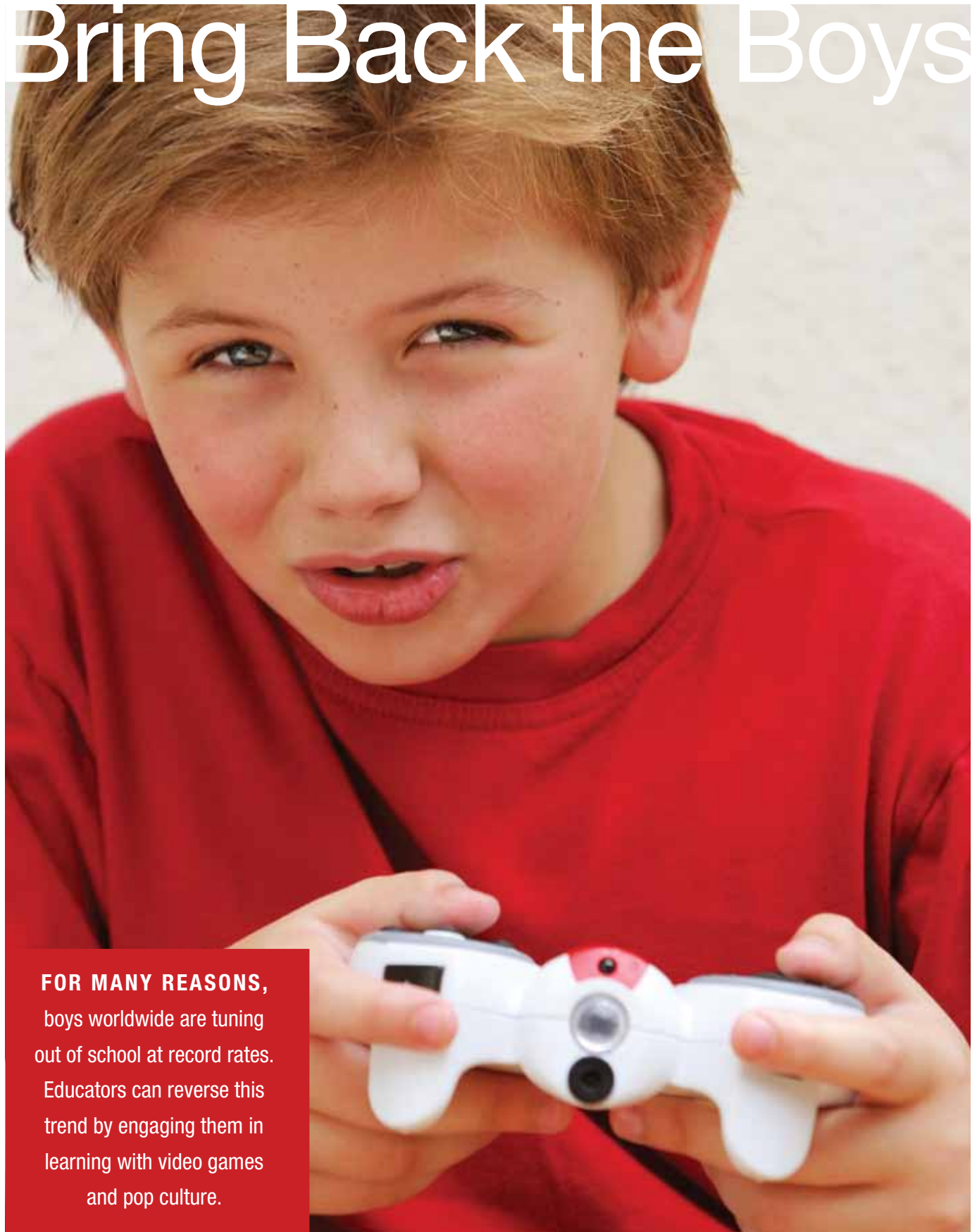


By Alison Carr-Chellman

Bring Back the Boys



FOR MANY REASONS, boys worldwide are tuning out of school at record rates. Educators can reverse this trend by engaging them in learning with video games and pop culture.

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Boy culture is out of sync with school culture. There are several reasons for this, including zero tolerance policies that are too often taken to extremes, the lack of male teachers, and the compression of the curriculum. What's more, boy culture is not socially accepted, and boys quickly come to feel that they aren't good at school.

