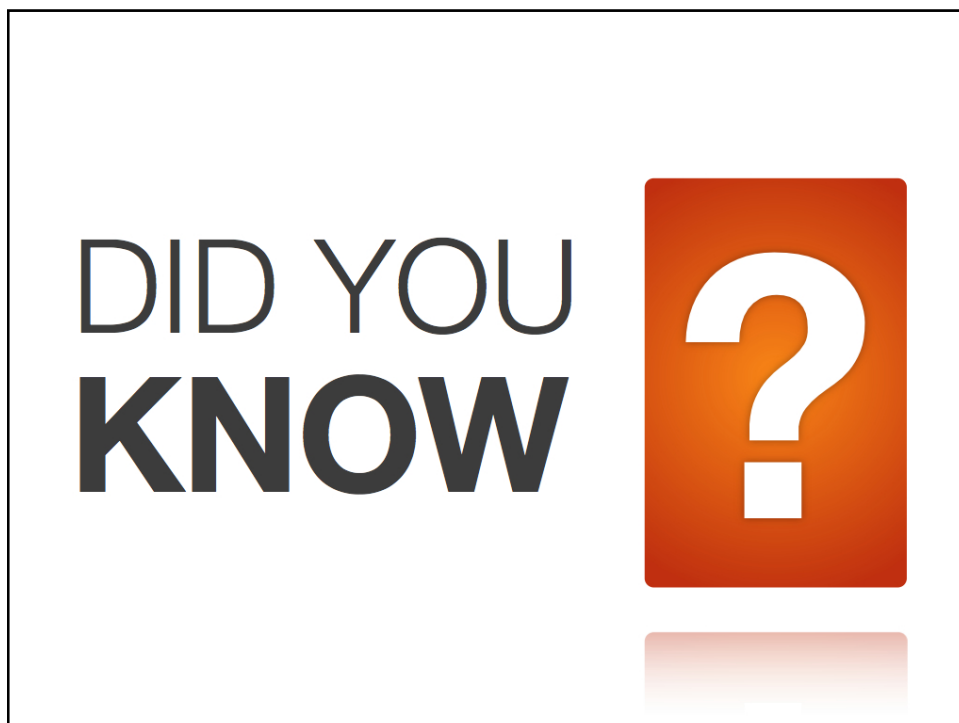


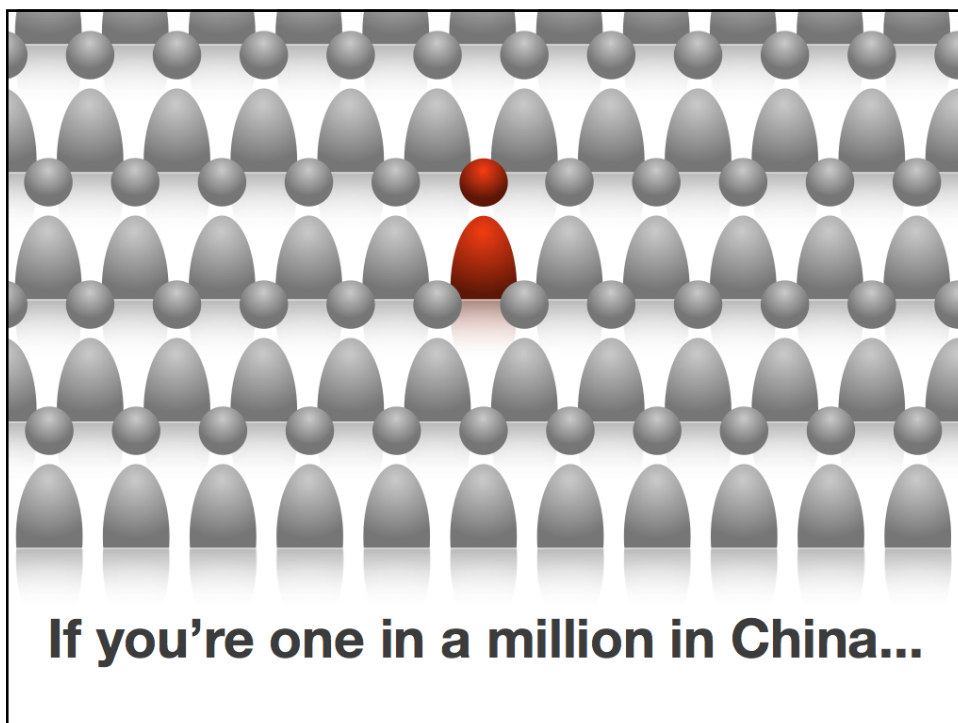


**“In times of change learners
inherit the earth; while the
learned find themselves
beautifully equipped to deal
with a world that no longer
exists.”**

