Future Trends

Strategies: High-flying Solutions

The story of how one transatlantic flight became one-of-a-kind brainstorming session and why this should matter to our industry.

By Roger Gudobba

What would happen if you brought more than 100 leading innovators and entrepreneurs together to help solve one of the world's most pressing problems? What if you put them all together in one 10-hour transatlantic flight?

As Rhonda Abrams reported recently in USA Today, "That's exactly what British Airways did to tackle a problem the United Nations gave them: How to expand the talent pool worldwide in science, technology, engineering and math (STEM). British Airways conceived UnGrounded, an innovative lab in the sky. The British Airways staff, particularly Simon Talling-Smith, executive vice president for the Americas, and his team of John McDonald, Caroline Titmuss and Meg Largey did an incredible job of putting UnGrounded together and on June 12th one hundred thirty handpicked innovators, an eclectic mix of more than 130 executives, venture capitalists, futurists and government officials were invited on a special 747 flight from San Francisco to London.

The United States may be short as many as **three million high-skills workers** by 2018.

"This is as cool as it gets, going up 30,000 feet with 100 innovators and entrepreneurs with bottom-up thinking," said Gavin Newsom, California's lieutenant governor who addressed the group before everybody took off.

They hired famed design firm IDEO to craft the on-board experience, breaking it up into teams to address pieces of the problem — from involving more women in science, technology, engineering and math to connecting that talent anywhere in the world with job opportunities. They had the plane entirely to themselves and took it over completely — often jamming the aisles, turning bulkheads into white boards, sometimes even standing on the seats. The four winning projects were presented the following day to the United Nations International Telecommunication Union, the U.N.'s specialized agency for telecommunications standardization, development and radio communications."

Officials indicated they would support the ideas and work to get them put in place. Here's what came out this interesting gathering:

- **AdvisHer.** An online community for girls and women entering or interested in science, technology, engineering and math professions to match them with experienced women mentors. The goal is to keep the younger women from dropping out, a worldwide problem.
- **Certify me.** This program would engage global educational institutions and corporations to come up with standards. Anyone from anywhere in the world — even those who are self-taught — could take a test and submit a portfolio to prove competency.
- **Init.** People do not realize that science and technology is all around them, affecting their daily lives. Init takes its inspiration from nutrition labels. Companies would be encouraged to include a label somewhere on their packaging detailing the kind of technology and science that makes up a product, what's "in it."
- **Beacons in a Backback**. Ambassador travelers would carry solar-powered backpacks equipped with mobile Internet hot spots and educational tools into rural areas. That would help bring science, technology, engineering and math to people globally.

If all these good ideas can come of gather-

The United States is **losing its competitive edge** in math and science while the rest of the world soars ahead.

ing the best and brightest on a plane ride, I wonder what would happen if we did this in our industry. Just think about it, maybe we could come up with more common-sense rules and regulations, a fix for the GSEs, a way to get the secondary market thriving again, a way to serve non-vanilla borrowers without using products that are almost designed to fail. The sky is the limit, pun intended. We could get a lot done in our industry if we could just put our heads together.

Taking things even further, Rhonda goes on to say, "Because I'm a member of the advisory committee, I had been involved since the beginning. And I can honestly say UnGrounded was one of the most interesting, exciting, and meaningful projects I've ever been involved with. But why should entrepreneurs and small-business owners' care about science, technology, engineering and math programs?

Multi-colored sticky notes helped participants of the UnGrounded event organize their thoughts. I guess there is something to be said about getting organized the old-fashioned way. (Photo: British Airways)

In the United States alone, 99% of all businesses with employees have fewer than 500 workers; 98% have fewer than 100 employees, according to the Census Bureau. Almost 9 in 10 of those businesses have fewer than 20 employees.

- Small businesses need tech workers, but the extreme shortage means little companies often can't find or afford qualified staff.
- Small companies, especially start-ups, traditionally gain a competitive edge by leveraging technology and science.
- New technology drives down costs, making it easier to start companies and more profitable to run small businesses.

"What the world needs is growth," said British Prime Minister David Cameron, who addressed the UnGrounded participants in London. "And growth is going to come from small businesses and start-ups much more than by large enterprises."

STEM: Good Jobs Now and for the Future. Recent information from the U.S. Department of Commerce and the National Math and Science Initiative reported that "In 2010, there were 7.6 million STEM workers in the United States, representing about 1 in 18 workers. STEM occupations are projected to grow by 17% from 2008 to 2018, compared to 9.8% growth for non-STEM occupations. STEM workers command higher wages, earning 26 percent more than their non- STEM counterparts. More than two-thirds of STEM workers have at least a college degree, compared to less than one-third of non-STEM workers. STEM degree holders enjoy higher earnings, regardless of whether they work in STEM or non-STEM occupations.

STEM: Why is education important for the United States? 25 years ago, the United States led the world in high school and college graduation rates. Today, the United States has dropped to 20th and 16th. There are more foreign students studying in United States graduate schools than the number of United States students and over 2/3 of the engineers who receive Ph.D.'s from United States universities are not United States citizens. The prestigious World Economic Forum ranks the U.S. as No. 48 in quality of math and science education. The rankings from the Organization of Economic Cooperation and Development (OECD) showed American students scored 17th in science achievement and 25th in math ability out of 65 countries. United States students fall behind 31 countries in math proficiency, according to a 2011 Harvard study that concluded the United States could increase GDP growth per capita by enhancing its students' math skills.

Sixty percent of the new jobs that will open in the 21st century will require skills possessed by only 20 percent of the current workforce. The United States may be short as many as three million high-skills workers by 2018. Two-thirds of those jobs will require at least some post-secondary education. American universities, however, only award about a third of the bachelor's degrees in science and engineering as Asian universities. Worldwide, the United States ranks 17th in the number of science degrees it awards.

STEM: Why is it important for the mortgage industry? Jobs in computer systems design and related services – a field dependent on high-level math and problem-solving skills – are projected to grow 45 percent between 2008 and 2018. If this doesn't speak to the need for progress in our space, I don't know what does. We need to employ these people in our space and put them to work coming up with real solutions to our industry's problems. We can do this if we work together. ❖

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