was deemed

important. Understanding troubleshooting techniques helped students when they are struggling to make a program or interface perform as desired or needed.

Although some functional skills were student-driven in high school, typically, the high school teacher came alongside the student(s) to encourage them to learn these skills in teacher-centered learning. This type of educational approach acted kind of like training wheels for students as they learned about necessary functional skills with an expert in the room, and then transitioned to them using those functional skills independently in college. Lisa gave an example of this with her dual credit courses. She typically did not ask a student if they tried to figure out a problem or issue themselves before coming to her because she thought of herself as her students' "college professor, but really in the high school teacher model." She gave them constant guidance, even though she knew when her students entered college some of them might "fall on their face" without the same type of guidance. Most of the other high school teachers expressed similar ideas, with Teresa even saying she tried to help her students understand some of the college dynamics and support that was available, especially since her students felt there was often little support in college.

However, the student-centered teaching in high school and teacher-centered teaching in college idea did not seem to fit one educator. Hilda often taught basic composition at her community college, which was the course her institution offered to students who did not meet first-year writing requirements. In this environment, she often found herself initiating her students' learning of functional skills. This seeming contradiction to the student-centered versus teacher-centered concept is not necessarily a complete contradiction. The reason teacher-centered was often more of a high school

approach and student-centered was more of a collegiate approach was because of the previous experiences the students had before entering each type of classroom. In the high school world, the students just came from junior high, whereas in college, students often just came from high school. In each step of education, teachers often gave increased reign to their students. As such, when students entered the college classroom, the reigns of learning functional skills on their own were given to the students. However, institutions such as community colleges are often a kind of middle ground between high school and a larger four-year university. This is especially true in Hilda's basic composition courses because her students were not deemed ready for the first-year composition classroom. As such, they needed extra support in learning and needed to learn some of the skills that the first-year composition course expected students to already know, including functional skills. So, although Hilda's statement about purposefully teaching her students functional skills initially seemed to go against the idea that college instructors do not teach their students functional skills, her statement rather added a nuance to the original concept: that teachers gave or did not give their students the ability to learn functional skills on their own depending on their current level(s) of prior knowledge. Thus, although generally this means that teacher-based learning of functional skills occurred in high school and student-based in college, it is not a finite rule for all situations.

But what does this mean about teaching functional skills for transfer? Well, overall, the functional skills the high school educators were instructing their students seem to align well with the desires of the college professors. Although, in general, the high school teachers seemed to be more concerned and purposeful about teaching functional skills than the college instructors. Perhaps it is because, as Lisa discussed, the

high school teachers were held accountable to parents, a school board, and other stakeholders that, in some ways, required them to be vigilant about teaching everything.

However, even though the high school teachers were instructing things the college professors desired their students to know, such as how to navigate databases and how to add hanging indents, there seemed to be a disconnect between the two academic spaces as students transferred from high school to college. This disconnect was because functional skills were often not being taught for transfer. They were being taught as a way to solve an immediate issue, without thinking about the longevity and duplication of these types of problems.

For example, all the high school teachers discussed instructing their students on how to use databases because all of them considered database usage extremely important in college. Dylan even gave all his students access to the dual credit university databases, even if they were not enrolled in the dual credit course because he believed having experience with higher education databases was the best option (perhaps because these databases often had more access to materials than other databases like NebraskaAccess). The college interviewees generally agreed that databases were important, with some of them even wishing their students understood how to use them better. So, something was missing in the transfer when it came to understanding how to use databases.

Let us think about Dylan's decision to give all his high school students access to the dual credit databases, regardless of their enrollment status. This decision provides Dylan's students the opportunity for more low-road transfer when his students get the opportunity to use academic databases in college, as compared to those students who only have access to general web searches like Google. However, what happens if Dylan's

students do not go to the same university the dual credit courses were from? If they do not understand the genre of databases or have the metacognitive framing to help them comprehend database usage, organization, etc., then it will become more difficult for them to transfer their database knowledge to a new set of college databases. No college will have the exact same setup or access to the same databases. Some might include a general search function and others might not. As such, it is vital that students are taught not just about how to navigate one database, but rather are instructed on what a database does and how it functions.