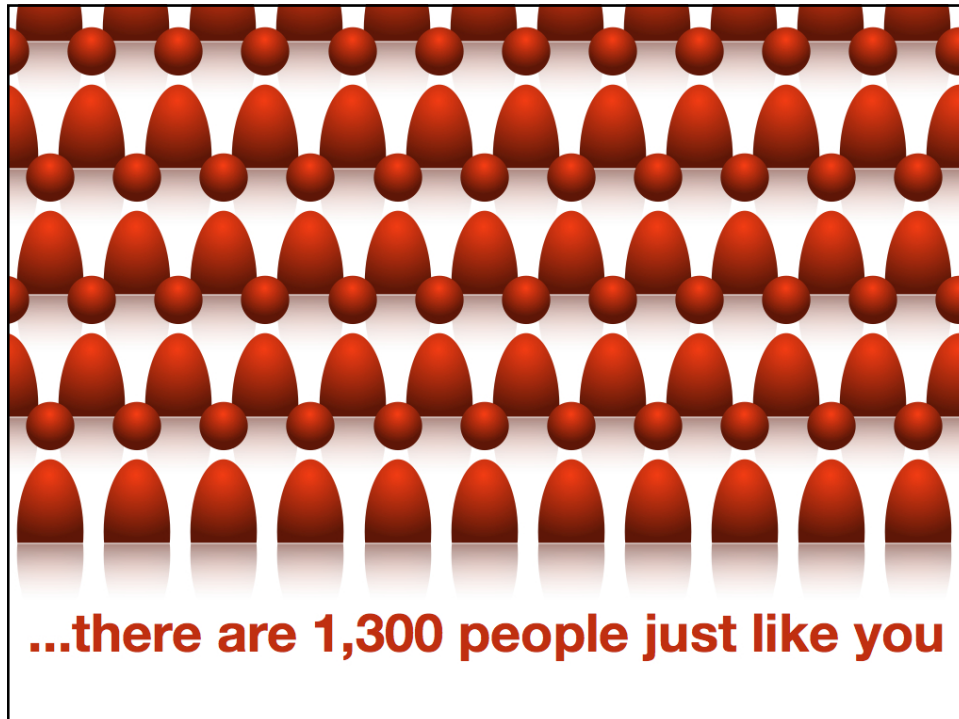
Eric Hoffer



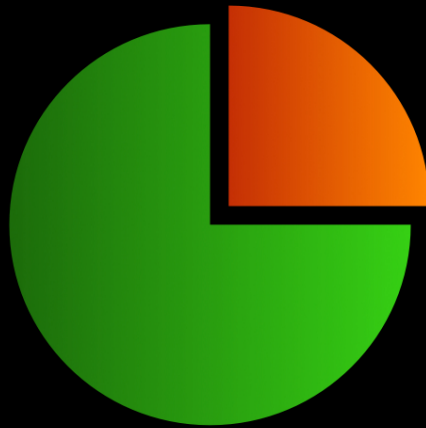
**Sometimes size
does matter**



If you're one in a million in China...



**The 1% of the population in China
with the highest IQ's...**



**...is greater than the total population
of Singapore**

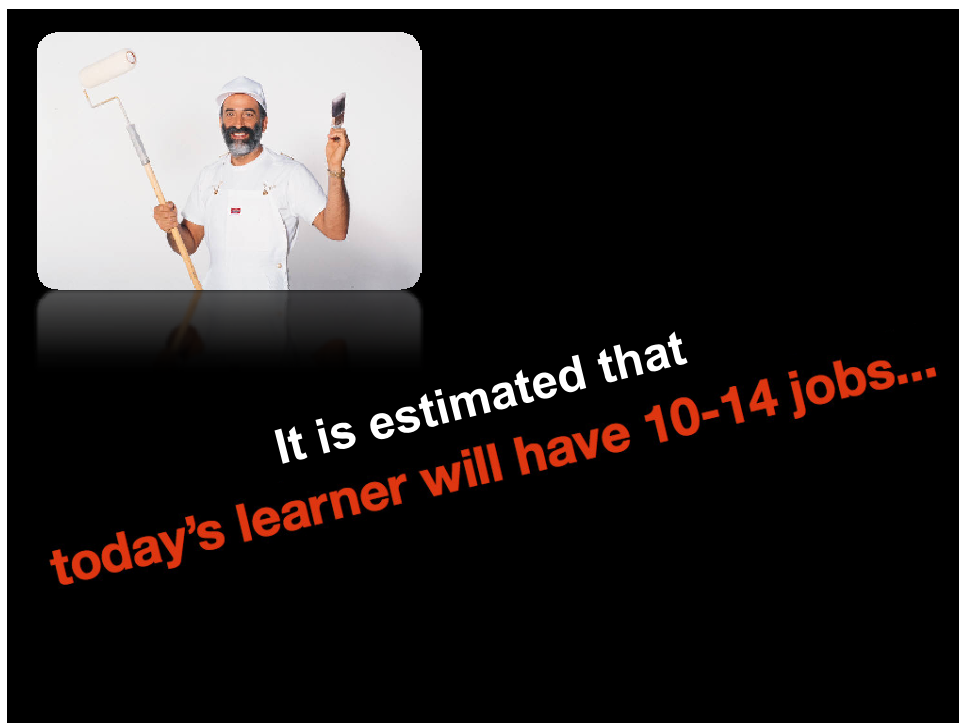
Translation:

They have more gifted & talented students, than we have students



**DID YOU
KNOW**

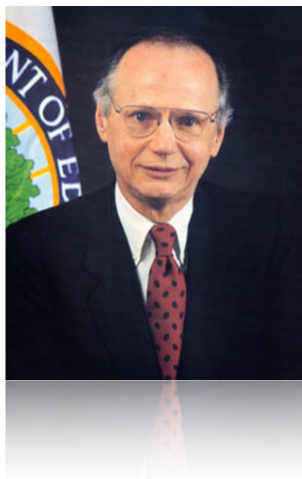






1 out of 4 workers today
is working for a company they have been
employed by for less than one year

more than 1 out of 2
are working for a company they have
worked for for less than five years.



According to former US
Secretary of Education
Richard Riley...

