

Moving to Anywhere, Anytime Learning Institutional Strategies for Meeting Online Education Needs of Lifelong Learners

Dr. Andy DiPaolo Executive Director, SCPD Senior Associate Dean, School of Engineering



Where is this?









Bangalore: Silicon Valley of India









And what is it like to get there...









An online education opportunity?









Online Education Continues to Evolve...



 Successfully established with mixed elements of hype and reality and rapidly becoming mainstream. It is growing, here to stay and becoming a larger part of an institution's portfolio.



 Many providers ranging from traditional universities to collaborations to start-ups.

 Learners select online providers based on quality, cost, brand, pedagogy and especially those most able to aid in employability and career growth.



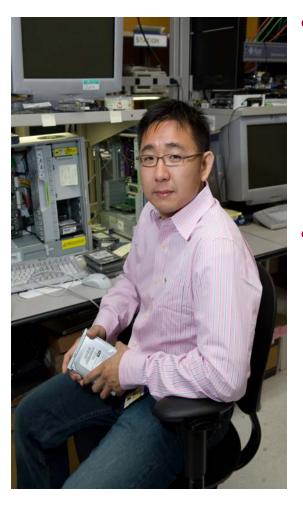
The Challenge

What Do Lifelong Learners and **Employers Want, Need and Expect of** Online Higher Education Providers?



Assume responsibility for increasing personal market value. Busy yet anxious to learn.

Access to learning anytime and anywhere. Learners want a mobile, on-the-go, 24/7 connection to education.



- Convenience and flexibility with a range of course and delivery options and multiple avenues for learning.
- Wide range of online degree, certification and career-building programs with flexibility around when programs start and end. Push is for short, focused modules and "learning experiences" versus courses.



- Well-designed, engaging, relevant and continuously updated programs which facilitate the transfer of learning to direct application. Rapid mastery of knowledge and skills – practice oriented education – is the desire. Want mix of formal and informal education.
- Emphasis on active, challenging scenario-based learning using real, vivid and familiar examples. Think games, simulations and shared virtual environments.



- Self-directed, demand-driven learning with control of the sequence and pace of learning. Impatient with inefficient methods. Want to multi-task while learning.
- Choice of synchronous, asynchronous and blended learning options with small class sizes.



- Personal learning paths based on assessment of knowledge gaps, learning styles & preferences. Think TIVO. Shift from "just-in-case" to "just-in-time" to "just-for-me" education.
- Expert facilitation along with provisions for e-advising, e-coaching and e-mentoring.



- Participation in a learning community using social networking tools for peer -to-peer learning and relationship building. Shift from "connectivity to collectivity" - Web 2.0 - and interest in Web 3.0 virtual worlds.
- Chance to learn, refine and apply online collaboration skills and knowledge management tools in group learning situations. Interest in international interactions.



- Access to providers with a recognized brand and reputation. Will consider content integrated from a mix of higher education, professional associations, publishers, govt agencies and companies – but want formal "certification" from a university.
- Preview of courses, rating of content and assignments, and review of evaluations before registering.



- **Development of digital career** portfolio to include faculty reviews and archiving functions.
- Personal support services with a focus on "student as customer." Elimination of delays and inefficient procedures regarded as essential.
- Competitive and variable pricing.



- Timely, prompt, detailed and meaningful forms of assessment and feedback.
- Delivery to mobile devices which are smarter, faster, cheaper and usable anywhere.
- Ongoing educational renewal over an entire career with commitment from their institution to support learning for a lifetime.

Venture Capital Prospectus Online Higher Education Company

Higher Education...

- Is one of the most fertile new markets for investors in many years.
- Presents the opportunity for very large scale activities.

Has many disgruntled current users.

Venture Capital Prospectus Online Higher Education Company

 Generates a large amount of revenue and its market is increasing and becoming global.

 Poorly run, low in productivity, high in cost, and relatively low technology utilization.

 Existing management is sleepy after years of monopoly and field is ripe for takeover, remaking and profits.

Online Education Entrepreneurs Versus **Traditional Institutions**

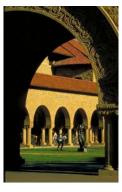
- Larger investments, more resources.
- Nimble, flexible, responsive and speedy to market with a deep understanding of students and their needs.
- Apply commercial grade marketing, sales, customer service, course design and production skills.

Online Education Entrepreneurs Versus **Traditional Institutions**

- Ability to easily capitalize on instructional technology.
- Freedom from academic politics and bureaucracy with strict instructor evaluation measures.
- Regard education as a commodity.









