

REVENGE OF THE NERDS

If we want to reform education, we have to make it cool to be a geek.

START

BY DANIEL ROTH

Earlier this year in midtown Manhattan, a local venture capital firm staged a daylong conference on school reform. Authors, professors, financiers, and entrepreneurs took over the French Institute's skylighted penthouse and earnestly discussed how embracing "digital culture"—from deploying videogame-style rewards to encouraging kids to develop online reputations—could completely transform education. Outsiders were invited to participate via Twitter, and their ideas were projected on the wall. It was a high-minded, tech-centric affair—until Alex Grodd brought it back to earth.

Although Grodd now runs a lesson-plan software company, he started out teaching at inner-city middle schools in Atlanta and Boston. The business people in the room represented a world in which innovation requires disruption. But Grodd knew their ideas would test poorly with real disrupters: kids in a classroom. ▶



► “The driving force in the life of a child, starting much earlier than it used to be, is to be cool, to fit in,” Grodd told the group. “And pretty universally, it’s cool to rebel.” In other words, prepare to have your netbook jeered out of the room. “The best schools,” Grodd told me later, “are able to make learning cool, so the cool kids are the ones who get As. That’s an art.”

It’s an art that has, for the most part, been lost on educators. The notion itself seems incredibly daunting—until you look at one maligned subculture in which the smartest members are also the most popular: the geeks. If you want to reform schools, you’ve got to make them geekier.

“Geeks get things done. They’re possessed. They can’t help themselves,” says Larry Rosenstock, founding principal of six charter schools in San Diego collectively called High Tech High. He has come up with a curriculum that forces kids to embrace their inner geek by pushing them to create. The walls, desks, and ceilings of his classrooms teem with projects: field guides to local wildlife, human-powered submarines, and TKtktk robots. (An art project called Calculicious, based entirely on math principles, now hangs in the San Diego airport.) The students all work in small groups as a way to develop a collective enthusiasm: Get two

kids excited about something and it’s harder for a third to poke fun at them.

But more important, Rosenstock keeps the students surrounded by adults. There are no teachers’ bathrooms or lounges. Parents roam the halls. And the students are required to present their work to outsiders. This, it turns out, is the key to geekifying education. “A big chunk of the school experience is having them hang out with the adults they could imagine becoming,” says private-equity manager Tom Vander Ark, former head of education investments for the Bill & Melinda Gates Foundation and a onetime school superintendent. “A big high school has a youth-owned culture. You’ve got to break that.”

The result: 100 percent of High Tech graduates get into college. Nationally, the college attendance rate for High Tech High’s demographic—half are eligible for free lunch and even fewer have parents who attended college themselves—is less than 10 percent. Yet all High Tech students take advanced math and science classes, and many of them end up at universities like MIT and Stanford.

Back on the East coast, in one of Boston’s toughest neighborhoods, Roxbury Prep (Grodd’s

old school) uses a similar formula. Almost 80 percent of its eighth graders—nearly all of whom come from families earning less than \$28,000 a year—go to college. Their teachers work nonstop to stamp out youth culture: Kids eat lunch in the classroom, they’re not allowed to talk in the halls, and they’re disciplined for using the word *nerd*.

Yet it’s about the nerdiest school you can imagine; every week, the faculty awards one child a “spirit stick”—a bedpost painted a rainbow of colors—for good grades.

In the public school I attended, that would be a homing beacon for a beating: “There’s the nerd with the stick. Jump him!” But in schools that work, it would be impossible to find the geek—because everyone would be a geek. At one of the final spirit-stick ceremonies last year,

230 kids erupted in applause as a teacher read aloud the 13-year-old honoree’s thesis. It started: “America is the history of an unfair and superficial nation ...” Hey, kids are going to rebel; better to have them cheered for doing it with big words, however grammatically imperfect. [W](#)

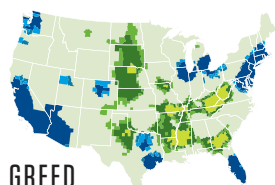
Senior writer **DANIEL ROTH** ([daniel_roth@wired.com](#)) wrote about innovation in the wake of the financial crisis in issue 17.07.

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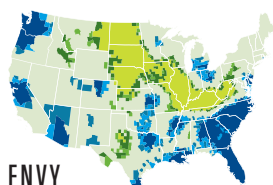


American Vice Geographers plot the seven deadly sins.

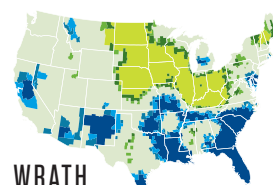
We’re gluttons for infographics, and a team at Kansas State just served up a feast: maps of sin created by plotting per-capita stats on things like theft (envy) and STDs (lust). Christian clergy, likely noting the Bible Belt’s status as Wrath Central, take issue with the “science.” Valid point—unless it’s just the pride talking. —*Kristina Shevory*



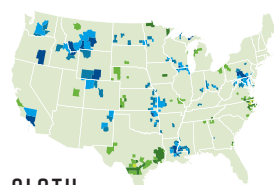
GREED
Average income compared to number of people living below the poverty line.



ENVY
Total thefts (robbery, burglary, larceny, and motor vehicle) per capita.



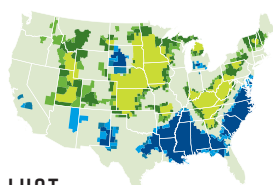
WRATH
Number of violent crimes (murder, assault, and rape) per capita.



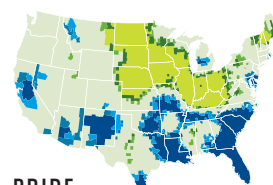
SLOTH
Expenditures on art, entertainment, and recreation compared with employment.



GLUTTONY
Number of fast-food restaurants per capita.



LUST
Number of reported STDs per capita.



PRIDE
Aggregate of the other six offenses—because pride is the root of all sin.

SAINTLY DEVILISH