The results are startling: In the most recent set of tests administered by the Program for International Student Assessment (PISA) across 65 countries, boys scored lower than girls in basic literacy skills in every country tested. In fact, while girls caught up to boys in math, they soared ahead of boys by 39 points in reading.

Do not misunderstand the point. I am not interested in blaming educators. Teachers really are doing all they can within the social expectations and the culture of schools. Nor am I interested in suggesting that all boys are one way, all girls are another, and they all must behave within rigid gender stereotypes. Rather, I'm suggesting that the vast majority of boys and girls do function in certain ways and are engulfed in cultures that, in the case of boys and many active kids, put them out of sync with school mores and expectations.

Boys are tuning out of learning at record rates, far outpacing girls. This is particularly true for literacy in the early grades, and this is where we should focus our attention. Great work has been done to re-engage girls in learning about math, science, and engineering. Educators and parents need to learn from that effective movement and help boys' literacy grow and flourish throughout the early elementary years.

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There are many possible ways to do this. Nick Ferroni, a high school social

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studies teacher in New York City, uses pop culture references, such as *The Simpsons* and *The Family Guy*, in his teaching as a way to generate critical thinking among all of his learners. And the democratic schools movement allows boys and girls complete freedom to create their own curriculum.

Gaming, which appeals to many boys and girls alike, may be one of the best ways to teach boys. More than one school is using World of Warcraft as curricular material.

There are three ways that we can approach gaming in an effort to bring boys back to the learning experience with joy and excitement. First, we can create better educational games. Second, we can use existing high-motivation games in the classroom and focus on the sorts of things they can teach us. Finally, we can also allow kids to create their own games. It is easiest to consider these three interwoven possible approaches together as we look at the variety of games available to us.

Beyond E-Flashcards

I find most online educational games to be disappointing. Far too many are nothing more than glorified flashcards. Some kids do seem to do well with and enjoy IXL math, Starfall, or Ooka Island for early letter recognition and reading. So maybe the drudgery of rote learning is best relegated to a computer that never tires. However, if your students don't find it much fun to do flashcards with their teachers and

parents, how likely is it that they are going to enjoy them when there's no caring person attached to the task?

When considering digital resources for the classroom, think about whether those resources merely mimic analog resources or offer something unique.

Here are some types of digital games—several that are designed for entertainment—that have educational applications.

Virtual worlds. Games such as Club Penguin may not seem to have high educational value but underneath can teach lessons on consumerism, hard work, and economics. Other virtual worlds, such as National Geographic's Animal Jam and Jumpstart, use this compelling environment and a reward system to entice kids to play learning games and watch educational videos.

Don't assume children will automatically be drawn to any virtual world, however. Many games on the market are just not that interesting for kids. The point is not to create an exhaustive list of educational games and virtual worlds. We need to consider how to build curriculum around them and to point teachers and parents toward a process of meeting kids where they are.

Civilization. This game, in which players design and create civilizations with all sorts of variables—such as religion, and race—help teach a great deal about history and systems thinking in an immersive way. But it does take a great deal of time to learn, which can be an

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obstacle to classroom adoption. With standards and accountability heavy on the minds of most teachers, the focus has to remain on narrow success to meet or beat the tests. It is unlikely that most teachers are willing to devote the time necessary for their learners to figure out the intricacies of how to play the really good immersive games.

Journey to the Wild Divine. In this interesting biofeedback game, sensors are placed on players' fingers to monitor their breathing and heart rate as they move through a series of exercises to help focus, energize, and calm them. This one has a strong interface with good graphics. A guide helps you through the first few activities, and this scaffolding works very well.

Once players reach the end of the guided section, however, figuring out how to move forward with the game becomes more challenging. This can be frustrating for younger children in particular and can detract from



whatever focus or calm they may have achieved. However, for boys who are struggling with focus, I think this one has some promise.

It costs around \$400 for the complete set and less for individual segments of the game. A cheaper way to try the same thing would be the Lotus Focus on Wii Fit, where the user has to sit very still for about a minute and a half to keep the candle from blowing out. There are distractions while you're trying to sit still, such as squeaky floors, footsteps, and the like. It has less sensitive biofeedback than

Journey, but it's a way to help a child focus for a few moments between activities or just prior to school. If Lotus Focus is useful, then Journey to the Wild Divine might also benefit that child. Studies are under way to determine if these games improve focus.

