



Edtech

for the **K-12 Classroom**

*ISTE Readings on How, When and Why
to Use Technology*



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International Society for Technology in Education
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Edtech for the K-12 Classroom: ISTE Readings on How, When and Why to Use Technology

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About This Ebook

This ebook includes readings and other resources from the International Society for Technology in Education (ISTE), a global organization dedicated to harnessing technology to solve tough problems in education.

Designed to empower preservice teachers to use technology effectively in their classrooms and schools, the book is meant to supplement or replace a textbook. It is also designed to be used in tandem with ISTE membership, so future teachers can interact in robust professional learning networks, attend live webinars, gain access to online courses and read thought-provoking articles in *Empowered Learner*, ISTE's membership magazine.

The [Instructor's Guide](#) includes suggestions for activities that professors can use with their students.



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Digital and Media Literacy

In this chapter:

4 ways to teach students to find the gems in YouTube's perilous terrain

5 things students should do to stay safe and secure online

Top 10 sites to help students check their facts

Today's news: Real or fake?

Digital and media literacy is a subset of digital citizenship. It's all about accessing, analyzing, evaluating and creating all types of media, from newspaper and magazine articles to tweets, blog posts and YouTube videos.

Having the skills to understand the intentions, biases and motives of the creator is essential in a world where manipulation of facts is easier than ever. Students need to evaluate sources, check facts and recognize red flags to avoid being misled or defrauded.

Media literacy involves more than merely analyzing and evaluating content, though. Students also need these skills to evaluate their own biases and understand their audiences when creating content.

The selections in this chapter offer resources and examples that will help educators train skilled, knowledgeable and informed citizens.

4 ways to teach students to find the gems in YouTube's perilous terrain

By Adrienne Smith

Today's students constantly seek help from the all-seeing, all-knowing YouTube oracle, much like Dorothy did in the *Wizard of Oz*. Therefore you, the teacher, are no longer seen as the ultimate subject-matter expert. YouTube is.

And that's not necessarily a bad thing.

As practically any adult or child can attest, YouTube can be an excellent tutor, adviser, trip planner, mentor — and, of course, comedian. But it comes with landmines that can be avoided as long as educators and parents know how to find them.

YouTube does not actively monitor videos that are uploaded to the site. They are automatically scanned for copyright infringement, but not inappropriate — or grossly inaccurate — content, unless flagged by a viewer.

Almost anything goes on YouTube

Think about that: YouTube, the subject-matter expert in the eyes of students, is a resource that expects the user (a student) to determine the quality of the content. This is a skill that requires students to be Knowledge Constructors as defined by the ISTE Standards for Students. That is, they need a deep understanding of research, curation and critical thinking skills.

Parents have long relied on educators to help their children develop those skills. Along those same lines, colleges/universities and the workforce expect high school graduates to arrive having already developed critical, analytical and evaluative skills.

But students today have 24/7 access to a vast amount of good — and bad — information that requires strong critical thinking skills, and teachers aren't always going to be right behind their shoulders to help them vet content.

Shifting the teacher's role

Therefore, teachers must switch from the primary role of subject-matter expert to curriculum facilitator. It is now more important than ever to teach the media literacy skills of analyzing and evaluating.

Learning to think for oneself rather than being told what to think has always been an invaluable skill. As the facilitator, you should encourage your students to take the lead – no more explaining! – and allow students the experience of evaluating. Here are some ways you can do that:

Allow opportunities for controversy. Use YouTube videos to spark thinking and discussion. Teachers have long relied on debate between students as a means of examining arguments and fostering critical thinking. Even a video lacking in depth may be turned into a classroom asset.

English language arts. YouTube is full of reviews and criticism of literature that you can use to spark a discussion. For example, after you finish teaching a text such as *Lord of the Flies*, show students video reviews and criticism. You can begin a discussion by asking students to brainstorm criteria for judging whether or not the text should be taught in school and at what grade level.

Social Studies. YouTube offers many, many videos depicting differences in perspectives on current events. Search for commentary by ordinary people as well as from media organizations, such as The Blaze, Fox News and CNN. You can trigger interesting discussions relating to viewpoints, voices and groups that are often ignored. Students will be able to recognize that interpretations are influenced by individual experiences and sources selected.

Let students choose the content. Ask students to find YouTube videos they believe will best contribute to understanding the subject being covered in class. This will allow students to develop skills in discernment that will lead them to become lifelong learners and it will help them address the Knowledge Constructor standard within the ISTE Standards for Students.

Math. Give groups of students a complex word problem or an equation that can be solved a variety of ways. Then ask students to find YouTube videos that explain math concepts that can help to solve a word problem or balance an equation. Show the video clips to the class as a whole and allow students to discuss how and why they would or would not solve the problem using the information from each video.

Science. Ask students to find YouTube videos demonstrating experiments related to the scientific concepts being covered in class. Show the experiments to the class and have the students make connections, analyze, synthesize and evaluate the experiments based on the unit of study.

Your role as an instructional facilitator may be even more valuable than your previous role as subject-matter expert. When YouTube is your students' wonderful land of Oz, you need to help each student become a Dorothy who can pull the curtain on the wizard.

This is an updated version of an article that appeared on the ISTE Blog on July 25, 2017.

Adrienne Smith is an educational technology specialist for Pearland Independent School District in Texas and a doctoral candidate at the University of Houston in curriculum and instruction with a focus on learning, design and technology. Follow her on Twitter @asmithedtech.

ISTE Educator Standards addressed by these activities:

Designer. Educators design authentic, learner-driven activities and environments that recognize and accommodate learner variability.

Facilitator. Educators facilitate learning with technology to support student achievement of the ISTE Standards for Students.