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Re-Imagining the Library for the 21st Century

CILIP/TALIS Executive Briefing, 15th March 2007
All buildings are predictions.

All predictions are wrong …..

But we can design buildings so that it doesn’t matter if they are wrong.

Stewart Brand
How Buildings Learn
What happens to then after they’re built
Re-imagining the Library for the 21st Century

Daniel Pink
A Whole New Mind
P.49

Society

Automation (Technology)
Asia (Globalisation)
Affluence

18th Century
19th Century
20th Century
21st Century

Agricultural Age
(farmers)

Industrial Age
(factory workers)

Information Age
(knowledge workers)

Conceptual Age
(creators, empathisers)
Off the shelf

Google has a plan to put books online - and an unlikely ally in the Bodleian Library

The Guardian
Saturday March 10 2007
The Creative World View

..the reference point is the future, not the past. We don’t need to fall back on the past for our decisions. Choices are based on alignment with our purpose and our vision for a different world.

George Land & Beth Jarman
Breakpoint and Beyond p.166
Strategy

People
Structure, skills, abilities

Technology
Application and pervasiveness

Environment
Design and configuration

Re-imagining the Library for the 21st Century
SYNERGY:
strategy for people, technology and the campus environment
Implementation is worth 100 IQ points

Tony Manning
Making Sense of Strategy p.35
Imagine...
Imagine... a world in which everyone achieves their full educational potential, where academic and vocational achievement has equal value, and where experiential learning enables everyone to continually develop their knowledge and skills throughout their life.
The primary aim of a Learning Centre is to support people in the process of learning. This support is extended to learners in their individual endeavours, and to the institution in its development of approaches to learning. What is being proposed for Glasgow Caledonian University is therefore not a new Library, not a Learning Resource(s) Centre, but a Learning Centre.

Les Watson 20/8/00
• 21st century **Library**
• **Learning** space
• Single point of access to **services**

An **Organisational Change** project
Why is it different?

The truly successful businessman is essentially a dissenter

J. Paul Getty
Some themes

- Students (Users)
- Learning
- Creativity
- Libraries
- Services
- Technology
What matters?
What matters?
What’s changed?

By the age of 21, the average person will have spent

• 10,000 hours using video games
• Dealt with 200,000 emails
• 20,000 hours watching TV
• 10,000 hours using a mobile phone
• Under 5,000 hours reading

Prensky, 2003
What’s changed?

• 2 million children (age 6 to 17) have a personal web site

• 6 million children (age 6 to 17) will have web sites by 2005

Grunwald, 2004
Video games are woven into this generation’s lives as television was to those of their predecessors.

For example, according to several surveys, the percentage of American College students who say they’ve played video games is 100.

James Sullivan
Digital Arts Finds More Than Joy in Joysticks
San Francisco Chronicle 22/01/2004
Physicians who spent at least three hours a week playing video games made about 37 per cent fewer mistakes in laparoscopic surgery and performed the task 27 per cent faster than their counterparts who did not play.

Study: Gamers Make Good Surgeons
CBSNews.com 07/04/2004
“Play will be to the 21st century what work was to the last 300 years of industrial society - our dominant way of knowing, doing and creating value”

Pat Kane - The Play Ethic
What’s changing?

“If you want creative people - give them time to play”

John Cleese
And events and places to play……

Whether it’s the conference or public talk, or the coffee house on the corner, or the chance street encounter in a buzzing neighbourhood, players need their open-ended, unspecified places, even if only to rehearse their ethic of unpredictability and spontaneity.

Pat Kane
The Play Ethic p.113
What’s Changed?

Today’s students are no longer the people our educational system was designed to teach.

Prensky 2001
What are Universities for?

“To induce students to think for themselves, work on their own, and to contribute to the work of groups”

Report of the Committee on University Teaching - Hale Report 1964 (UGC HMSO) para. 249
Who are we educating?

6%
Who are we educating?

52%
## What’s happening with learning?

