Changes can create opportunities, but also threaten an organization.

A business, similar to a living organism, often must evolve (i.e., to overcome or as a minimum leverage changes) in order to ensure its sustainability.
The eventual consequence of a failure to have an advantage over any competitor in a given ecosystem is often extinction (Henderson, 1983).
Unlike other industries (e.g., air transportation or energy), the mobile industry evolves with multi-scale innovations (i.e., from disruptive to simple face-lift) in months (Kim, 2005) or even weeks, but not decades or years.
Darwin (1859) proposed the idea that organisms adapt and evolve through natural selection, creating particular ecological niches and eventually resulting in the emergence of new species.
Fine (1998) claimed that when industries are faced with new challenges, they must evolve or adapt in order to avoid extinction.
market penetration -> market expansion
Clock speed
A New Species

- University of Phoenix, Argosy University, Corinthian Colleges, and Strayer University
University of Phoenix

Who is University of Phoenix?
A family, a career, an on-the-go lifestyle...used to be, you had to put it all on hold to go back to school. We decided to change that.

Whether they're earning their associate's degree through Axia College, or their bachelor's or graduate degree from U. of Phoenix, our students are earning their degrees and living their lives.

Please explore our MySpace community or learn more by visiting our website.

University of Accomplishment
UoP is a great for those who wish to continue their education. UoP has helped in many different ways, all of which I use and apply in my...
YOUTUBE Channel for University of Phoenix
Lead generation
Completely online. One 3-story building in the middle of desert in Arizona. Started as non-profit and received accreditation in 2003. 7000 students in 2008.
• Members of this new species have introduced interesting learning models into the higher education ecosystem.

• They also receive an increasingly significant amount of Title IV federal funding while attracting older and working people who would not or could not otherwise become students in traditional higher education institutions.
Chief Aim of Education

• Chief aim of education (for social efficiency in the technocratic schooling system, or to promote world peace, social empowerment, or shared global prosperity⁴), higher education systems have focused on being knowledge creation labs and knowledge distribution centers.
Many traditional systems have tried to be good at both missions. Those organizations that did not do well with either mission failed to evolve and became extinct or evolved into a different species (for example, Grand Canyon University evolved from a Christian nonprofit to a for-profit university, and its once small online program has mutated into one of a conglomerate of online education services).
MYSPACE for Grand Canyon University

“Almost closing down status” to 13000 students in 7 years. NASDAQ IPO in 2008
IBM & Apple

• With his model, he examined how IBM tried to disintegrate its proprietary personal computer model and modularize it with Microsoft’s operating system and Intel’s CPU, whereas Apple tried to maintain its proprietary product design approach by integrating its own operating system and hardware. As a result, IBM-compatible computers quickly dominated the market. More recently, Apple has introduced a series of interesting computing and communication devices coupled with a content supply model, while Google’s open-source Android operating system for mobile computing devices is creating new — evolutionary? — dynamics in the computer industry.
• The higher education ecosystem doesn’t have much of a plug-and-play concept involving a global open interface in operations or teaching and learning.
• For example, most home-grown systems (student admissions, faculty search and appointments, course scheduling, academic records, portfolios, etc.) are highly proprietary unless reluctantly shared (for example, universities can’t even agree upon student transcript formats!).
• At best, some teaching-focused universities might share open curriculum repositories within a university system, some professors might download and take their common digital assets when moving to another university, and students might be able to use the same learning software packages in more than one university.
• There just isn’t much in the way of noticeable, systematic, open interface approaches in higher education.
• How open is it when the most needy and underprivileged people cannot access so-called “open resources”? Unfortunately, there is no shared understanding of contextualized open resources.
For example, highly motivated students in Butare, Rwanda, still cannot plug and play Harvard University Business Administration courses, Stanford University’s Organic Chemistry course, or Oxford University’s Psychology course using the National University of Rwanda’s classroom player. How open is it when the most needy and underprivileged people cannot access so-called “open resources”? 
• Unfortunately, there is no shared understanding of contextualized open resources, and there are very few signs of evolution in this arena. Certainly higher education labs or centers today show little interest in making open access a goal.
• Interestingly, some school districts in the K–12 sector are outsourcing math and science teaching jobs (leveraging synchronous and asynchronous web conferencing systems) to India to lower costs and provide 24 × 7 access to one-on-one, high-quality online tutoring.
• Some districts offer third-party online programs as supplementary interventions or even as charter school options for within-district students.
Despite a huge number of applicants (that is, growing digital youth), some districts had to limit enrollment to their virtual charter schools because they couldn’t accommodate them all.
Newer concepts such as online education, blended learning, open educational resources, iTunes University, MIT OpenCourseWare, Google Scholar, Wikipedia, Thomson Reuters Scholar One, learning management systems, or e-portfolios have begun influencing certain functions in higher education, however.
• For example, while professors lecture with PowerPoint slides and simulations, students often take photos with their mobile phones instead of writing notes and send their digital collections to a cloud computing storage system called “Gmail” for later retrieval or “Google Docs” to collaborate with peers.
• If something doesn’t make sense during lectures, students often search using Google or Wikimedia to get more information — if not “Twitcaming” to ask someone to comment while the professor is talking. Many professors and students use web and mobile blogs to reflect and express ideas.
In the midst of such rigidity in higher education, college students with traditional degrees graduate into an economy of rapidly emerging, previously unseen jobs and must make do with an education that did not prepare them for this new environment.
• Tracing a possible evolutionary path seems an interesting and meaningful endeavor. Obviously, however, evolution is a reactive phenomenon.
• It would be more noble and timely if the higher education community became more proactive in redefining the chief aim of education while embracing new ideas, decoupling university functions, unbundling teacher roles, and perhaps creating some open exchange modules to seek sustainable higher efficiency for all.
• When such evolution takes place, maybe no one needs to be left out of a newly thriving higher education ecosystem.
Why are they successful?

