

Introduction

My earliest recollections of school include memories of a sharp division between the classroom and playground. The classroom was where we “got serious about learning,” while the playground was where we went to escape all that seriousness. The classroom was where we went to work; the playground was where we went to have fun.

At the heart of that fun was playing games. My friends and I taught each other games and gaming strategies, often beyond earshot of adults. Playing games was our world, where we collaborated to “steal the flag,” strategized to perfect hide and seek, and imagined ourselves to be superheroes and animals and treasure hunters.

The games we played were intensely engaging, transporting us to other places, times, and identities. When teachers called us in after recess or our parents called us home after darkness had descended on the neighborhood, there was a period of adjustment as we left the game world and re-entered “the real world.” Yet we returned to game play as often as we could because it appealed to some of the most essential psychic building blocks of the human experience: Storytelling, goal setting, competition, teamwork, strategizing, and what I call “creactical thinking” — that magical blend of critical and creative thinking that permeates gaming.

Fast forward to today. While video games may seem foreign to many, they are, in fact, a very understandable extension of that psychic core, adapted to an age of digital wizardry. Gaming is an expression of what MIT’s Detouros called “the ancient human” — that part of us that drives our technological development in ways that amplify our essential human nature. Games are us, and video gaming is one the most recent manifestations of this essential reality of the human condition.

Gaming is everywhere. Visit a restaurant and scan the families while they are dining. What do you observe? Chances are you will see children playing *Fruit Ninja* on a smartphone, tablet, or mobile gaming device. They’re engaged in their own little world, while their parents are having a conversation that doesn’t involve Elmo or Barney for a change. It has been this way for a while. The children of today have never experienced a world without Mario from *Super Mario Brothers*, Master Chief from *Halo*, a game controller, gamer’s thumb, or the Sony Playstation gaming system. Video games are an integral, taken-for-granted component of their everyday lives.

Video games have quickly become a global obsession. The world is beginning to pick up the game controller at an astounding rate. Roughly 70 percent of the world’s 7 billion people play video games. It is estimated that global video game sales will be in excess of \$82 billion annually by the year 2015. The gaming industry generates more revenue than the movie, gambling, music, and book industries. It is extremely difficult to make an argument dismissing the influence of video games on our globalized, digitally connected world.

Many games can be played alone in the privacy of one’s imagination. But many are meant to be played with others. This generation—Sherry Turkle’s “always on, always on us” generation—has never experienced a disconnected world, and it takes ubiquitous

connectivity for granted, often playing games together, either in real life sitting side by side, or in a shared virtual space via the Internet.

However they do it, many kids spend their time connecting with their friends through social networking, text messaging, and listening to music while they blog and watch videos on YouTube.

Blending virtual reality and real life is the unique challenge of our generation. As a grandparent I am a strong advocate for a balanced digital diet. That's why I am so interested in why the younger generations flock to digital media such as video games. That's why I want to understand what the gaming experience is for them, how it impacts who they are, and how gaming can be used in education.

The particular value of this book rests in its consideration of how gaming can be used in education. It's been my experience that most teachers are cautiously optimistic about gaming in their children's lives. They would like to spend more time investigating gaming but have so much to do already. They have to plan the best instructional lessons possible, attend numerous daily meetings, communicate with administrators and parents frequently, and at the same time deliver content to their students in a meaningful, engaging, and relevant manner. And now we want them to include gaming in the mix.

But as this book makes clear, doing so will have tremendous payoffs. There are a number of sources already available that are low-cost or free that appeal to students and that enhance or integrate well with curricula. The result is that we now have compelling reasons to use gaming in education. Integrating digital games into meaningful classroom instruction is a crucial piece of the educational puzzle and offers opportunities to engage the interests of students accustomed to using them outside of schools. This book does an excellent job of showing how and why this can happen.

Similar to the structure of a digital game adventure, this book is separated into levels instead of chapters. The opening level is "Digital Games as Learning Tools? Game On!" and it begins our knowledge quest by reimagining video games (a source of entertainment and youthful angst) into a versatile tool for instruction. The availability of technology infrastructure in learning institutions and a saturated marketplace of ready-built digital games provides teachers with the potential for classroom adoption.

Level 2, "It's All About the Game and How You Play It," examines how video games present information to players using their preferred learning style in a manner consistent with the way the human brain learns.

Level 3 is split into two sections. "The Need for the 21st Century Fluencies" explores the rapid changes occurring in the digital generation in a globalized world, and encourages teachers to incorporate essential critical skills known as the 21st Century Fluencies into their teaching, learning, and assessment models. "Gaming's Influence on Developing 21st Century Fluencies" establishes the strong connection between the fluencies and instructional gaming.

Level 4, "Finding and Evaluating Digital Games for the Classroom," examines the various platforms, retail outlets, and resources available to incorporate digital games into

instruction. It gives the readers an easy-to-follow outline of the essential steps that are needed to find, evaluate, and prepare for digital game-based learning in the classroom.

Level 5, "Digital Games and Instruction," suggests ways of preparing a learning environment for digital game-based learning experiences and provides an easy-to-follow, pragmatic approach to teaching with video games using effective research-based strategies.

Level 6, "Designing and Creating Games: A Liberal Arts Experience," makes a clear case for incorporating video game design and other relevant 21st century skills into schools to promote unity and system thinking.

The seventh and final level, "The Gamification of Learning: Gaming Without the Game," encourages the use of gamified learning design to promote student buy-in and explains how to tailor learning into a fun and engaging experience. By transforming the classroom to model a video game, teachers use the best components of gaming to create challenging learning environments. Social media and big business have embraced gamification as a powerful approach to motivating people.

Ryan and Nicky bring together decades of research in education and other fields to outline a compelling argument as to why video games are a powerful tool for learning. They shed new light on how teachers can find and use video games to meet the demands of curricular standards while still providing opportunities for authentic assessment. The digital generations want to use the same approaches for learning, communicating, and creating in schools as they do in their personal lives.

At one point or another in the history of schooling, the use of chalk, paper, books, ink, pencils, ballpoint pens, and calculators were banned from the classroom. It is time for teachers, parents, and school leaders to re-examine the potential of video games in children's lives. It is time to turn on the power button to powerful learning.

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