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STUDENT SHOWDOWN**Startups on Fire**

The five winners of our student startup competition have fresh ideas—and the toughness and savvy to burn up the marketplace.

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BullEx founders (from left) John Blackburn, Tom Rossi and Ryan O'Donnell

(Photo: Michael Cogliantry)

Protesting on college campuses is back. The object of this generation's rebellion?

Traditional jobs. In an era of

widespread disenchantment with the often bureaucratic, scandal-ridden world of big corporations, more students believe that building a successful startup is the way to go. A recent poll of 1,155 teens by [Junior Achievement Worldwide](#), a Colorado Springs outfit that teaches students about entrepreneurship, revealed that 69% want to start a business, an increase of 7 percentage points since last year. And the Harvard Business School just found that 67% of MBAs it surveyed had started a firm after competing in its business-plan competitions.

It's not surprising, then, that our third annual business-plan contest, the FSB Student Showdown, was our most competitive yet. Eighty-two plans arrived from 66 schools, including Harvard and UCLA—up from 58 entries in 2004. To enter, teams had to have won a business-plan competition. (For more on the selection process, see the box "How We Chose the Winners.")

As our judges noted, the best plans showed strong growth potential. "A venture capitalist looks for a company that can be a significant size," says one of our judges, Ann Winblad, co-founding partner of [Hummer Winblad](#). Another judge, Michael Sotnick, senior vice president of small and midsize enterprises at [SAP America](#), adds, "We have been so impressed by the credentials, plans, and ingenuity exhibited by the finalists that we are arranging follow-up meetings with representatives of our venture capital arm, SAP Ventures, for further evaluation of the plans."

Prep Me, an online SAT-preparation startup that won a business plan contest at the University of Chicago, captured FSB's \$35,000 first prize as well as SAP Business One, a five-seat software package from SAP America, which, as the contest sponsor, provided all the prizes. The second-place team, winning \$10,000, was [NeuroLife](#), a company created by MBAs at Carnegie Mellon University who want to manufacture a noninvasive monitor to measure brain pressure in a head-injury patient. FSB awarded the third prize of \$5,000 to

[Bigfoot Networks](#), a company from McCombs School of Business at the University of Texas at Austin with a new technology to prevent technical delays in online games. Honorable mentions went to [LicketyShip](#), a business from Notre Dame's Mendoza College of Business and Yale that offers same-day delivery of Internet purchases, and [BullEx](#), a startup at Rensselaer Polytechnic Institute that sells a new fire extinguisher training system.

It is worth noting that all six prizewinners in our past two contests are still thriving. If their experiences are any indication, this year's top teams will be worth watching as they make their way out of the starting gate.

FSB interns Jonathan Aiken, Liz Borod Wright, Antoine Craigwell, Keisha Cummings, Evelyn Juan, Emily Maltby, and Brandi Stewart contributed to this package.

Next: [The Winner: PrepMe Has a New Way to Ace SATs](#)

First Place: **PrepMe**

What It Does: Offers an online SAT-preparation course

Founders: Avichal Garg, 22; Karan Goel, 22; Joseph Jewell, 24

Date Launched: January 2005

Startup Capital: \$20,000 in prize money from a business plan competition at the University of Chicago

Goal: To become the world's premier test-preparation provider

Getting into a top college seems tougher than ever these days, and even the best high school students stress out about the SATs. Joseph Jewell, however, approached the test with a different mindset, treating it as a game. "It was fun to try to beat the SATs. I looked at it as a challenge to accumulate as many points as I could," he says. His strategy worked. He scored a perfect 1600, enrolled at the California Institute of Technology in 2001, and that same year co-wrote a book, *Up Your Score: The Underground Guide to the SAT*.

Confident that other students could profit from his approach, Jewell—who became a 2005 Rhodes Scholar and is now earning a master's degree in engineering and science at Oxford University—launched an online SAT-preparation service in January called [PrepMe](#). He teamed up with partners Avichal Garg, who recently graduated from Stanford with a BS in computer science, and Karan Goel, an MBA student at the University of Chicago, both of whom he met on the [Princeton Review](#) message board.