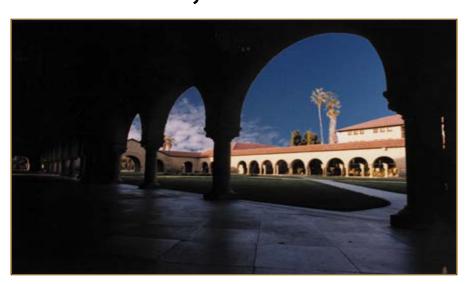
Online Education: How Does Stanford Do It?





Stanford University

- Located in Silicon Valley and recognized as offering high quality research and education programs.
- Schools: Engineering, Medicine, Law, Business, Humanities, Earth Science and Education.



 Very strong history of connections to industry.

Stanford University and Industry



"Stanford University fosters a climate where collaboration with industry thrives, generating both breakthrough discoveries and the science and technology that can support continuous innovation."

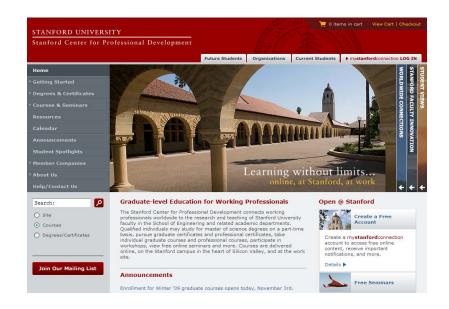




"With a long history of very productive relationships with corporations of all sizes, from startups to mature, successful enterprises, Stanford provides firms with education, research partnerships, consulting, and connections to world class faculty and students."

- Stanford Corporate Relations

Stanford Center for Professional Development



SCPD collaborates with Stanford faculty and industry experts to develop and deliver graduate and non-credit programs online, on campus and at work to meet the lifelong education needs of professionals and managers.

Stanford Center for Professional Development

Stanford University Curriculum and Research

Graduate Programs





Professional Programs

bridging Stanford and Industry



Delivers lifelong education to increase productivity, support career growth and strengthen corporate competitiveness.

The Problem

"What our engineers and managers are saying is that the demands of their jobs are such that they can't get away from work. Since they are working 60 hours a week any education they get has to be at their convenience and available online."

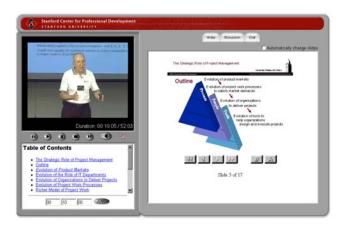
- Manager of Engineering Education - Amp Inc.



Stanford Online

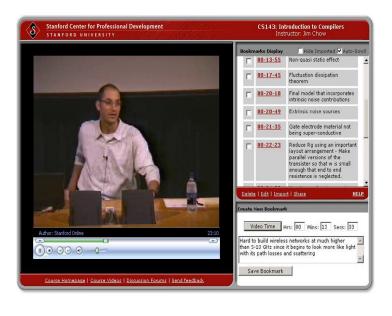
Provide busy, mobile professionals and managers access to career-long education where and when needed.

Stanford Online



- Delivers asynchronous graduate education and professional programs to industry students in 40 countries.
- First university to offer online graduate degree in engineering and science.
- Current online portfolio: 52 masters degree concentrations, 40 graduate certificates, 65 professional ed courses and thousands of hours of free programs.

Stanford Online



- Courses redone annually to insure coverage of latest research and application.
- Rapid production process.
- Uses community tools.
- Used strategically in support of Stanford's departments, centers and research initiatives.
- Highly valued by distance and campus students.

A Successful Online Program **Stanford Advanced Project Management Certificate**

- Joint faculty/industry development.
- Engaging, relevant and up-to-date content.
- Modular format delivered on-campus, online, on-site or in combination.
- Individual start, path and pace.
- Participation in a networked community.



A Successful Online Program Stanford Advanced Project Management Certificate

- Includes course previews/ratings and offers variable pricing.
- Fits students needs and lifestyles.
- Faculty satisfaction with results and reward structure.
- Corporate satisfaction with program and results.
- Awarded "Best Professional Education Program in U.S." by Association for **Continuing Higher Education.**



Mobile Delivery Introduction to Electronics



- Students download course videos and materials.
- Participate asynchronously at industry sites and at Overseas Studies Program in Berlin, Paris and Kyoto.
- Built in video camera and Wi-Fi allows for synchronous discussion, team activities and lab work while on the move.

Stanford Engineering Everywhere



Open access to complete courses in electrical engineering and computer science for free use, reuse, adaptation and redistribution by educators, students, and self-learners. *SEE.Stanford.edu*

United States Distance Learning Association



WWW.USDLA.ORG

Choices and Challenges

"Impressive advances in technology over the past few years provide hope that technological solutions, intelligently applied, can allow greater access, higher quality and lower cost per learner. To achieve massive improvements through technologies will require learning from past mistakes and careful analysis of how to innovate broadly and durably."

