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## Working for Clams in Whyville

*A safety-enhanced virtual world for teens and preteens allows kids to buy cool cyber-gear by playing virtual—and educational—games*

by Heather Green

I was one hour into my life in Whyville, the virtual world for 8- to 15-year-olds, and I was faced with a fashion emergency. My avatar, Heffy7 (a combo of my nickname and the soccer number I had as a child), was simply uncool. She was an eyesore, a floating head bobbing around in the animated Whyville world. She needed a shirt and a pair of arms so she could look like the other avatars. But in the Whyville world of hip hairdos, studied sartorial styles, and carefully selected hats, picking the right look was critical.

No real surprise, right? It's a fact of life that kids are hyper-aware of how they look compared to their friends. And so it makes sense that this preoccupation would be at the heart of Whyville, too. But in a clever twist, Whyville is using this reality to further its goal of helping kids learn. To earn the money for my striped T-shirt, which cost 25 clams (the Whyville currency that's worth \$1), I spent the next hour piecing together clues in a treasure hunt sponsored on Whyville by The Getty Center museum.

They paid me 50 clams to use clues to figure out where different pieces of art, including a 17th century cabinet and a book about calligraphy by the Renaissance illustrator Hoefnagel, had been made. Then, using the Warp Wagon (a spaceship that takes you around the globe), I visited Paris and Vienna to retrieve images that matched the clues. It was more work than I ever did for clothes money growing up.

### **EDUTAINMENT.**

In a world where kids are spending a significant portion of their lives online, Whyville has pioneered mixing entertainment and education. The virtual world, founded in 1999 by CalTech biology professor James Bower, uses a wide variety of games to teach kids how to manage their money, hone their math and science skills, and even learn how to eat better. It's a kid's version of the popular Second Life cyberworld. A growing group of sponsors, including the Jet Propulsion Laboratory, Getty, Woods Hole Oceanographic Institute, and Toyota (TM), have created areas within the world where kids can play games to learn about ions or the undersea world, and even customize and arrange financing for a new Toyota Scion. This combination of fun and learning is exerting an undeniable appeal: Over the past year, the service has grown 41% and now has 1.7 million members.

With concerns rising over the risks posed to children and teens at social networking sites such as MySpace and Xanga, Whyville plays up the fact that it's a safer alternative for kids. From the beginning, the founders built safety controls into the site. When they register, children have to provide a parent's e-mail address so that the company can alert the parents that the child has signed up. Though everyone can chat on Whyville, members have to learn the chatting rules (ranging from no foul or suggestive language to no giving out personal information, such as phone numbers) before they are allowed to chat.

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Whyville uses an artificial intelligence program to track down abuses and employees spot-check members' chat-log files at the end of each day. An infraction can lead to the loss of clams or duct tape put over your face for a few days. Repeated or egregious infractions lead to expulsion. If someone asks to meet a kid offline or is being lewd, kids can report this predatory behavior by using a virtual red-phone online.

Still, while this monitoring is stricter than other social networks, even Whyville doesn't claim to be bulletproof. Despite the exams and tutorials about online safe behavior, kids still give out their passwords and come up with new ways of spelling words to get around banned words. And there are no restrictions on adults joining the virtual world, though they're forbidden to pose as kids. But through the active monitoring, Whyville tries to make it enough of a hassle to harass kids that it's simply easier to go someplace else. "We're not 100% safe, but the metaphor we use is that when you have a nice car, you add all these safety features, from lowjacks to alarms," says Jay Goss, Whyville's chief operating officer. "That doesn't mean it won't be stolen, but it means someone will likely go rip off another car in another neighborhood."

### **SAFETY RULES.**

I spent a few days in the virtual world to experience firsthand how Whyville accomplishing its goal of being a safe place for kids to hang out and learn. As a newbie, I couldn't chat for two days. Instead, I spent my days earning clams, checking out the world, and arranging my face. It was time-consuming—and I couldn't get enough of it. Little wonder. When you first join, you're issued the standard big blue smiley face. I quickly felt that there was nothing more embarrassing than going around as Big Blue. So I spent time carefully deciding what hair, eyes, and clothes to buy so that I could customize my face and fit in. (The activity is called Pick Your Nose.)

