The goal of AALF is to ensure that all children have access to unlimited opportunities to learn anytime and anywhere and that they have the tools that make this possible.

To achieve this, the AALF helps schools develop visionary school leadership and knowledgeable, innovative educators.



21 Steps to 1 to 1 Success

Strategic Planning for Technology-rich Learning

South Australian DECS Principal's Institute

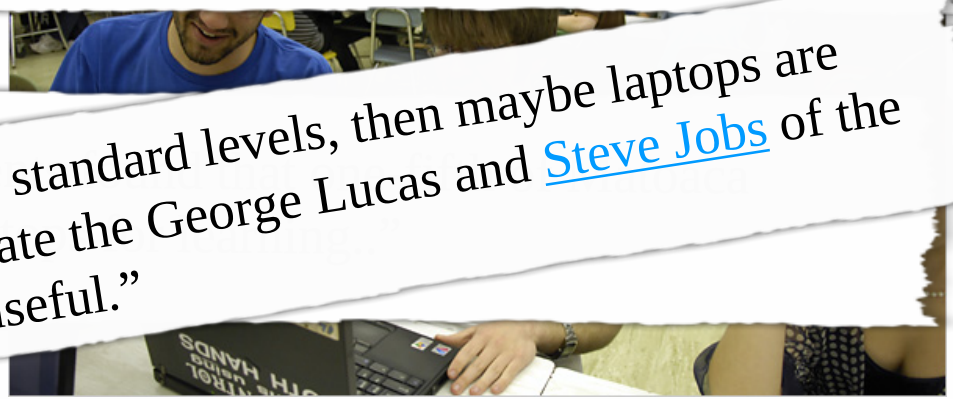
SMART Classrooms

AALF

The New York Times
ON THE WEB

laces said laptops got in the

"But it is less clear whether one-to-one computing has improved academic performance — as measured through standardized test scores and grades .."



"If the goal is to get kids up to basic standard levels, then maybe laptops are not the tool. But if the goal is to create the George Lucas and Steve Jobs of the

"Let's face it, math is for the most part still a paper-and-pencil activity when you're learning it,"

a better starting point..

"How long does it take to effectively plan and implement a 1 to 1 laptop program?"

"Why is there a global move away from using computer labs in schools to anytime anywhere access to laptops through effective 1 to 1 initiatives?"

"What defines a successful student laptop program?"

"In moving to a 21st Century Learning models, what experiences do we need to provide for students?"

"How important is the physical learning space in supporting learning goals?"

"How do we best prepare staff for this new learning paradigm?"

Agenda for Day One

9:00am Introduction & Overview

- **Global Snapshot: Context, imperatives and the importance of research**

10:30am Morning Break

- **Building a Vision for 1-to-1 Learning: the Foundation for Success & Sharing your Vision: Communication Strategies**
- **Assessing School Readiness**

12:30pm Lunch

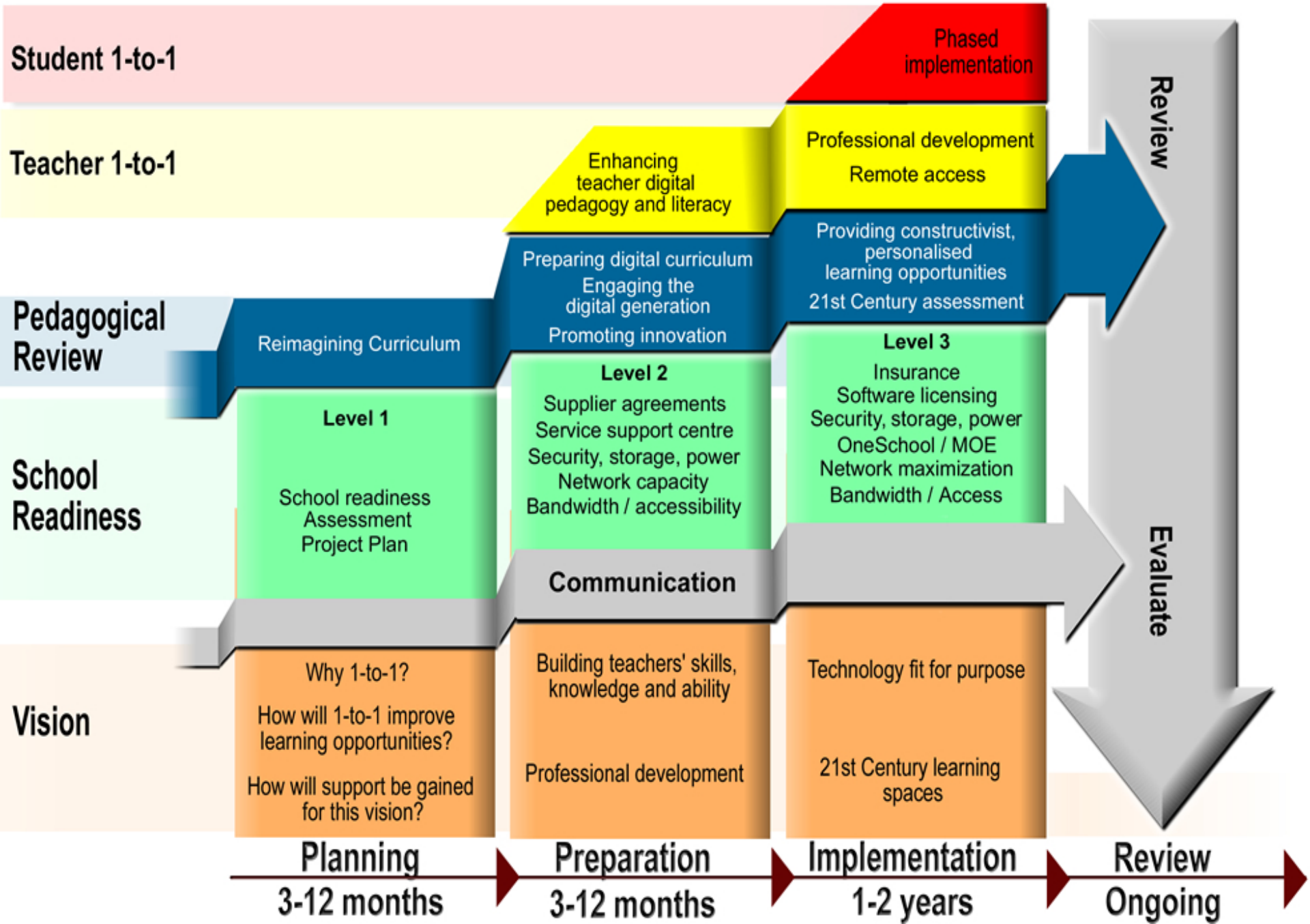
- **Models for Implementation**
- **Addressing Equity:Budgeting & Ownership options**

2:30pm

- **Professional Development & Change Management**

3:30 pm Wrap-up Q & A

A successful 1-to-1 student laptop implementation



21 Steps to 21st Century Learning and 1 to 1 Success

Step 1: Research
Step 2: Clarify your vision for 1-to-1 learning
Step 3: Engage your school board or parents and citizens association
Step 4: Plan a communication strategy
Step 5: Conduct a detailed readiness assessment
Step 6: Develop a project plan
Step 7: Prepare a detailed budget
Step 8: Select a preferred ownership and finance model
Step 9: Prepare teachers with their own laptops
Step 10: Develop a Professional Development Framework and prepare a Change Management Strategy
Step 11: Prepare physical learning spaces
Step 12: Select software tools to fit pedagogical goals
Step 13: Explore supplier partnership opportunities and devices
Step 14: Calculate the total cost of participation in the program
Step 15: Define essential policies
Step 16: Prepare responses to anticipated questions
Step 17: Establish onsite service structures
Step 18: Conduct parent and/or community sessions
Step 19: Order devices and prepare for deployment
Step 20: Distribute student laptops
Step 21: Review and reform

Advice for schools on the latest ICT trends for education

Unlocking SMART Classrooms

EDITION 2 › VERSION 1.0

21 steps to 21st Century 1-to-1 success

This edition of Smart Classrooms Bytes is a summary of resources available to teachers and administrators who have commenced or are considering implementing 1-to-1 student laptop programs.

