


## The Flat World Swung Open in Florida: How Web Technology Is Revolutionizing Education

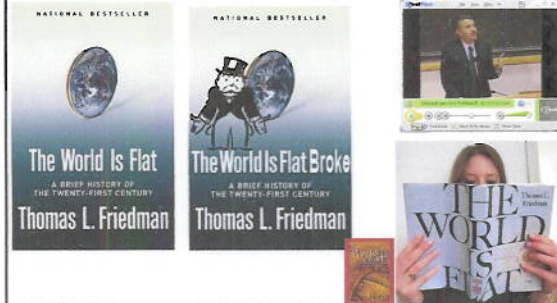
**Curtis J. Bonk, Professor, Indiana University**  
President, CourseShare, LLC  
cjbonk@indiana.edu  
<http://php.indiana.edu/~cjbonk>



## Do you know the shape of the world?



## Is the World Flat?



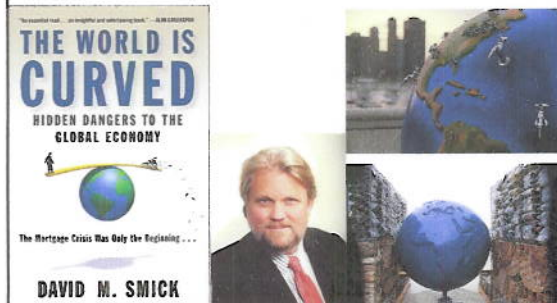
## The Ten Forces that Flattened the World

**Triple Convergence: (1) new economic  
players, (2) playing fields, and (3) processes.**

1. 11/9/89: Berlin Wall came down
2. 8/9/95: Netscape went public
3. Work Flow Software (e.g., PayPal and eBay)
4. Open-Sourcing (Self organ collab communities; Mosaic, Apache, Wikipedia, Linux, Mozilla)
5. Outsourcing (Y2K)
6. Offshoring (e.g., China, Mexico, Thailand)
7. Supply-Chaining (e.g., Walmart)
8. Insourcing (UPS fixing Toshiba laptops)
9. In-forming (e.g., Google, Yahoo!, MSN Web Search)
10. The Steroids: Digital, Mobile, Personal, and Virtual (wireless, file sharing, VoIP, video camera in phone)




## Is the World Curved?



## Is it spiky?



## Or is it Open?



The MIT Press

**Opening Up Education**  
The Collective Advancement of Education Through Open Technology, Open Content, and Open Knowledge

**The Complete Text (PDF) version (4,329 pages)**


**Forward: Creating a Culture of Learning**  
John Seely Brown

**Section 1: Open Educational Technology**

**Section Introduction**  
"Open Educational Technology: Empowering Applications"  
Open EdWare

**OPENING UP EDUCATION**




The Collective Advancement of Education Through Open Technology, Open Content, and Open Knowledge



EDITED BY  
Tony Bates and M.S. Vann Kester



## Oregon Scientific Smartglobe

## August 9, 2010, Bill Gates Predicts Technology Will Make 'Place-Based' Colleges Less Important in 5 Years

By Jeff Young, Chronicle of HE

<http://chronicle.com/article/Bill-Gates-Predicts-Technology-Will-Make-Place-Based-Colleges-Less-Important-in-5-Years/2010/08/09>

**Wired Campus**

Bill Gates Predicts Technology Will Make "Place-Based" Colleges Less Important in 5 Years

Bill Gates' latest prediction is that in five years, technology will make "place-based" colleges less important. He says that while the physical campus will still be important, the focus will shift to online learning and virtual environments.

Bill Gates on in-person vs. online edu...




