

The New York Times Magazine

December 14, 2008

8TH ANNUAL YEAR IN IDEAS

The One-room School Bus

By PAUL TOUGH

Kids who live in the tiny timber community of Grapevine, Ark., spend up to three hours a day riding the yellow school bus to and from Sheridan, the larger town 16 miles away where they go to school. It's a demanding commute: students get up before dawn to catch the morning bus, and they generally have to forego after-school activities and tutoring to avoid missing the bus home. Grapevine's children already face considerable educational challenges — only 2 percent of the town's adults are college graduates — and all those hours spent staring out the window as the bus bumps along dirt roads stand as just one more barrier to a high-quality education.

Billy Hudson, a professor of medicine at [Vanderbilt University](#) in Nashville, grew up in poverty in Grapevine, and he has a plan to turn those idle hours from a disadvantage into an opportunity: an experimental program that transforms the school bus into a mobile classroom. He calls it the Aspirnaut Initiative. Thanks to Hudson's project, two of the three buses that serve Grapevine are now wired for Internet connectivity. High-achieving students who are accepted into the program are issued laptop computers and enrolled in online math and science courses, including algebra and advanced-placement biology. On the way to and from school, they complete assignments, do research and communicate with instructors by e-mail. Older students use MacBooks; younger students get the hardy, bright green XO laptops being distributed in developing countries around the world as part of [Nicholas Negroponte's](#) One Laptop Per Child program.

The Aspirnaut Initiative is still in the pilot stage; as of this fall, 10 Grapevine students are taking the online, on-the-road courses, and another 20 have been given video iPods loaded with science and math content to watch on the bus. And for now, the program's modest \$50,000 annual budget comes from private donors and the Hudson family. But the project may soon start to grow. In September, Julie Hudson, Billy's wife, a doctor who also teaches at Vanderbilt, presented the State Legislature in Little Rock with a plan for expansion, along with a request for \$2 million in state financing. By next fall, the Hudsons say they hope to have enrolled 2,000 students in rural communities across Arkansas.