For instance, many of the high school interviewees discussed teaching their students how to use Boolean operators and filters in academic databases. This is a great way to set their students up for low-road transfer if they understand academic databases as a digital genre. Understanding academic databases as a genre encourages students to think more critically about what happens in the background of the database, which then promotes more high-road transfer. Questions students might ask include, what algorithms are happening and how can filters or search terms impact and/or counteract those algorithms? What type of information is typically always included in databases that would help cite a source? Where can I go if the database does not have that citation information readily available? Questions like these force students to meta-cognitively think about the action steps they are taking and to recognize the various factors that go into navigating a database. By reflecting on the how, they can identify components of databases that are similar, and perhaps even connect those components to other genres. This, then, gives them the opportunity to more easily navigate other database systems because recognizing which components are similar to what they are already familiar with

allows them to realize they are starting with prior knowledge, even if they have never seen that database before.

In addition, having these types of database search skills also gives students an opportunity to high-road transfer those skills into other types of search genres. For example, if a student understands the digital genre of academic databases, they might recognize similar search components in search areas of websites, including state or federal government websites and archives. When they do not get the search result they want on a website, they might recognize that their search terms are too narrow, too broad, lacking specific language, etc. because they have had experience tweaking search terms in academic databases and thinking meta-cognitively about the research process in the database genre.

Teaching digital literacies functional skills transfer allows students to understand the groundwork of a digital genre. This basic knowledge can help them develop skills for troubleshooting and navigating other platforms in the same or a similar genre. In turn, they might better understand how these functional skills work and thus initiate more of the student-led functional skills that some of the college instructors preferred.

Critical Skills

Although all four college professors and four of the five high school teachers discussed their implementation of critical skills through thinking about power dynamics in the classroom and in the world, these discussions about power dynamics did not usually surround digital literacies. As Lisa points out, her critical skills discussions occurred with or without technology. I think this is the case for many of the other participants too, including Teresa who added short stories and/or smaller texts alongside

longer novels to bring in other sides of the story (other power dynamics and/or social issues). Although she used an online platform provided by her school to make these pairings, the conversations happening about the texts were not digitally based. The texts themselves might have been digital (in that they were presented on a screen), but the students talked about social issues or other viewpoints presented in the literature itself (not in how it is presented, accessed, etc.).

Similarly, Marissa was thinking about how her role as a commenter on student writing interacted with students' rights to their own language, especially when it came to writing and/or grammar "rules" that students did not seem to follow. Although the student texts she was reading were presented on a screen (and thus were digital in some sense), she was not thinking about these texts in consideration of digital literacies. Rather, she was thinking about the power imbalance between herself and her students and recognizing that her comments had profound influence over how and what her students wrote. Although this intersects with power dynamics, it does not also intersect with digital literacies because the method of writing, for instance, is not thought about. Rather, just the words on the page are considered.

With these examples in mind, both the high school and college educators implemented critical skills concepts in their classrooms and curricula. Nevertheless, these conversations were missing the digital aspect of the critical skills necessary in digital literacies. However, one participant gave an example of what it might look like to introduce digital critical skills into the classroom.

Claire was perhaps the participant who came closest to thinking about how power dynamics interact with digital literacies in her college classroom. Interestingly, Claire did

not initially believe she talked about this intersection. However, she gave a notable example of something she did in her classroom. Claire engaged her students in conversations about social media like Twitter and who could be heard on the platform. Even though “everybody” could tweet, it did not mean everyone could be heard. These conversations led to intersections like how technology was informed by society and how social divisions were reproduced in technology, including technology being racist because of how it was developed.

With this line of thinking, Claire tried to expand the conversation past Twitter by asking her students to think about other commonly used internet resources, like those used for digital research. She tried to “talk to [her] students about things like search engine optimization” so her students could understand that the whole point of some search results (especially in non-academic databases like Google) was to get “eyeballs on the website so that [the website publishers] can get money from their sponsors.” Claire wanted to equip her students to critically engage with technology to be better and more thoughtful consumers of digital texts. This critical engagement pushed her students to think about the sources they referenced and how those texts impacted the way(s) they used those sources in their own text creation.

However, to ensure these critical digital skills actually transfer to settings beyond Claire’s classroom (or even perhaps beyond the class session holding these discussions), it is important that at least some part of the conversations in Claire’s classroom ask questions involving genre and meta-cognition.