## July 25, 2010, Professors' Use of Technology in Teaching, Jeffrey Young, Chronicle of Higher Education

**Percent of faculty who:**

- Never use it
- Use it at least some
- Use it a great deal
- Do not know what it is

Technology	Never use it	Use it at least some	Use it a great deal	Do not know what it is
Course management systems (Blackboard, Canvas, Moodle, etc.)	2%	72%	26%	0%
Plagiarism detection tools (Turnitin, iParagon, etc.)	4%	88%	8%	0%
Collaborative editing software (Wiki, Google Docs, etc.)	5%	85%	10%	0%
Shells	1%	84%	15%	0%
Student response systems (Clickers, iClicker, etc.)	9%	79%	12%	0%
Videoconferencing or Internet phone chat (Zoom, Numbers, etc.)	4%	82%	14%	0%
Video games, simulations, or virtual worlds (Second Step, etc.)	3%	81%	16%	0%




## May 24, 2010 Author Nicholas Carr, The Web Shatters Focus, Rewires Brains

[http://www.wired.com/magazine/2010/05/ff\\_nicholas\\_carr/](http://www.wired.com/magazine/2010/05/ff_nicholas_carr/)

**WIRED** MAGAZINE

Author Nicholas Carr: The Web Shatters Focus, Rewires Brains







### David Thomas, Archeologist, La Trobe University, Australia (Discovery News)

The image shows a screenshot of a Discovery News website. The main headline reads "Archaeologists Discover Ancient Egyptian Tombs". Below the headline, there are several smaller images and text snippets, including one about "The right to use the Internet is a human right" and another about "The right to use the Internet is a human right".

### Michael Perham & Zac Sunderland, Summer 2009 (each age 17, youngest person to sail solo around the world...and blog on it, use Skype, YouTube, take videos, post pictures, Minoru Saito, age 75, oldest solo sailor; August 21, 2010: 14 year-old Dutch girl)

The image is a collage of various photos and news snippets related to solo sailing. It includes a photo of a person on a boat, a map showing a sailing route, and a photo of a person on a boat. The text at the top describes Michael Perham and Zac Sunderland's 2009 voyage and mentions Minoru Saito and a 14-year-old Dutch girl.

Perhaps people learning online are akin to the alien archaeologists in the 2008 movie, *Indiana Jones and the Kingdom of the Crystal Skull*, Indy said, "Their treasure wasn't gold, it was knowledge. Knowledge was their treasure."

### WE-ALL-LEARN: Ten Forces that Opened the Learning World

- Web Searching in the World of e-Books (i.e., Darwin)
- E-Learning and Blended Learning
- Availability of Open Source and Free Software (e.g., Moodle)
- Leveraged Resources and OpenCourseWare (e.g., MIT)
- Learning Object Repositories and Portals (i.e., shared content)
- Learner Participation in Open Info Communities (YouTube)
- Electronic Collaboration and Interaction (sync and async)
- Alternate Reality Learning (Online Massive Gaming, Simulations, and Virtual Worlds; e.g., Second Life)
- Real-Time Mobility and Portability (e.g., iPhone)
- Networks of Personalized Learning (Blogs, RSS)

### Audience Participation!

- WE
- ALL
- LEARN!!!

### Triple Learning Technology Convergence of "WE-ALL-LEARN"

- Pipes:** The availability of tools and infrastructure for learning.
- Pages:** The availability of free educational content and resources (OER—Open Educational Resources).
- Participatory Learning Culture:** A move towards a culture of open access to information, international collaboration, and global sharing.



**Opener #1. Web Searching (e.g., Google, MSN, Yahoo!) in the World of e-Books (i.e., Darwin, Shakespeare, etc.)**

The Learning World is Open

**Trend #1. Web Searching in the World of e-Books. What happens then?**

**WE**

**ALL**

**LEARN!!!**

**Free Online Books and now the Blio (a free e-book platform to run on any device; Bright Spots: Canada, Korea, and California)**

**July 29, 2010 Amazon unveils 3rd-generation Kindle e-book reader, USA Today, Edward C. Baig**

**April 10, 2010: Seton Hill University, 2,100 students an iPad and freshmen a 13-inch MacBook laptop. August 10, 2010, Can college students learn as well on iPads, e-books?, USA Today, Beth Marklein**