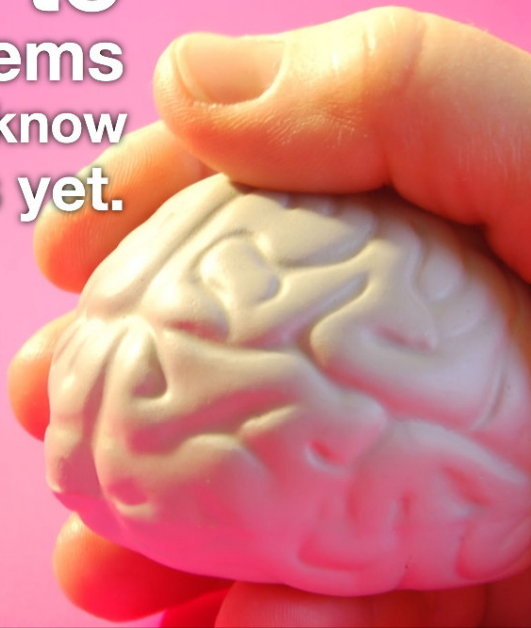
...the top 10 in-demand jobs in 2010
did not exist in 2004

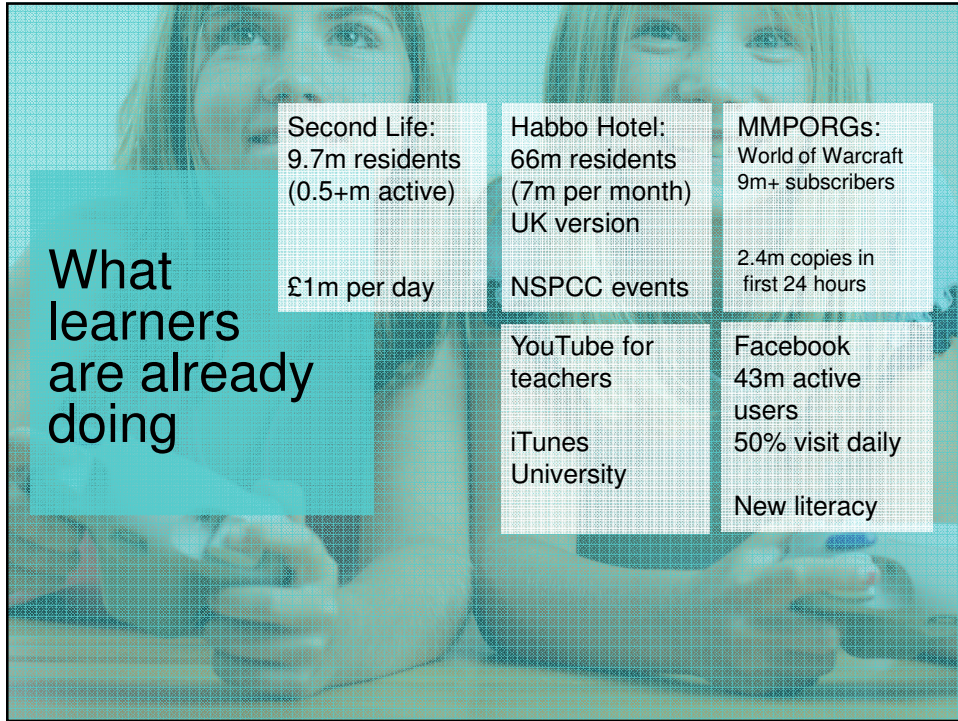


using technologies
that haven't
been invented...



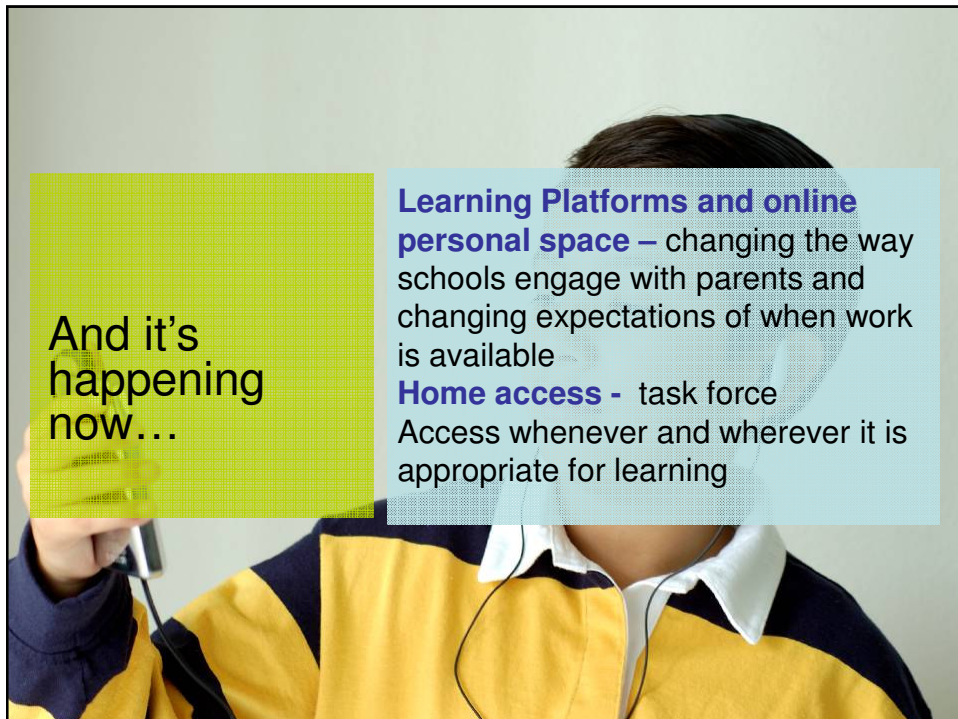
in order to
solve problems
we don't even know
are problems yet.