As it turned out, getting the money to make these changes was no stroll through the playground. It was tricky figuring out how to use Ions, or electronic charges, to score goals in a hockey game at WASA, an area in Whyville where you play games. WASA is sponsored by the Jet Propulsion Laboratory. Though I studied art in college, I got a real workout when I played the Getty's Treasure Hunt. And okay, I admit it, there were games I tried to play, such as Great Balloon Race, that I simply couldn't master. Flying the balloon and hitting the right targets on the ground with beanbags meant factoring in wind vectors, burn rates, and climbing speeds—no easy task.

But there were two games where I did manage to rack up the clams: The Getty Art game and the Treasure Hunt Travel game. By visiting the capitals of countries where important events in the history of flying occurred (such as Paris, where the Montgolfier Brothers flew the first manned hot-air balloon), I collected francs, lire, and yuan that I could then exchange for clams.

### **TYPICAL KID-STUFF.**

By visiting the areas where everyone hangs out, including the beach and the sun roof, I learned to interact with Whyvillians. Though I couldn't chat at first, I could read the conversations between other kids. They preen for each other, asking what people think of their looks and even holding impromptu beauty contests, where they vote for the cutest person at a particular spot. They create cliques and mock each other, arranging to meet at other destinations. And they flirt, for the most part innocently.

A couple of times I witnessed someone using cryptic spellings to ask whether people nearby were lesbians or bisexuals. Yet, as jarring as this was, it was also encouraging to see kids respond by writing, "You're offending me," and then leaving.

*(Business Week continued)*

But it's not all about looks, cliques, or flirting. The kids talk about school and trade tips on how to play the games. They write their own newspaper called The Whyville Times and staff the help center for newbies. They gather together at the Greek Theater to compete in word and number games that had my head spinning. (Like looking at a string of letters and pulling out three antonyms for abase. Answer: exalt, honor, extol.)

Yet, how much kids learn is a tricky question. The Jet Propulsion Laboratory is pleased enough with the results to keep building out its WASA area on Whyville. Around 180,000 users have visited the Ion Engine site and played six million simulations in the past four years. JPL also points to the amount of time kids spend at WASA: on average, 28 minutes per visit.

### **BEYOND MARKETING.**

Chris Dede, a professor at Harvard's Graduate School of Education, argues that while Whyville is better for kids because it's more overtly focused on education than the pure marketing and entertainment sites such as Disney or Nickelodeon, mixing the goal of earning clams with education may not lead to that much learning. "Rather than getting them to do something for the reward, they could do more to figure out how to make the activities more engaging," says Dede, who developed River City, a closed virtual world used in classrooms where kids go back in time to the late 1800s and help other kids who are struggling with diseases.

River City, which is rolled out in school districts and specific schools in conjunction with its Harvard creators, was used by around 60 teachers in five states this past spring. Another virtual world is Quest Atlantis, an educational game developed by researchers at Indiana University. Participants help the people of Atlantis, who are threatened by the destruction of their world.

To figure out how much kids are actually learning on Whyville, Yasmin Kafai, an associate professor of psychological studies in education at UCLA, this winter undertook an independent study funded by the National Science Foundation. She's still compiling data, but her early research found that 50% of the kids surveyed did talk with parents and friends outside of Whyville about infectious diseases, a topic that corresponded to the game that Kafai had launched in Whyville. In the end, Kafai is trying to come up with suggestions for people who want to learn how to use these informal education environments effectively. "You have to set different standards," Kafai says. "What I expect to happen in a classroom is different from someone who goes three or four times a week to Whyville."

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# The New York Times

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## Hey, Kid, You Want to Buy a Toyota Scion?

*Whyville, an interactive online community, allows members, ages 8 to 15, to "buy" a Toyota Scion to drive around their virtual universe.*

By Julie Bosman



In April, Toyota quietly began an unusual virtual promotion of its small, boxy Scion: it paid for the car's product placement in Whyville.net, an online interactive community populated almost entirely by 8- to 15-year-olds.

Never mind that they cannot actually buy the car. Toyota is counting on Whyvillians to do two things — influence their parents' car purchases and maybe grow up with some Toyota brand loyalty.

It may appear counterintuitive, but Toyota says the promotion is working. Ten days into the campaign, visitors to the site had used the word "Scion" in online chats more than 78,000 times; hundreds of virtual Scions were purchased, using "clams," the currency of Whyville; and the community meeting place "Club Scion" was visited 33,741 times. These online Scion owners customized their cars, drove around the virtual Whyville and picked up their Scion-less friends for a ride.

Toyota is not the first car company to engage video game and online game audiences through product placement. Car companies like DaimlerChrysler have long pitched teenagers and young adults through product placements in video games, and Cadillac has incorporated its cars in a Microsoft Xbox 360 game.

