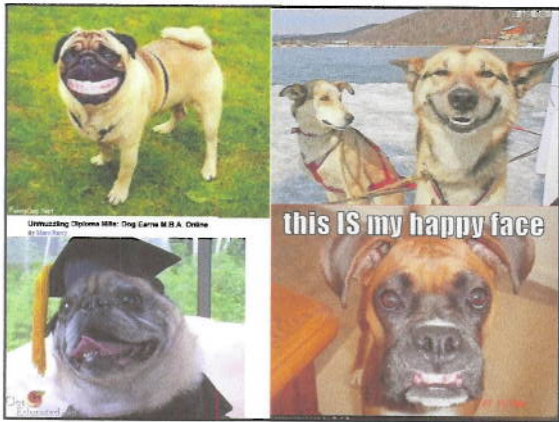
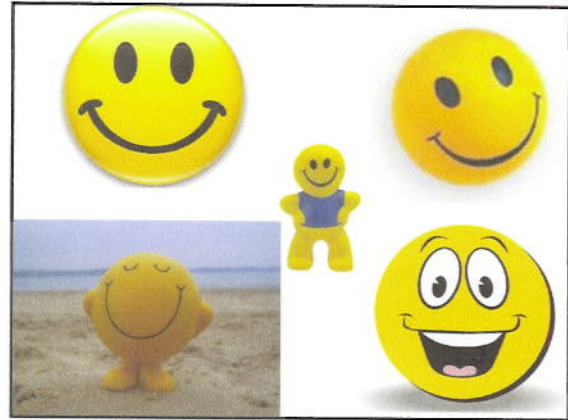


**Stretching the Edges of Technology-
Enhanced Teaching: From Tinkering to
Tottering to Totally Extreme Learning**

Curtis J. Bonk, Professor, Indiana University
cjbonk@indiana.edu
<http://mypage.iu.edu/~cjbonk/>



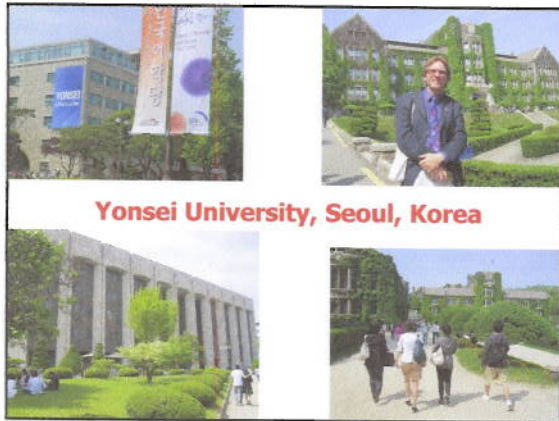
**New Technologies =
New Delivery Methods...**
CLO, September 2011



Learning Delivery

How Do You Deliver Learning?





Audience Poll:
Raise your hands if learning technology has ever transformed your life.

Three cartoon characters are shown: a brown bear-like character on the left, a white figure standing next to a large red question mark in the center, and an orange cat-like character on the right.

Change not possible as an accountant...
(Life as a CPA, 1981-1986)

A black and white photograph of a large classroom with many students at desks. To the right is a cartoon character sitting at a desk with a laptop and a sign that says "receipts".

Decided to Read, Read, Read...
(e.g., People like Albert Bandura, Howard Gardner, Roger Schank, **Elliot Soloway**, etc.)

A collage of images including a photo of Albert Bandura, a group photo of people, and a cover of AI magazine.

Took Correspondence & TV Courses
(thanks to Bob Clasen and Charles Wedemeyer, the University of Wisconsin)

A collage of images including the cover of the book "Learning at the Back Door" and a portrait of a man.

Fast Forward 25 Years...
"Anyone can now learn anything from anyone at any time."

Learn anything from anyone, anywhere.