In her discussions around search engine optimization (SEO) and Twitter, Claire asked questions about the ways people can or cannot access or have their voice heard on

a platform. She was likely asking her students to think about questions such as who created Twitter and how are (or are not) posts or search results boosted for more publicization. Zooming out from the platform to think about the roots of Twitter and SEO causes a genre to appear, which Claire attempted to show her students through her questioning. Twitter is a type of social media that involves threaded posts, sometimes pictures or other media, and often a sort of virtual dialogue between users. In addition, there is a search bar and home feed that people see, which is linked to some sort of SEO. These roots of Twitter form a genre of online platforms which involve threaded discussions between users and a type of search function that provide users with “optimized” results.

Putting Twitter in a genre allows us to think more meta-cognitively about the platform. Critical digital skill questions about the genre of threaded discussion social media could include: who provides access to these platforms? Where is this platform most used? Where is it least used? What types of conversations do this platform tend to initiate? What conversations are boosted or more easily seen than others? Who often is not involved in these discussions? Who typically participates in them? What demographics tend to use this platform? Are certain demographics advertised to and not others? In some cases, answers to these questions might be multi-faceted, especially since many online threaded discussion social media platforms tend to use algorithms that try to pigeonhole your account into a certain type of account, and then only add that type of post(s) to your feed. In some ways, Claire talked about this with her students when she explained their social media accounts used information provided to them during sign-up and information gleaned from posts, likes, views, etc. This information was given to an

algorithm that decided what should and should not be shown on a person's feed and search results. This elevates the need for students to begin thinking meta-cognitively about digital spaces and the various genre grouping that digital platforms might have, especially social media platforms which try to cultivate a feed that users enjoy and often find themselves reflected in, thus limiting the scope of information they receive.

In the brief explanation Claire gave about her classroom discussions surrounding Twitter and even search engines, it seems that she was trying to engage her students in some of the meta-cognitive conversations that promote transfer. However, if she backed up a bit to make more room for a dialogue about genre, then she would also be incorporating the other transfer facet of the digital literacies transfer framework.

Rhetorical Skills

When rhetoric is mentioned in an English course, often students are directed to think about ethos, logos, and pathos and/or about audience, purpose, and context. In the case of the interviews, many participants tended to think along the lines of the latter. Lisa even stated that with "any type of writing, [...] whether it's digital or not that you're creating," audience, purpose, and context awareness were "priorities" every time.

Kylie talked quite a bit to her high school students about audience engagement when creating digital texts. She explicitly talked about how when her students "[wrote] for something that's on the screen," their "paragraphs should be shorter" because they were working with "columns more than likely," and people did not want to read a "ridiculously long paragraph" because they would feel "like they're just scrolling and scrolling and scrolling." She recognized the need for her students to shift how they were writing in digital spaces because a digital context caused audiences to expect something

different than if they were reading a printed academic essay. Claire also talked to her college students about audience awareness in digital text creation. She said “people interact with digital text differently. There’s, you know, eye tracking studies that have shown us how people’s eyes move around in digital spaces differently than print spaces.” As such, it was important for her students to think “about how there’s different audiences and different purposes with digital texts.”

However, some of the professors’ opinions varied when deciding how digital spaces should or should not be included when thinking about audience, purpose, and context when creating a digital text. For example, Claire wanted her students to understand their purpose “before they [thought] about what they [could] do with the technology itself” because design was what her “students [got] excited about.” Although Claire often tried to have her students understand how digital platforms purposefully do things to get them to interact with an online text (like with SEO or eye-tracking), she did not want her students to start with design principles. Contrarily, when Marissa’s students were planning a digital text, she often asked them to storyboard their ideas to figure out how they wanted to present information on a website, infographic, etc. In both cases, the instructors wanted their students to think through how and why they were presenting information. However, Marissa leaned into the digital by asking her students to think about audience, purpose, and context in more graphic and design-oriented forms, whereas Claire leaned away from the digital by asking her students to think through audience, purpose, and context before thinking about design elements in the digital space.

Along these lines, Reese also did not lean into the digital as much as other participants because she was not explicitly assigning students to create digital texts, but,

as she said, she was “not prohibiting anything either.” In this way, Reese left genre as open as possible for her Composition II students, which enabled them to create digital texts such as infographics, websites, TikToks, Instagram posts, and more. In her mind, as long as students could justify why their message was best told in a digital tool, then she was good with it. This justification involved understanding the intended audience and purpose of the message, meaning her students needed to understand the rhetoric behind their digital text.