One semester-long lecture in 3 slides...
Students

New market

- Non-traditional
- Failed to enter college previously
- Older
- More minority
- Under-prepared
- Working
Value

- Convenience, convenience, convenience
- Focus on employability
- Meet high occupational demands
- Meeting the current needs of the marketplace, especially in areas where there is a strong unmet demand for specialized education and training.
Business Characteristics

• Acquisition (Lower CPL/ Higher Conversion / Lower Acquisition Cost)
• High Retention / High Placement
• Expanding more profitable programs
• Keep recruiting talents
• Constantly preparing for government audits (Federal Title IV, State Bureau, Accreditation)
• Tightly measuring all performance indicators
Technological Innovations
Synchronous Mobinars
Access materials

mired by discrete factors, later known as genes. His work transformed agricultural breeding from an art to a science.

The genetic experiments Mendel did with pea plants took him eight years (1856-1863). He published his results in 1865, and his laws of genetic inheritance earned him his place in history as the Father of Genetics.
Interact with people
Organize your e-portfolio
On-going Student Projects
10 Gbps backbone since 2006 to be upgraded to 100Gbps by 2010.
• HD video streams transmitted over Gbps
• People have synchronous discussions
• Videos are archived in video libraries

Laparoscopic procedure to remove ovarian cancer

www.accessgrid.org www.sfc.wide.ad.jp/DVTS/
• Dr. Lee posts his discussion materials on the web.
• Participants discuss the case synchronously while making remarks and notes.
• All augmented information is archived and organized for later retrieval.
• New comers retrieve the archived materials and discuss further asynchronously.
Possible Shift with Web 2.0 in E-Learning

- Content
- Lecturer
- Student
- Textual Postings
  - Frequency Counting (N) / Discrete Outcomes
  - Descriptions/Replies

- Problem
  - Researcher
    - Problem Solver
    - Project Manager
- Facilitator
- Multimodal Interactions
- Content / Interaction Analysis (CT)
- Higher-Level Learning / Collective Intelligence

Product
- Formal
  - Structured
    - Single Mode

Process
- Informal
  - Unstructured
    - Ubiquitous Mode
Changes are hard?

- UOP vs. SouthWest Airline
- USPS vs. Fedex
Creating a new market

• UOP converted non-traditional students to traditional students by offering convenience
  – Always start a campus in a shopping mall, hotels, or business district
  – Class schedule and time (1 night a week, 4 hours a night, 1 course every 5 weeks, starting at 6:00PM and ending at 10PM, or weekend classes)
  – Off-line, Online, and Hybrid option
  – Weekly starting point. (No waiting period)
  – One on one academic advisor assigned
Creating a new market (2)

• SW converted non-frequent flyers to frequent flyers by offering highly affordable fares with simplicity in the various aspects of flying
Standardization

• UOP standardized its curriculum - 400 campuses use the same curriculum and textbook
  – Faculty has no choice over curriculum or textbook
    • Faculty may change course activities, assignments, and evaluation criteria
• SW standardized its aircraft with Boeing 737
  – Passengers have no seat choice
    • Passengers can sit in the order of A,B, or C priority seating depending on when they check in.
Tax & Regulations

• Highly taxed by IRS
  – UOP pays both state and federal income tax since it is a for-profit enterprise

• Highly regulated
  – UOP is under DOE regulation, NCA accreditation
  – SW is under DOT regulation and FAA oversight
Reduce CapEx and control fixed cost

- UOP always leases buildings - easy to move, expand, and be able to respond to possible market changes
- UOP hires adjunct faculty on 1099 - No fringe benefits
- SW uses fuel hedging contracts - pay for fuel at a fixed price for the future. - buying high level of certainty.
- SW flies between secondary airports to save airport charges
USPS vs. Fedex

• Perception
• Results