

Transcript of Video: *Instructionally Appropriate Technology Integration*

<http://www.tei.education.txstate.edu/Professional-Development/PD-Opps.html>

Introduction: Hi, I'm Dr. Shaunna Smith and I am an assistant professor of educational technology at Texas State University. In this video I'm going to share a variety of ways that you can integrate technology to support teaching and learning in your own classroom. Instead of taking a toolcentric approach, I am going to take an approach that focuses on pedagogy and instructional strategies. That way, you can leverage what you already know about teaching your content and make stronger connections to support your student learning outcomes.

Slide 1: Technology integration doesn't have to be scary. It all comes down to knowing what is in **your** toolbox...such as your content knowledge, your technical ability and your awareness of what technology tools you actually have access to.

Slide 2: We have an overwhelming amount of technical tools at our disposal. Everything from digital cameras to internet enabled lap tops and even smart phones. Many of our students come to class with more than one of these tools - so why not incorporate them into our classroom activities.

Slide 3: As you may know, there are a plethora of free tools that we can access from an internet-enabled device. Referred to as Web 2.0 tools, these tools enable us to do anything from social media communication, collaboratively create documents, or even create original videos. Though this is amazing for a teacher on a budget, the sheer number of available tools can be overwhelming and confusing if you don't know where to begin.

Slide 4: Using what we know about Bloom's Revised Taxonomy, we can use our existing student learning objectives to guide our choices for technology integration. With this in mind, I have developed the Instructionally Appropriate Technology Integration Framework or IATI for short. It has four groups of tool categories that are situated around Bloom's Revised Taxonomy. Each group of tools highlights the importances of the technology but focuses on the instructional purpose that guides the teacher to integrate it in connection to lower order and higher order thinking skills associated with Bloom's Taxonomy.

Slide 5: Beginning with the lower order thinking skills consider - what does it mean to inquire and investigate? Whether we are in the brainstorming phase of a project or we are merely trying to get organized we all need tools to help us capture and collect information.

Slide 6: This first category of the IATI Framework focuses on technology tools that can help us capture and collect information. Regardless of the modality of the tool, there are a variety of free or easily accessible tools to help trainers in their quest to demonstrate the ability to remember information. Also, the tools can be used at the private, individual level or can be shared amongst groups of students to engage in collaboration. Let's look at some of them now.

Slide 7: QR Codes, or Quick Response Codes, are strange looking black and white pixelated images that you might have seen as part of an advertisement. The purpose of these codes is to

allow a user to scan the code using a free QR code reader app on their smart phone, which then takes them directly to the URL that is embedded within the QR code image. We can make our own QR codes using free websites such as QRCodeGenerator.com and easily embed them into our instructional presentation so we can quickly take learners to a new website for additional information related to our instruction.

Slide 8: Pinterest is an amazing free social bookmarking tool. Many of you might already use it to catalog interesting things you find online. But consider ways you could use it to gather resources related to your instruction. Additionally, consider the social aspects in that you could create a board which your students could collaboratively add resources to to share information about a project.

Slide 9: Google Art Project is a great tool to allow any and everyone access to artworks from all over the world. With a variety of search features, you can access numerous collections and learn more about the artist with the added ability to zoom in on close details of each artwork. Not only can you access priceless art here, but you can also create your own virtual collection by choosing specific pieces related to a topic or a theme of your choice.

Slide 10: Moving up towards the middle of the Bloom's Taxonomy pyramid, consider – what does it mean to present and re-mix? Whether we are doing a standard presentation to communicate information to a group or we are altering existing content to better suit our needs, we all need tools to help us format multimodal information.

Slide 11: This second group of tools within the IATI Framework are focused on the ability to help learners demonstrate understanding and/or apply concepts. There are several tools that allow us to alter existing information enabling us to be information deejays that can create a new spin on familiar texts and/or visuals. Though we are all familiar with Powerpoint as the go to presentation tool, many alternatives exist that can allow us to present information in a variety of ways.

Slide 12: TED Ed allows you to build lessons around any TED Talk video presentation or YouTube video. Search by topic or type in the specific video title and you can edit it to suit your needs. Edit controls let you embed guiding questions, short quizzes to help learners dig deeper, and an opportunity to discuss the topic with others.