1-to-1 programs provide students with personal portable computers to enhance their opportunities for learning. The devices help schools engage the digital generation by nurturing individual (or 1-to-1) learning experiences.

1-to-1 programs are also known as 'anywhere, any time' or 'laptops for students' programs.

Increasingly, there has been a global move towards implementing these programs in schools. Of greater interest is how they are being used for learning in ways that deepen

- 1-to-1 programs are an element in an international move towards individualizing learning, which can increase independence and self-initiated learning in students, and extend their learning beyond the classroom
- Students who have their own laptop computers have been found to take greater pride and ownership over the knowledge they create, with a flow-on to more flexible forms of schooling
- 1-to-1 programs have been found to extend formal learning communities to include parents, siblings and other people

'Pedagogies that integrate information and communication technologies can engage students in ways not previously possible, enhance achievement, create new learning possibilities and extend interaction with local and global communities' – *MCEETYA Pedagogy Strategy 2005.*

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Who can join AALF?

Membership is open to educational institutions, primary and tertiary, and to teachers. More information »

Newsletter Online
AALF Newsletters are now avaiable online!

Lorem ipsum amet,
consectuer *ading elit.*

Find out more about giving a laptop »

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Maecenas a ligula mollis tortor tristique fermentum adipiscing, aliquam, quisque id neque.

Why 1-to-1?
Facts about the impact of 1-to-1 in schools.

Blueprint for Success
The A-Z of implementing a successful 1-to-1 program.

Tools & Resources
Facts about the impact of 1-to-1 in schools.

Global Story Book
Stories from schools around the world

Leadership Services
Courses, coaching and mentorship services

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	Skype Zones	Extras	Merchandise	Support requests
	Personalise Skype	Skypecasts Beta	Accessories guide	Ways to pay
	Gift Certificates			Pricing overview
	Skype Control panel			

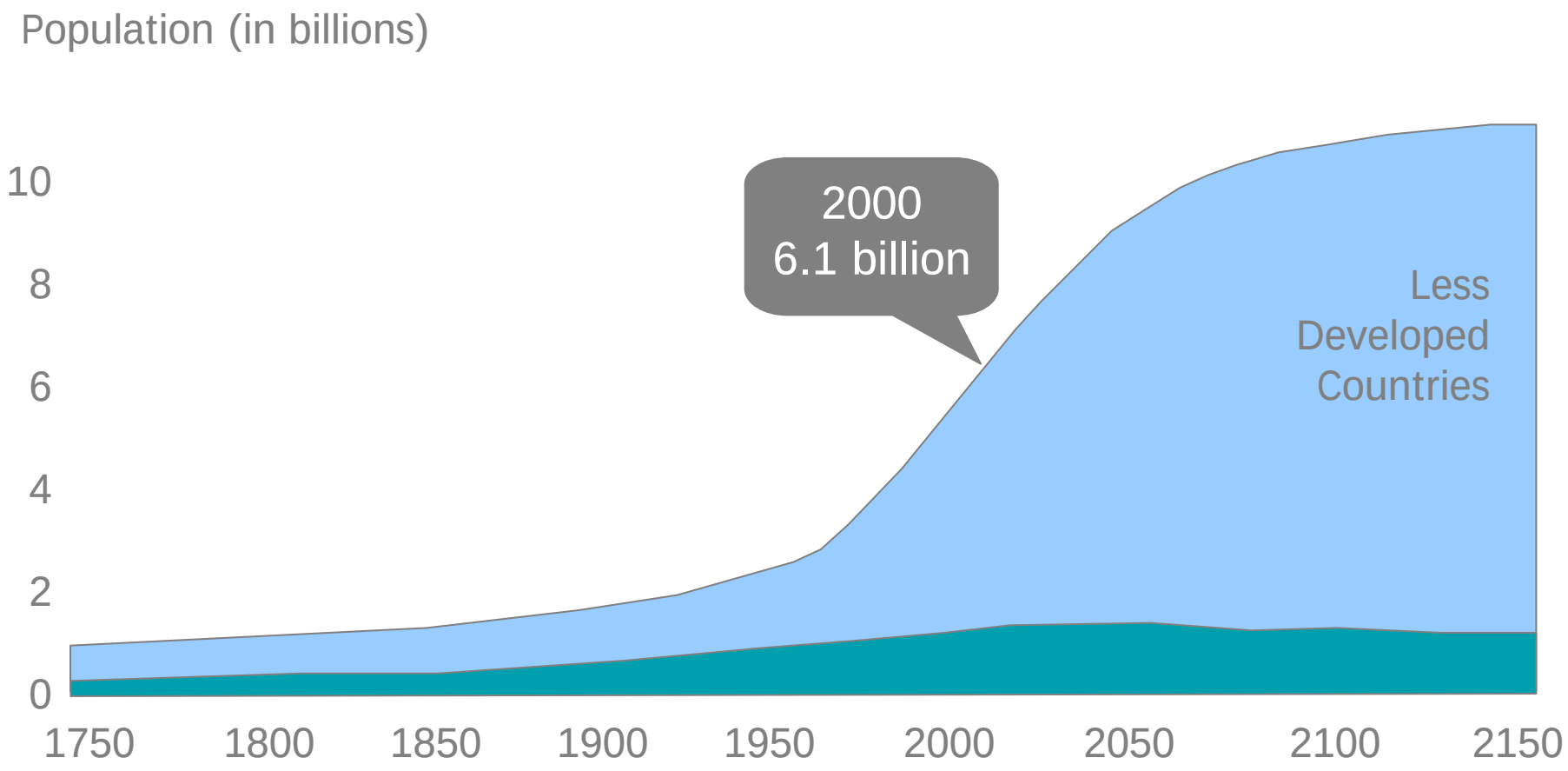
Privacy Policy Legal

Step 1
Global Snapshot: Setting context, imperatives and background research


Dubai 1990


Dubai 2007

What questions does this graph raise?



Phillipines

Peru

Nigeria

Uruguay

Costa Ri

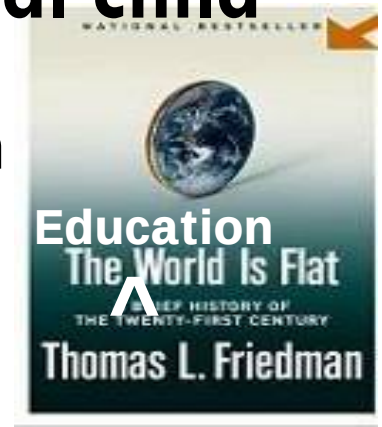
- Imperatives for a New Age of Education..

  - **Digital lifestyle…**multi-modal, multi-literate…continually connected..

- **Embracing the whole, Individual child**

- **The Globalisation of Education**

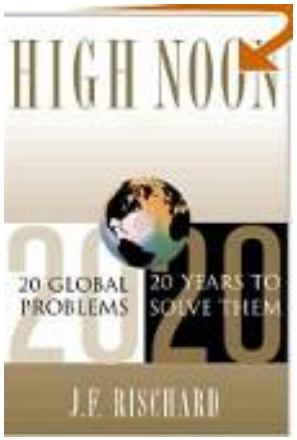
  Captioning, programming…



Communications as a leveler, collaboration as the glue.

- **21st Century Challenges**

- **The existing model is no longer adequate**



One view of globalisation..

- **Globalization 1** (1492 to 1800) where the dynamic force was European countries projecting their power overseas for resources and imperial conquest.
- **Globalization 2** (1800 to 2000) was about companies globalising for markets and resources.
- **Globalization 3** from around 2000 - is about individuals and small groups collaborating.

communications is the leveler, collaboration is the glue.

OLPC, 2008

- **Schools**…International benchmarking, **PISA**, global campuses, virtual schools, language barrier lowering with captioning, online translation…schools as global enterprises.

- **Students want**… to be better informed about courses… ….**access to course ware, podcasts, and videos**….. …international experience and broader cultural understanding…..greater mobility as skilled workers in an increasingly knowledge-based economy…. **greater competition for students** and academics between countries and higher education institutions.