Whyville was founded in 1999 as an educational online community and now reaches an audience of 1.6 million, who create their own personas within the site and interact with other visitors. The executives behind Whyville acknowledged the paradox of marketing a car to future drivers. "It's not lost on us, and

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it's not lost on Scion," said Jay Goss, the chief operating officer for Whyville. "By definition, this is a sponsor of Whyville that can't have as its customers the kids who visit the site. But they know that kids influence parents, and kids grow up."

Toyota is paying Whyville by the number of visitors on the site, but declined to name a figure.

Targeting so-called tweens or teenagers long before they can buy a product is a tactic that more marketers are exploring, said Matthew Diamond, the chief executive of Alloy Media and Marketing, a consultancy in New York that specializes in youth marketing.

"It's early branding," Mr. Diamond said. "You are branding your product at a relevant time to the young person. You're establishing that brand presence and positive association, since important buying decisions are forthcoming."

For example, retailers like Staples and Office Depot are pitching high school juniors and seniors about products that they will buy in college, Mr. Diamond said. "They will begin to target you because they know you're going to be on your own," he said.

Since the Scion was introduced nationally two years ago, Toyota has aggressively marketed it to young drivers. Its median buyer is 31, the youngest in the automotive industry, Toyota says. The company has employed nontraditional advertising strategies. For example, it sponsors monthly nightclub events and sells Scion-themed gear on its Web site, including D.J. bags (\$55) and snowboard jackets (\$180).

One of the goals in introducing the Scion was to cultivate an un-Toyota audience. Nearly 80 percent of Scion buyers are new to the Toyota family, said Deborah Senior, the national marketing and communications manager for Scion. In aiming at an underage audience, she said, the company is thinking about relationships with future car buyers. "I understand that they are very influential," Ms. Senior said of the intended audience. "The main goal is to support the experience that the Whyvillians have at Whyville and engage them. It may be that down the road they are interested in buying a car and they will think about Scion."

Because the Scion appeals to an unconventional consumer, Ms. Senior said, "a lot of what we do is based on the mind-set rather than the specific age group."

The power of younger consumers has grown stronger in recent years. According to research from Packaged Facts, a division of MarketResearch.com in Rockville, Md., 39 percent of parents of 10- and 11-year-olds say their children have a significant impact on brand purchases. Both boys and girls age 9 to 11 say they spend without thinking, and 9-to-11-year-olds account for 53 percent of total buying power among children 3 to 11. (They hope to keep spending, too — 66 percent of boys age 9 to 11 say they want to be rich.)

Visitors to game sites like Whyville are generally open to product placement on the Web, many marketers say. According to a survey by comScore Media Metrix, only 15 percent of avid gamers said they would be unlikely to play games with product placements included.

But the key to reaching younger consumers, said Mr. Diamond of Alloy, is to capture them before they have any opinions on brands.

"Talk to the young person in their environment in a relevant way," he said. "I think too often advertisers wait to convert them later, and then it's too late."

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# *The* CHRISTIAN SCIENCE MONITOR

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## **Whyville: the place girls love to go for science**

by Michelle Thaller

PASADENA, CA – Sometimes, as the saying goes, it's better to light a candle than curse the darkness. Working in science education, I often get bogged down by how hopeless the situation sometimes seems. Study after study shows that our students are less interested and less proficient in math and science.

Educational experts say our programs are ineffective and misguided. Nothing we do seems to make any difference. Despite lots of good intentions and a moderate amount of funding, they say minorities and women are not making great strides (or indeed, any noticeable strides) toward success in science.

One of the real lights in the echoing darkness of science education is a small independent company called Numedeon, which runs a website called Whyville. Whyville has managed to do the impossible – generate massive interest in science among adolescent girls. Whyville has almost a quarter-million registered users, three quarters of which are middle-school aged girls.

Most users log on several times a week; many log on daily. I've found it nearly impossible to log on at peak after-school hours (the Whyville staff assures me they are adding more servers to keep up with demand).

The fact that young girls are spending hours on a science education site is rather startling, and I'm not the only one that thinks so. Serious organizations like the National Science Foundation are taking a hard look at Whyville to figure out what there're doing right.

Perhaps the easiest way to explain what makes Whyville so attractive to young women is to admit the truth ... I have become a Whyville addict. It started so innocently. Intrigued by the statistics presented to me by the Whyville founders, I decided to explore the site on my own.