In general, all the participants seemed very interested in ensuring their students understood audience, purpose, and context. However, the curriculum context in which these ideas were being presented varied drastically. For instance, Dylan and Hilda said they did not assign anything other than the typical essay in their classroom. Dylan said his focus was on the “meat and potatoes” of English, which he considered to be reading and writing: “We do the reading; we write about reading.” Thus, Dylan’s students tended to be only writers who authored papers and received draft feedback in Google Docs. However, even Dylan’s students’ final papers were submitted via hard copy rather than to a learning management system because Dylan found setting up such a program was “not worth the time” with only ten students in each class. Similarly, Hilda explicitly said she was “not multimodal” (e.g., not interested in her students creating texts other than academic papers), even though she wished she was. She believed multimodal assignments could be “liberating” by allowing “diverse learners to kind of communicate their ideas in a variety of ways.” However, especially in her basic writing courses, too many options (which sometimes came with multimodal assignments) allowed the technology to “take over” and be the focus rather than the text being created. Hilda said

she at one time tried a multimodal digital assignment, but it “failed miserably” and terrified her, so she was against doing them now.

On the other hand, the rest of the participants talked at length about the digital texts they had their students create. Many mentioned some infusion of social media, blogs, websites, and more, with Marissa and Reese even teaching a class explicitly about interacting with the digital. So, some educators were discussing rhetorical skills in light of digital texts, and some were not. It is important to note this dichotomy because digital assignments require slightly different rhetorical awareness than a typical academic paper. By asking students to think critically about more than one genre (meaning more than just an academic paper), students get to practice the type of meta-cognitive questions and awareness of genre that come with transfer, and thus students can more easily transfer the learned rhetorical awareness to new genres in the future.

The participants’ thoughts on rhetorical skills seemed perhaps the most varied out of all the digital literacies skills. This made it more difficult to pinpoint how digital literacies rhetorical skills could be better transferred. However, two themes appeared for the creation of digital texts: those participants who assigned digital text creation and those who did not assign digital text creation. Although there were a variety of other ways to analyze the interviewees’ implementation of digital rhetorical skills in the classroom, these two themes gave a good starting point because all the educators were asked to give a description of what they wanted their students to think about when they were planning to write (or create). It is important to recognize that students could very well have a teacher who does something a bit different in their classroom. Every educator is unique and has varying levels of comfortability with allowing their students the

freedom to explore new genres through digital text creation. However, in the case of these interviews, assigning or not assigning digital text creation was one difference between the participants' answers.

For those interviewees who found themselves wary about letting their students create digital texts other than the academic paper, they understood that their students were living in a highly digital and technological world that asked them to interact with digital texts every day, with many of these teachers involving the reading of digital texts in their classroom. Even though they felt uncomfortable with allowing their students free reign with creating digital texts, there are still ways to have the important conversations surrounding the rhetorical side of digital texts.

For instance, when a digital text is read for class, questions about audience, purpose, and context can be brought up in the resulting conversation. However, it is important in this moment to also use the genre and meta-cognitive approach to think about the digital text in a way that teaches for transfer. For example, if a *New York Times* article is being read, then one might ask a question about who the audience is for that specific article. Afterward, take a slight step back and ask who the audience would be for a general *New York Times* article. This starts to invoke the idea of genre. Students must think about the variety of news articles that the *New York Times* publishes on their website, and how they might fit into each other to create a more general audience. Finally, ask who the audience for the genre of online news stories might be. Although the students are not determining an audience for their own digital news story at this moment, they are starting to think about what type of audience an online newspaper might have.

When they then read a different news article (on their own or in another class) they can recall this conversation about online newspaper audiences and then build from there.

When it came to those participants who did ask their students to create digital texts like websites or Instagram posts, it is important they situate the creation by starting with genre. Oftentimes, students can choose to create a digital text that seems more appealing or fun to them. This is why Claire probably was a bit leery about letting her students jump immediately into the design world space when rhetorically planning their digital text. She wanted her students to first think about their argument in light of their audience, purpose, and context. This is why genre is so important.