OECD overseas students grew 70% from 2.3 million, '98 to '03

The Globalisation of Education

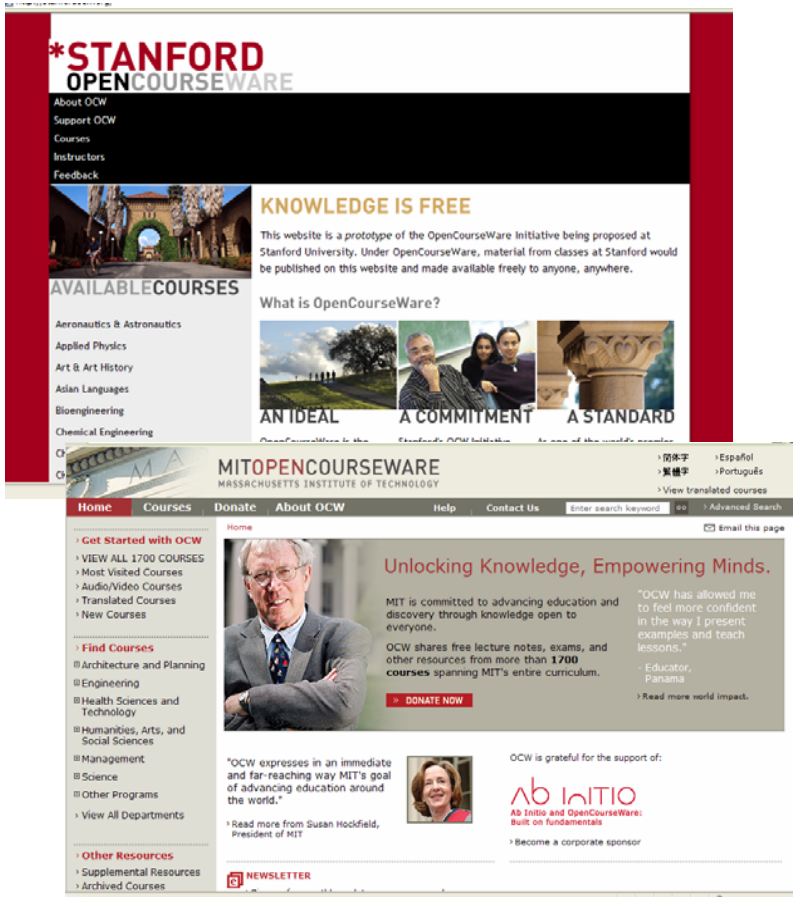
- **Faculty want**… Domestic K-12 and Higher Ed faces international pressure.. ranking, quality labels, and choice **International experience** for academics and to promote mutual understanding
- **Lifelong learners want**… Shorter **courses…flexible delivery**…recognition of prior learning… tailor-made programs…courses that support multiple career changes.

..and **greater flexibility** between formal, and informal, and non-formal learning…..

The Globalisation of Education

What if anyone could access a course at MIT or Stanford or..?

- An efficient way of promoting lifelong learning, both for individuals and for government
- Bridges the gap between non-formal, informal and formal learning.
- 3,000 open courseware projects at 300 institutions across the world



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iTunes

View

Search iTunes Store

LIBRARY
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- Movies
- TV Shows
- Podcasts 1
- Radio

STORE
- iTunes Store
- Purchased

PLAYLISTS
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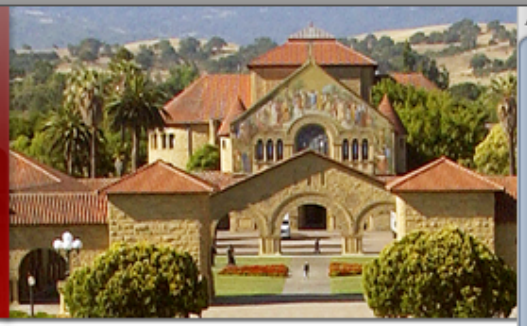
- 60's Music
- Country
- Jazz
- Music Videos
- My Top Rated
- Recently Played
- Rock
- Top 25 Most Played
- 05 Wineberries
- 06 Wineberries
- Classical
- Good listening
- iTrip Stations

iTunes U > Stanford

romonyd@hotmail.com

STANFORD UNIVERSITY

Stanford to go. In your home. In your car. In your pocket.



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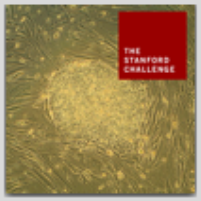
THE STANFORD CHALLENGE: SEEKING SOLUTIONS, EDUCATING LEADERS See All


The Initiative on Enviro...


The International Initiative


The Initiative on Human...

STANFORD SEARCH

Stanford Power Search

TOP DOWNLOADS

1. 

Steve Jobs' 2005 C...
Steve Jobs
2. An Evening with Le...
Leonard Cohen, Philip
3. PHY 25 Lecture 7 (N...
Leonard Susskind
4. How Did Hannibal C...
Patrick Hunt
5. Call Me Yeshua
Thomas Sheehan
6. Choosing Renewab...
Margot Gerritsen
7. PHY24 Lecture 8 (J...
Leonard Susskind
8. Martin Heidegger -...

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52 million visits by 40 million visitors from virtually every country.

OCW is accessed by a broadly international population of educators and learners.

MIT OpenCourseWare averages 1 million visits each month; translations receive 500,000 more.

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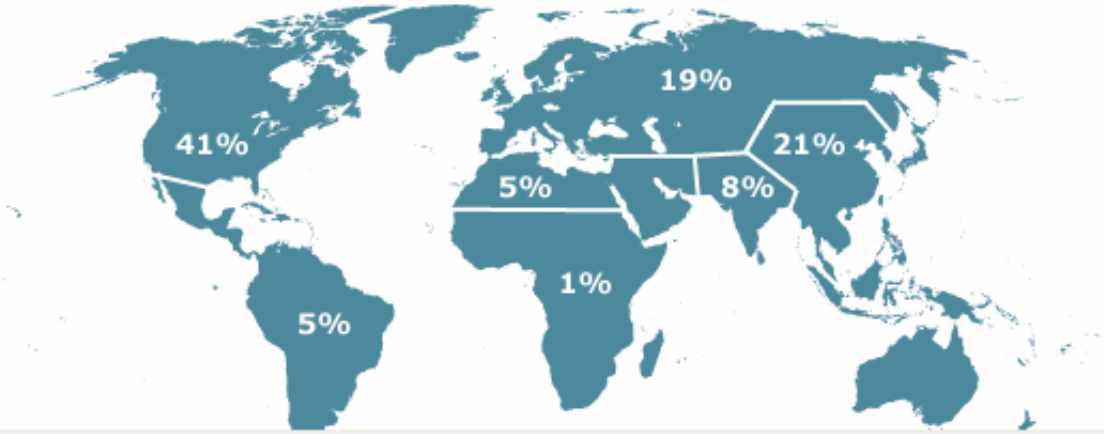

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Mirror Sites

The OCW Mirror Site Program provides free copies of the OCW website to educational

8.01 Physics I: Classical Mechanics

Fall 1999

Professor Lewin puts his life on the line in Lecture 11 by demonstrating his faith in the Conservation of Mechanical Energy.

Course Highlights

This course features lecture notes, problem sets with solutions, exams with solutions, links to related resources, and a complete set of videotaped lectures. The 35 video lectures by Professor Lewin, were recorded on the MIT campus

Staff

Instructor:
Prof. Walter Lewin

Course Meeting Times

Lectures:
Three sessions / week
1 hour / session
Recitations:
Two sessions / week
1 hour / session

Level

Undergraduate

› **Download this course**

Feedback

› Send feedback on this course.

21st Century Challenges

…who will solve them?

We won't solve them with 20th Century thinking!

..the fight against drugs, and new communicable diseases?

How can we make it happen?

Climate Change? Population growth….Threatening our future…

"We need new approaches to global problem-solving….Fast!

