

From Cat Videos and Cooking Tips to the History of the Punic Wars

Educational content comes to YouTube

by MICHAEL J. PETRILLI

I DON'T MEAN TO BRAG, but my 10-year-old son knows all about Admiral Yi Sun-sin, a 16th-century naval commander who successfully fended off several Japanese invasions of the Korean peninsula. That's not because I'm some sort of Korean history expert or parenting genius, and it's not because he studied it in school. It's because I'm such a pushover when it comes to screen time that, in a moment of boredom, he stumbled across a series of 10-minute videos about Yi's victories on the YouTube channel Extra Credits Extra History. And he loved every second of them.

Extra History is one of a growing number of YouTube channels providing engaging educational videos for free. While Khan Academy's videos are well known and well respected in education circles, they are hardly alone. On YouTube at least, Khan's 4 million subscribers are rivaled by MinutePhysics, with 4.4 million, and TedEd, with more than 6 million, and Crash Course, with almost 8 million subscribers, and they are blown out of the water by Vsauce, with 13 million. And unlike Khan, these upstarts are growing and putting out content without the help of philanthropists.

Fun *and* educational screen time? From the perspective of a parent or a kid, these videos are like manna from heaven. What should educators think?

Videos that engage

James Portnow is the founder of the Extra Credits YouTube channel and owner of the production company behind its videos. Extra Credits started as a channel for gamers, especially those interested in historical war games like *Empire: Total War*, where players can pretend to be, say, Napoleon, and marshal armies across the plains of Europe (yes, this is a thing). So it wasn't such a stretch when the makers of some of those games approached Portnow about making videos about history itself. Their first series was

about the Punic Wars, and it went viral, with some of its videos logging more than a million views. Extra History is up to 226 videos at last count, with topics spanning the world and various epochs. Many are focused on military history



Admiral Yi Sun-sin from the YouTube channel "Extra Credits Extra History"

(understandable, given the channel's genesis) with occasional diversions, such as the history of public health.

Portnow told me that he has long been interested in education, and in making it more engaging and enjoyable. But he chafes at the "edu-tainment" label. Originally that term referred to "educators making fun videos," he said. But most were deadly boring.

Portnow and his team of writers and animators, on the other hand, come from the worlds of gaming and television production. As such, they are experts in engagement. "There are common techniques," he explained. It's the same stuff that works for TV shows, or pop songs, or video games. "We always have a hook. There's a through line. Cliffhanger endings. And most importantly, we ask ourselves, 'What's engaging about this subject? Why would someone want to learn this thing?'"

They also pay attention to the “excitement and engagement curve.” The basic idea is that humans desire a certain amount of excitement and engagement—and it can’t be nonstop. Any good movie, for example, has moments of high action, and other times when the audience can rest. That is necessary for educational videos, too.

Learning outside the classroom

So is enthusiasm. That’s the secret to the success of another YouTuber, Emily Graslie, creator of the science-oriented Brain Scoop channel. And “tangibly enthusiastic” she is (in her own words), covering topics big and small, common and out there, from the dissection of animals and the lives of arachnids to touchier issues like menstruation and the harassment of women in the media. It’s clearly working, given her almost half a million subscribers, 40 percent of whom are female. (For most science channels, it’s more like 10 or 15 percent.)

Unfortunately, it’s hard for Graslie or any other YouTuber to know much more about who is watching; many registered viewers are in the 18- to 35-year-old category, but it could be kids who are streaming the videos on their parents’ accounts. Graslie’s channel is part of an education-and-outreach role at the Field Museum in Chicago, where she is the “chief curiosity correspondent,” and she’s done a lot of outreach to Chicagoland teachers. But she isn’t sure about the extent of her videos’ use in the classroom.

Sal Khan sees this growing sector as a “super-positive development,” and isn’t particularly worried about the competition to his organization’s offerings. While YouTube is a point of entry for many of Khan Academy’s users, it gets just a fraction of the website’s traffic. “We have 65 million registered users, with 15 million students using our resources every month,” he said. Two thirds of them are in the United States.

“The core area where most of Khan Academy’s resources go is around practice, samples, articles, and feedback,” he said. “Videos are just part of the larger picture.”

Unlike the other YouTubers, Khan Academy is “trying to optimize for content retention and learning. Engagement is important but not our first priority.” This eat-your-broccoli approach has proven appealing to major private foundations and corporations, including the Bill and Melinda Gates Foundation, Google, and many others. With their

support, Khan can provide his resources to students for free, without advertising.

Most of the upstarts, on the other hand, have had to be more entrepreneurial. For Extra Credits, gaming companies have paid for many of their series; the games get name-checked in return. Several channels ask for donations from viewers via micro-giving site Patreon—and impressively enough, it works. (“People are surprisingly OK with paying for things they like,” Portnow told me.) And, yes, YouTube advertises, and shares some of its revenue with the content creators. A *Fortnite* ad popped up while I was sampling a Crash Course video, for example, which made me wonder what teenager didn’t already know about *Fortnite*. Purists may chafe at having their kids targeted for marketing, but given the high-quality content on offer, it’s a bargain that I am willing to make.

From screens to the wider world

Perhaps that’s the most interesting thing about this development: the videos are remarkably good. I can’t claim to have viewed every video from Extra History, or Crash Course, or Vsauce, or the many other channels available out there, but what I’ve seen so far is surprisingly substantive, intellectually challenging, and fun. In this corner of educational content, at least,

crowdsourcing seems to be identifying great stuff.

And while Khan is right that videos aren’t everything—kids need to be reading, writing, and getting feedback from real, live adults, too—something beats nothing. As E. D. Hirsch Jr. has argued for more than three decades, a systemic, coherent approach to building content knowledge and vocabulary is still sorely needed. I believe wise teachers could make good use of these videos to that end.

Not only can these channels give parents and kids a potential compromise when it comes to screen time at home, they might also help bridge some stubborn curriculum gaps in school as well. As long as America’s schools give short shrift to history, science, and other core content areas, these YouTube channels will continue to be places where kids can soak up knowledge that our system refuses to prioritize.

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