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The Triple Convergence

The Flat World P's	The Open World P's
1. Processes Levelled	1. Piping/Infrastructure
2. Playing Field Equalized	2. Pages of Content
3. Participants	3. Participatory Culture

WE-ALL-LEARN:

Ten Forces that Opened the Learning World

- W**eb Searching in the World of e-Books
- E**-Learning and Blended Learning
- =====
- A**vailability of Open Source and Free Software
- L**everaged Resources and OpenCourseWare
- L**earning Object Repositories and Portals
- =====
- L**earner Participation in Open Info Communities
- E**lectronic Collaboration and Interaction
- A**lternate Reality Learning (e.g., MMOG, Second Life)
- R**ead-Time Mobility and Portability (e.g., iPhone)
- N**etworks of Personalized Learning (Blogs, RSS)

Audience Participation!


1. WE
2. ALL
3. LEARN!!!

It is very open!


Open Yale Courses:

<http://open.yale.edu>

Khan Academy:
<http://www.khanacademy.org>




Home



Salman Khan: Math master of Internet

Assessment



TED: Technology, Entertainment and Design



IDEAS WORTH SPREADING

Link TV: <http://www.linktv.org>



Home




Social News



Synchronous Forums

GETideas Channel, Cisco (Education Thought Leader Series uploaded to YouTube)
<http://www.youtube.com/user/GETideas@u>



CurrentTV
Citizen Generated News



Inside a Massachusetts stash house, p
Dispatches from the Field



'Sex, Lies & Cigarettes': Vanguard Trailer

Jon Bowermaster :
<http://www.jonbowermaster.com>



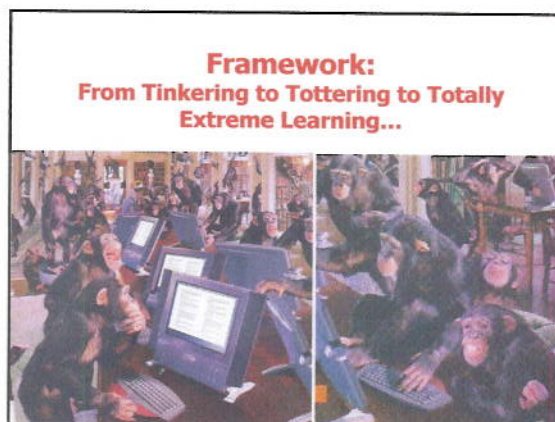
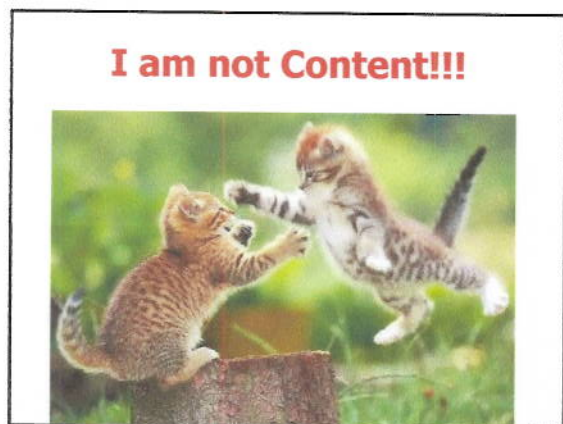
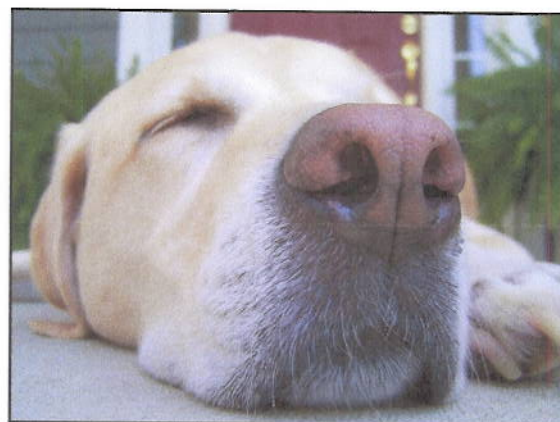
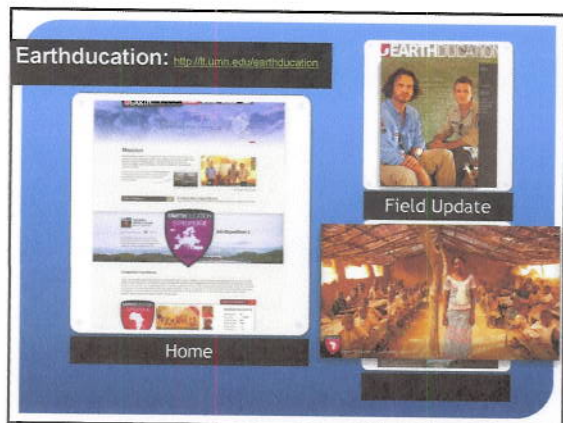
Home