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactive</td>
<td>Creative</td>
</tr>
<tr>
<td>Stable</td>
<td>Agile</td>
</tr>
<tr>
<td>Instruction</td>
<td>Construction</td>
</tr>
<tr>
<td>Analysis</td>
<td>Synthesis</td>
</tr>
<tr>
<td>Quality controlled</td>
<td>Quality assured</td>
</tr>
<tr>
<td>Content delivery</td>
<td>User generated content</td>
</tr>
<tr>
<td>Fit into the system</td>
<td>Fit for the student</td>
</tr>
<tr>
<td>Individualised</td>
<td>Personalised</td>
</tr>
<tr>
<td>National</td>
<td>Global</td>
</tr>
<tr>
<td>One to many</td>
<td>Peer to peer</td>
</tr>
<tr>
<td>Interactive</td>
<td>Participative</td>
</tr>
<tr>
<td>Curriculum centric</td>
<td>Learner centric</td>
</tr>
<tr>
<td>Pieces</td>
<td>Projects</td>
</tr>
<tr>
<td>Piaget</td>
<td>Vgotsky</td>
</tr>
<tr>
<td>Mundane</td>
<td>Engaging</td>
</tr>
</tbody>
</table>
What do employers want?

Employers are complaining that academic programmes from schools to Universities simply don’t teach what people need to know and be able to do.

They want people who can think intuitively, who can communicate well, work in teams, and are flexible, adaptable and self-confident.

Ken Robinson
Out of Our Minds p.52
“..to what extent should the individual fit the system or the system the individual?”

John West-Burnham
“In times past, schools have been uniform, in the sense that they taught the same materials in the same way to all students, and even assessed all students in the same ways. This procedure may have offered the illusion of fairness, but in my view it was not fair, except to those few blessed students strong in the linguistic and logical domains. If one seeks an education for all human beings, one that helps achieve his or her potential, then the educational process needs to be conceived quite differently”

Gardner H.
The Disciplined Mind: What all Students should Understand  1999
Personalised Learning?

According to my analysis, we have tended in our society to accord excessive weight to linguistic and logical-mathematical intelligences, while giving relatively short shrift to other intellectual domains.

Howard Gardner
The Development of Education and the Mind p.100
## The Creative Class

<table>
<thead>
<tr>
<th>Creative Professionals</th>
<th>Super creative core</th>
</tr>
</thead>
<tbody>
<tr>
<td>management</td>
<td>computer and mathematical</td>
</tr>
<tr>
<td>Business and financial</td>
<td>architecture and engineering</td>
</tr>
<tr>
<td>legal</td>
<td>life, physical, and social science</td>
</tr>
<tr>
<td>healthcare practitioners and technical</td>
<td>education, training, and library jobs</td>
</tr>
<tr>
<td>high end sales and sales management</td>
<td>arts, design, entertainment, sports and media</td>
</tr>
</tbody>
</table>

Richard Florida  
The Rise of the Creative Class (p.328)
“Experiences are replacing goods and services because they stimulate our creative faculties and enhance our creative capacities. This active, experiential lifestyle is spreading and becoming more prevalent in society...”

Richard Florida
The Rise of the Creative Class
(p.168)
“The death-of-place prognostications simply do not square with the countless people I have interviewed, the focus groups I’ve observed, and the statistical research I’ve done. Place and community are more critical factors than ever before… the economy itself increasingly takes form around real concentrations of people in real places”

Richard Florida

The Rise of the Creative Class
(p.187)
### Creativity

#### Divergent thinking - a measure of creativity

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 - 5</td>
<td>98%</td>
</tr>
<tr>
<td>8 - 10</td>
<td>32%</td>
</tr>
<tr>
<td>13 - 15</td>
<td>10%</td>
</tr>
<tr>
<td>25+</td>
<td>2%</td>
</tr>
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</table>

*Breakpoint & Beyond* (p.153)  
George Land & Beth Jarman
We need to rethink our ideas about what it means to be educated.

Ken Robinson
The knowledge base that guides library space planning is poorly balanced, tilted heavily toward library operations and away from systematic knowledge of how students learn.

Scott Bennett
Righting the Balance
In Library as Place:
Rethinking Roles, Rethinking Space, CLIR
There is no paradigm for the library of the future because we have not yet brought what we know of student learning to bear on library design. ............

It is by realigning libraries with institutional missions that the paradigm for the future will be found.

Scott Bennett
Righting the Balance
In Library as Place:
Rethinking Roles, Rethinking Space, CLIR
Significantly, the library must serve as the principal building on campus where one can truly experience and benefit from the centrality of an institution’s intellectual community.

Geoffrey T. Freeman
Changes in Learning Patterns, Technology and Use
In Library as Place:
Rethinking Roles, Rethinking Space, CLIR
The CPL thrives today because it embodies a new idea of how a library functions. No longer a passive repository of books and information or an outpost of culture, quiet, and decorum in a noisy world, the new library is an active, responsive part of the community and an agent of change.