- Sir John Daniel

Former Vice Chancellor, UK Open University



Converting Lessons Learned into Institutional Strategies Ten Recommendations for Online **Higher Education**

- 1. Online education program needs to be consistent with institution's mission, values, strengths and areas of distinction. It should build from tradition in new ways.
- 2. Begin with a clear, worthy strategic plan in alignment with the institution's plan keeping it close to core faculty and stakeholders. Best to use traditional academic structures and systems to promote change and accelerate development.

- 3. Position online education initiative as a way to extend and enhance existing programs. Develop a unique niche to meet a local, national or global market need. Consider forging alliances and working with outside partners, but protect the brand.
- 4. Aim for the "sweet spot" intersection of audience needs and wants, institutional strengths, faculty interests and what people will pay for. Stanford Center for Professional Development • 38

- 5. Think course-to-certificate-to-degree progression. Online versions of existing courses are easier to create than new ones. Continuing and professional education is a good place to start.
- 6. Recruit and train faculty by offering incentives and rewards supportive of innovation. Address concerns regarding ownership of intellectual property, increased student demands and impact on workload.

- 7. Develop a financial model covering costs and investments with revenue distributed to participating departments and faculty. Point out non-revenue values of online education outreach.
- 8. Start small: pilot with existing students, alumni and focus groups. Experiment, adapt, improve and incorporate best practices. Grow carefully in order to scale and sustain. Publicize only when ready and showcase success stories.

- Don't do it all locally. Work with faculty to develop online courses using their own materials blended with others that are free or purchased.
- 10. Identify every possible service interaction so that online students and faculty have a productive, positive and rewarding experience. Be fast, flexible and attentive.

Choices and Challenges

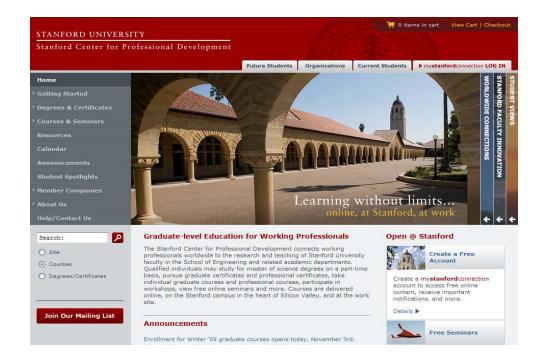
- Remember: it is not about technology it is about innovation to improve learning!
- Question everything like an entrepreneur. Think daringly, execute steadily.
- Capitalize on the unexpected and have the courage to stop doing.
- Appoint faculty and staff with vision, passion and a willingness to take risks.

Choices and Challenges

"The scarce resource today is not bandwidth, but people who can create and innovate in the knowledge age."

- How Academic Leadership Works

Questions and Conversations



adp@stanford.edu

scpd.stanford.edu



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 UMass Online – using courses developed by faculty from 5 state universities – expands online enrollments in one year to over 35,000 (+26%) and revenue to \$37M (+32%).

January 2009

 University of Phoenix – largest private university in North America – enrolls over 160,000 in online degree programs. Anticipates 500,000 students worldwide by 2010. December 2007

 After spending \$10M Univ of Illinois Global Campus – originally planned as stand-alone, for -profit, degree-granting institution – resets due to faculty concerns about oversight, structure and low enrollments.

May 2009

Global University Alliance – a partnership with nine universities on four continents to deliver online graduate and professional education throughout Asia - fails. November 2006

- Over 150 institutions from 38 states join together to offer free online courses to support thousands of displaced students from Hurricane Katrina. Effort provides boost to acceptability of online higher education. October 2005
- Sloan Foundation contributes over \$60M to 118 academic institutions to develop asynchronous learning networks. February 2007

 Scotland's Interactive University claims it enrolls more than 60,000 online students in 20 countries in first 18 months – then closes down three years later due to low numbers and lack of government support.

April 2007

 Intel and Microsoft work with institutions to develop company-specific online graduate degree and certificate programs. February 2005

 Universitas 21 Global, an international education partnership of 21 research universities in 13 countries, offers online degree and professional programs and anticipates 60K enrollments by 2010. January 2008

• Donald Trump opens "Trump U" offering online courses in business education. May 2005

- American Council on Education indicates online higher education is attractive to entrepreneurs and unless traditional universities seek more online students will likely lose an increasing share of market to alternative providers. August 2005
- OpenCourseWare Consortium offers free access to 5000 online courses/materials from more than 200 higher education institutions in 28 countries. November 2008

- UK eUniversities Worldwide designed to provide global online degrees and certificates from UK's best universities fails after spending \$63M. May 2004
- Canadian Virtual University a consortium of 13 universities – successfully functions as a portal for access to nearly 2500 online courses representing over 300 online degree and certificate programs. October 2008