**July 23, 2010 India unveils \$35 computer for students, CNN World, Harmeet Shah Singh**

## Opener #2. E-Learning and Blended Learning

The Learning World is Open

Oprah.com  
OPRAH'S Book Club  
A NEW EARTH WEB EVENT  
More in the Classroom  
Post-it! Flip

## Letter from Bill Gates about online learning (January, 2010)

<http://www.gatesfoundation.org/annual-letter/2010/Pages/education-learning-online.aspx>

BILL & MELINDA GATES Foundation  
ALL LIVES HAVE EQUAL VALUE  
2010 Annual Letter from Bill Gates: Online Learning

## Salmon Khan (Khan Academy) (videos on math, bio, trig, chemistry, money and banking, economics, statistics, etc.; <http://www.khanacademy.org/>)

KHAN ACADEMY  
Linear Algebra: Introduction to Vectors  
The Khan Academy  
Salman Khan: Math master of Internet

## A Grain of Rice: A Bloomington man's computer vocab game feeding the world (John Breen)

Rice  
For each word you get right, we donate 10 grains through the United Nations to help end world hunger.  
A GRAIN OF RICE

## Adora Svitak, age 12, World's Youngest Teacher

Adora Svitak: "Total adults can learn from kids"

## Florida Virtual School, 71,000 unique students

This is half credit completions, which means all included have successfully completed a half credit enrollment (per Julie Young, June 2, 2010)

NCVPS Predicted Growth

Academic Year	Actual Enrollment	Predicted Growth
2006-06	~10,000	~10,000
2007-07	~15,000	~15,000
2008-08	~20,000	~20,000
2009-09	~25,000	~25,000
2010-11	~30,000	~30,000
2011-12	~35,000	~35,000
2012-13	~40,000	~40,000
2013-14	~45,000	~45,000
2014-15	~50,000	~50,000

79% growth (per Dr. Bryan Setzer, Executive Director, North Carolina Virtual Public School Learns and Earns Online, July 6, 2010)

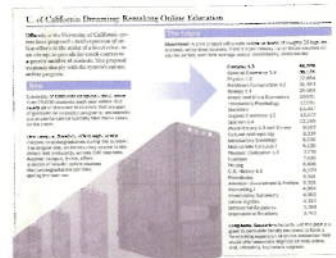
North Carolina Virtual Public School



**Capella Tower**  
**225 South Sixth Street, Minneapolis**  
**Formerly, the "Halo"**



**U. Of California System Proposing Online Ed**  
**Chronicle of HE, May 14, 2010, Josh Keller and Marc Perry**  
**"The university plans to spend about \$250,000 on each course. It hopes to raise the money from external sources like foundations or major donors."**



**iSMART: Integration of Science, Mathematics, and Reflective Teaching (iSMART) is a FREE 2-year online graduate program for middle school science and mathematics teachers in Texas, University of Houston**

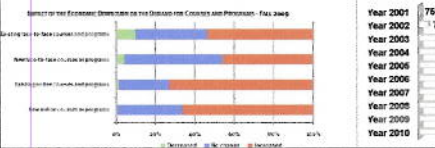
<http://www.coe.uh.edu/mycoe/CUIN/math/iSMART%20flyer4.pdf>  
<http://www.coe.uh.edu/mycoe/CUIN/math/iSMART.cfm>

You see the big picture. You find the connections. Make it official - become iSMART.