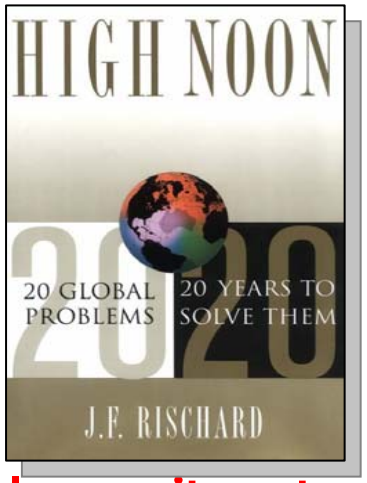
About limits, the new world economy has no clue. Nor do most politicians and thinkers, trained by the prosperous second-part of the 20th Century to be overly market-trusting"

Jean-Francois Rischard 2007

…. Can Education Answer the Big Challenges for Our Future??

Sharing our Planet: issues involving the global commons

- Dangerous climate change
- Biodiversity and ecosystem losses
- Fisheries depletion
- Deforestation
- Water deficits
- Maritime safety and pollution



Sharing our Humanity: issues whose solution demands a global commitment

- Massive step-up in the fight against poverty
- Peace-keeping, conflict prevention, combating terrorism
- Education for all
- Global infectious diseases
- Digital divide
- Natural disaster prevention and mitigation

Sharing our Rulebook: issues needing a global regulatory approach

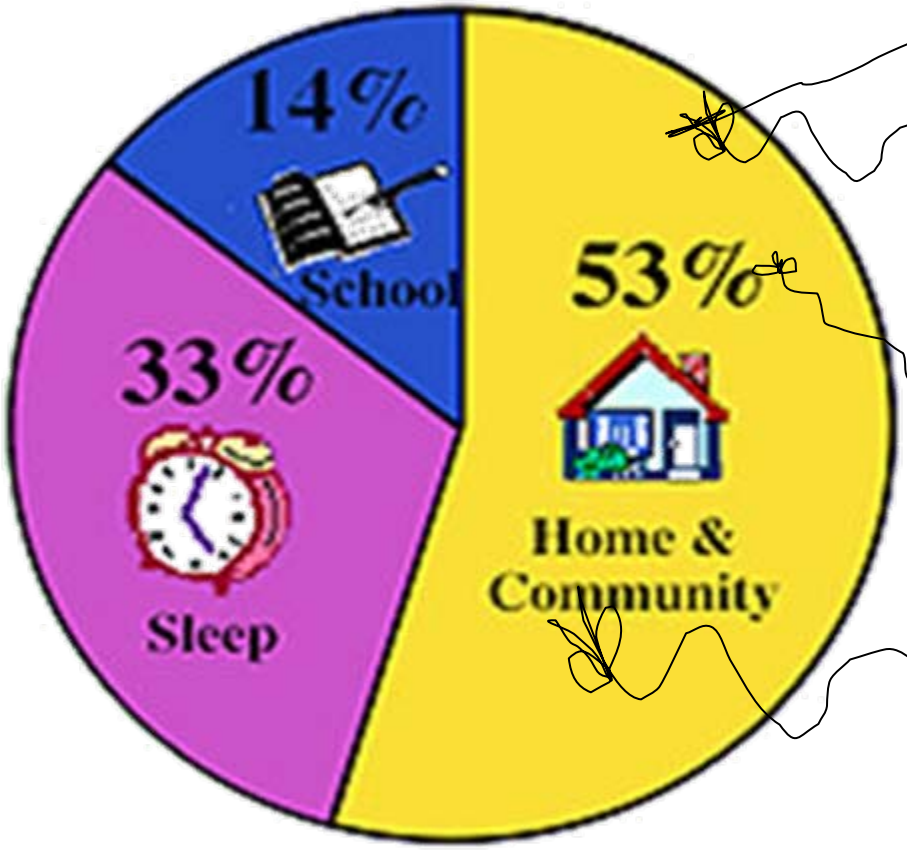
- Reinventing taxation for the 21st century
- Biotechnology rules
- Global financial architecture
- Illegal drugs
- Trade, investment and competition rules
- Intellectual property rights
- E-commerce rules
- International labor and migration rules

20 years, 20 issues

J.F. Rischard 2007

Where do our 21st Century Learners indulge their Digital Lifestyle?

The Economist viewpoint



Social Networks

" Screenagers"