Blog



Videos



Tinkering

Tinker #1.

Cases and Video Scenario Learning (Franklin University, cost and forensic accounting course)

<http://video.franklin.edu/Franklin/acct/managerialaccounting/cost-behavior-player.html>
<http://video.franklin.edu/Franklin/acct/342/common/trausScenario2.html>

Tinker #2. Webcast Lectures (Tegrity, Echo360, Mediasite, etc.)

Tinker #3. Timeline Tools (e.g., USA Today, August 26, 2011)

<http://www.usatoday.com/story/news/nation/2011/08/26/martin-luther-king-jr-memorial-washington/506247>

Martin Luther King Jr. Memorial in Washington: A closer look

Tinker #4. Video Animations and Simulations


Tinker #5. Collaborative Groups (Google Docs, Ning, Google Groups, MSN Groups, Yahoo Groups)

Tinker #6. Case Learning and Role Play (Kelley Direct, IU)



KELLEY SCHOOL OF BUSINESS
INDIANA UNIVERSITY
BLOOMINGTON, IN 47405-1329

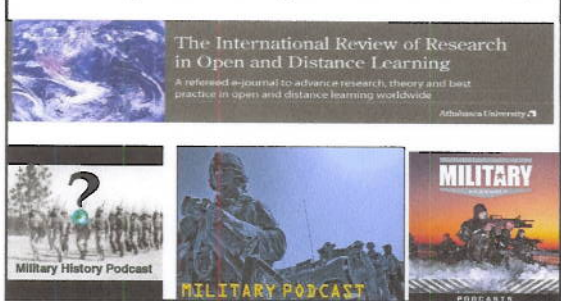
Tinker #7. Online Experiments (e.g., psychology)



PSYCHEXPERIMENTS
Psychology Experiments on the Web

Top Ten Online Psychology Experiments
By SHAROLINE
Psych Central
Best of the Web

Tinker #8. Reading from Open Access Journals; Listen to Open Access Podcasts




The International Review of Research in Open and Distance Learning
A refereed e-journal to advance research, theory and best practice in open and distance learning worldwide
Athabasca University

Military History Podcast

Tinkering #9. Tracking the Life of a Scientist (e.g., Brian J. Ford, independent scientist)

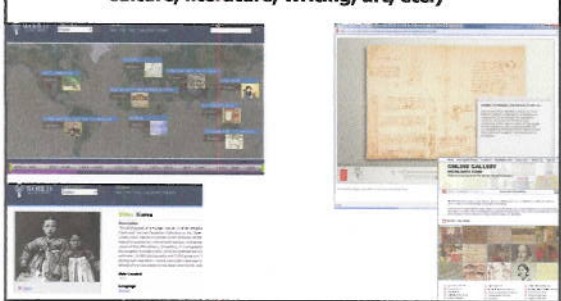
<http://www.youtube.com/user/tellymonitor#p/u/1/LhGeApsKjss>




Watch as the BBC fail to recreate the experiments

Inter Micro 2010
Chicago, Illinois
An experiment from
An Evening with Brian
18 July 2010

Tinker #10. Online Portals of Rich Data United Nations Opens World Digital Library, Turning the Pages from the British Library, etc. (history, culture, literature, writing, art, etc.)