The first page features colorful graphics depicting a town square, surrounded by fanciful, funky-looking buildings. One large tent-like building is called the SunSpot. Click to enter, and inside you'll find links and instructions to explore a host of activities about our Sun.

My favorite activity involves rescuing unfortunate (but benign) alien visitors experiencing a malfunction in their transporter device. The aliens, who are scattered over the surface of the Earth, call in with cryptic clues as to their whereabouts. To rescue an alien, one must board a "warp wagon" capable of traveling through space and time and find the alien in the right city on the right date. For example, one alien exclaims: "I'm in a very strange place. It's full of neon lights and people keep trying to push free drinks on me. I'm not sure what time of the year it is, but the Sun is setting as far south as it ever does today."

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Experimenting with an applet-based interactive celestial sphere allows the "rescuer" to determine that the winter solstice is the date on which the Sun sets farthest south (at least for Northern Hemisphere locations), and some logical guessing locates the alien in Las Vegas. When the "warp wagon" arrives at the correct place and time, the grateful alien is found wearing an Elvis costume. Collect all aliens successfully, and the rescuer is awarded a prize: printouts of a model flying saucer, along with paper dolls of the aliens wearing native dress from all their respective locations.

#### A NON-THREATENING LEARNING EXPERIENCE

The activity is quite ingenious. It requires a good knowledge of geography, as well as a familiarity with the yearly cycles of the Sun. It also incorporates humor and creativity. But the thing I found strangely comforting about the activity was how non-threatening it was.

Nothing about it is competitive. You get as many chances as you need to find the aliens, and there is only positive feedback – the aliens don't die if you don't find them, nothing explodes, and you don't have to shoot at anything. Other activities involve using vectors to steer a balloon through differing layers of air currents, creating dances using Cartesian coordinates, categorizing different types of rocks, or designing a rocket to launch supplies to a space station.

OK, that's all well and good, but what has the pre-teen girl set so excited? That's where the real genius of Whyville starts. Remember the town square you enter when you log on? Even before you notice the buildings and links to science activities, you'll be enchanted by the cartoon characters floating around like virtual helium balloons.

These are the Whyville avatars. First-time visitors are represented by a fairly standard smiley-face. Once you register as a member (registration is free and the site contains no advertising), you are allowed to design your own avatar. (Most of them bear a troubling resemblance to Britney Spears.) This creates a wonderful consistency to the site.

One of the most popular parts of Whyville is the "Pick Your Nose" site, where you choose your avatar's nose, hair, eyes, mouths, clothing, and accessories. Can't find what you like? Another graphic design interface lets you create your own avatar from scratch. You can even build a house for your avatar, and fill the individual rooms with furniture, decorations, and awards for completing the various science activities.

I've actually spent hours wandering around the virtual town (all of which is rendered real-time) to explore kid's houses and check out their tastes in interior design. The rub is, none of this is free. The currency in Whyville is "clams," which are earned by scoring highly on the science activities. Repeat users earn a salary each week, based on how much science they've done. This feature alone really got me hooked. Each week I earned more and more clams, and had soon outfitted my avatar with the latest blue-streaked hair and hip leather jacket. Virtual shopping turns out to be comparably addictive to the real thing.

The avatars can also talk to each other in real time, much like instant messaging. As you float along, you can see where everyone else is and what they're doing. You can talk to anyone you like, about anything you like. And so, the kids talk to each other. They talk about boys and where to get those really great hot-pink lips on your avatar, but they also ask each other questions about where to find that last alien or what sort of rocket they're building. The kids started their own newspaper ("The Whyville Times"), and post articles, poetry, and art to it regularly.

Whyville isn't perfect (the creators are somewhat worried about the emphasis the girls are placing on the physical appearance of their avatars – avatar beauty contests are annoyingly common), but it's the best

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shot at targeting young women I've ever seen. Yes, the kids probably talk more about non-science topics than science, but the activities are solid and thought-provoking. You can't just fake your way through them. Scores of parents have written to Whyville, amazed at their daughter's sudden interest in science. They've been made to feel that science is just as much meant for them as anyone else. And that, in itself, makes Whyville a guiding light for all us science educators.

*Michelle Thaller is an astronomer at the California Institute of Technology. She earned a bachelor's degree in astronomy from Harvard University and a Ph.D. in astrophysics from Georgia State University. A massive-star specialist by trade, she currently dedicates most of her time to education and public outreach for the Space Infrared Telescope Facility.*