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# Insights from Educators: The Role of Digital Content in Supporting Instruction

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## Introduction

As access to instructional technology continues to become the norm in schools throughout the world, educators are increasingly turning to digital content to enhance instruction and address the needs of their students. Understanding educators' behaviors and requirements when they search for and use digital content in their classrooms is an essential part of the process of creating digital content for education. This report provides insights from the latest research about what educators want, need, and expect in their search for and use of digital content.

## The State of Digital Resources in the K-12 Classroom

Today, the use of digital media and resources is prevalent in every aspect of our society, including the field of education. Technology provides unique opportunities for teachers to deliver instruction in creative and engaging ways. While access and expectations

around the use of technology in education settings have evolved over the last few decades, the extent to which educators use technology for teaching varies widely. As the reliance on technology expands in the workforce, technological fluency also becomes more important in K-12 classrooms.

Recent study findings show that the percentage of teachers using technology in their classroom ranges from as low as 63 percent (Cortez, 2017) to as high as 95 percent (Vega & Robb, 2019). The type of digital content used also varies; although video is typically the most commonly used, apps, social media, games, and research websites (Vega & Robb, 2019; Deloitte, 2016). Students access these resources via laptops, desktops, tablets, interactive boards, phones, Chromebooks, and e-readers, both in the classroom and at home (Deloitte, 2016). In



general, both teachers and students find technology to be helpful in teaching and learning in their classrooms. Specifically, teachers appreciate how technology provides the opportunities to create unique experiences for each student, allow for collaboration and interactivity, and elevate engagement via different modes of instructional delivery. Teachers want to use digital content to provide a variety of challenging learning experiences for their students; however, studies often find that educators are unhappy with the quality and quantity of digital resources currently available to them (*Bill and Melinda Gates Foundation, 2019*). Thus, the question becomes, what exactly are teachers looking for when it comes to digital media in the classroom?

### Aligning Content to Standards

One of the most frequently-cited characteristics of digital learning resources that teachers look for is the alignment of the material with standards — whether it be college and career readiness standards, or state or national standards (*Bill and Melinda Gates Foundation, 2019; Zook, 2018; Xie et al., 2018; Patrick, 2018*). As standards-based learning has become more prevalent and teachers must prepare their students for standardized testing, many educators turn to standards-aligned digital resources for use in the classroom. This is particularly true given that many teachers report that textbooks are not sufficiently aligned to the standards to meet their needs (*Bedford, 2018*). In fact, one study found that whereas teachers' use of textbooks remained approximately the same from 2015 to 2017, their use of digital resources for standards-aligned teaching greatly increased (*Kaufman, 2018*). However, teachers do feel that there are particular deficits in digital resources to teach standards related to elementary school English and language arts (ELA), high school math, middle school social studies, and science for all grade levels (*Bill and Melinda Gates Foundation, 2019*). Because school, state, and federal standards are such an integral part of K-12 education today, tailoring digital content to cover what students need to know is vital.

Additionally, teachers have expressed an interest in digital content that they can adapt to their own lesson plans (*Bill and Melinda Gates Foundation, 2019*), or customize to suit their needs if they want to add a new topic or unit (*Zook, 2018*). A comprehensive study conducted by the Bill and Melinda Gates Foundation found that elementary and

middle school teachers specifically wanted digital resources that covered more than one subject versus just math, for example. Creating and providing access to resources that are easy for teachers to incorporate into their current practice benefits both educators and their students, as it facilitates transitioning from one mode of teaching and learning to another.

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### Supporting Student Engagement

Teachers expect digital content to support student engagement in meaningful learning in a number of ways, whether it is, hands-on (*McKnight et al., 2016*), or interactive content (*Dobler, 2015*) that allows students to participate fully and think critically throughout the learning process (*Bedford, 2018*). Educators also use digital resources to facilitate collaboration among students, including using digital platforms to work together on projects and share resources (*Bedford, 2018; McKnight et al., 2016*). Digital learning resources also foster independence in students, providing them with the opportunities to practice on their own and learn more about topics with which they feel challenged (*Bill and Melinda Gates Foundation, 2019*). Providing engaging digital content that fosters both collaboration and independent learning is imperative for content developers.

Educators also expect digital resources to help with personalization of content to support a “learner-centered approach” to teaching (*ASCD, 2016; Bill and Melinda Gates Foundation, 2019; Carney, 2018; McKnight et al., 2016; Zook, 2018*). Nearly every article on digital resource use in the classroom mentions personalized learning as one of its primary benefits. With online and digital content, teachers have the freedom to assign students dynamic work

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at home, provide additional assistance to students who are struggling, or give extension tasks to students in need of additional challenges (McKnight et al., 2016). Providing teachers with a range of platforms and features in digital resources is extremely important

### **Making Intentional Connections to Learning Outcomes**

Educators spend countless hours outside of school preparing lesson plans and grading assignments. If they are going to be motivated to incorporate digital learning and technology into their pedagogy, it is essential that those resources are able to supplement existing instructional practices (Bedford, 2018). One educator in the Bill and Melinda Gates Foundation study suggested: “start with what the teacher sees, and work up to the resources, instead of saying, ‘Look, I have created a great resource’ that doesn’t fit with what a teacher is working on” (Bill and Melinda Gates Foundation, 2019).