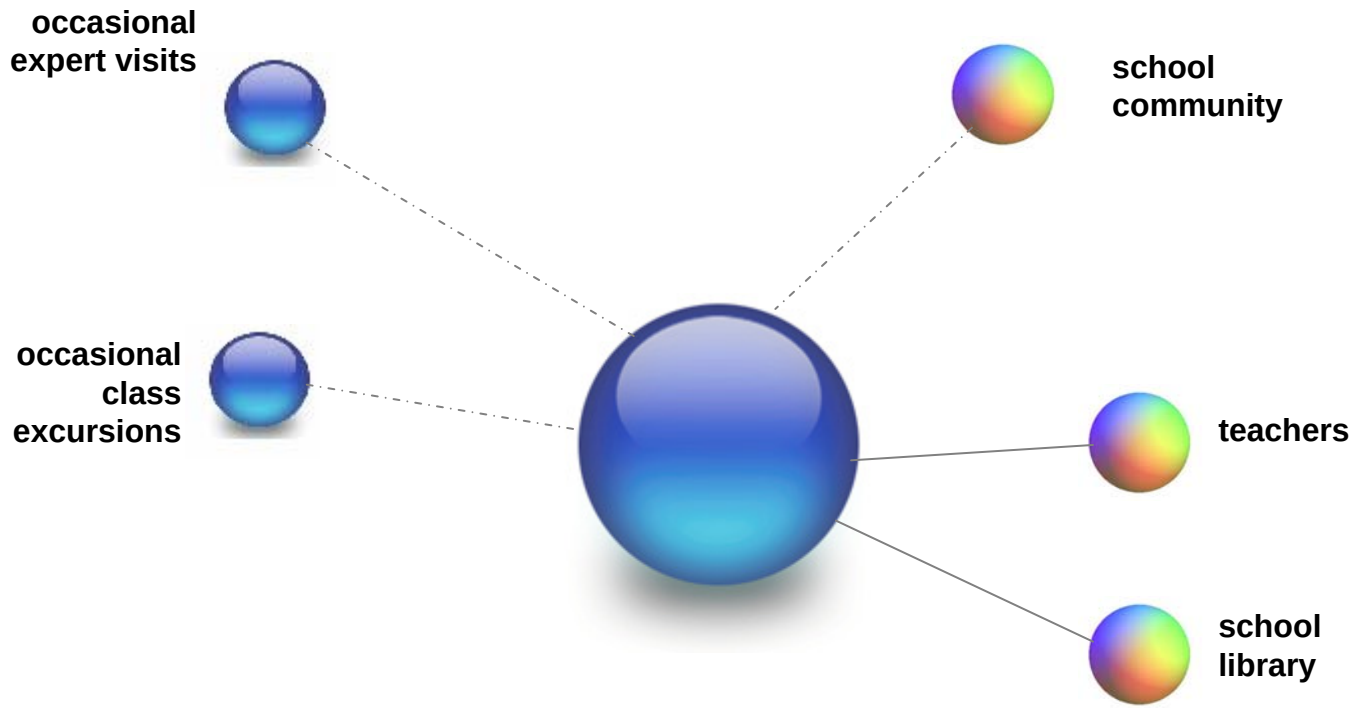
Virtual Worlds & simulations

Multiple Web 2.0 communities

Bransford, How People Learn, 2000

The unconnected classroom / learner

during school time



snail mail

mobiles, phones, fax machines, TV, video

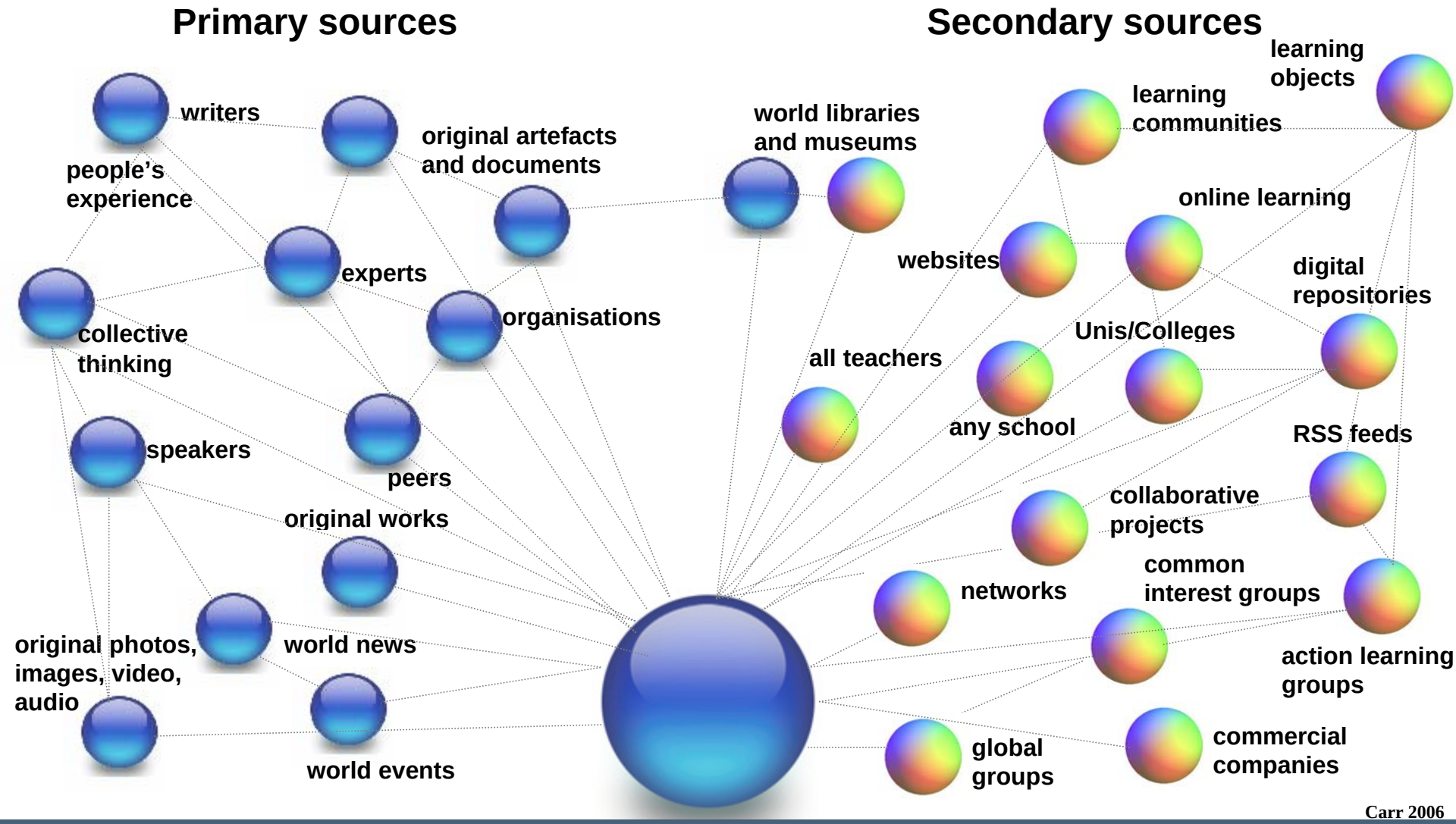
- "Unlimited" **access** to distant experts, collaboration, mentors, communities of practice, shared virtual environments
  Ubiquitous 1-to-1 computing: Wireless devices infusing resources from the real world..smart objects; intelligent contexts
- "**Self-service**" banking, shopping, travel, ticketing…learning.
  Informal learning organic, contextualized, activity and experience-based, self-activated under the learner's control.

New learning interfaces

Burrows and Kalantzis, 2005

The connected learner

any where ~ any time ~ in time

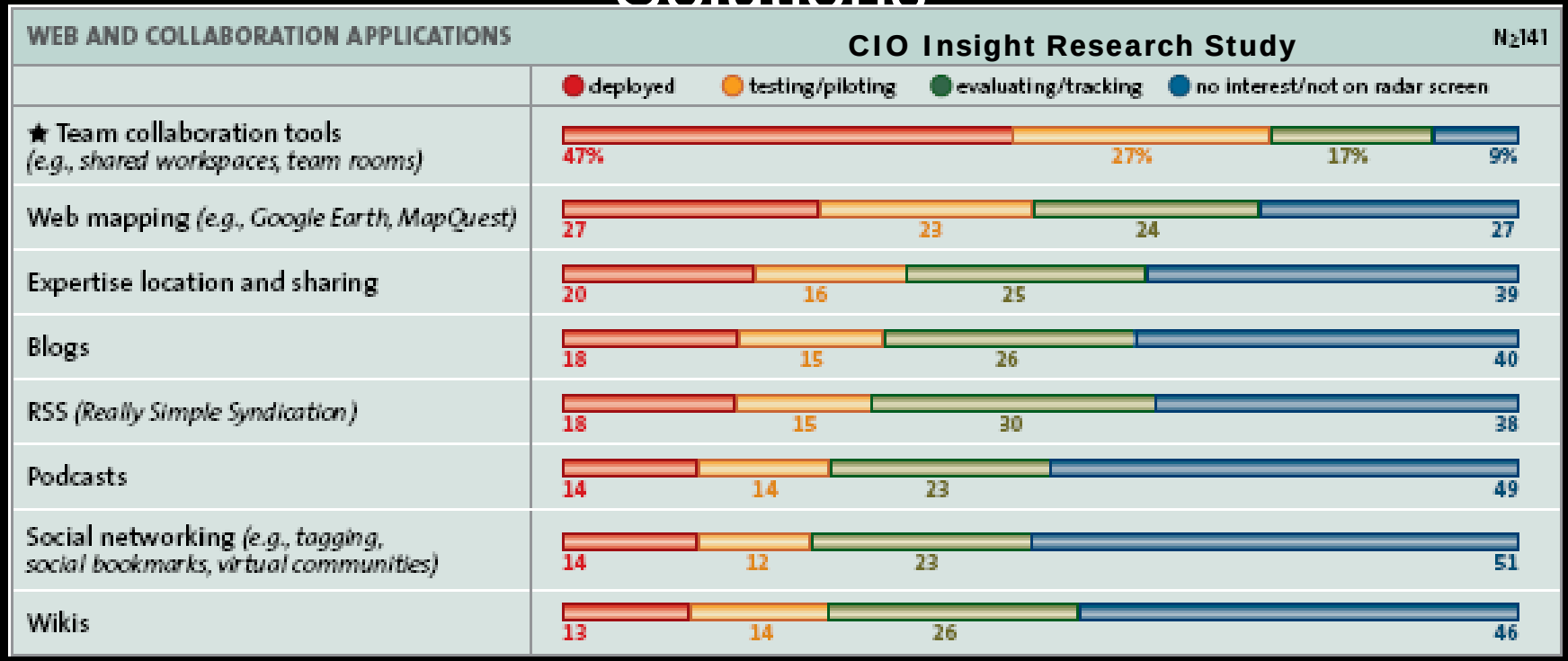


Carr 2006

MOO chat forum wikis blogs LMS CMS podcast data/tele/video conferencing messaging email & listservs video cast/streaming webcasts meeting tools web authoring