Tottering



Totter #1.

Wikibooks, Wiki-Glossaries, Wiki-Syllabi (Ron Owston, York University, Toronto)


Web 2.0 and Emerging Learning Technologies
From Wikibooks, the open-sourced textbooks collection



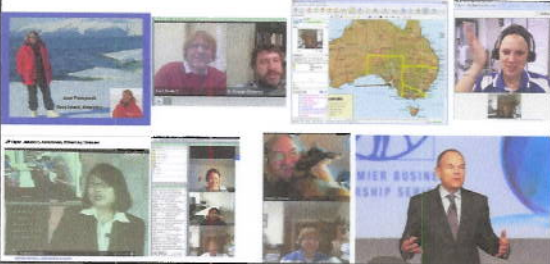
Totter #2.

Student Films and Documentaries

<http://vimeo.com/33090990> (Verily)
<http://vimeo.com/33123126> (Anjali)
<http://www.youtube.com/watch?v=1QZ7vuZ3rhw&feature=youtu.be> (Yue)




Totter #3. Bridges to World of Expert and Practitioners (e.g., Invite, Watch, or Listen to Online Conferences, Expert interviews, blogs, chats, etc.)

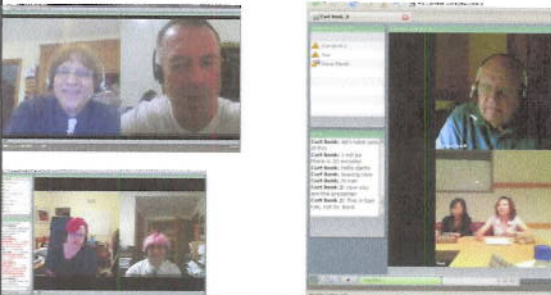


Totter #4. Global Class Videoconferencing and Remote Lands

(e.g., The seminar was structured on a series of videoconferences and virtual classes on e-learning platform, organized by the Major of the Health and Veterinary Corps of Italian Army Lorenzo TIDU, Veterinary of the Task Force South of the Regional Command West, which is strongly involved in the specific field in favor of populations of the villages in the province of Farah.)



Totter #5. Combining Asynchronous and Synchronous Events



Totter #6. Multi-Site Events (e.g., William and Mary, March 3, 2011)



Totter #7. Podcast Productions and Virtual Performances for students of pronunciation class (e.g., Tzu-Su Chen, Taiwan)



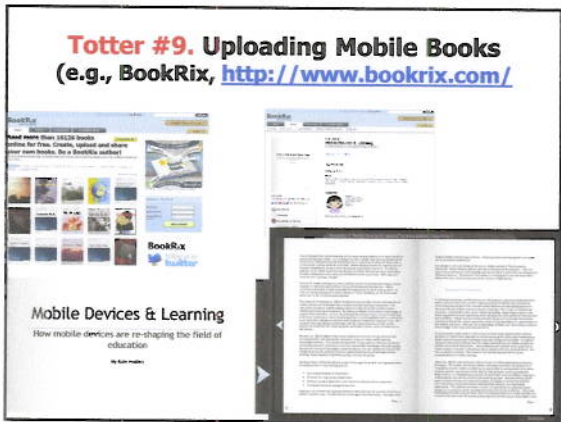
The image shows two screenshots related to podcasting. On the left is a Podomatic podcast player interface with a blue background and the text: "Hey Jude, don't make it bad Take a sad song and make it better". On the right is a screenshot of a podcast page titled "tsuyi hseh's Podcast" with a profile picture of a woman and some text in Chinese.