**Jen Chauvet and Mimi Lee, Univ of Houston**

**TOTAL AND ONLINE ENROLLMENT IN DEGREE-GRANTING POSTSECONDARY INSTITUTIONS - FALL 2002 THROUGH FALL 2008**

Year	Total Enrollment	Annual Growth Rate Total Enrollment	Students Taking at Least One Online Course	Annual Growth Rate Online Enrollment	Online Enrollment as a Percent of Total Enrollment
Fall 2002	16,611,710	NA	1,602,970	NA	9.6%
Fall 2003	16,911,481	1.8%	1,971,397	23.0%	11.7%
Fall 2004	17,272,043	2.1%	2,329,783	18.2%	13.5%
Fall 2005	17,487,481	1.2%	3,180,050	36.5%	18.2%
Fall 2006	17,758,872	1.6%	3,488,381	9.7%	19.6%
Fall 2007	17,975,830	1.2%	3,936,111	12.9%	21.9%
Fall 2008	18,199,920	1.2%	4,606,353	16.9%	25.3%



**Open U of Malaysia, March 25, 2010**

**Mexico's Monterrey Tech Pushes E-Learning, as Some Worry It Won't Solve Region's Burgeoning Need**  
**June 16, 2010, Chronicle of Higher Ed, Marion Lloyd**

**"A decade ago, only one in 50 Mexicans had access to the Internet. Today that figure is one in four, a staggering cultural transformation that is fueling a boom in online degree programs in the country."**  
**Monterrey Institute of Technology and Higher Education...has allowed it to reach more than 35,000 new students**



**U.S. DEPARTMENT OF EDUCATION**  
**Evaluation of Evidence-Based Practices in Online Learning**  
**A Meta-Analysis and Review of Online Learning Studies**

### Opener #3. Availability of Open Source and Free Software (e.g., Linux, Apache, Moodle, Sakai)

The Learning World is Open

### Moodle (35+ million users (930,000 registered) in 213 countries, nearly 50,000 sites, 3.5+ million courses, June 27, 2010)

### Opener #4. Leveraged Resources and OpenCourseWare (OCW) (e.g., free courses from MIT, Utah State, CORE, OOPS)

The Learning World is Open

### Open Educational Resources (OER) Post Courses in YouTube and iTunes (e.g., Berkeley)

### Opensource Opencourseware Prototype System (OOPS) funded by, the Foundation of Fantasy, Lucifer Chu, Chairman and Janitor of OOPS, Taipei)

The Biggest OCW Localization Volunteer Group in the World

### Sample OpenCourseWare Projects (Tufts, Johns Hopkins)



## National Repository for Online Courses (NROC) Commons

The screenshot shows the NROC Commons website. At the top, there's a search bar and navigation tabs. Below that, there's a section titled "Welcome to a world-class learning resource" with a list of course offerings. The interface is clean and professional, with a focus on providing access to high-quality educational content.

## Peer2Peer University and University of the People (free!)

**Neeru Paharia is behind Peer2Peer University, Fast Company, September 2009, How Web-Savvy Edupunks Are Transforming American Higher Education**

**Israeli Entrepreneur Plans a Free Global University That Will Be Online Only**

This collage features several news articles and photos. On the left, there's a photo of Neeru Paharia. In the center, there's an article from Fast Company titled "How Web-Savvy Edupunks Are Transforming American Higher Education". On the right, there's an article from Technology Review titled "Israeli Entrepreneur Plans a Free Global University That Will Be Online Only". The collage also includes a photo of a man in a suit, likely related to the Israeli entrepreneur mentioned in the article.

## Opener #5. Online Learning Object Repositories and Portals (shared content)

**A Single Group Helps Trigger an Online-Publishing Explosion**

The Public Knowledge Project, a nonprofit group, estimates that the online-publishing software it offers free has given rise to more than 5,000 open-access academic journals around the world. Below is their geographic distribution, by continent, as of last month.

The world map shows the geographic distribution of open-access academic journals. The data is as follows:

Continent	Number of Journals
North America	2,182
Europe	1,328
Asia	1,028
South America	537
Africa	12
Oceania	12

Below the map, there are two screenshots of online learning portals. The first one shows a search interface with various filters and options. The second one shows a list of journals with their titles and authors.