mobiles, phones, WAP, VOIP, PDAs, tablets, desktop, laptop, future technologies

Demand for Business (Web 2.0) Solutions



2009 Corporate Web 2.0 Penetration:

Blogging:	**80%**
RSS:	**75%**
Podcasting	**60%**
Wikis:	**50%**

Source: Gartner

The web is now…

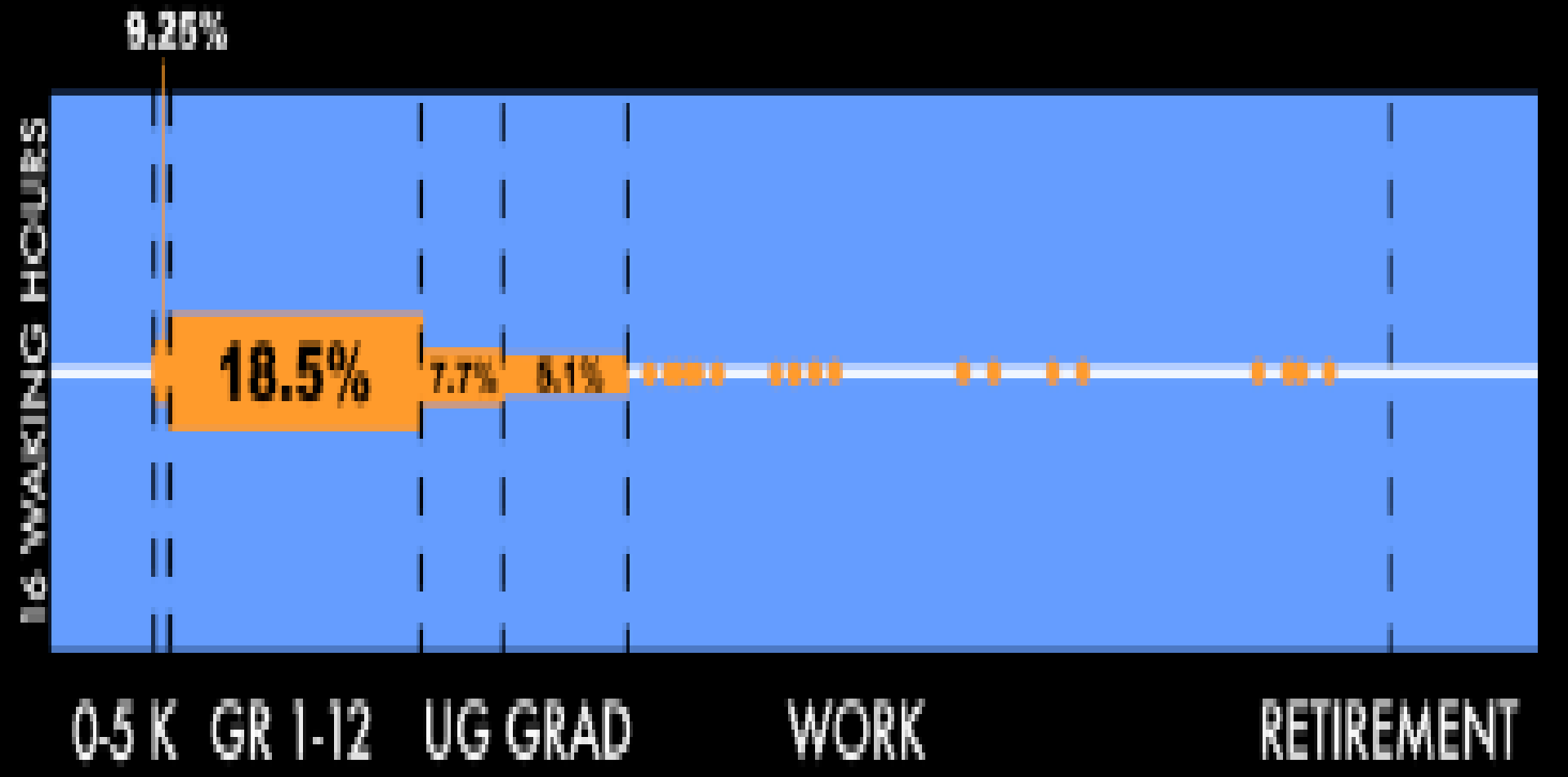
- **challenging traditional approaches** to how we learn.
- challenging our **assumptions about classrooms** and teaching.
- challenging our assumptions about knowledge, information and literacy.

What are the **implications** for your school?

Web 2.0: the "architecture of participation"

Will Richardson, 2007

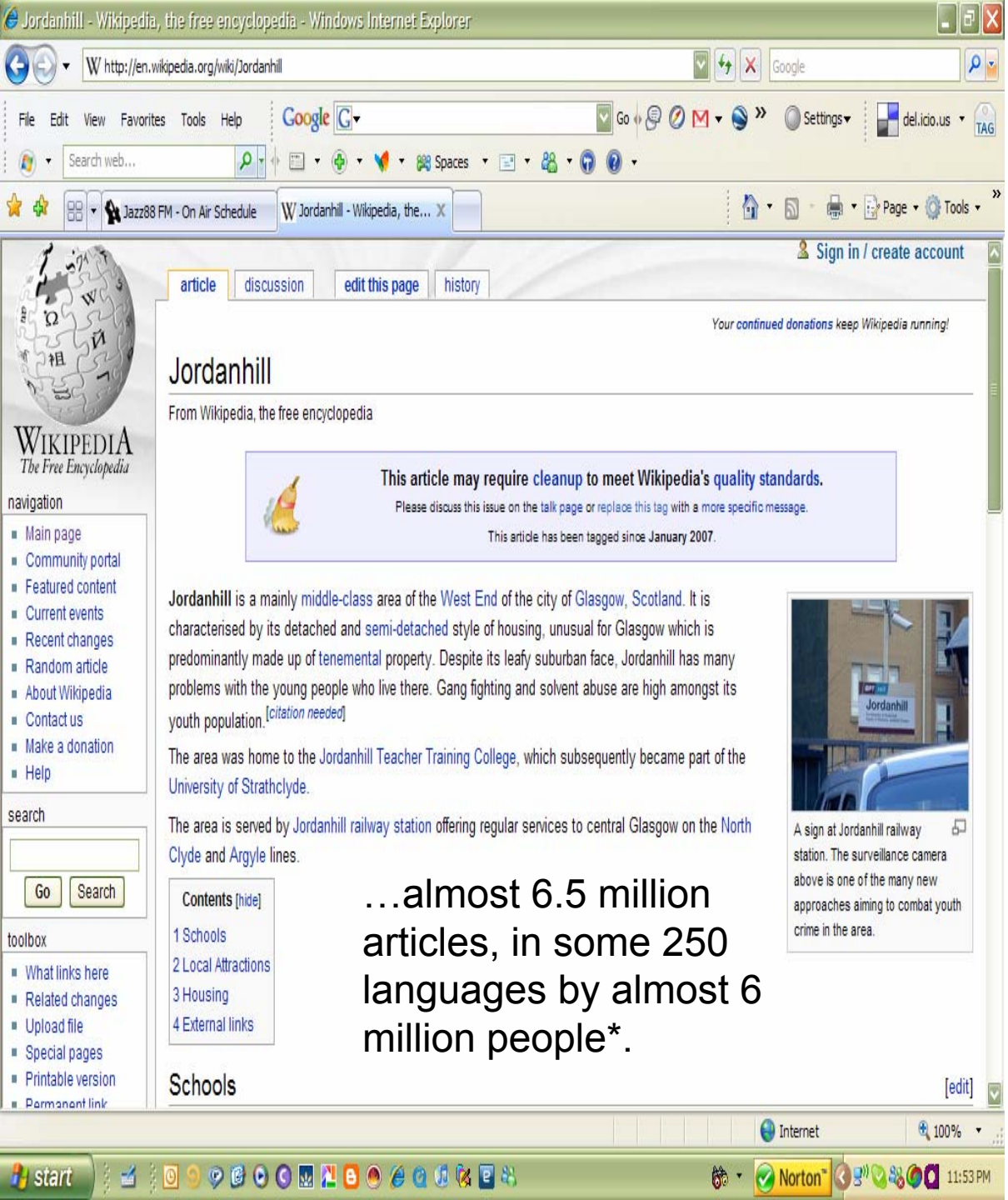
LIFELONG AND LIFEWIDE LEARNING



Education ≠ content

- Rapid knowledge growth
- The information pace is too rapid for the current model of learning
- **Informal learning is eclipsing formal learning**
- **Capacity to know more is more critical than what is currently known**
- Personal knowledge is comprised of a network
- Learners will move into different—possibly unrelated—fields over their lives

—Siemens, from Oblinger,2005

…almost 6.5 million articles, in some 250 languages by almost 6 million people*.

