

Please take a moment to read the latest news from Columbia SC's knowledge economy.

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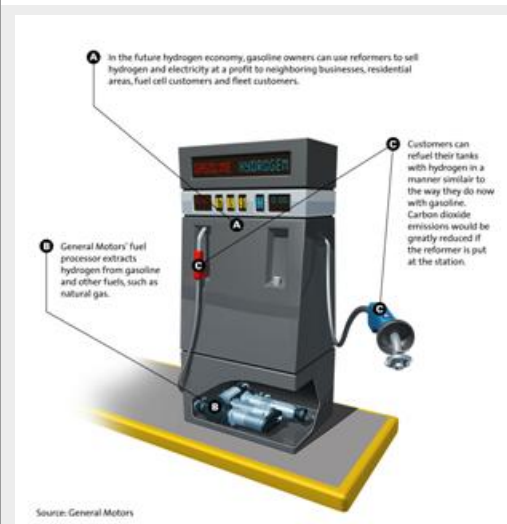
The Elements of Technology Diffusion: A Mathematical Model



The diffusion of innovation refers to the how, why, and at what rate new ideas and technology spread through cultures. The creation of new technologies is a key ingredient to forming the knowledge economy, but the diffusion of those technologies also matters.

A new Harvard Business School research study takes a closer look at the processes of technology diffusion. The authors, Diego Comin and Bart Hobijn,

Columbia Hydrogen Fueling Station Project Officially Launched



On behalf of its partners in the University of South Carolina - City of Columbia Fuel Cell Collaborative, SCRA, a global leader in applied research and commercialization, has signed a contract with the Center for Transportation and the Environment to lead a project that will install and commission a hydrogen fueling station in downtown Columbia. An initial project kick-off meeting has been conducted and work will commence immediately, with the goal of having the station operational in advance of the 2009 National Hydrogen Association annual conference, which will be held in Columbia in late March 2009.

Funding for the first phase of the project, which will design and configure the station, order major pieces of equipment and secure the necessary permits to begin construction, is being provided by proceeds from a federal grant awarded to

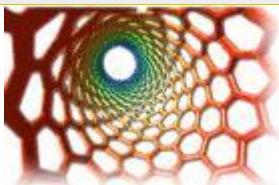
develop a model that helps trace the path of new technology adoption across countries. More specifically, the researchers assessed the technology diffusion paths of fifteen technologies across 166 countries between 1820 and 2003. Think telegraph to telephone to cellphone.

They find that technology adoption lags can be quite long and that cross-country variations in the adoption of new technologies accounts for about one-quarter of the difference in national per capita incomes. Comin and Hobijn next work will investigate what are the key cross-country differences in endowments, institutions, and policies that impinge on technology diffusion.

Download the 2008 Harvard Business School research paper (#08-093), [An Exploration of Technology Diffusion](#) by Diego A. Comin and Bart Hobijn.

The US Remains a Big Leader in the Nano World

The National Nanotechnology Advisory Panel (NNAP) has recently released its latest report on the state of Federal support for nanotech research and development. The NNAP finds that the US remains a leader in nanotechnology based on various metrics, including R&D expenditures and outputs such as publications, citations, and patents.



The latest review focuses on the potential health risks from nanotechnology, and finds that nanotech research does not raise any unique or especially challenging ethical issues. The NNAP recommends a continued focus on key infrastructure, such as research centers, instrumentation, and equipment. Finally, the NNAP encourages expanded investments in technology transfer so that new products and technologies can be commercialized in a more efficient manner.

USC is a strong player in the race to keep the US a leader in nanotechnology output. [The USC NanoCenter](#) is the University's focal point for science and engineering studies of nanometer-scale structures and fosters multidisciplinary research and

EngenuitySC and by proceeds from the South Carolina Industry Partnership Fund administered by SCRA. This phase will permit compression, storage and dispensing of high pressure gaseous hydrogen; subsequent phases of the project will provide the capability to generate hydrogen on site.

"This project represents an unambiguous commitment by the political, economic and academic leaders in the Columbia region to growing and developing a hydrogen and fuel cell economy in the Midlands," said Bill Mahoney, SCRA CEO. "SCRA is pleased to lead investment in this and other projects that fulfill our legislative mandates through the Innovation Centers and Industry Partnership Acts."

The station's first "customer" will be the Federal Transit Administration's National Fuel Cell Bus Program, which will provide a hybrid battery - fuel cell bus for demonstration in Columbia beginning late in 2008. The bus, which is being built in Golden, Colorado, will operate in Columbia for a year as part of a three-site test program.

For more information about the project, read the full press release at www.scra.org

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education efforts. The NanoCenter pursues a broad range of research projects, including polymer nanocomposites, nanoelectronic, catalysis nanoscience, and bio-nanotechnology, as well as research on the impact these technologies will have on society.

Download the April 2008 report, [The National Nanotechnology Initiative: Second Assessment and Recommendations of the National Nanotechnology Advisory Panel](#)

Tech Entrepreneurship Not Just for Young Hot-Shots



A new Kauffman Foundation study erases the myth that most technology-based entrepreneurial companies are founded by young hot-shots who

have the energy and the stamina to survive the grueling early days of a technology start-up. The new study shows that most tech firm founders are middle-aged with extensive experience in key business and technology disciplines. The study surveyed 652 US- born technology firm executives to assess their backgrounds and life experiences. The findings are quite constructive.

To read about the study's findings, download the May 2008 Kauffman Foundation report [Education and Tech Entrepreneurship](#) by Vivek Wadha, Richard Freeman, and Ben Rissing.

Are you a techy with an idea? Keep an eye out for the next session of FastTrac Tech Venture where you'll collaborate with like-minded techpreneurs and learn how to make your vision a reality. Check out www.fasttracsc.org

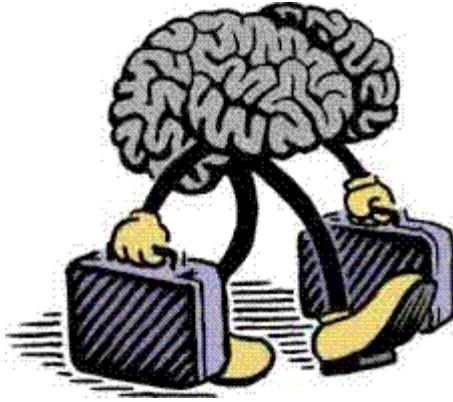
June Science Cafe: Plugging the Science and Engineering Brain Drain

[Blue Cross Blue Shield](#)



[Wachovia](#)

Please join us and bring a friend to our June Science Cafe featuring **Dean Michael Amiridis** from the USC College of Engineering and Computing.



Find out more about the issues facing engineering education and the steps being taken towards a solution at the next Science Cafe.....

When: June 10th

Where: M Cafe (1417 Sumter Street)

Time: 6:00-7:00 PM

Speaker: Dr. Michael Amiridis, Dean and Professor at the USC College of Engineering and Computing

RSVP: krobinson@engenuitysc.com

As always, all ages are welcome and a background in science is not necessary!

For more information about Science Cafe check out www.engenuitysc.com/sciencecafe/

Email: news@engenuitysc.com