Unlike [Kaplan](#) and the Princeton Review, the giant SAT prep companies that teach a single test-taking methodology, PrepMe offers several ways to tackle the questions. First it gives the student a diagnostic exam to identify her weaknesses, and then it uses relevant, repetitive drills to conquer them. To gain an edge over Kaplan and the Princeton Review, PrepMe provides 20 to 60 hours more preparation material for about the same price. It also offers live essay coaching via e-mail, instant messaging, and phone. "With the exception of expensive private tutors, what's out there has always been a mass-market approach," says Goel, the company's CEO. "We're changing the way test preparation is taught."

Timing seems to favor PrepMe. The number of students taking the SAT has increased by 17% since five years ago, according to the [College Board](#), which administers the exam. Last year students took 1.4 million SAT tests. Another factor: the College Board this year added a new personal essay section to the SAT and included more advanced algebra questions. Many students are frantic to know what they're all about. At the same time, the \$6 billion online education market is growing by 25% to 30% annually, and there is room for new players, says Eric Bassett, director of research at Boston-based [Eduventures](#), a research firm. "To establish a small revenue stream in this market is very possible."

Possible, yes, but not easy. PrepMe must face tough rivals in the \$700 million-plus test-prep market. Kaplan and Princeton Review each control about 25% of the sector. "For a startup to move beyond a few million in annual revenues is going to be quite challenging," says Bassett. And the behemoths in the industry are paying attention to the online market. The Princeton Review recently launched its own handheld gadget, which helps students prepare for the SAT with a 5,000-word vocabulary list.

PrepMe's co-founders say they are confident that both the company's curriculum, based on the test-taking approaches of top scorers, and the use of tutors close in age to their target customers will help them stand out. They spent three years developing their teaching methods, interviewing dozens of recent, high-scoring SAT test takers and having each write two or three practice questions. The firm also plans to compete on price, charging \$500 for its course. Rival companies typically charge \$1,000 a course, and tutors command fees of \$70 an hour and up.

PrepMe's efforts have already begun to pay off. With a 12-person staff, including tutors, the company has so far attracted almost 60 clients. In the next few years, PrepMe's founders hope to roll out curricula for additional standardized tests, such as the PSAT. The company is also hard at work on a new technology that will allow its students to prepare for the SAT on the run via cellphones and text messaging.

Co-founder Goel notes that PrepMe's young team has a powerful advantage over its more established competitors: "We don't sleep."
—[Maggie Overfelt](#)

Next: [Second Place: NeuroLife Makes a Safer Brain Monitor](#)

Second Place: **NeuroLife**

What It Does: Plans to produce a safer device for monitoring brain pressure

Founders: Ernest Braxton Jr., 30; Daniel McChesney, 29

Date Founded: December 2004

StartUp Capital: \$7,500 from business-plan competitions

Goal: To be acquired

While in medical school, and later as a flight surgeon for the Air Force, Ernest Braxton was frustrated by the dangers involved in monitoring brain pressure in patients with head injuries. Neurosurgeons must insert a catheter into the brain through a hole

bored in the skull. Proper placement is difficult, and do-overs are common. The risk of infection and bleeding into brain tissue grows with every reinsertion, and some patients die. "These monitors cause a huge number of complications," says Braxton.

Braxton—who is earning an MBA at Carnegie Mellon's Tepper School of Business after having graduated from medical school at the University of Pennsylvania—decided to do something about it. He teamed up with fellow MD and Tepper MBA Daniel McChesney, who realized he preferred business to medicine after getting his MD from the University of Pittsburgh. The two launched NeuroLife, which is creating a medical device for detecting elevated brain pressure.

NeuroLife's monitor, called iScan, uses fiber optics and proprietary software to measure changes in the eye's blood supply. The tool borrows from an ophthalmological technique that measures eye pressure by pressing gently against the eye until the retinal vein collapses temporarily. Because of the close relationship between the eye and the brain, small changes in the blood supply to the eye correlate with brain pressure, says McChesney. If the iScan finds the brain pressure to be normal, patients will be able to avoid the dangers of a traditional monitor.

NeuroLife faces some big obstacles. First it must build an effective prototype (the target is sometime this winter), and then it must prove iSCAN's effectiveness in FDA trials, which will take years. "I'm the kind of person who likes a challenge," says McChesney.