Generation Cures. This is another interesting "game" that is primarily aimed at social and civic responsibility. In this case, players come into a rich narrative story about a plague that is spreading across a mythical land. Players, who are early medical students, are sent to work in a lab when the medical school closes.

This game is linked to fund-raising efforts for a children's hospital, and it is fun to play. This type of game could encourage teachers to persevere when it aligns well with content standards.

Froguts. This is a wonderfully animated and simple quest-driven science education program. While the kids I asked to use Froguts tended to

feel that the content checks were too simple, they all enjoyed it and were able to tell me things that they learned about mass and physical characteristics. Froguts has several more modules than I was able to preview, with more on the way, and I was impressed by the guided learning nature of the game.

This game would be a great addition to any science classroom. One drawback is that the material is for slightly older learners than I think the cartoon interface suggests, and it may be difficult to hold students' interest in the upper elementary grades.

Collapse of Rome (COR). This game was developed by a history teacher/computer programmer. It is a souped-up version of the board game Risk or a slightly more targeted and academically friendly version of Civilization. COR comes with instructions explaining how the game can teach history, an online study guide, and a quiz, along with two tools that are particularly useful for teachers: a map-making function and debriefing questions. I am very impressed with COR and think it could be used directly off the shelf at the high school level.

Fantasy Hip Hop. I also enjoyed a new fantasy hip-hop game developed by Jason Townes-French and Brent Vale. Players learn a great deal about business, team building, hip-hop music, and its industry via this role-playing fantasy game. I think this is a great idea, and it may have a serious future as an educational game.

Build Your Own

There are several good tools to help children build their own games at the elementary level. As an advocate for user design, I am excited about children learning design principles at an early age and putting those principles into action by building games that please themselves and their friends. Among the best tools out there are GameMaker, Scratch, and Alice. My

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colleagues at Pennsylvania State University recently published an article in *Educational Technology Research and Development* explaining how they used Scratch in a fifth grade classroom to construct an educational environmental game. Overall, the study found that learners were able to create games that were meaningful to them as designers and users in less than three weeks.

Game design programs are not as easy to use or as friendly to kids as already designed games, and they teach very different skills. So don't assume that kids who like to play games will also necessarily like to design and create games. They may prefer game creation to memorizing their multiplication tables, but it may not hold a candle to playing Quest Atlantis.

Matt Paquin, an instructor of several game design/creation courses with middle and high schoolers, wrote to me after seeing a TED talk I gave and expressed his surprise and frustration about his attempts to work with kids to learn game design. "Playing a video game like Halo is an adrenaline rush," he said. "The colors and textures race across the screen, and the player feels a certain sense of empowerment. It's an immersive experience. The actual process of making that game is far from it."

Game design won't necessarily take the place of gaming for re-engaging boys, particularly young boys, in their education. But for some, it may represent another way to communicate early design basics.

Avoid Turning Off Boys

In the end, games are just one of many ways to interest boys in their education. Integrating games into a K–12 environment, particularly at the elementary levels, appears to be one way to send a strong message that is counter to the dominant culture in schools today—a welcoming message to most boys and active kids.

School boards should examine their policies to ensure that the culture of school is not chilly for young boys' ways of being in the world. Likewise, school boards, administrators, teachers, parents, and community leaders need to know that curriculum compression is not a panacea for academic success. Students will achieve high academic standards more effectively when boys as well as girls learn to love, not loathe, learning. We must work together to find ways that communicate our acceptance of boys in the curriculum and classroom if we hope to avoid the loss of entire generations of boys.

Resources

Alice: www.alice.org
Alison Carr-Chellman's TED Talk: <http://www.youtube.com/watch?v=23Uuehgmd14>
Civilization: www.civilization.com
Fall of Rome: www.atomicgamer.com/games/1302/fall-of-rome
Fantasy Hip Hop: www.fantasyhiphop.com
Froguts: <http://dissect.froguts.com>
GameMaker: www.yoyogames.com/make
Generation Cures: www.generationcures.org
IXL math: www.ixl.com
Journey to the Wild Divine: www.wilddivine.com
Jumpstart: www.jumpstart.com
National Geographic Animal Jam: www.animaljam.com
Ooka Island: <http://ookaisland.com>
Scratch: <http://scratch.mit.edu>
Starfall: www.starfall.com
World of Warcraft: <http://us.battle.net/wow/en>



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