JORDANHILL

- Distributed or collective cognition

"Imagine a world in which every single person is given free access to the sum of all human knowledge."


If we can google it,
should we teach it?

"The transformation of work requires much more than a mastery of a fixed curriculum inherited from past centuries.

Success in the slowly changing worlds of past centuries came from **being able to do well what you were taught to do.**

Success in the rapidly changing world of the future depends on **being able to do well what you were not taught to do**"

Vision for Education: Caperton & Papert

http://www.papert.org/articles/Vision_for_education.html

Education Problem: How to Scale Quality?

Individualized learning once produced fine craftsmen. The master taught the apprentice. Only a few had the time or opportunity to gain the depth of knowledge needed to achieve excellence, and excellence was rare.

Then industrial-age minds saw scale economies in teaching many people at once. Learning became institutionalized, and the individual either adapted to the teacher and the Standard material being taught or missed out.

Now...

learning can again become individualized, and again produce excellence.

Australian Commission on Technology and Adult Learning

The teacher in a contemporary classroom understands…

- the more powerful technology becomes the **more indispensable good teachers are**
- that learners must **construct their own meaning** for deep understanding to occur
- technology generates a glut of information but is **not pedagogically wise**
- teachers must become **pedagogical design experts, (leveraging) the power of technology**

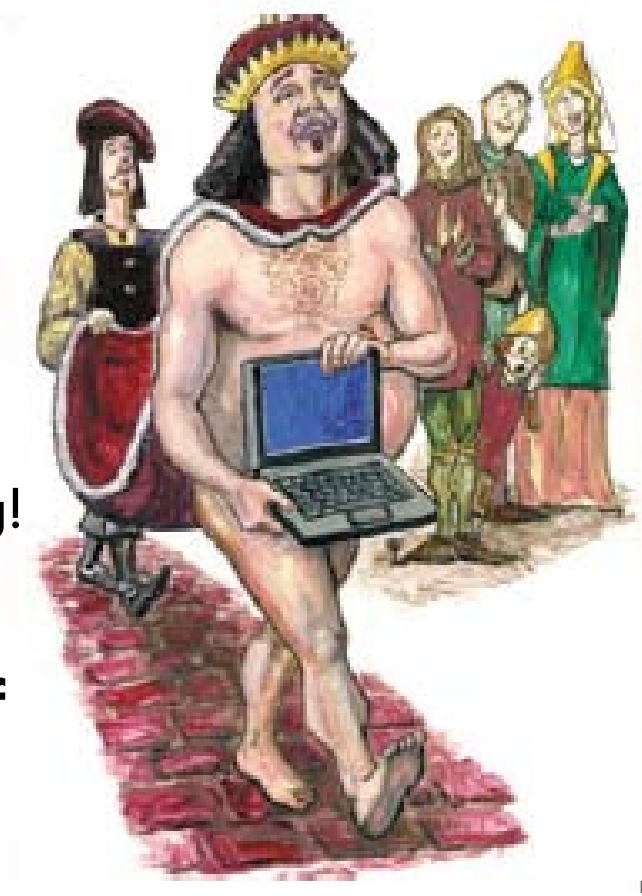
[Fullan, 1998]

What have we learnt about technology and its role in learning, and therefore what expectations should you have leading a technology-rich learning environment ?

In too many of our schools..
the technology emperor has had no clothes!

- Technology-driven ideals
- Ill-defined expectations
- Trivializing teacher competence
- Access **is** a major issue….5:1, 4:1 are just slightly better versions of the same thing!
- 59% < 59 minutes

We need to build a better understanding of the "Art of the Possible"



—Bryan Toy Edweek.org

21st Century Learning Ingredients

Digital Curriculum

Improved Learning Methods

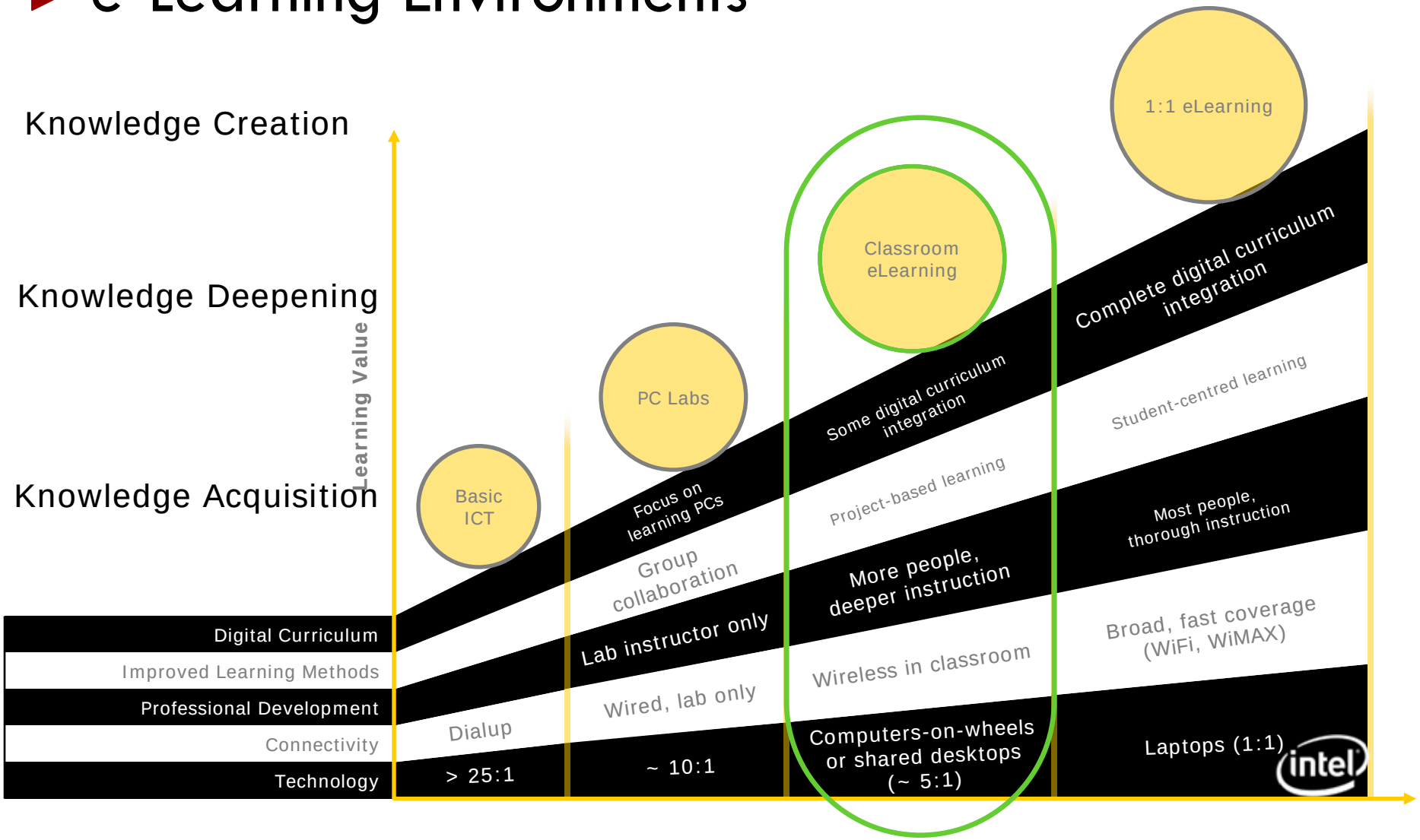
eLearning Environments

Professional Development

Technology

Connectivity

e-Learning Environments

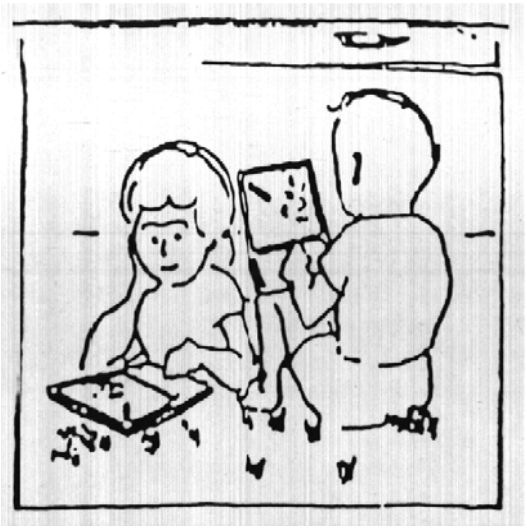


The drivers to 1 to 1…

- Equity-Narrows the Digital Divide?
- Economic-budget imperatives?
- Unlocks the possibility of personalised learning?
- Improves assessment alternatives?
- Provides opportunity for textbook replacement?
- Marketing-competitive advantage?
- Expanded pedagogical opportunities?
- Research on the impact on learning?
- Offers 21st Century Learning opportunities
  - -extends formal learning communities and expand global communication and collaboration, and develop creative expression

..offering more **compelling** learning experiences for **all** students.