What learners are already doing

Second Life: 9.7m residents (0.5+m active)	Habbo Hotel: 66m residents (7m per month) UK version	MMPORGs: World of Warcraft 9m+ subscribers
£1m per day	NSPCC events	2.4m copies in first 24 hours
	YouTube for teachers	Facebook 43m active users
	iTunes University	50% visit daily
		New literacy



And it's happening now...

Learning Platforms and online personal space – changing the way schools engage with parents and changing expectations of when work is available

Home access - task force
Access whenever and wherever it is appropriate for learning

every second



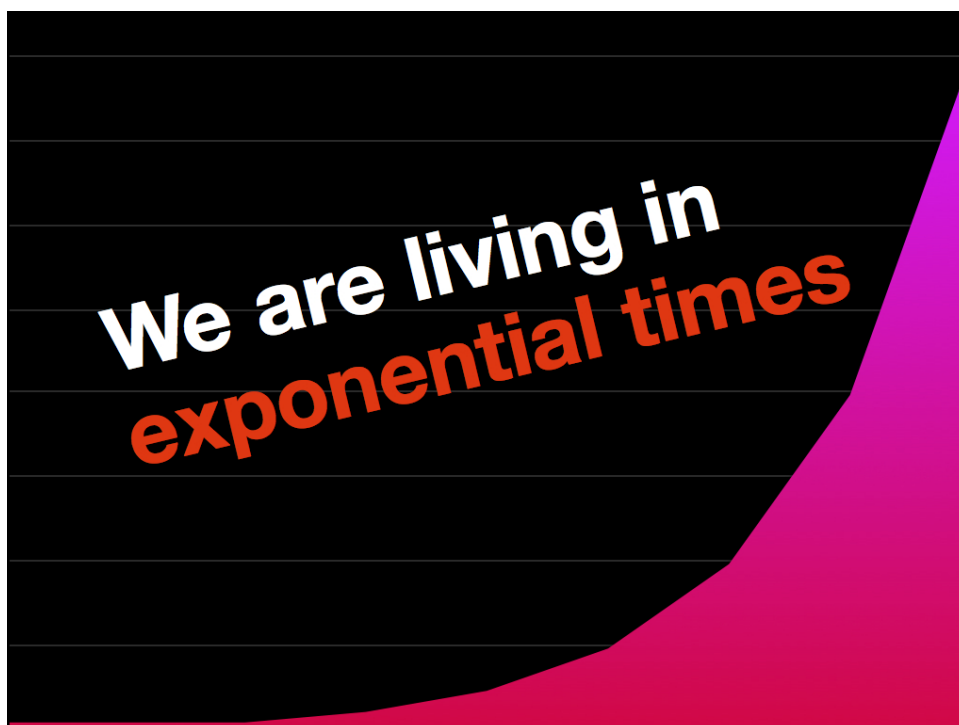
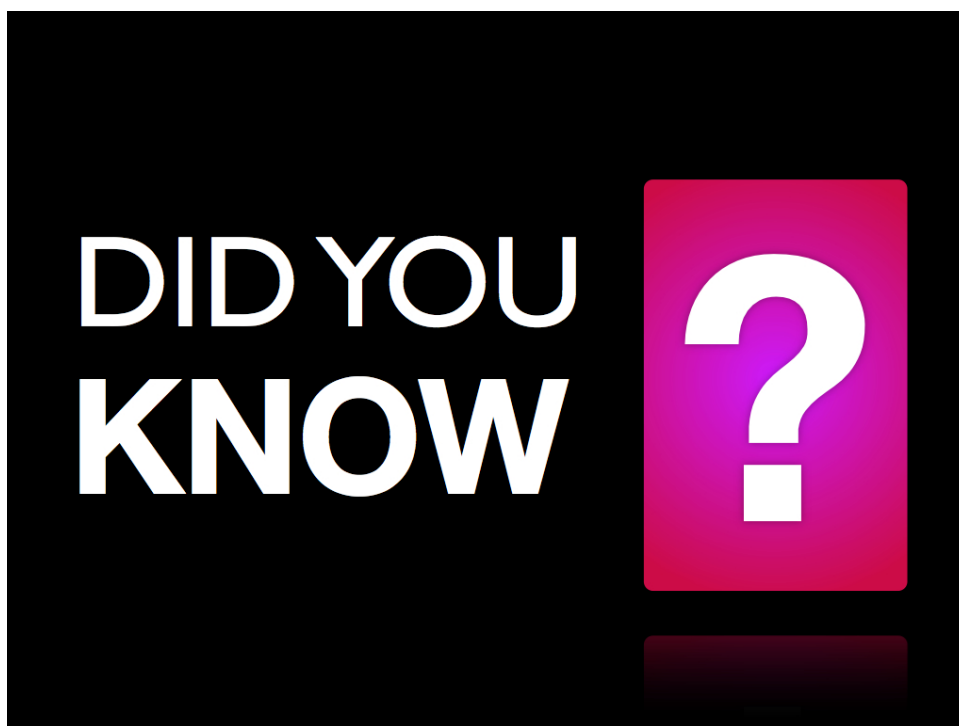
There are over **106 million** registered users of MySpace (as of September 2006)