Totter #8. Video Blogging



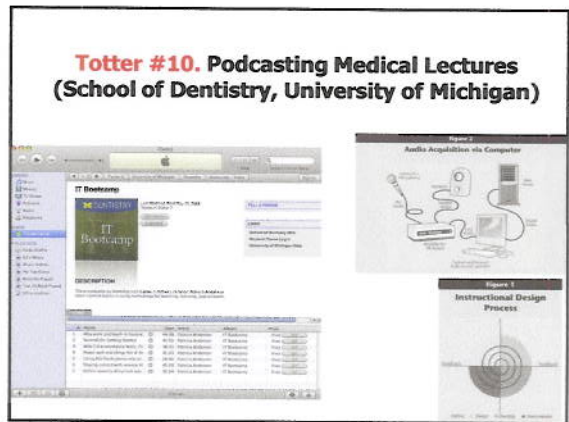
The image shows a YouTube video player interface. The video title is "Reflections- Tech in Education". The video shows two men sitting at a table in a classroom setting. There are social media sharing buttons and a search bar at the top.

Totter #9. Uploading Mobile Books (e.g., BookRix, <http://www.bookrix.com/>)



The image shows the BookRix website interface. It features a grid of book covers and a section titled "Mobile Devices & Learning" with the subtitle "How mobile devices are re-shaping the field of education". There is also a preview of an open book.

Totter #10. Podcasting Medical Lectures (School of Dentistry, University of Michigan)



The image shows a screenshot of a software interface titled "IT Bootcamp" with a list of items. To the right are two diagrams: "Paper 2 Audio Acquisition via Computer" showing a computer setup, and "Paper 3 Instructional Design Process" showing a circular flow diagram.

We are entering a jumping off point...



A photograph of a man in a purple sweater and blue jeans jumping joyfully in a park with trees in the background.

Totally Extreme Learning...



The image shows a collage of images related to extreme learning. It includes a man with a bicycle, a woman with a car, and a screenshot of the "NAUTLUS LIVE" website which features a "Camera stream Canadian polar bear migration" and a photo of a person in a red jacket.

Extreme Learning Defined (Bonk, 2011)

"Extreme learning can involve learning while on a boat at sea near the North Pole or when sailing around the world. It also occurs when tracking the blog and podcasts postings of those in similar adventures such as riding a bike or a car around the world or through the Americas. Extreme learning also includes more sedate and passive forms of learning including watching an online video in TED, LinkTV, CurrentTV, or YouTube."

Extreme Learning continued... (Bonk, 2011)

"Through extreme learning Web resources, those stuck behind prison walls, injured and in a hospital bed, or unemployed and unable to pay for college tuition can learn to be more productive members of society. Others might be in transition from one career to another and find open educational resources and OpenCourseWare can arouse new interests and confidence" (see Iiyoshi & Kumar, 2008).

Extreme Learning

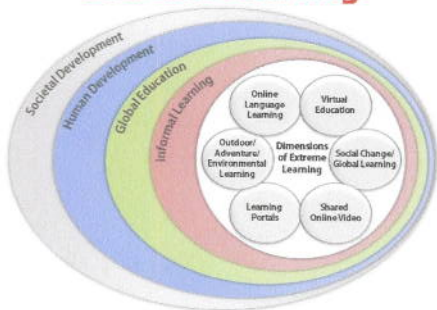
"Still others might be retired and offer their educational ideas and mentoring services to anyone interested in the topic. Others might be earning their MBA while in war zones in Iraq or Afghanistan."