## College 2.0: More Professors Could Share Lectures Online. But Should They?, Chronicle of HE, Jeffrey R. Young, March 7, 2010

**"The introduction of video into almost every aspect of our learning and work tasks is profound and "disrupting." As designers, we must experiment with these formats – looking for evidence and appropriate use cases and examples of when not to use video." (Video blogs, Webinars, Webcasts, keynotes, etc., Elliott Masie, Learning Trends, March 2, 2010)**

This collage features several photos. On the left, there's a photo of a man in a suit. In the center, there's a photo of a man in a suit standing in front of a screen. On the right, there's a photo of a man in a suit standing in front of a screen. The collage also includes a photo of a man in a suit standing in front of a screen.

## How about rich video portals?

**Most of the Websites below did not exist 5 or 10 years ago.**

1. BBC News Video and Audio
2. CNN.com Video
3. MSNBC.com
4. Google Video, Yahoo Video
5. Current TV
6. Fora TV
7. MIT World
8. YouTube, YouTube Edu
9. TeacherTube
10. Link TV, Explore, Global Pulse, Latin Pulse
11. Howcast, Big Think, WonderHowTo, Explo.TV, NASA TV, ClipChef, TV Lesson, BookTV, Edutopia videos, MonkeySee, doFlick, the Research Channel, iVideosong

The logos for Google, YouTube, Howcast, and BookTV are displayed. The YouTube logo is the most prominent, with the text "Broadcast Yourself" below it. The Howcast logo is a blue arrow pointing to the right. The BookTV logo is a red triangle with the text "BookTV" and "ON CSPAN2" below it.

## How TED Connects the Idea-Hungry Elite, Fast Company, Anya Kamenetz, September 1, 2010

<https://www.fastcompany.com/magazine/148/how-ted-became-the-slow-harvard.html>

The screenshot shows a Fast Company article titled "How TED Connects the Idea-Hungry Elite". The article features a photo of Chris Anderson, the founder of TED, and a quote from him: "Chris Anderson: The entrepreneur bought TED in 2001. 'It felt like something you could devote your life to,' he says". The article also includes a list of speakers at TED events, such as Richard Branson, Bill Gates, and Steve Jobs.

## More Shared Online Video: Academic Earth, TV Lesson, and Fora TV



## Ida (a transitional species) 47-Million-Year-Old *Darwinius Masillae* Fossil the Missing Link? (wowOwow, May 20, 2009)



## Human Brain Dissected Today in a Live Webcast, Chronicle of Higher Education, December 02, 2009, 01:00 PM ET

[http://chronicle.com/blogPost/Human-Brain-Dissected-Today-in/9053/?id=pm&utm\\_source=pm&utm\\_medium=en](http://chronicle.com/blogPost/Human-Brain-Dissected-Today-in/9053/?id=pm&utm_source=pm&utm_medium=en)



## The Complete Works of Charles Darwin, The Carlyle Letters, The Diary of Samuel Pepys, ect.



## The Royal Society 350th anniversary celebrations puts historic papers online (Captain Cook, Sir Isaac Newton and Benjamin Franklin), BBC, Nov 30, 2009

<http://news.bbc.co.uk/2/hi/science/nature/8381425.stm>



## Sharing Repositories and Referatories

**MERLOT.org: 78,472 members, 21,690 Inrg materials, Jan 3, 2010**  
**Connexions: Dec 2009, 1.6m unique users, 4 million page views, 72 million hits, More than 1m users, 200 countries**  
**National Repository of Online Course, OER Commons**