While the literature is sparse on what types of content teachers use for particular learning experiences, the Gates study did find that the uses and application of digital content in the classroom differed depending on the subject and grade level taught. For example, lower elementary science teachers wanted resources aligned with standards and geared toward delivering instruction; whereas, lower elementary English and language arts (ELA) teachers wanted resources that would assess student learning and customize the learning experience based on those results. Middle school math teachers wanted resources that encouraged students to practice on their own; whereas, high school teachers looked for resources that fostered student collaboration. In terms of specific skills, some teachers find digital creation tools (e.g. iMovie and Photoshop) and presentation tools (such as Microsoft Office) to be the most useful when teaching communication, critical thinking, and creativity (Vega & Robb, 2019).

Another study found that 74 percent of teachers wanted ELA content in digital format, followed by 62 percent for science,

61 percent for math, and 56 percent for social studies (ASCD, 2016).

Whatever the subject, teachers use technology in several ways: communicating information to students and parents; providing standards-based curricular instruction; providing additional assistance to struggling students or additional challenges to advanced students; encouraging collaboration across the classroom; encouraging students to be creative and curious by giving them opportunities to conduct research; and assessing student learning and providing feedback (McKnight et al., 2016). Delivering meaningful digital content and providing a platform that allows educators and students to execute on these core activities is key.

### **Ensuring Equitable Access to Technology**

One of the most frequently cited challenges when implementing digital resources is the inequity of access to the internet or devices that can access the internet among students (Ash, 2019; Vega & Robb, 2019; ASCD, 2016; Deloitte, 2016). Many districts overcome this barrier by providing laptops or tablets to their students during the school year, but not all schools and school districts can support increased access to technology. Further, the addition of technology alone does not address the other challenges. Many teachers report insufficient support for the incorporation of digital media in their classrooms. They want more professional development (Vega & Robb, 2019) and technology support to help when things go wrong (Carney, 2018). As many as 42 percent of teachers may be uncomfortable with using digital resources (Bedford, 2018); unsurprisingly, it’s usually the most experienced teachers who feel this way (McKnight et al., 2016). Thus, providing increased access and support for both teachers and students is vital for content providers hoping to encourage educators to incorporate technology into their classrooms and curricula.



## What We've Learned at Discovery Education

In 2019, Discovery Education conducted research in the form of educator focus groups, interviews and surveys, as well as an analysis of data usage across Discovery Education's digital products and platforms. The goal was to better understand how and why educators and students utilize digital content, the characteristics of content they deem as high quality, and what content is most frequently used. Salient findings are summarized below.

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### Quality is Key

- Almost all educators believe that it is important or very important that the digital content used in the classroom is engaging to students, aligns to instructional goals, and presents content that will remain usable, relevant, and accurate.
- Ninety-two percent of educators believe that it is important that the digital content used in the classroom has been vetted by a trusted source.
- Educators define high-quality digital content as engaging, relevant, accurate, and current.
- In discussing their perceptions of Discovery Education digital content, both Grade K-5 and Grade 6-12 teachers commented on the appropriateness of the content and the various features that would support and engage their students, including the quality of the imagery and the pacing.

### There Should be Something for Everyone

- Among the digital assets available, educators most frequently use videos and images, but also use assessments, games, non-fiction text, and other types of instructional content.
- More than 80 percent of educators believe that it is important or very important that the digital content offers multiple perspectives on sensitive issues, represents diverse populations, and avoids stereotypes.
- Educators indicated that they wanted instructional resources to support their use of digital content, including lesson plans and ideas, vocabulary support, questions, and ready-to-use resources for students.
- Grade K-5 teachers appreciated assets that included questions to focus understanding of content, as well as closed captioning and vocabulary to support students.
- Grade 6-12 teachers highlighted the usefulness of content beyond what they might normally provide in their classrooms, such as current events, information on careers related to their subjects, and information that might lead to research or exploration.

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### Learn More

At Discovery Education, our digital resources are built for teachers by teachers, and are continuously refined to meet the changing demands of the classroom. Our dynamic Discovery Education Experience platform helps educators draw powerful connections between students' everyday lives and the subjects they are learning by pairing high-quality resources with purposeful instructional supports, tailored to meet individual educator preferences and bring their curricula to life. Content is carefully curated, wrapped with relevant instructional resources, and designed around the Universal Design for Learning framework so that educators can easily and seamlessly differentiate instruction to meet the unique needs of every student. Teachers are supported with research-based instructional strategies that are designed to increase student engagement as they make meaningful connections with content. Students and teachers can design, build, and share content in creative ways while experiencing new excitement and opportunities in the classroom — and beyond.