The Second Revolution of Teaching and Learning

Gary W. Matkin, Ph.D.
Dean, Continuing Education
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Presentation Goals

- Describe the “Second Revolution of Teaching and Learning”
- Discuss its impact on the world of higher education
- Discuss the impact on UC Irvine, University Extension, and Orange County
The Way We Were ...
What is a Revolution in Teaching and Learning?

- Changes the behavior of teachers and learners
- Introduces greater access or efficiency
- Creates a merger of life and learning
- Causes disruption
Socrates (Σωκράτης)
Plato (Πλάτων)
The Gutenberg Press
The Second Revolution
The Internet and its Related Technologies
## Total and Online Enrollment in Degree-granting Postsecondary Institutions – Fall 2002 through Fall 2007

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Enrollment</th>
<th>Annual Growth Rate Total Enrollment</th>
<th>Students Taking at Least One Online Course</th>
<th>Annual Growth Rate Online Enrollment</th>
<th>Online Enrollment as a Percent of Total Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2002</td>
<td>16,611,710</td>
<td>NA</td>
<td>1,602,970</td>
<td>NA</td>
<td>9.6%</td>
</tr>
<tr>
<td>Fall 2003</td>
<td>16,911,481</td>
<td>1.8%</td>
<td>1,971,397</td>
<td>23.0%</td>
<td>11.7%</td>
</tr>
<tr>
<td>Fall 2004</td>
<td>17,272,043</td>
<td>2.1%</td>
<td>2,329,783</td>
<td>18.2%</td>
<td>13.5%</td>
</tr>
<tr>
<td>Fall 2005</td>
<td>17,487,481</td>
<td>1.2%</td>
<td>3,180,050</td>
<td>36.5%</td>
<td>18.2%</td>
</tr>
<tr>
<td>Fall 2006</td>
<td>17,758,872</td>
<td>1.6%</td>
<td>3,488,381</td>
<td>9.7%</td>
<td>19.6%</td>
</tr>
<tr>
<td>Fall 2007</td>
<td>17,975,830</td>
<td>1.2%</td>
<td>3,938,111</td>
<td>12.9%</td>
<td>21.9%</td>
</tr>
</tbody>
</table>

### Level of Study of Online Students - Fall 2007

- **Graduate**
- **Undergraduate**
- **Other**
Growth in Online Learning at UC Irvine
Why Do We Need this Second Revolution?

- One billion people in the world need higher education—and they aren’t going to get it on a campus.
- Many people in the OC need help.
High School Diploma Attainment
Bachelor’s Degree Attainment
Demonstrations
Google Earth
Care to See the Back Side of the Moon?
### Simple Data Mashup

**Change in Home Prices Sept over Sept and Election Polling Data**

<table>
<thead>
<tr>
<th>State</th>
<th>Change in Home Prices</th>
<th>Candidate</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>-28.71%</td>
<td>Obama</td>
</tr>
<tr>
<td>Nevada</td>
<td>-23.69%</td>
<td>Obama</td>
</tr>
<tr>
<td>Florida</td>
<td>-15.33%</td>
<td>Obama</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>-12.60%</td>
<td>Obama</td>
</tr>
<tr>
<td>Michigan</td>
<td>-9.38%</td>
<td>Obama</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>-5.04%</td>
<td>Obama</td>
</tr>
<tr>
<td>Ohio</td>
<td>-4.29%</td>
<td>Obama</td>
</tr>
<tr>
<td>Kansas</td>
<td>1.42%</td>
<td>McCain</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>1.50%</td>
<td>McCain</td>
</tr>
<tr>
<td>Mississippi</td>
<td>2.14%</td>
<td>McCain</td>
</tr>
<tr>
<td>South Dakota</td>
<td>2.17%</td>
<td>McCain</td>
</tr>
<tr>
<td>Texas</td>
<td>2.61%</td>
<td>McCain</td>
</tr>
<tr>
<td>West Virginia</td>
<td>2.66%</td>
<td>McCain</td>
</tr>
<tr>
<td>Montana</td>
<td>2.79%</td>
<td>McCain</td>
</tr>
</tbody>
</table>

Source: *Orange County Register* Oct. 26, 2008
Heart Simulation

University of Utah Medical School
Organic Chemistry, 7th Edition
includes CengageNOW 2-Semester Printed Access Card

John E. McMurry - Cornell University
1344 Pages  Casebound
© 2008  Published

Companion Site

Buy Now at iChapters.com
Just -in-Time Information

SRI’s Values, Attitudes, and LifeStyle Survey
VALS™ Survey

Having trouble with the survey? Check out the Survey Help / VALS™ FAQ page!

