

There Are Other Worlds Than These

During my final year as a medical student, while performing my pediatric rotation, I came across a group of heroes. You wouldn't know their heroism immediately, based on their foul language and general disdain for medical students as a whole, but the adolescent and teen patients of the Beaumont hospital cystic fibrosis unit were courageous and resilient, characteristics fostered by multiple hospital admissions and a battery of tests and treatments. They were a hard group to get to know, and just when I had convinced myself that I was, to them, nothing but another medical student passing through, I overheard a conversation regarding video gaming. Being an avid gamer myself, I took my cue and joined the dialogue.

Do you Game?

As it turned out, many of the kids in my unit owned either a console or a PC on which they played games. In one fell swoop, we were equals, discussing a range of topics from the fastest way to approach the final attack run on the Kilrathi super destroyer in the game Wing Commander, to the best way of laying the 'smackdown' on WWE superstar The Rock in the midst of a Royal Rumble. I then asked whether anyone had tried online games, and those that had began practically cheering the names Quake and Diablo, two popular online gaming arenas. It was as if I had entered some sort of gaming Valhalla, and had met with the masters of the art.

My next question was simple: would they be willing to play games in the hospital? At this point, two of the six boys pulled out their own Playstations and laughed. 'Okay,' I thought to myself, *that* was an old idea.' After all, they had come up with the idea of playing games in the hospital years ago. But it was a question worth asking, and after a few rounds of the kung-fu game, Tekken, I had redeemed face. My next question was a little more intricate. Essentially: 'Has the hospital allowed you to access the internet to play games online yet?' This time, my question resulted in a bewildered, doubtful expression followed by a 'whaddaya mean, yet?' from their spokesman of sorts, Michael. He was the oldest of the group, a 17-year-old CF veteran.

I explained that I had recently bought a cell-phone adapter for my laptop, which would in theory allow me to get online anywhere. The stage was set. My newfound compadres and I would commence to gaming, at the earliest opportunity. I had wanted to try out some free gaming servers on my own for weeks, and now seemed as good a time as any to jump on one. The following day, ever wary of the watchful eye of the charge nurse, a tall and somewhat severe looking woman by the name of Bertha, I snuck into the pediatric ward with my 'contraband'.

Ingredients For Adventure on Templeton 4

- 1) One Laptop
- 2) A cell phone / service
- 3) One game of Diablo
- 4) One Internet service provider
- 5) The courage to venture deep into the underground abyss, with a band of fellow adventurers.

It will be a while before I forget the image of five boys checked in to Templeton 4, Wing 2a, gathered around Michael as the game commenced. Cries of, ‘Get the magic arrows, not the broadsword, dummy!’ soon followed by ‘Shut up!’ filled the air – the time for adventure was at hand! Michael was a natural player, and his absorption in the game characterized this particular CF unit’s first foray into a virtual gamescape together. They were no longer a patient unit, but a team! Everyone was abuzz with excitement. We all watched, transfixed, as Michael organized a small group of fellow online adventurers and helped distribute and barter supplies prior to setting off underground, with all the deftness of a seasoned dungeon crawler.

He fought as he led, with ease, though the game’s soundtrack was occasionally punctuated by a bout of real-world harsh coughing. Coughing was, despite extensive treatment, par for the course with these kids, as it is for all cystic fibrosis patients. Michael, recovered from his coughing fits with redoubled effort. His armament of choice, the dual adamantite scimitar, would be a deadly weapon in the hands of many; but in the hands of Michael, they were extensions of his very rage, songstresses of his retribution. Retribution for what, though, I wondered? For his fallen online cohorts networked around the world? Or for his many hospital admissions, his bouts of serratia pneumonia, the silent, partially self-imposed, ostracism from his peers? I could not be sure.

The one thing that I was sure of was that he became more open and outspoken after a round of adventuring. This new openness culminated in the ultimate honor – I was asked to accompany him online. I agreed to let them hold on to the laptop overnight. I planned to catch up with the kids later, on my roommate’s computer. But this meeting never transpired. Michael’s hospital stay ended, and, over the following few days, the remains of our rag-tag outfit petered out due to transfers and discharges. Our time of rogue online gaming drew to an end. I have no doubt that he gladly returned to some semblance of a normal life outside of the hospital unapologetically (perhaps even to pursue the affections of a certain female that he would on occasion let slip out a detail or two). The ultimate adventure, I suppose. But like most CF patients, for as long as he lives, he’ll be back for more treatments.

In the weeks that followed, I couldn’t help but think about what had happened to Michael during my rotation and during our gaming. What if I could have gone online to play alongside his avatar? What if his father or cousin were able to log on while he was interred? What if he had been able to play with the other boys in the ward, online, and

had kept in touch with them all, informally, for months after? What if he'd had the chance to play with kids around the country, as a clan? Would they develop relationships with each other, outside the game? What if he could have used videoconferencing to attend the classes he'd been missing?