One factor in NeuroLife's favor: gauging brain pressure with current monitors is expensive. iSCAN's main competitors are the companies that this year are expected to sell more than 100,000 fiber-optic intracranial-pressure monitors at a cost of \$500 to \$1,200 each. On top of that, add the doctors' fees, which run from \$400 to \$800, plus a required one-day stay in the intensive care unit, which costs about \$2,200. The iScan will sharply reduce such hospital stays, says McChesney. He also sees a market in the nine million brain patients every year whose conditions make traditional monitors too risky.

If NeuroLife succeeds, McChesney will have given up a career in medicine for one in business. But by changing the way medicine is practiced, he may affect far more lives. —[Ellyn Spragins](#)

Next: [Third Place: Bigfoot Networks Juices Online Games](#)

Third Place: **Bigfoot Networks**

What It Does: Plans to sell a technology that boosts the speed of online games

Founders: Harlan Beverly, 29; Michael Cubbage, 27; Bob Grim, 33

Date Founded: October 2004

Startup Capital: A \$100,000 prize from a University of Texas business-plan contest; \$100,000 from angels

Goal: To be acquired

Harlan Beverly has won his share of tournaments in online games such as [Counter-Strike](#): Source, a simulated battle against terrorists. But as a hard-core gamer for the past 15 years he has also suffered the agony of losing. "And it's not my fault," he groans. The culprit, he

says, is a technical lag that slows many games when the servers that they are running on bog down with traffic. In online baseball, for instance, heavy server traffic might cause a delay when a batter swings.

A chip architect at [Intel](#) until 2004, Beverly had already developed technologies to accelerate the speed of Intel's servers by offloading some of the computers' processes onto a storage card. After researching how to fight the dreaded lag, he realized that he could speed online games similarly. Beverly's breakthrough: a computer card that communicates with servers, downloading some of the processes that they perform online and allowing them to run faster, thus speeding up online games.

Enrolling at McCombs School of Business at the University of Texas at Austin, Beverly wrote a business plan with classmates Michael Cabbage and Bob Grim. Together they formed Bigfoot Networks and developed a prototype called NetBlazer, a gaming accelerator card that can eliminate disruptions caused by server lags. Assuming that Bigfoot can raise more money, it hopes to begin selling NetBlazer by July for \$300.

The market seems ready for it. "If the product brings measurable improvement in online play, this would be good news to hard-core gamers," says Shelley Olhava, a gaming analyst at [IDC](#), an infotech consultancy in Framingham, Mass. David Cole, founder of the San Diego gaming research firm [DFC Intelligence](#), estimates that Bigfoot could easily attract at least 100,000 customers for the NetBlazer card in the U.S. Although computer manufacturers such as [Dell](#) are luring online gamers with ultrafast processors, none, says Cole, has offered a solution for lag disruptions.

Even if a corporation such as [Broadcom](#) or Intel wanted to create a product similar to NetBlazer, that could ultimately help Bigfoot, says Beverly. "One of those companies will probably acquire us instead of trying to make it on their own," he says. In the meantime, Beverly says he's doing better in online tournaments now that he is testing NetBlazer. —*Evelyn Juan*

Next: [Honorable Mention: LicketyShip's Delivery Service](#)

Honorable Mention: **LicketyShip**

What It Does: Offers online shoppers same-day delivery

Founders: Tim Connors, 38; Chris Kelly, 22; Robert Pazornik, 25; Aaron Wenger, 21

Date Founded: 2004

Startup Capital: \$2 million from angel investors

Goal: To go public

As a student who burned the midnight oil, Robert Pazornik ate through almost as many cartridges of printer ink as he did pepperoni pies. "I could get a pizza delivered in 30 minutes or less, but to get toner I had to run across town or order online and wait for an expensive overnight shipment," says Pazornik, 25, who was then a graduate student in political science at Yale. "It was such a pain."

So he and some friends started LicketyShip, a company offering

online shoppers same-day delivery. He reached out to Aaron Wenger and Chris Kelly, friends from his undergraduate alma mater, Notre Dame, who had started [NDBAY](#), a successful used-textbook auction site.

Unlike Kozmo, Urbanfetch, Webvan, and other notorious dot-bombs, LicketyShip doesn't own a warehouse stuffed with inventory and delivery trucks, or employ an army of couriers. Instead it partners with local retailers and courier services. LicketyShip provides software that tracks a retailer's inventory and identifies the closest courier. It typically charges retailers a 5% commission on the sale price of items it delivers. Depending on the size of the package, LicketyShip's services cost between \$23 and \$152. That's a hefty premium if all you're buying is \$17 worth of toner, but it's not bad considering [FedEx](#)'s fees: \$13 to \$201 for 10:30 a.m. next-day delivery.