**If MySpace were a country,
it would be the **11th-largest in the world**
(between Japan and Mexico)**

**And Facebook
is being used in
a number of
corporations as
a **standard
communication
tool****

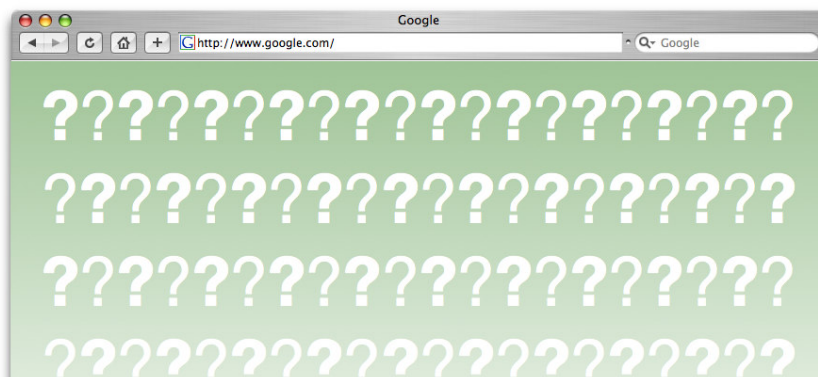




There are over 2.7 billion searches performed on Google each month



**To whom were these questions addressed
before Google?**



More than **3,000** new books
are published every day



It is estimated that a
week's worth of The Times...



...contains more information
than a person was likely to come across
in a lifetime in the 18th century.

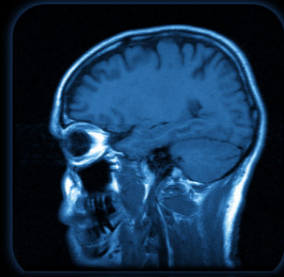
It is estimated that 40 exabytes (4.0×10^{19})
of unique new information
will be generated worldwide this year.



**That is more than in the
previous 5,000 years.**

**9 out of 10
teenagers have a
home computer, a
mobile phone and a
games console**

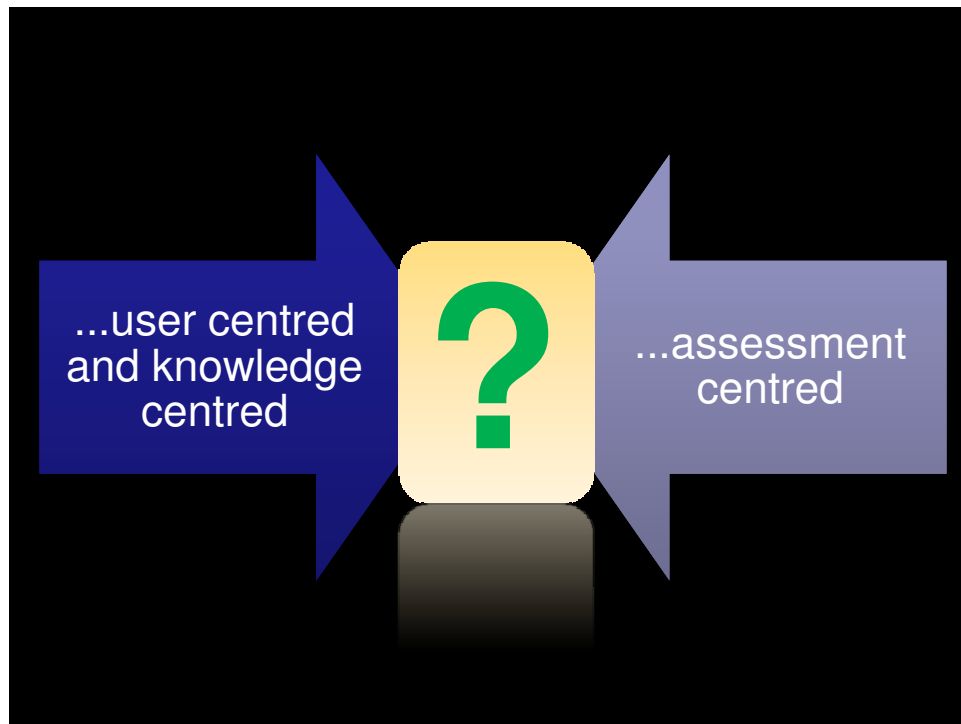




**Predictions are that by 2013 a supercomputer
will be built that exceeds the computation
capability of the human brain**



**So what does
personalised
learning look like?**



**What would
learning feel like
to...**

A student

**“My lessons are engaging
and stretching”**

**“I know how I am doing in
each subject
and what I need to do to
progress and improve”**

**“I am involved in
assessing my work
and setting my targets”**

**“I talk about my learning
and teaching
with my teachers, other
adults and students”**

**“I get help if I am having a
problem with my learning”**

**“My parents understand
how I am doing and
encourage me”**

**What would
learning feel like
to...**

A parent

**“Someone in school knows
my child and looks out for
ways to help their learning”**

**“I know how well my child is
doing in relation
to their individual, and age
related, expectations”**

**“I know where to get help
for my child and what
help I can offer”**

**“I know how to engage
with my child’s learning
when they are at home”**

Multiple media devices

Multiple content formats

Collaboration and unified communication

Multiple content applications

Multiple learning environments

RFID and other applications

This content and newly created knowledge needs to be stored and delivered to multiple media devices in multiple content formats, anywhere and anytime

Students and teachers will learn within shifting and dynamic learning networks across broad learning communities unconstrained by structure, hierarchy, location, time or school construction.