Robert Putnam and Lewis Feldstein
Better Together - Restoring the American Community p.35
On research and technology…

What used to take two weeks could now be completed in two hours.

Geoffrey T. Freeman
Changes in Learning Patterns, Technology and Use
In Library as Place:
Rethinking Roles, Rethinking Space, CLIR
As a result of this efficiency, the researcher’s postdoctoral fellows were asked to be in the library on a regular basis and charged with evaluating resources and acquiring publications at a pace never before imagined - a research method that became known as “search and seize”.

Geoffrey T. Freeman
Changes in Learning Patterns, Technology and Use
In Library as Place:
Rethinking Roles, Rethinking Space, CLIR
We learned that **space** for the **learning and research** of **tomorrow must be generically conceived and delivered**, using **construction techniques and infrastructures in imaginative ways** that are readily adaptable to **reconfiguration**.

Geoffrey T. Freeman
Changes in Learning Patterns, Technology and Use
In Library as Place: Rethinking Roles, Rethinking Space, CLIR
On Library Space

From space to Place
If you can design the physical space, the social space and the information space together to enhance collaborative learning, then that whole milieu turns into a learning technology. People just love working there and they start learning with and from each other.

John Seely Brown
former chief scientist, Xerox Corporation
We shape our buildings, and afterwards, our buildings shape us.

Winston Churchill
What do we have?

Design

Design is but a language.
If you have nothing to say
it won’t help you

Bang & Olufsen
What do we have?

Design

You cannot expect old designs to work in new circumstances

Richard P. Feynman
The Pleasure of Finding Things Out p.37
“When we fail - and we do fail - very often you can trace that failure back to the fact that we became too focused on internal priorities. We’ve been thinking too much about what’s good for Carphone Warehouse and forgetting what it’s like to be a customer”

Charles Dunstone
CEO Carphone Warehouse
NewBusiness Spring 2005
"When we fail - and we do fail - very often you can trace that failure back to the fact that we became too focused on internal priorities. We’ve been thinking too much about what’s good for the Library and forgetting what it’s like to be a user”

Les Watson
CILIP/TALIS executive briefing
Spring 2007
Informal/Social Learning

• The largest discretionary block of time for students is outside the classroom
• Informal learning is self-directed, internally motivated and unconstrained by time, place or formal structures
• Learners construct their own courses of learning, often facilitated by technology
• “The full range of students’ learning styles is not covered when interaction is limited to classroom settings.”

—Sheppard, 2000; Dede 2004
How can we respond?

“All learning starts with conversation”

John Seely Brown
How can we respond?

Much of our job competence is learned from colleagues in the workplace.
How can we respond?

When I was a kid growing up in Far Rockaway, I had a friend named Bernie Walker. We both had “labs” at home, and we would do various “experiments”. One time, we were discussing something - we must have been 11 or 12 at the time - and I said, “But thinking is nothing but talking to yourself inside.

Richard P. Feynman
The Pleasure of Finding Things Out p.217
New types of learning spaces … create new patterns of social and intellectual interaction … suggest … the entire campus becomes an interactive learning device.

Mitchell 2004
What are we trying to do?

….. to move learners from dependence to independence enabling their lifelong learning
Re-imagining the Library for the 21st Century

- **Extrinsic**
- **Intrinsic**

- **Engagement**
  - **Passive**
  - **Active**

- **Extrinsic Motivation**

- **Primary Schools**
- **Community Learning**
- **Universities & Colleges**
- **Secondary Schools**

- **Entrepreneurs**
- **Researchers**
- **Lifelong Learners**
- **Primary Schools**
Re-imagining the Library for the 21st Century

Skills

Challenges

Low

High

Arousal

FLOW

Control

Relaxation

Boredom

Apathy

Worry

Anxiety

Control

Arousal

FLOW

Relaxation

Boredom

Apathy

Worry

Anxiety
What are we trying to do?

..... Creating the conditions to enable flow experiences that motivate and engage learners
Our response?