FedEx and [UPS](#) don't need to worry just yet. For now LicketyShip only delivers in South Bend, Ind., where it has made 100 shipments or so. What do South Bend's residents need ASAP? Mostly ink-jet cartridges and Ethernet cables. "We delivered a flat-screen TV in four hours," Pazornik adds.

Still, LicketyShip's future looks promising. "People have spent a lot of money trying to figure a faster way to cross the last mile of an Internet sale," says Tim Connors, a general partner at Silicon Valley's [US Venture Partners](#), who signed on as chairman of LicketyShip. LicketyShip, Connors says, is one of the first low-capital solutions he has seen. With his help, LicketyShip has raised \$2 million from angel investors and partnered with [Circuit City](#) and [Best Buy](#). It has already signed deals with a handful of courier companies and plans to branch out into Chicago and the San Francisco Bay Area.

What makes Pazornik think he can deliver profits when others with similar services couldn't? "We're all about keeping overhead low," says Pazornik.

Still, during its first year LicketyShip expects to lose about \$640,000. By year two, however, it projects profits on \$4 million in sales. Assuming he achieves his ambitious goals, Pazornik doesn't expect to switch to more expensive dinners. "I'll always love pepperoni pizza," he says. "Especially when it's delivered in 30 minutes or less."

—[Arlyn Tobias Gajilan](#)

Next: [Honorable Mention: BullEx's Unusual Fire Extinguishers](#)

Honorable Mention: **BullEx**

What It Does: Produces a cleaner fire extinguisher training technology

Team: John Blackburn, 21; Ryan O'Donnell, 23; Tom Rossi, 21

Date Founded: March 2004

StartUp Capital: \$131,228 in awards, loans, and research grants

Goal: To be acquired

Learning how to use a new fire extinguisher properly can be a messy and smelly process. Billowing smoke typically fills the room as a fire-safety trainer lights a bucket of kerosene or a mix of diesel fuel

and water to show a company's fire marshal how to put out the fire. If you want to train without the smelly smoke, you can use a video simulator, but it's not always easy to determine how well the marshals will be able to put out real fires. Fire departments face the same challenges in training local citizens to use extinguishers safely.

BullEx, a startup from Rensselaer Polytechnic Institute, says it has a more effective solution. The company has created a fire extinguisher training technology that generates flames in clean-burning, propane-fed pans equipped with digital sensors. If users aim properly and hit these sensors, they can quell the fire without the mess. The sensors then give out a reading on how well a trainee uses the extinguisher.

Less than three months after launching its training system, BullEx has racked up \$85,000 in sales from clients, including the Columbia County Fire Chiefs Association in Lebanon, N.Y., and the West Chester Fire Department in West Chester, Ohio, both of which use the new training system for community outreach programs. "There is a real promise for this product for the industrial market," says [John Coniglio](#), head of the [Occupational Safety and Environmental Association](#), a safety consultancy in Buffalo.

CEO Ryan O'Donnell, who received his master's degree in engineering from Rensselaer last spring, took over BullEx when classmates and founders Paul Derois and Steve Galonska, both 23, accepted corporate jobs and recruited him to run the fledgling firm. Derois and Galonska had brainstormed with firefighters to come up with BullEx's system, which RPI had patented. As a volunteer firefighter for six years, O'Donnell quickly saw a need for it.

So in March he took the helm and refined the business plan with classmates John Blackburn, who is now president, and Tom Rossi, who is COO. The trio became majority owners, with Derois and Galonska as minority shareholders. A few weeks later, BullEx won the Tech Valley Collegiate Competition, a business plan contest at Rensselaer.

BullEx hopes to gain an edge in the \$2-billion-a-year fire-training market with lower pricing. While rival products, such as a video simulator, cost as much as \$60,000, BullEx's system sells for \$4,985.

So far BullEx has raised more than \$131,000 in business-plan contest awards, research grants, and loans. O'Donnell is seeking \$200,000 more to increase production and add salespeople. With plans to sell 300 units to manufacturing plants next year, O'Donnell expects \$1.5 million in sales. "BullEx is bullish," he says. —*Evelyn Juan*

Next: [How We Choose the Winners](#)

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