The learning environment will be engaging, stimulating and fluid; enabled by technology, applications and content that will continually change, evolve and transform.

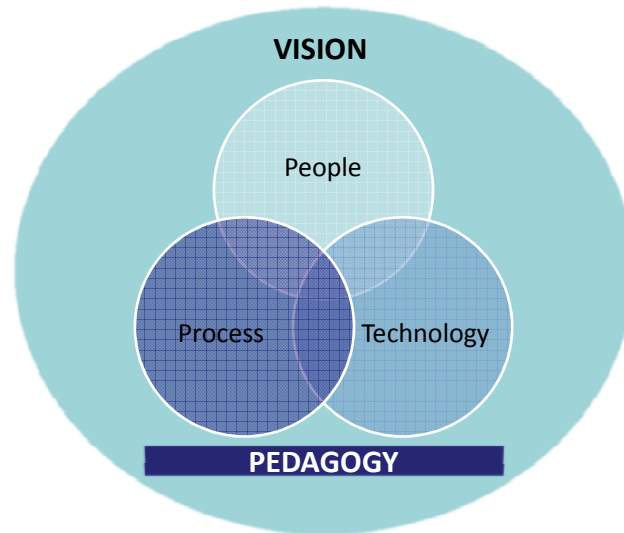
Teachers and students will easily embrace and adapt to emerging pedagogies, technology and applications.

**Process automation and elimination
of routine tasks through the
integration of content and
applications at the content level will
be key**

**True transformation will be
achieved through the
concatenation of pedagogy,
technology and people.**

This is what we do!

Transformation vision, pedagogical foundation



UK Building Schools for the Future (BSF)

- In 2006 Civica was awarded two contracts to redevelop use of ICT applications in schools within the Essex and Sheffield Counties
- The contract is valued at nearly £50 million over the next decade.
 - Essex County - 520 schools with 200,000 users designed to scale to 500,000
 - Sheffield County - 31 secondary schools with 27,000 users

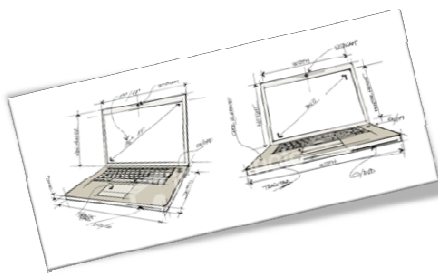


UK Building Schools for the Future

- A national initiative that aims to deliver 21st century schools for every secondary school pupil in England.
- This includes not only the buildings redesign but delves further into the learning experiences and outcomes of a new generation of students.

UK Building Schools for the Future

- Goals
 - New technologies
 - Seamless integration



More than buildings....



UK Building Schools for the Future

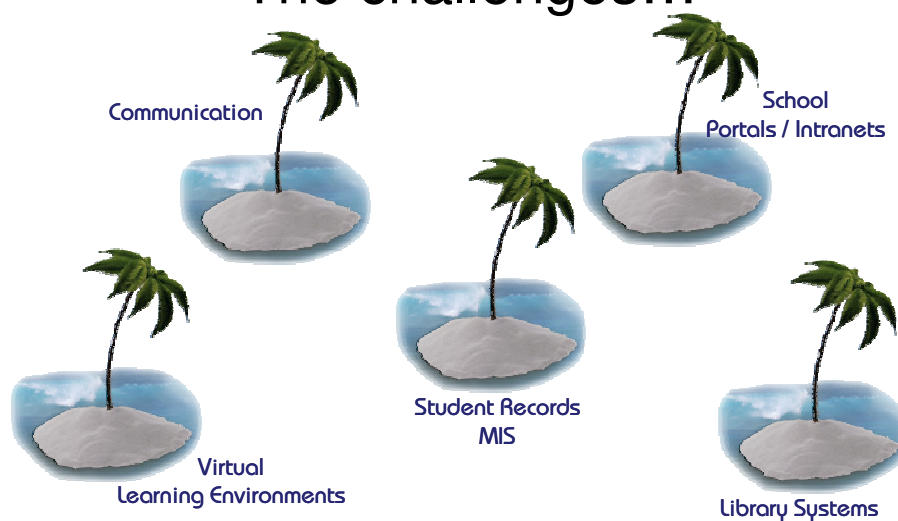
- Under the scheme, every child will be educated in a 21st Century environment within 15 years.
- Schools
 - Rebuilt
 - Remodeled
 - upgraded
- Providing flexible, inclusive, attractive learning environments



Civica ICT partners for UK BSF

CENTRALISED	IN-SCHOOL
Data centre	On-site technicians
MIS integration	Hot swap
Portal	Building management
Content management system	Access control
Library management system	Wireless network
Learning management system	Application deployment
School administration system	IP telephony
Procurement and asset register	Display technologies
Network management	Security
Help desk	School refresh management
Security	

The challenges...



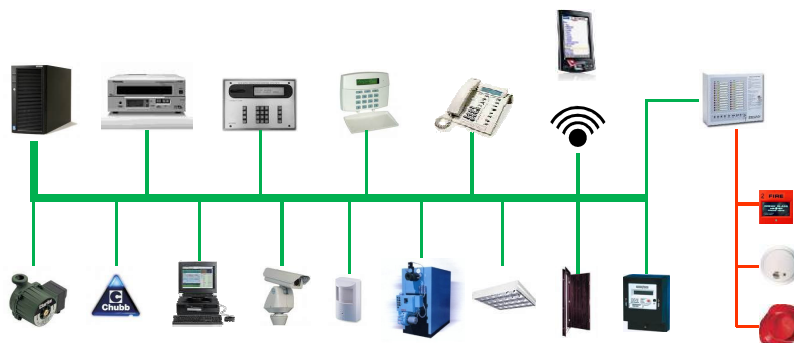
“Joining-up different technology islands”

ICT will be everywhere...