**Opener #6. Learner Participation in Open Information Communities**  
 (e.g., Slashdot, Digg, Wikipedia, YouTube)

The Learning World is Open

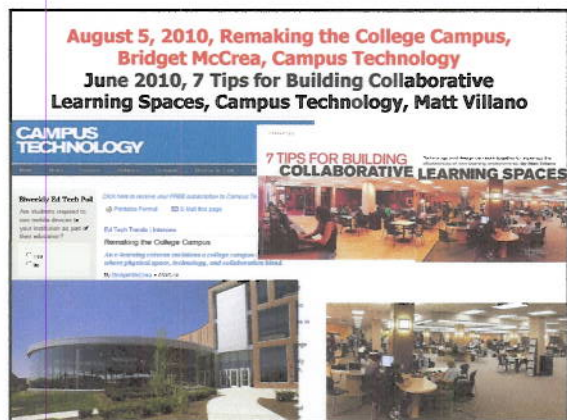
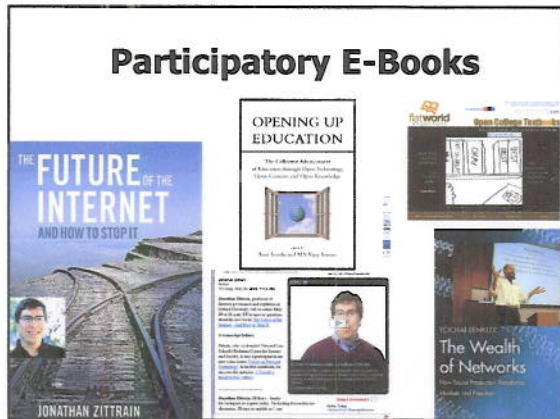
**John Dewey, Seymour Papert, John Seely Brown, Ivan Illich, Stephen Heppell, Henry Jenkins**

**Conference to Conference**  
 (You Ustreamed my Ustream: Now that's a Twitter of an Idea)

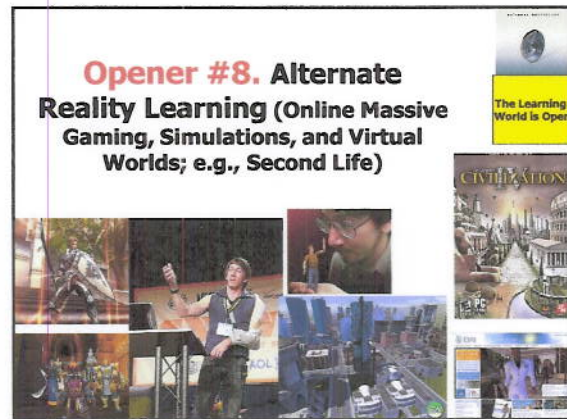
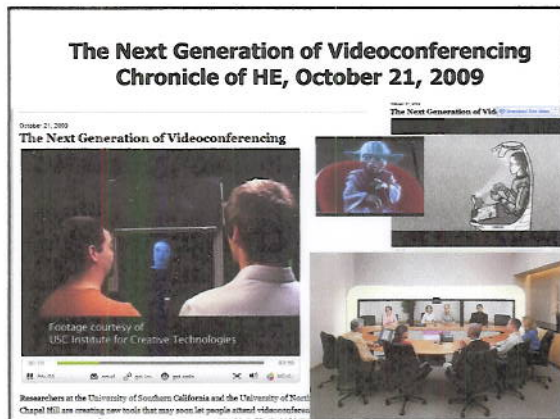
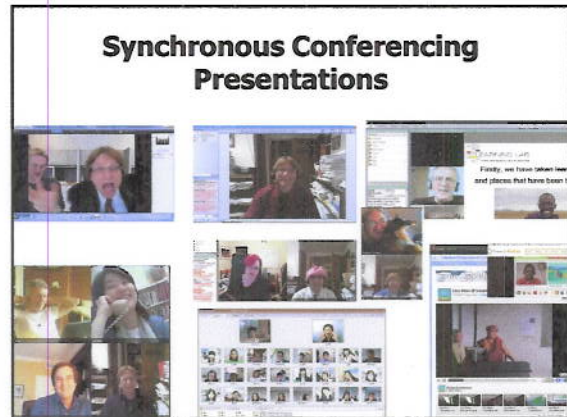
**Shared Online Video**  
 (e.g., YouTube and the Royal Channel)