Have you taken this survey before? ☐ Yes  ☐ No

1. I am often interested in theories.
   ☐ Mostly disagree  ☐ Somewhat disagree  ☐ Somewhat agree  ☐ Mostly agree

2. I like outrageous people and things.
   ☐ Mostly disagree  ☐ Somewhat disagree  ☐ Somewhat agree  ☐ Mostly agree

3. I like a lot of variety in my life.
   ☐ Mostly disagree  ☐ Somewhat disagree  ☐ Somewhat agree  ☐ Mostly agree

4. I love to make things I can use every day.
   ☐ Mostly disagree  ☐ Somewhat disagree  ☐ Somewhat agree  ☐ Mostly agree

5. I follow the latest trends and fashions.
   ☐ Mostly disagree  ☐ Somewhat disagree  ☐ Somewhat agree  ☐ Mostly agree

6. Just as the Bible says, the world literally was created in six days.
   ☐ Mostly disagree  ☐ Somewhat disagree  ☐ Somewhat agree  ☐ Mostly agree

7. I like being in charge of a group.
   ☐ Mostly disagree  ☐ Somewhat disagree  ☐ Somewhat agree  ☐ Mostly agree

8. I like to learn about art, culture, and history.
   ☐ Mostly disagree  ☐ Somewhat disagree  ☐ Somewhat agree  ☐ Mostly agree
Thinker/Innovator

Your primary VALS type is **Thinker**, and your secondary type is **Innovator**.

The primary VALS type represents your dominant approach to life. The secondary classification represents a particular emphasis you give to your dominant approach.

Want to learn more about VALS™?
**Get our Understanding U.S. Consumers handbook.**
What Are We Doing at UCI?

- OpenCourseWare
- Learning Communities
- International Education
- Video Capture
- Campus Services
A Revolution

The University of California, Irvine has a long history of social engagement. As a leading public research University, an important part of its mission is to showcase and disseminate the research and scholarship of the University to the public.

Open educational content is a concept that will advance human knowledge.

About the Movement

OpenCourseWare (OCW) is a free and open digital publication of high quality university-level educational materials, often including syllabi, lecture notes, assignments and exams. Open educational resources are based on the notion that knowledge and education are common goods that must be supported by a community of users and contributors.

Our Contribution

As a proud member of the OCW Consortium, the University of California, Irvine strives to meet the following goals:

- To meet the University of California’s desire to play a significant role in the contribution to the social welfare of the state, the nation and the world.
Growth in OCW
As you develop your superhero, there are a number of basic rules you need to follow.

- Your superhero can not violate any laws of physics when it comes to how they interact with the world. However, you are allowed to be creative on how they might accomplish this interaction. The classic example is flying. Flying does not violate the laws of physics. After all, birds and airplanes do it all the time. But, if your superhero flies, you must justify a mechanism by which they fly.
- Your superhero can be like Batman, in which case their "superpowers" will be technological devices. In this case, you can propose "future" technology, as long as you keep in mind rule number 1.
- Your superhero needs an explanation of how they became a superhero and at least two superpowers.

On the course website, I have provided a discussion of powers for four classic superheroes: Superman, Spiderman, Batman, and Wonder Women. I am also providing links to clips from television shows where these characters are discussed. Please use these as a guide to developing your own superhero.
Prospective mathematics teachers need to understand the properties of field theory and how they apply to rational, real, and complex numbers. This includes what it means for rational and real numbers to be ordered fields, and why complex numbers cannot be ordered. Inequalities make sense in real numbers, because they are ordered. However, prospective teachers should understand that although inequalities do not make sense in complex numbers, equations have a fuller role with them, because every polynomial equation with real or complex coefficients can be completely solved in complex numbers by the Fundamental Theorem of Algebra (CTC, 2006).
Planning to achieve your financial goals requires two different sets of data in order to proceed.