- 'Zonal' Control
- Integrated Observation
- Digital Signage
- Smart System
- Contextual Services
- Communication & Collaboration
- Sustainable Buildings



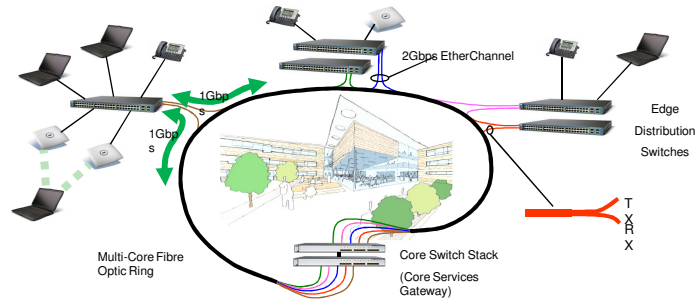
Joined-Up Systems



A priority of Civica technical implementation is to create a universally connected school. All technology will be joined.

Multi-Service Infrastructure

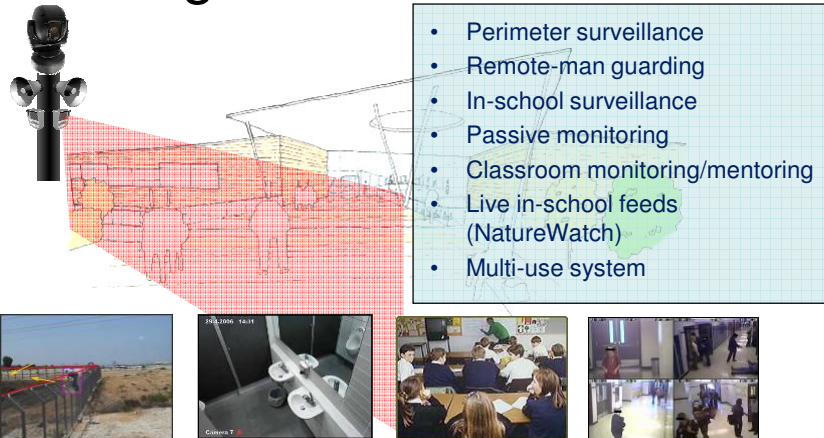
- Reliable
- Resilient
- Wireless
- Scalable
- Standards based
- High-bandwidth (IEEE 802.11n)
- Anytime, Anywhere Access



Wireless Coverage supporting device mobility

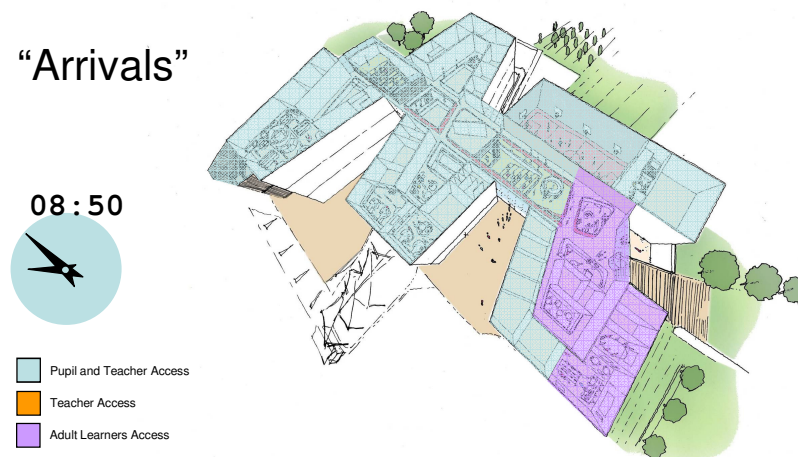
- Integrated with building design
- High bandwidth (802.11n)
- 'Industrial strength'
- Seamless roaming services
- Tracking capabilities
- Management system

Integrated Observation



Safe, managed and inclusive

“Arrivals”



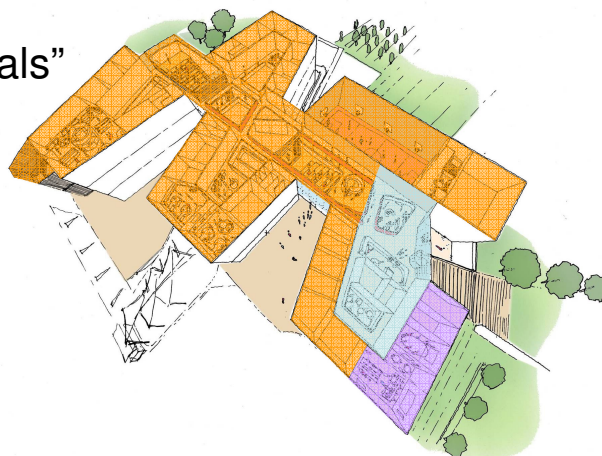
Safe, managed and inclusive

“late arrivals”