**TravelinEdMan (YouTube)**  
<http://www.youtube.com/user/TravelinEdMan>

**Individual Produced Videos**  
 (e.g., African School Dream in Current TV)  
[http://current.com/items/77146082\\_african\\_school\\_dream](http://current.com/items/77146082_african_school_dream)







Force is with new GPS units

**June 9, 2010**

**TwitterPeek: Restricted to Twitter.**

**WikiReader: Updating can be a pain.**

**Social Networking Gaming (e.g., Farmville)**  
For social networks, it's game on, USA Today, Jon Swartz, Thursday October 15, 2009

**Opener #10. Networks of Personalized Learning (Blogs, Podcasts, MySpace, Flickr, and RSS)**

The Learning World is Open

**September 30, 2009**  
the Samsung DualView TL225

**August 10, 2010**  
Flipboard pretties up social-media updates  
Facebook statuses and tweets feed into  
magazinelike format in free app for iPad  
Jefferson Graham, USA TODAY

[http://www.usatoday.com/printedition/money/20100811/flipboard11\\_st-art.htm](http://www.usatoday.com/printedition/money/20100811/flipboard11_st-art.htm)

**Some Papers Are Uploaded to Bangalore to Be Graded, Chronicle of Higher Education, April 4, 2010, Audrey Williams June**

Lori Whisenant, who teaches business law and ethics at the U. of Houston, has outsourced the grading of students' papers to a private company.

**July 21, 2010 vs. Sept 28, 2009**  
Status update: Facebook logs 500 million members, USA TODAY, Kristin McGrath

Social Networking Site	Members (as of Sept 28, 2009)
Facebook.com	512 million
MySpace.com	51.2 million
Twitter.com	20.8 million
Diigo.com	17.4 million
Classmates.com	13.9 million
Network Partners (total of 6)	12.1 million
MyAOL.com	11.4 million
Windows Live Profile	10.3 million



### Teaching With Twitter

Chronicle of HE, Jeffrey Young, November 22, 2009  
 Sugato Chakravarty, a professor of consumer sciences and retailing at Purdue University, has welcomed Twitter into the lecture hall, even though the service lets students engage in back-channel discussions. The questions submitted via **Hotseat** for the professor and guest speakers are projected for all the students to see.

### Predictions

1. Five Billion "Have-Nots" Have at It!
2. Emergence of Lifelong Super E-Mentors/Coaches
3. Quarter-Century Learning Clubs
4. Terabyte Learning Access Points
5. The Veneration of Learning
6. Personalization+ Portfolios
7. The Selection of Global Learning Partners
8. The Shared Learning Era
9. Teaching-Learning Perpetuities
10. Teachers, Teachers
11. The Rise of the Super Blends
12. Self-Determined Humans
13. Free Learning Zones
14. Authentic Learning Amalgamations
15. Alexandrian Aristotiles

### Decisions for this Open Ed World?

- **Technology and Admin Folks:**
  - What do to about OER, open sources, E-books, mobile, etc.?
- **Instructor decisions:**
  - Act as Concierge, Counselor, Course facilitator, Credit manager?
- **Students decisions:**
  - Should I attend traditional university or create your own degree path?
  - How to report use of OER on resumes?

- This book is an attempt to reveal a wide range of learning options in front of you while also offering you a framework to make sense of them. As the Grail Knight said in the 1989 movie, *Indiana Jones and the Last Crusade*, "choose wisely." If you do, WE-ALL-LEARN. The world is now open to you!

Slides at: [TrainingShare.com](http://TrainingShare.com)  
 Papers: [PublicationShare.com](http://PublicationShare.com)  
 Book: <http://worldisopen.com/>

The World is Open.  
 What happens then?

**WE**  
**ALL**  
**LEARN!!!**