- After spending over \$30M Columbia
 University closes Fathom, its money-losing online learning venture. January 2003
- With more than 300,000 enrollments, the University Alliance Online – a private company – markets online degrees and certificates from 9 accredited U.S. universities. Sept 2007

- Australian universities launch aggressive advertising campaign with government support in a bid to maintain share of lucrative international online education market for career development. May 2004
- Newsweek Magazine and Kaplan University announce online global MBA degree program. September 2006

- Great Plains Interactive Distance Education Alliance combines courses from 11 large state universities to offer online graduate degrees and certificates. November 2007
- Global Education Network a for-profit, company offering online courses to universities – closes after five years and spending \$20M. January 2007

 Italian government blocks approval process for its 11 online institutions until it develops satisfactory standards. January 2007

 eARMYU's \$600M partnership with 28 institutions makes 145 degree and certificate programs available online to enlisted soldiers. April 2007

- Ireland and UK sign higher education pact to create lifelong access to flexible and convenient e-learning programs. November 2005
- Indian Institute of Technology India's premier seven university system – offers self-learning, video-on-demand courses to, corporations, labs and universities around the world. January 2006

- United Nations and 14 university partners launch Global Virtual University delivering online degrees and courses to address environmental issues faced by developing countries. June 2003
- AllLearn a nonprofit venture by Yale, Stanford and Oxford to provide online continuing education courses in the humanities – closes citing financial woes.

March 2006

- New York Times Knowledge Network partners with universities to provide access to online professional development and personal enrichment courses. September 2007
- Stanford Center for Professional Development adds to its portfolio and now delivers 350 online graduate and cont ed courses to technology professionals and managers worldwide. February 2008

In online education it sometimes feels as if...

- You're driving a new car down an unfamiliar road
- Without a map
- To get to an unknown destination at breakneck speed

It may sometimes seem like the best strategy is doing nothing!

SCPD Customers





















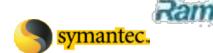














BAE SYSTEMS





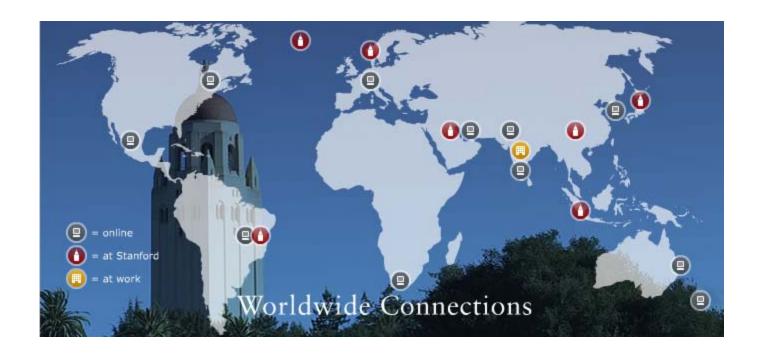






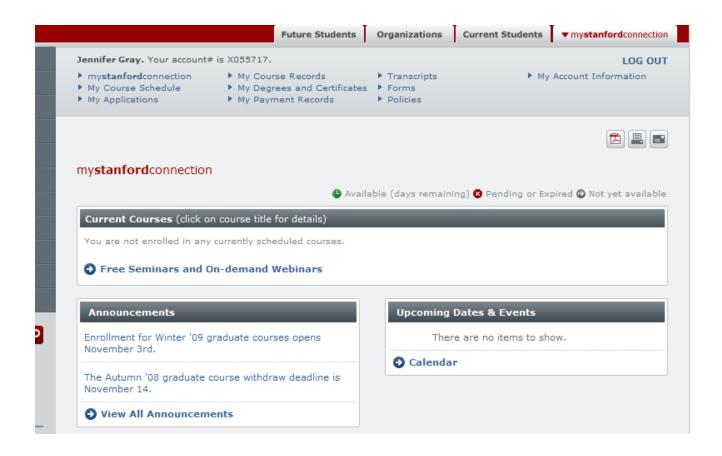
Stanford Center for Professional Development

Learning without limits. . . online, at Stanford, at work



The SCPD User Experience

mystanfordconnection— a new student portal



Stanford Engineering Everywhere **Sample Courses**

Introduction to Computer Science

- **Programming Methodology**
- **Programming Abstractions**
- **Programming Paradigms**

Artificial Intelligence

- **Machine Learning**
- Introduction to Robotics
- **Natural Language Processing**

SEE.Stanford.edu

Linear Systems and Optimization

- **Fourier Transform and its Applications**
- **Introduction to Linear Dynamical Systems**
- **Convex Optimization I**
- **Convex Optimization II**