For example, if a student really enjoyed YouTube videos, and they wanted to address the homeless population, their audience would likely not be able to see a video because the genre and audience do not fit together in most contexts. Thus, the process of choosing what digital text to create should start with choosing a genre in light of the desired audience, purpose, and context. A genre is easier to determine if students already understand and have experience composing in and analyzing multiple genres. For instance, Marissa has her students take their experience working in an academic paper genre and translate it into a new genre with a new audience as a remix. In this way, her students are presenting the same information with different audiences, purposes, and contexts in mind. Then, after composing, if students are asked to write a reflection paper over their choices and thoughts, then they are thinking meta-cognitively about their choices by explaining how each one's genre fits their specific audience, purpose, and context.

Implications: Supporting Educators in Teaching for Digital Literacies Transfer

So, what does all this mean for those educators trying to help their students transfer digital literacies skills? The first thing to note is that transferring digital literacies is not only a high school or only a college issue. In the cases of these interviews, both groups of participants had ways in which they could better support digital literacies transfer. Applying the digital literacies transfer framework in high school and college will help students make connections to their prior knowledge about digital literacies and digital genres, and hopefully continue to make those connections in future discussions in and out of the classroom.

Understanding Digital Literacies

Without understanding digital literacies themselves, the transfer process cannot occur. Thus, teachers need to be aware of digital literacies and their importance in and out of the classroom. Most of the participants had not previously attempted to define digital literacies, with many saying statements like “Wow, that’s a good question” when I asked them to define it. The only educator who seemed to have thought the most about the definition of digital literacies was Reese, who said that digital literacies involved “the ability to participate intentionally and understand digital discourse communities and their practices” which includes online citizenship, responsibility, and tools, as well as rhetorical elements such as genre awareness, rhetorical awareness, understanding of communities, understanding how to participate, and understanding of ethics. This definition aligns well with the digital literacies transfer framework because it acknowledges the need for students to understand more than just functional skills. Although functional skills are important, Reese’s definition pulls on other areas of literacy like rhetorical and critical skills.

The reason Reese had such a deep definition was she had just finished teaching a course on digital literacies a few months prior to her interview with me. Thus, she had to dig deep into the idea of digital literacies; something the other participants never had to do. In fact, my questions in the interviews led me to believe the other participants may not have thought about the digital as an important space to critically discuss in their classroom, perhaps because they felt unprepared to explore such a concept. However, most of the participants had much to say about digital literacies functional, critical, and rhetorical skills once prompted by the interview questions. As such, the digital landscape was generally used as a way to see or gain access to material; however, the space itself was typically not analyzed.

Curricula and Materials Accessibility

In turn, the first thing that educators need is a better understanding of digital literacies and their place in the classroom. However, adding an additional item for teachers to learn on their own time is not the best way to start this process. Educators need more (and better) professional development and support from their respective administrators and institutions. Kylie specifically notes that she does not know if “there’s a lot of curriculum materials that really address digital literacy” and that if one would “look at the [newest] Nebraska state standards,” there are three or four standards about “validity and reliability” and “being a responsible consumer” of digital spaces. So, although the newest standards are beginning to note the importance of students understanding components of digital literacies, there is little actual applicable support for these standards to be enacted.

Kylie continues by noting that she does have some curriculum and/or materials she has created herself or has downloaded from websites such as Teachers Pay Teachers; however, these resources are “teacher created” and are not founded in “research-based practice,” even though “everyone” says teachers need research-based materials. But, if these types of materials do exist, Kylie is unaware of them.

As such, it is vital that this type of research is built out into immediately applicable materials and curricula for teachers to build upon themselves. Although the examples in this thesis try to bring the theoretical ideas into action, teachers need access to assignments, projects, etc. that they could relate to the units they are already teaching. Rather than telling teachers to build a new unit about digital literacies, the digital literacies transfer framework could start as just another component of the conversation already happening in the classroom.

In addition, teachers need consistent access to multiple platforms. For instance, many high school teachers cannot give their students access to highly rated and reputable newspapers or journals because there is a cost associated with those subscriptions. Although subscriptions are how these companies make their revenue, the subscription creates a paywall for students and teachers, which then causes them to turn to other potentially less reputable sources for information. Although these same digital literacies conversations can happen with any digital source, access to *The New York Times*, for example, would provide students with better materials to gather ideas.

Thus, it is important that educators have access to research-based digital literacies materials and various digital platforms to help them start digital literacies conversations

in their classrooms. These tools can help lower the emotional and material cost of introducing digital literacies transfer practices in the classroom.