09:15



-  Pupil and Teacher Access
-  Teacher Access
-  Adult Learners Access



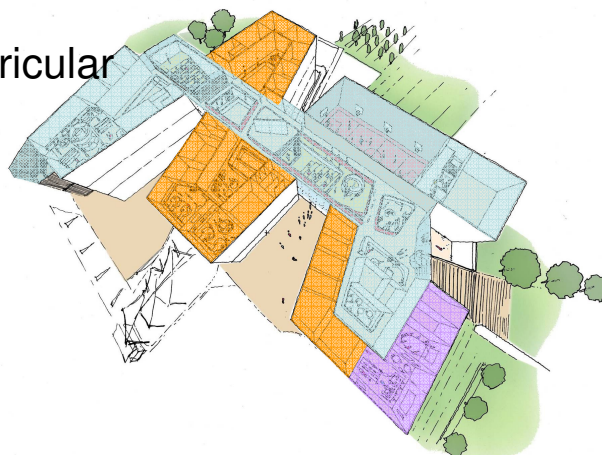
Safe, managed and inclusive

“extra curricular activities”

16:00

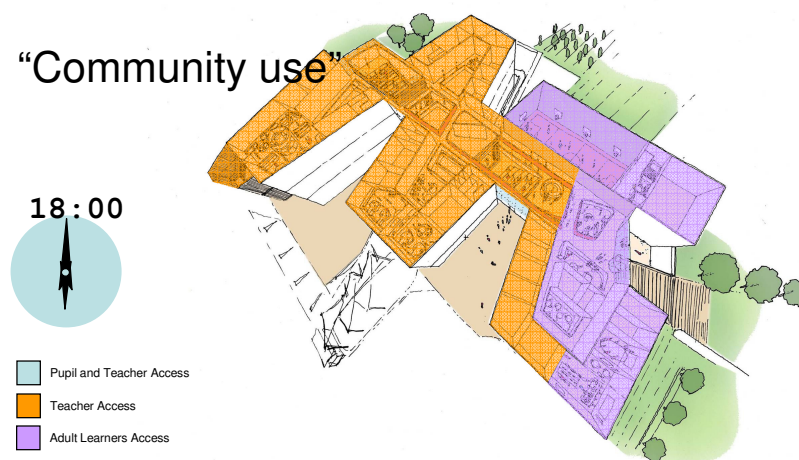


-  Pupil and Teacher Access
-  Teacher Access
-  Adult Learners Access



Safe, managed and inclusive

“Community use”



Safe, managed and inclusive

“managed
lock-down”



The Transformation

Providing longer-term adaptability

- Civica partners with each customer to ensure that we deliver the complete vision based on
 - Pedagogy
 - learning outcomes
 - Design
 - Implementation
 - Support



Transformation – 2010



“Day one flexibility”

Transformation – 2015

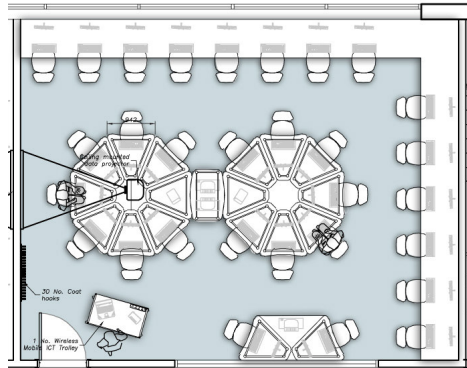


“Providing longer-term adaptability”

Transformation – 2020



ICT Learning Space



Appropriate furniture



Foundations for transformation

- Pedagogical innovation, learning outcome focus
- Change management
- Integrated approach
- Understanding of roles – educators leading, technology enabling
- Appropriate technology integrated across school

Pedagogical approach, learning outcome focus

- Appropriate pedagogical approach
- Building 21st century skills
 - Critical and creative thinking
 - Meta-cognitive skills 'learning how to learn'
 - Information literacy and ICT skills
 - Collaboration in learning and constructing knowledge
 - Engaging change and Lifelong learning
- Community and character
- Dynamic learning networks
- Dynamic content and knowledge creation

Change Management

- Establishing and communicating a clear vision
- Engagement program – all stakeholders, partners and suppliers
- Awareness and readiness for change
- Understanding 'Imagination gap'
- Training program
- Review and feedback cycle
- Deployment program
- Exponential change – continual change program

Challenges to transformation

- Shared understanding of vision
- Pedagogy innovation
- 'Imagination gap'
- Change management
- Appropriate emerging technologies
- Integrated ICT deployment
- Support
- Teaching pressures...

Imagination gap

- Poor consideration of:
 - pedagogy innovation
 - changing class usage and activity within class
 - changing interaction within class
 - pupil usage of new tools and applications
- Over resourcing instead of appropriate resourcing
- ICT labs rather than integration in all classrooms



Integrated approach

- Vision
- Pedagogy and learning outcomes
- Change management
- Design
- Implementation
- Support

Realising the benefits

- Learning outcomes
- Personalised learning
- Unconstrained by time, location and technology
- Dynamic knowledge creation and sharing
- Parents and community as partners in learning
- Dynamic learning communities
- Reduced administration and support
- Future proofing



- Karl Fisch, of Arapahoe High School in the US, conceived and created the first version of this presentation for a staff development day.
- Scott McLeod modified it, to make it more relevant to a wider context.
- Jeff Brenman, of Apollo Ideas, applied the creative design.
- Ray Fleming, of Microsoft, modified it to reflect a UK context.
- Phil Barr and Marc Nolan, of Civica modified it to present a vision for future learning -
 - with some material from Doug Brown of the UK Department for Children, Schools and Families

shifthappens
...and it is happening now!