Slide 13: Wordle is a free tool that lets you paste in text in order to create a word cloud. It generates an interlocking image of words that highlights the most frequently used words as the largest in size. Added controls allows you to change the direction of the words, typeface, and color scheme. Once you're done, you save the word cloud as an image or it can be printed or inserted into a presentation.

Slide 14: Similarly, Word Trees can be used to more deeply analyze text. Simply paste in text and generate an interactive visual that allows you to analyze sequential characteristics and patterns within the text. This tool has amazing possibilities for deep reading of texts that are often difficult to read and can provide learners with the opportunity to engage in critical text analysis.

Slide 15: Tired of the same old papers and essays over and over? Challenge your students to create infographics to demonstrate their understanding and application of research. Piktochart is a free web-based tool that lets you design infographics using a variety of clipart and icon collections including data charts and graphs. You can also upload your own images. Infographics are a great way to provide a detailed snapshot of a topic that leverages text and visuals to display information.

Slide 16: As we make our way further up the Bloom's Taxonomy pyramid consider what does it mean to discuss and reflect? Simply put, it means to communicate ideas and experiences which can be achieved in a variety of ways.

Slide 17: The third group of tools focus on learners dissecting information and communicating reactions. Using higher order thinking skills, learners are tasked to dig deeper into concepts. This can be done using synchronous, quick response tools that provide real time and immediate feedback **or** can be done using asynchronous tools that allow learners to respond on their own time.

Slide 18: PollEverywhere is a free tool that allows you to set up quick response questions in the form of multiple choice or even fill in the blank. Learners simply anonymously text their answer and the whole class can watch as answers stream in on the projected screen. This is a great way to see who actually did their homework or to check for understanding at the end of the class. Tools like this not only support formative assessment but can also encourage the quieter students to virtually speak up and can help manage discussion with larger class sizes.

Slide 19: We all know how Twitter can be used as a quick communication tool to let us blast out thoughts and ideas. This can be a great way to communicate with students using a dedicated class hashtag such as the course name. Twitter can also be used as a type of exit ticket to allow students to tweet what they learned in class that day. Consider the level of thought required to create a concise statement using 140 characters or less. What if you task students to explore main themes within the weekly reading?

Slide 20: VoiceThread is a great tool to enable asynchronous discussions with a variety of multimedia elements. Teachers can create a thread by inserting Powerpoint slides, still images, and video clips to get a conversation started. Everyone can respond to each slide by typing text, recording audio, recording video, or even using whiteboard features to draw on top of the slide for emphasis.

Slide 21: Lastly, my favorite group of tools which allows us to challenge learners at the very tip top of the Bloom's Taxonomy pyramid. Consider, what does it actually mean to create and edit? Consider the level of thought and effort required to generate something truly unique and original that brings an idea to life or causes a surprising effect.

Slide 22: The fourth and final group of tools in the IATI Framework are the creation and editing tools. Ranging from book creators, computer programming apps, and video editing apps, these tools challenge learners to engage in higher order thinking skills as they make personally meaningful artifacts in a variety of modalities.

Slide 23: Pixton is a free comic book creation app that lets you use template designs or draw your own characters to visually communicate ideas. Whether used as a storyboard to outline a concept or multiple pages to create a graphic novel, Pixton is fun and easy to use.

Slide 24: Kick it up a notch by challenging students to create their own computer programs. Scratch is a free visual based computer programming app that allows users to drag and drop blocks of code to generate logic sequences. These sequences can create interactive robotics, video games, and much more.

Slide 25: Challenge learners to create their own three dimensional models using Autodesk 123D app. Whether you want them to scan a three dimensional object to make a virtual copy or design their own 3D model from scratch, Autodesk 123D has a tool for you. Models can be shared online and easily sent to a 3D printing service that will print the object and mail it back to your house.

Slide 26: Have students create their own unique music using Ujam – a free web-based app that lets them create music with their voice and digital instruments. Easy editing features let you clean up fixes and embellish with synthesizers. You have lots of publishing options which allow you to download and save your music or upload directly into iTunes.

Conclusion: I hope that this video has inspired you to consider the variety of free tools that are available for you to integrate into your teaching. Also, I hope that this video has reminded you that you know so much about teaching your content and if you just focus on your pedagogy you can easily find a free tool that supports your student learning outcomes. If you have any questions, feel free to email me at sfs36@txstate.edu . Check out my website for various resources and research publications shaunnasmith.wp.txstate.edu or follow me on Twitter @ShaunnaSmith365. Thanks for watching and good luck.

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