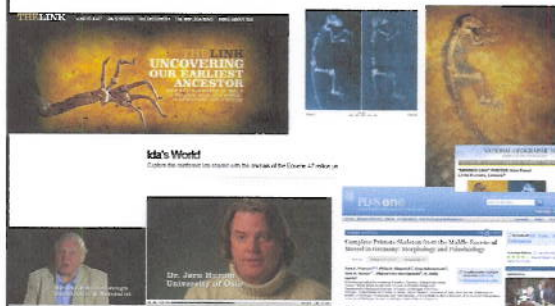
Extreme Learning Areas

1. Adventure Learning and environmental education,
2. Virtual Education (formal as well as informal),
3. Social Change and Global Learning,
4. Language Learning,
5. Shared online video,
6. Learning portals.

Visual Representation of Extreme Learning



Totally Extreme #1. Immediate Science Ida (a transitional species) 47-Million-Year-Old Fossil the Missing Link? (May 20, 2009)



Totally Extreme #2. Live Science
 (Nautilus Live allows people to watch expeditions live & listen to scientists in control rooms a discoveries made)

Totally Extreme #3. Blogging Field Archeology Research
 (e.g., Lily Henry Roberts, UCLA digging in Hope, BC, Stó:lō First Nation people from 12,000 years ago)
 Posts Tagged 'Lily Henry Roberts'

Totally Extreme #4. Google Earth Archeology Research
 (e.g., 450 sites of interest in Afghanistan found by David Thomas, La Trobe Univ., Melbourne, Australia)

Totally Extreme #5. Adventure Learning
 (e.g., GeoThentic, Earthducation, Polar Husky, GoNorth; Aaron Doering, Univ of Minnesota; cars and bikes--Dan Grec and Mark Beaumont)

Totally Extreme #6. Virtual High School Learning by Boat
 (e.g., Briday Fennell and her family sailing and learning in the Caribbean)

Totally Extreme #7. Kids Learn Online, Teach Online
 (e.g., the World's Youngest Teacher; Adora Svitak)

Totally Extreme #8. The Last Ocean Project, Ice Stories, and Shark Theater (24 foot inflatable screen (and outdoor ocean theater) to tiny island communities) <http://www.lastocean.com/> and <http://lastocean-project.org/>; Cassandra Brooks

Totally Extreme #9. iPod Learning from MIT OCW (e.g., Wendy Ermold, University of Washington)

Totally Extreme #10. South African teens get virtual mentoring from all over the world, By Danielle Berger, CNN, January 14, 2011 <http://www.cnn.com/2011/LIVING/01/13/cnnheroes.stokes/index.html?hpt=T2>

Totally Extreme #11. Learning from Localized OER and OCW (e.g., Opensource Opencourseware Prototype System (OOPS), Lucifer Chu, Janitor of OOPS)

The Biggest OCW Localization Volunteer Group in the World

Totally Extreme #12. Open Teaching and Massive Open Online Courses (i.e., MOOC, David Wiley, George Siemens, Ray Schroeder)

Totally Extreme #13. International and Global Education and Competitions (e.g., Global Game Jams, online role play, Global Videoconferencing)

Totally Extreme #14.
Telepresence and Teleportec Systems
 (e.g., Cisco and HP)

Totally Extreme #15. Military Mobile Learning and MBAs from War Zones (u.s. Army Learning Concept for 2015; 2011, January 15).
<http://www.youtube.com/watch?v=KD9NGAV3-3k> (4:26 minutes)

Totally Extreme #16.
Online Language Learning
 (e.g., 300,000 people per month listening to ChinesePod, co-hosted by Jenny Zhu, John Pasden, and Ken Carroll)

Totally Extreme #16.
More Online Language Learning and Conversations
 (e.g., PalTalk, iTalki, Palabea, Babbel)

Totally Extreme #17.
Shared Online History Videos
 (e.g., "History for Music Lovers" with over 50 songs including: Trojan War "Tainted Love" by Soft Cell; Charlemagne "Call Me" by Blondie, Cleopatra, Napoleon, Shakespeare, the Vikings)


Amy Poehler & Herb Ritts - What I Learned from Napoleon and MTV - TEDxInnovate 2011

Totally Extreme #18.
MBAs from War Zones...!