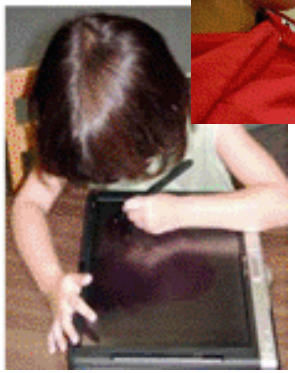
A vision of learning built around a very powerful idea...



"*More and more I was thinking of the computer not just as hardware and software but* ***as a medium through which you could communicate important things****. ….an* ***instrument whose music is ideas****.*

The best thing a teacher can do is to set up the best conditions for each kid to learn. Once you have that, then the computer can help immeasurably. Conversely, just putting computers in the schools without creating **a rich learning environment** *is useless -- worse than useless!"*

http://www.honco.net/os/kay.html



A one-to-one initiative

…every student with their own laptop..why not?

A simple idea that just might work!

Where will the funding come?

How can we make it happen?

..build equity not inequality!

Why is it important for each child to have a computer? What's wrong with community-access centers?

"One does not think of community pencils—kids have their own.
They are tools to think with, sufficiently inexpensive to be used for work and play, drawing, writing, and mathematics. A computer can be the same, but far more powerful.
….and these belongings will be well-maintained through love and care."

Nicholas Negroponte 2005

What the research tells us…

- Student **attendance increases** and students are **more motivated and more engaged** (Russell, 2004, New Brunswick, 2004-06)
- Students **write more, more often and better.** (Silvernail, 2004, Warschauer, 2005)
- Overall **improvement in test scores** (New Brunswick, 2004-06 +)
- Students engagement in **critical thinking**, problem-solving, and **higher-order thinking** on a task increased with 1-to-1 students; more willing to address/assess controversy within an assignment (Rockman, 1998)


What the research also tells us…

- Increase in **21st century learning skills** – including multimedia engagement, greater quality/quantity of writing, multiple/**deeper** investigation of information (Warschauer, 2005)
- Motivation, engagement, independent work, interaction, and class preparation/participation of **students with disabilities improved** (Harris, 2004)
- Access to a laptop for teachers and their students often forced a change in teachers' level of **risk and openness to learning** (Rockman, 1997)
- As digital confidence grows, and teachers are more ambitious…
  - **More** students are accessing **more** mathematics in **deeper** ways.
  - Students explore new **dimensions of accessing new knowledge**
  - Students are more engaged in in-depth research (Warschauer, 2004)


What the research tells also us…

- Teachers perceive that students exhibit a range of learning behaviors that are better because of the laptops (Silvernail, 2004)
- There is a greater level of effective delivery to students with special needs and individualized learning programs. (New Brunswick, 2004-06)
- There is a statistically significant change towards a **constructivist teaching** practice; teachers indicated the laptops were important in making these changes (Rockman, 2000)
- Teachers' **attitudes and beliefs** significantly affect implementation and success (Penuel, 2005)


A Digital Education Revolution?

$1 billion Computers in Schools package that will allow every Australian student in Yr 9 to 12 to have access to a school computer.

Kevin Rudd - First 100 Days Booklet


Digital Education Revolution

- The following table is the expected allocation for the Digital Education Revolution:
- **2007-08 ($m) 100**
- **2008-09 ($m) 400**
- **2009-10 ($m) 300**
- **2010-11 ($m) 200**


Policy Objective

- Sustainable and meaningful change to teaching and learning in Australian schools

- Preparing students for further education and training, jobs of the future and to live and work in a digital world


Policy Elements

- Grants to schools to provide access to ICT for Year 9 to 12 school students – National Secondary Computer Fund (NSSCF)
- Fibre to the Premise (FTTP) broadband with connection speeds of up to 100Mb
- Ensure new teachers graduate with ICT skills and that existing teachers have access to ICT skills training
- Develop national online curriculum resources
- Develop web portals for parent participation


Policy Guidelines - NSSCF

- Individual school applications only
- Grants of up to $1m over the life of the fund based on enrolment and need.
- As a guide only, the total fund equates to approx $900 per student in yr9-12


Policy Guidelines - NSSCF

Priority of funding to ensure every secondary student has access to a school computer:-

- Desktop computer
- Laptop computer
- Thin client

- Having achieved the target ratio, the fund may be used for additional ICT equipment
- IWB, projector, digital camera, printer / scanner


Policy Guidelines - NSSCF

- Schools can make application in every year of the fund
- Funding cannot be used for facilities, infrastructure or support
- States will enter into a partnership agreement with DEEWR on the provision of complementary funding


Policy Guidelines - NSSCF

- Applications are submitted online through the DEEWR site:- http://www.digitaleducationrevolution.gov.au/
- Applications which meet the guidelines will be passed to DETA for assessment
- Assessment guidelines for Round 1


Step 2
Building a Vision for 1-to-1 Learning: the Foundation for Success

SMART Classrooms

AALF

The challenge of Re-imagining…

How do we become aware of our reality beyond our concepts…..

and then take time to reflect on what we see..

"What does it take to shake people loose?...imagination deteriorates with experience ..we need radical re-imagining".

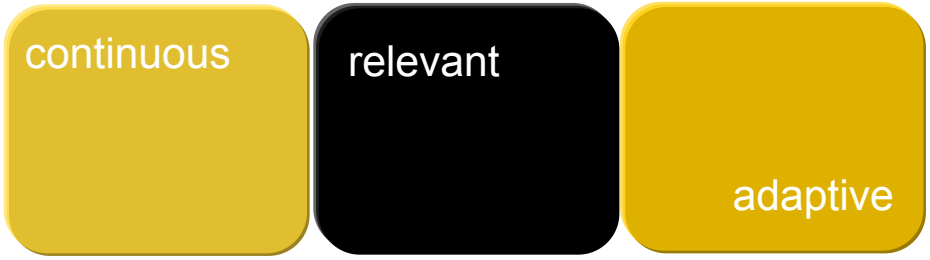
Peter Senge 2007

'Perspective is worth 80 IQ points.' *Alan Kay*


DNA


what is blood?

Philadelphia School of the Future



Establishing a shared Vision

1. where learning is not dependent on time and place
2. where content, curriculum and tools are **current** and relevant
3. where instruction adapts to the needs of the individual student

Fundamental change, or incremental improvement; the question is not so much which is right, but rather why has there been so little discussion about the question?

Where do you see your school?

1 2 3 4

Incremental Improvement **Fundamental Change**

Incremental improvement. Continual small changes to the way school might function to provide measurable improvement.

Fundamental change/transformation looks very different. It is not "tweaking" at the edges; this is not doubling the length of classes or developing cross-curricular programs. Rather than build on the successes of the past, fundamental change requires a complete rethinking of the nature of school and learning from the "ground up".


► Technology and Change

So technology can be used

- To sustain and support what we are already doing (conservative use – does not lead to change)
- To supplement and extend what we are doing
  (leads to improvement and reform)
- To subvert and transform what we are doing (leads to transformation and innovation)

George Thomas Scharffenberger, 2004

"My goal in life is to find ways in which children can use technology as a constructive medium to do things that they could not do before; to do things at a level of complexity that was not previously accessible to children"

Prof. Seymour Papert 1998

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