Professional Development & Support

Besides access to curricula and digital platforms, teachers also need additional support from administrators. Although basically every participant talked about how their administration was supportive of their classroom pursuits and ideas, one thing stood out: digital literacies were not typically seen as a priority. In most cases, the educators discussed how their administration, department, institution, and/or educational service unit (ESU) would support them seeking out conferences or other types of professional development on their own, but the school and/or district itself did not offer digital literacies-based professional development.

If some type of digital literacies-adjacent training was offered, it was typically more technology-based, meaning teachers could receive training on technologies currently in the building, including, in Mary's case, Smartboards and the learning management system Canvas. However, these types of trainings only develop functional skills for a specific technological tool. The educators are likely not being asked to think in rhetorical, critical, meta-cognitive, or genre awareness ways. As such, they are less likely to ask their students to think in these ways as well, and the pattern of digital literacies not transferring continues.

Large-Scale Digital Literacies Initiatives

Finally, successful teaching for digital literacies transfer does not occur in only one classroom. Transfer does not happen if a student only has to think about transfer

concepts once or twice. Rather, a school-wide or program-wide initiative to teach digital literacies for transfer would be much more successful.

For example, Kylie's school participates in a program called Common Sense Media, which means all teachers, regardless of subject matter, use this program to help instruct their students about digital citizenship. Common Sense Media is a free non-profit program that "supports K-12 schools with everything educators need to empower the next generation of digital citizens" with their "innovative, award-winning Digital Citizenship Curriculum" that "prepares students with lifelong habits and skills, supports teachers with training and recognition, and engages families and communities with helpful tips and tools" ("You know your kids. We know media and tech."). Kylie talks about how this program helps her teach her students how to "behave responsibly when [...] online using technology."

However, whether a school decides to implement Common Sense Media or not, it is important that the digital literacies program teaches digital literacies skills for transfer. Having a school-wide (in the case of high school) or program-wide (in high school or college) initiative for teaching digital literacies transfer is what will enable students to take their digital literacies skills into the next phase of life.

When a program-wide digital literacies initiative is implemented in a college scenario, it allows first-year composition courses to build upon the digital literacies transfer skills developed during high school, which gives the opportunity for students to actually reflect upon their high school experiences regarding digital literacies skills. These types of program-wide initiatives could include adding digital literacies transfer

skills to first-year composition course outcomes, as well as partnering with libraries, who are often interested in developing information literacy programs.

This incorporation of the digital literacies transfer framework in both high school and college explicitly invites students to continue to use critical thinking and meta-cognitive skills throughout their education. Thus, even though students are often doing high-road transfer in the jump from high school to college, the transfer will be easier because they have a skill set that has prepared them well. However, on the other hand, if college classrooms do not purposefully invite students to complete this transfer, then they may be less likely to do it at all because they are not continuing to be asked about digital literacies skills in light of transfer.

Conclusion

In the end, digital literacies will likely always be important, at least with the current state of technology and widespread internet access in the United States. Students are becoming increasingly connected to digital environments and their access to digital content has increased dramatically in recent years. This calls for attention to how students are accessing, understanding, sharing, and using this digital content. This calls for an increased awareness of digital literacies.

In the college and rural high school settings, students seem to be learning very similar aspects of digital literacies, including how to research using databases, how to look at source (and self) biases, how to think about authorial purpose or context, and how to apply all this knowledge in their own creations.

Despite the overall good alignment of the high school and college teachers' goals, the students are struggling to transfer their skills into the college environment. However,

should high school and college educators make room for the digital literacies transfer framework in their classrooms, students might better retain and apply digital literacies concepts, both inside and outside the academic environment. Regardless, it is not up to the English classroom teacher alone to be the sole propagator of digital literacies knowledge. It is vital to recognize that students interact with digital spaces every day by posting, reading, watching, downloading, and more. Thus, exposure to digital literacies skills in only one high school or college classroom environment during one unit or class discussion is not enough. Although this type of exposure is a place to start, it is much harder for students to recognize the need to transfer their digital literacies knowledge if they are not explicitly invited to do so. By incorporating the digital literacies transfer framework into consistent conversation across classrooms, students will begin to see that digital literacies are important not just for database researching for academic research papers, but also for their social media posts and general consumption of digital content in their day-to-day lives.