Totally Extreme #19.

Learn Anytime, Always On/Mobile.


Will Technology Kill the Academic Calendar? Online, semesters give way to students who set their own schedules, Marc Parry, Chronicle of Higher Ed, October 10, 2010



Robert Johnson, who championed the open-format Learn Anytime program at a two-year college in Louisville, Ky. checks students' e-mail while waiting for a flight. "Everything I need to do today, I can do on my phone," says Robert Johnson...He often grades papers and communicates with students from a cafe near his home.


Totally Extreme #20. Pocket School and Videoconferencing in Developing World

(Paul Kim, Stanford and Seeds for Empowerment in Rwanda, India, Mexico, Tanzania, etc.)




Extreme Learning Stories


Mobile Storytelling and Pocket Schools (e.g., Paul Kim, Stanford & Seeds for Empowerment)



Extreme Learning Website



HOPES: Humanity's Open Platform for the Exchange of Stories



Sample HOPES Stories



Web Platform Storytelling System

Students need to know that these things are available.

By: M. Anne Johnson

Click the "Quote" button to add the selected text to "Quotation"

Established in 1992, Angelo State is a private liberal arts college with 10,000 students. Through the university's history, it has maintained physical connections, in formal access – the first of which is Nigerian connection – it is already linked.

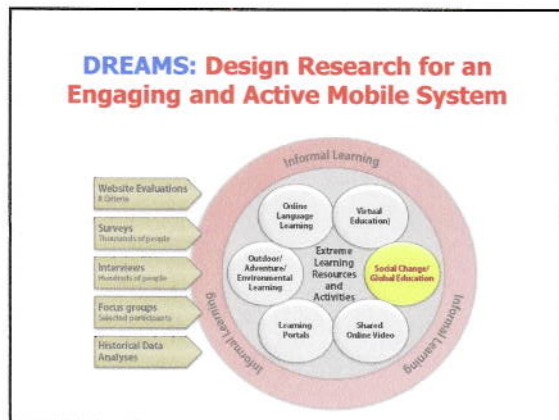
Even the computer lab does not have a Web connection.

And because of the large number of students, and the limited number of terminals, students can upgrade for use. It includes each week on university computers.

Getting access

When students are not connected to the Internet through a CD-ROM, the university computer lab has had only 200 computers to use through the network. Inexpensive with the computer, he asked the computer lab for a copy of the CD, which they were unable to give him. He, in response, decided to find the lab on his own. Last month, about the 10th address.

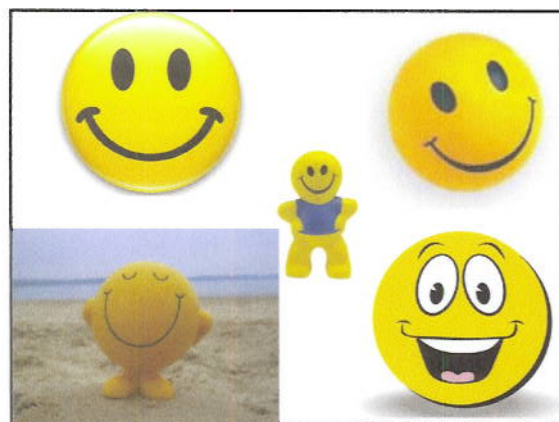
From his home computer, he has joined up for access to CD, and he used it to complete the network because he has gotten through through Tech.



Extreme Learning "Stretches the Edges" of Humanity

Humanity Open Culture

Document, Catalog, Grasp, Connect, Inspire Others,...



What are your Extreme Learning HOPES and DREAMS?

Website: www.Extreme-Learning.com
 Slides at: TrainingShare.com
 Book: <http://worldisopen.com/>
 Write to me: curt@worldisopen.com

The screenshot shows the Extreme Learning website interface, featuring a search bar, navigation links, and a main content area with a video player and text about extreme learning.