View the Learning Café video at www.realcaledonian.ac.uk

Find out more about the Saltire Centre at www.caledonian.ac.uk/thesaltirecentre
We have not designed our services - we have inherited them and modified them over time when what we really need to do is transform them. Our services are:

- Too complex
- Organised in self protecting silos
- Based on a supply driven model
- Dedicated to students and their support
Our services

Service Design

Student Access to Services Project

Students should not have to understand how the University is structured in order to access its services
Our services

Service Design

Student Access to Services Project

- excellent membership services
- a systems approach to delivery
- providing a ‘heart’ to the real & virtual campus
- making best use of technology
- focusing the efforts of people
Service Design

Student Access to Services Project

Services designed with:

- Single point of access
- Simple integrated interface
- Demand based referral
- Delivered in a social setting
JISC on learning space

Designing and Planning Technology Rich Learning Spaces
Applied infokit - www.jiscinfonet.ac.uk - Spring 2007
Technology

stuff that doesn’t really work yet...

Danny Hillis
quoted in The Clock of the Long Now
Stewart Brand p.16
In the car park stood the black ship, closed and silent.....

As they approached the limoship a hatchway swung down from its side, engaged the wheels of the wheelchair and drew it inside..........................

The black ship glided smoothly forward out of its bay, turned and moved down the central causeway swiftly and quietly.

Douglas Adams
The Restaurant at the End of the Universe
Ubiquitous and embedded

Technology
- Available
- Reliable
- Beautiful
- Red hot
- Relevant
It’s hybrid!

Hybrid technology - wired/wireless and fixed/portable

Hybrid information - exponential growth of digital with legacy of paper
What next?

Web 2.0
  - Digital paper
  - Micro projection

Telepresence
  - IPT

Rfid

CCRE

3D printing

Networks
A self-replicating 3D printer that spawns new, improved versions of Itself is in development at the University of Bath in the UK.

The “self-replicating rapid prototyper” or RepRap could vastly reduce the cost of 3D printers, paving the way for a future where broken objects and spare parts are simply “re-printed” at home.

www.newscientist.com/article.ns?id=dn7165
Our response

The Saltire Centre

- A New Library
- More Learning Space
- A focused way of delivering services for students
The Saltire Centre

- Is 10,500 sq. metres
- Over 5 floors
- Has a ground floor mall of 2500 sq. metres
- Has 1800 seats
- Includes a 600 seat cafe
- Houses 350,000 volumes
- 600 computers
- Cost £20.1 million
- £2+ million to fit out
- Had 68,000 visitors in the first 2 weeks
- Is open to the public
- Has fantastic feedback from students, staff and visitors
- RIBA Design Award 2006
“Third places are neither home nor work - the ‘first two’ places - but venues like coffee shops, bookstores and cafes in which we find less formal acquaintances. These comprise ‘the heart of a community’s social vitality’ where people go for good company and lively conversation”

Richard Florida - The Rise of the Creative Class
Ray Oldenberg - A Great Good Place
Christian Mikunda - Brand Lands, Hot Spots and Cools Spaces - Welcome to the 3rd Place
Pat Kane - The Play Ethic
Robert Putnam - Better Together - Restoring the American Community
In short the design of our learning spaces should become a physical representation of the institution’s vision and strategy for learning - responsive, inclusive, and supportive of attainment by all.

JISC - Designing Spaces for Effective Learning
21st Century Space

• Demands flexibility
• Has a social component
• Can create community
• Has embedded technology
• Is inspirational
Why is it important?

What we build today ........

• Provides a **context** for our **current** activity
• Determines our pedagogy
• Creates our community
• Defines the future of our institutions

Re-imagining the Library for the 21st Century
Strategy has to be about:

1. Being alert to change  (Anticipation)
2. Seeing opportunities to offer something different and new  (Insight)
3. Dreaming up new ways of doing it  (Imagination)
4. Doing it consistently and to the highest standards  (Execution)

Tony Manning
Making Sense of Strategy p.14
We create the future

All pioneering ventures are incomplete, reflecting the particular interests and ways of seeing of those who have been part of the journey, and who make the initial maps of the territory.

The World Café
Shaping Our Futures Through Conversations that Matter p.7
We create the future

Imagination is more important than knowledge
Albert Einstein (1879 - 1955)

Everything you can imagine is real
Pablo Picasso (1881 - 1973)

There is only one admirable form of the imagination: the imagination that is so intense that it creates a new reality, that it makes things happen.
Sean O’Faolain (1900 - 1991)
We create the future

“We make the path by walking on it.”

Antonio Machado
The World Café Shaping Our Futures Through Conversations that Matter p.7