To further explore digital literacies transfer, research should be done to determine if these conclusions are only localized to this research context or if there is a similar pattern with a larger sample, including if there are any differences with the addition (or focus) of urban high schools. It might also be interesting to include private collegiate institutions as these types of institutions were not included in this research, as well as look at students' perceptions of their ability to understand and transfer digital literacy skills. Finally, to put this digital literacies transfer framework to a true test, one might consider building out a curriculum that revolved around the framework's ideas of genre awareness, meta-cognition, functional skills, critical skills, and rhetorical skills. If this

were to be done, it would be important to adjust the terminology used in the framework to best fit a student audience. Some of the terms (such as genre) might be confusing to those who have little knowledge and/or experience in the fields correlated to this research.

APPENDIX A: HIGH SCHOOL INTERVIEW QUESTIONS

Setting the Stage

1. What grades do you teach?
2. How do you define digital literacy?
3. What do you believe colleges are expecting students to know about digital literacy?
 - a. What type of experiences or knowledge has led you to believe that these are college expectations?

School/District Context

4. What digital tools and/or technologies do you have at your disposal?
 - a. Of these technologies that you could use, which have you used or currently use and why?
5. What type of free-to-you digital technologies training is available in-house or outside your school or district?
6. Describe the support you have from administrators and/or other faculty in using digital technologies.
7. How do you think your school being situated in a rural area impacts the way you teach?
8. How do you think being in a rural area impacts your access to digital technologies?

Practices

9. Describe the general principles, beliefs, or philosophy you have about teaching.
 - a. What is the role of a student or teacher?

- b. What I'm understanding about your teaching philosophy is _____. Is that correct?
 - c. Okay, describe how you perceive this philosophy impacts your role in teaching digital literacy.
10. What type of digital texts do you have your students read and why?
11. What type of digital texts do you have your students write and why?
12. When you ask students to write a digital text, what do you want them to think about when they are planning what to write?
- a. Are there any terms like "audience" that you teach them?
13. What type of reflection do you have students engage in when they're reading and/or writing digital texts?
14. I'm going to put four ideas on the screen. When you help students engage with digital texts, either by reading or writing, are you teaching them any of these ideas?
- a. Ideas: how-to skills; awareness of power dynamics in society; emotional awareness; audience, purpose, and context awareness
15. Now I want you to think about a specific digital literacy assignment or task that you ask your students to do.
- a. How do you prepare students for that assignment?
 - b. What do you want students to get out of that assignment?
16. When you think about trying to help your students be able to read and write in a digital technology that isn't invented yet, how do you think you could help prepare them for using and writing effectively in that future technology?

17. Although not all high school students aim to go to college, some do go. As a junior and/or senior English teacher, describe some of the ways you strive to help prepare your students for digital literacy collegiate expectations.
18. How do you think being in a rural district impacts your students transferring digital literacy skills to college?

What Now

19. Thinking about everything we've just discussed, is there anything that you need or want to teach digital literacies better?
 - a. Examples (if needed): training, tools, better described college expectations, etc.

APPENDIX B: COLLEGE INTERVIEW QUESTIONS

Setting the Stage

1. What classes do you teach or have taught in the past?
2. How do you define digital literacy?

Context

3. What digital tools and/or technologies do your students have at their disposal?
 - a. Of these technologies, which do you think they use the most?
4. Describe the support you personally have from administrators and/or other faculty in using digital technologies in the classroom.

Practices

5. What kinds of digital skills or ways of thinking about digital texts are most important for first-year students? Why?
6. What type of digital texts do you assign your students to read and/or write, and why?
7. When you ask students to write a digital text, what do you want them to think about when they are in the planning stage?
8. What type of reflection do you have students engage in when they're reading and/or writing digital texts?
9. I'm going to put four ideas on the screen. When you help students engage with digital texts, either by reading or writing, are you teaching them any of these ideas?
 - a. Ideas: critical skills; power dynamics; emotional awareness; audience, purpose, and context awareness

10. Now I want you to think about two or three rural students that you've taught.

Describe their strengths, challenges, and overall interactions with the digital literacies that you assign.

- a. Have there been any rural students who have used already-acquired digital literacy skills that are actually hindering their college digital reading and writing skills? If so, describe some of these skills and why they didn't work well. (If no rural students, then any student).

What Now

11. Thinking about everything we've just discussed, is there any digital literacy practice that you think first-time college freshmen need to know better?

12. What advice would you give high school teachers looking to prepare their students to transfer digital literacy skills to college?

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