Bitten by the 'what if' bug, I began searching for more answers. I was looking for similar instances, where gaming, and more specifically *online* gaming, had been used in the hospital setting. I made inquiries first amongst fellow medical students who also happened to game, and then on various online community gaming sites and message boards. Scattered details of kids with chronic illness that played online began to emerge, but nothing substantial, and certainly nothing broad-based.

Then I hit the mother lode. It was the account of a boy named Joshua Leonard, and it inspired me to write a fictional account, which became the introduction to a term paper in pediatrics. Titled, 'Game On: The Promise of Wireless LAN's in the Pediatric Ward', it argued for the wealth of benefits that could be garnered by outfitting pediatric hospital beds with high speed internet access. Amateurish and technologically outdated, the paper fell largely on deaf ears. Nevertheless, it solidified my resolve to further explore the positive role that persistent online environments can play in pediatric healthcare. As a result of this exploration, I was able to establish a research initiative at Harvard exploring pediatric gaming environments, in addition to founding an organization, called the HOPE network, dedicated to turning this idea into a reality. The HOPE network's objective? To create a **H**ospital based, **O**nline, **P**ersistent/**P**ediatric **E**nvironment.

So why should kids have access to games in the hospital?

Videogames have been used in hospitals since the late 1980's, and have long since become a staple in the armory of the child-life specialist. Gaming itself is a type of education, albeit a highly abstract, extremely compelling one. It demands interaction, and in this sense is diametrically opposed to the unidirectional flow of information in a film or on a TV show. But, today, HOPE is no longer talking solely about single-user gaming. To quote an oft used, but still powerful tagline from Sun Microsystems: The Network is the Computer. The promise of HOPE is in the *network*, not the game; the education comes from the community, not the graphics, that online gaming offers. The community element of online gaming is far more powerful than impressive characters on a screen. HOPE seeks to provide is the foundation stones upon which this new community, specifically for hospitalized children, is built.

Now this again is not a new concept. Online communities exist where kids can visit, chat, relate, and even videoconference with each other. With some effort, they will soon exist as a place where kids can solve complex puzzles, pilot starcraft in formation, or set up trade routes between distant lands.

Digital Pioneers

Digital hospital environments for patients are yet largely undiscovered country. In other words, HOPE is based on a novel idea that is largely unproved. So what, in less fanciful terms (I promise, no more talk of magic and hobgoblins here) are we claiming this network will do which would warrant the millions of dollars required to set it up nationwide?

What, when we seek to quantify the benefits of gaming, are we measuring here? Fun? Can fun stand the rigors of a randomized controlled trial? It seems dubious, perhaps, but unbeknownst to many, a healthy body of literature on the role of fun in the healing process already exists. See, for example, the research of Hardy, L&S, The Stooges, M.,L. & C. and of course, Bozo, C. I'm kidding of course. It's not known whether fun is a science, but if it is, then those gentlemen would be fun's principal investigators!

So fun, because it's difficult to quantify, is out as a viable scientific argument for HOPE networks, despite being the most obvious argument in favor of them. But even though we cannot measure fun, we can measure possible benefits usually associated with fun. We can discover, for instance, the number of friends with like-minded interests a hospitalized child makes online. Methods exist to study the number of positive emotional experiences achieved while playing a game, and also the effect of actual game play on a patient's perception of immediate pain. This is the research that the HOPE research group currently pursues with the confidence that it will find concrete evidence that interactive digital environments can provide novel and unique psychosocial supports to hospitalized children.

A Technology Overview: The Time is Right

The big players in the video game industry have been working on their versions of nationwide gaming networks for the past year now. Each company has its own videogame console, and invariably hopes – in its own way – that you will be using their proprietary service to enter various online realms. Microsoft has the XBOX, Sony has the PlayStation2 – the current market leader in terms of console sales, and Nintendo has the Gamecube. These will soon make up a vast network of interactive games to challenge and entertain.

What about the game communities themselves? Are they large enough? Are they ready for the influx of thousands, or more, hospital-bound players? There are 26 currently active online worlds, with a further 51 planned. Think of it – in the very near future, we'll be looking at 77 different environments to meet other people through games. Exciting! While the vast majority of these environments today are PC based, there is very little doubt that the 'console giants' will invest heavily into the online world due to the very attractive prospect of subscription-based game play. The industry is making calculated guesses that online gaming will soon become as lucrative as cable, and it's not

hard to recognize why. Last year, video games brought 10 billion dollars into the US economy, despite the economic slowdown in other sectors.

Returning to Templeton 4

My experience in Templeton 4 simply confirmed a truth that we, as healthy, mature adults all know: hospitalized kids with ongoing illnesses are heroes. They themselves sometimes forget this. Perhaps laying the infrastructure for a HOPE network will do more than allow a few hours of fun for a group of children stricken with chronic diseases such as cystic fibrosis. Perhaps it will help rebuild self-esteem, and give back the dignity that an illness in the non-digital world inexplicably takes.

- *Arren J. Matthews, MD*