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Infusion of digital literacy in teacher education

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Abstract
As educators, we need to explore the environments to determine how they can most effectively be used in our instructional practices. This paper explores the current application of digital world to identify meaningful educational strategies that are being used to engage student teachers and enhance teaching and learning. The learners, commonly referred to as "digital natives", seamlessly work with technology to gather, analyze, and synthesize information, and then present it in new and innovative ways. Creating learning environments that provide digital natives with a sense of immersion into the content, with the ability to both manipulate the content and change the content into new understandings, are the next natural steps in teaching and learning. Education in the 21st century should focus on communication, autonomy and control over a student's own learning, and increased innovation and creativity. If Digital literacy used effectively, there is strong potential for instructors and learners to create a constructivist approach to teaching and learning.

Keywords: digital literacy, teacher education

Introduction
Digital literacy is defined as "the ability to effectively and critically navigate, evaluate, and create information using a range of digital technologies." Many educational and business professional cite is as a critical 21st century skill. Even so, many institutions have struggled to adapt it into their curriculum. It is often because most institutions already have rigorous, established curricula with little wiggle room – and this is especially true in institutions subject to state testing. However, there are ways that institutions can adapt these skills into existing structures – integrating them into their current pedagogical framework.

Evaluating online content is a research skill
Administrators often notify that they cannot meet new digital literacy requirements because they cannot add a "digital literacy" course or requirement. Here's the other way: the need for student teachers to "critically navigate and evaluate" online content is better viewed as an extension of research skills. Just as we don't teach a class called "research," we do not need to teach "evaluating online content" as a separate course or unit of study. We should teach research skills in the context of existing subject matter. For example, when student teachers do research, they are not only allowed but encouraged to use online content. However, when using internet material (as opposed to a peer reviewed article or an academic book), they need to include further evaluation of the content.

With the rise of academics, who write blogs and use social media (such as Twitter and Face book), and give the wealth of self-published content generally, pertinent information is now moving away from traditional forms. Student teachers need to know what online content they can reproduce and how to credit it properly (digital ethics).

The problem, student teachers face in the new world, is no longer access to information, but rather how to deal with the glut of content that confronts them when they find a research topic on Google.

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If we want them to effectively navigate online material (as 21st century learners), then research needs to include not only "traditional" methods and materials, but digital ones as well. We need to ensure that they know how to evaluate a website, a blog post, a tweet, a Face book entry. These evaluative skills transfer cross curricular and prepare students for the broader world of online communication.

Engaging online is a modern communication skill
Engaging in effective discourse and debate is a necessary skill that many of us learned via class discussions, group activities, classroom debates, in class presentations, etc. Being able to effectively communicate is a requirement to succeed in many facets of life (academia, business, personal life, etc).

However, use of social media has quickly grown in professional and academic realms. Social media, especially Twitter, is an effective tool for legal professionals in several ways: networking, branding, and research. As an attorney in a dynamic field, it's its job to predict where the law is going; Twitter serves as an effective crowd sourcing medium to take the pulse of labor law. Just as we anticipate that the traditional communication skills, we teach student teachers as part of our established curriculum, will translate to a broader skill set, so will their ability to engage with people safely and effectively online.

Student teachers need to create digital projects
If you are familiar with the revised Bloom's Taxonomy, then you know that creation is at the highest order of learning. Teachers recognize this; it's why we give student teachers various projects and assignments: a science experiment, a research essay, a debate etc. With new technologies, they have the ability to create dynamic, multi-media projects quickly and easily. By combining these tools with a sophisticated topic, we can engage them in new and creative ways. One reason that teachers are often hesitant to adopt new technologies or give student teachers digitally enhanced assignments is because they themselves are unfamiliar with the available tools – and suppose that giving a "Movie Project" requires that they teach about movie making software. The student teachers are told what the final project should look like (such as a video) and then it is told them to pick the venue that works best for them to create a finished project.

New technology is easy to use/navigate and with YouTube and online blogs, student teachers can easily teach themselves how to use them. Now this doesn't mean that faculty should not learn these new tools. In fact, faculty should learn how to use Moviemaker for their laptops or iMovie on their iPads to create a video of anything they want (their children, a pet, a favorite sports team).

Digital literacy: An everyday dimension of learning
Digital Literacy is a crucial skill that we as educators must foster and encourage in our classrooms (and administrators must support in the broader curriculum). I hope that these examples have helped to demonstrate how 21st century skills do not require additional class time or new course development. They often do require some tweaking of our established curricula. I strongly encourage administrators to provide robust professional development and learning time for their staff and faculty. Your teachers can integrate digital literacy into everyday learning, provided you share the resources and support they need to shift a traditional curriculum to a more innovative one. If you do, our student teachers will be better digital citizens and curators of online content; a necessary skill for success in the 21st century and a valuable contribution to civil society.

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