1. Factual data about the current situation
2. Assumptions about the future

We'll consider these things in this last lesson in Module 1 – Preparing to Plan.
You’ll need to start assembling your financial information, and in some cases it may take a little time. Here is a list of some of the documents that you might get together before you proceed to the next lesson. [printable version – requires Acrobat Reader]

» Most Recent Payroll Stub
» Income Tax Returns
» Personal Employment Benefit Statements
» Company Benefit Plan Booklets
   » Group Pension Plans
   » Group Life Insurance
   » Group Disability Insurance
   » Medical, Dental, Vision Insurance
» Insurance & Annuity Contracts
   » Life Insurance
   » Health Insurance
   » Hospital & Major Medical
   » Disability Insurance
   » Automobile Insurance
   » Property and Casualty
» Statements of Bank Accounts, Stocks, Bonds or Other Investments
» Mortgage Statements
¡Bienvenidos al curso
Principios de la Planificación Financiera Personal!

Este curso fue creado mediante un subsidio muy generoso por parte de la Certified Financial Planner Board of Standards (Comisión de Normas para los Planificadores Financieros Diplomados) y por el Centro de Aprendizaje a Distancia de la Universidad de California, Irvine, bajo la Iniciativa de OpenCourseWare. El fin, es crear un curso que esté diseñado para brindar un panorama general global, pero fácil de comprender, acerca de la planificación financiera personal dirigida al público en general.

Con este curso no se pretende reemplazar al planificador financiero profesional, sino ayudar a que el público en general se convierta en un mejor consumidor del asesoramiento en la planificación financiera. El curso fue creado con el fin de ayudar a aquellas personas que no pueden pagar una asistencia de planificación extensa, a comprender mejor cómo definir y alcanzar sus metas financieras. El mismo, ofrece una comprensión básica para tomar decisiones mejor fundamentadas. Asimismo, el curso se puede considerar como una referencia de temas individuales que forman parte de la planificación financiera personal.

La planificación financiera, en su definición más amplia, es un esfuerzo por gestionar todos los aspectos de los temas financieros de una persona o una familia. Generalmente, esto comienza con la planificación de los gastos de la familia y se prolonga hasta la gestión de riesgos (seguro), impuestos.
As Miller's "The History of Training" makes clear, approaches toward training personnel have changed substantially over the past half-century or so.

» Click each decade to see how training has evolved from the 1950s to the 1990s:

- **1950s**
  - Basic training courses were conducted which included shorthand, typing, sales training and several technical and professional skills.

- **1960s**
  - Evaluation played a very small role.

- **1970s**
  - Corporate training programs offered business games, “In-basket” exercises, decision-making simulations, and role playing.

- **1980s**

- **1990s and Beyond**
As formas de treinamento de pessoal mudaram muito nos últimos 50 anos...

Veremos, a seguir, sob o aspecto cronológico, como ocorreram essas mudanças.
Learning Communities

How to Relate Successfully to Gifted Youngsters

This seminar explores the five most common behaviors of gifted students and explains how these behaviors manifest differently in the school and home setting. Strategies for effectively responding to these behaviors are presented.

Judith Roseberry, M.A., currently serves as the Treasurer of the California Association for the Gifted and as a consultant to state departments and school districts around the United States. She also leads a number of interaction groups for parents and teachers.
Video Capture
Online and Open Campus Services

- Current Projects
  - UCI Science Information Tutorial
  - UCI Health Science Information Tutorial
  - Paul Merage School of Business Career Power Courses
  - UCOP Intellectual Property Project
  - Online Placement Testing Project
  - How to Teach Online Course
  - How to Create on Online Course
Online and Open Campus Services

- Coming Projects
  - Intellectual Property
  - Emergency Preparedness
  - Library Project
  - Research Administration
Conclusion

- There is a technological imperative that we cannot turn back the clock on.
- Issue—those in charge of education now were educated before the 2nd revolution.
Conclusion

- We all have to be open to the wonderful changes that are coming, while not completely overturning the traditions.
Questions?