

Voyage to Excellence:

Unleashing Innovation and Transformative Learning in Networked Futures

Dr. Alan Bruce
ULS Dublin



*Innovation Arabia 8
Dubai*

18 February 2015

Themes

- 1. Impact of Change and Globalization**
- 2. The Innovation Mantra**
- 3. Change: universities, business, policy**
- 4. Discovering Vision – a voyage to excellence**

1. Change and Globalization

- Globalization – accelerating and pervasive
- Crisis and re-structuring since 2008
- Devaluation of the public sphere
- Stratification and inequity – issue of social justice
- Labor market transformation
- Mobile capital and global investment linkage
- Right to inclusion – token or real?
- Access, quality and innovation in education
- Generational demographics

Globalized realities



- Patterns of constant change
- Permanent migration mobility
- Outsourcing
- Flexible structures and modalities
- Obsolescence of job norms: flexibility and adaptability
- Knowledge economy
- Ecological pressures
- Diversity as the norm
- Impact of pervasive ICT and instantaneous communications

Shaping enterprise dimensions

- Decreasing employee share in national income in all countries
- Labor productivity - up 85% since 1980
- Not reflected in wages - up 35%
- Declining social mobility
- Rising income inequality reflects declining equality of opportunity

Global Wage Report 2012/13, ILO

Prof. Miles Corak, Journal of Economic Perspectives 2013

We are increasingly becoming a winner takes all economy... over recent decades, technological change, globalization and erosion of the institutions and practices that support shared prosperity have put the middle class under increasing stress

Dr. Alan Krueger

Council of Economic Advisers & Princeton (2013)

A Transformed World

- End of old certainties
- No return to 'normal'
- Polymorphic media
- *Planet of Slums* (Mike Davis): hypercities of the future
- Informal economies
- Constant connectedness and information explosion



The impact of change

The old world is dying.

The new world struggles to be born.

Now is the time of monsters. Antonio Gramsci



Implications for business



- Less than 10% of SMEs in developing countries well prepared for new conditions and increased competition in global markets.
- An emerging opportunity to reap potential benefits of global trade is establishment of business linkages between SMEs and transnational corporations (TNCs).
- These linkages represent one of the best ways for SMEs to enhance competitiveness and acquire a series of critical missing assets: access to international markets, finance, technology, management skills and specialized knowledge
- However, specific linkages promotion programs only have a chance to succeed if a conducive *policy environment* is set up.



Policy environment: threat or opportunity?

- Mythology of the 'normal' or standard
- Defining policy goals and aims – shaping strategy
- Robust probing of social realities required
- Understanding sustainable development
- Need to avoid cliché and assumptions
- Learners are immersed in and emerging into this changed constellation – of which the gatekeepers often know little



Change dynamics

- Sustained and systemic
- Accelerating
- Multidimensional and simultaneous
- Structural incapacity to incorporate required modifications and adjustments
- Deep uncertainty in terms of future options
- Unprecedented levels of challenge

2. The Innovation Mantra



- Innovation supporting learning
- Innovation supporting work
- Re-evaluation of traditional methods and structures
- Changing needs
- Analyzing and responding to impact of globalization
- Change without changing – ‘innovation with precedents’
- Facing new realities – using evidence, connecting issues, thinking outside the box

Innovation imperatives



- Transformational learning and the sociology of innovation
- Educational systems as networks of actors who reinforce each other in stable configurations: but stable configurations prevent change
- Vested interest acts against innovation and inclusion - seen as threat
- It is possible to have incremental change
- Systems react to change even if they do not initiate it
- The promising path is through disruptive innovation which produces irreversible change (Christensen, *Disrupting Class*, 2008)

Directions and trends



- Acceleration
- Collaboration and networks
- Collaboration with knowledge production centers
- Increasing domination by market realities
- Towards competence
- Integrated learning for integrated learners

Global Innovation Index 2014 Edition



- Understanding human aspects behind innovation essential for design of policies to promote economic development and richer innovation-prone environments locally.
- Recognizing key role of innovation as a driver of economic growth and prosperity, and a broad horizontal vision of innovation applicable to emerging economies: GII includes indicators that go beyond the traditional measures of innovation (e.g. R&D)
- Rankings:

Switzerland	1
Finland	4
USA	6
Ireland	11
UAE	34



Innovation: critical factors

- * Entrepreneurship
- * Education standards – critical reflection
- * Venture capital
- * Alternative thinking – autonomous acting
- * Risk-taking
- * Global reach
- * Confidence and authenticity
- * Evaluative capacity and self-correction



Making innovation work

- Identification of what is unique
- Fostering critical reflection competence
- Democratic accountability and transparency
- Identification of real best practice
- Playing to identified strengths: food, agriculture, technology, community, services, arts
- Letting go - the stranglehold of bureaucratic thinking: innovation by diktat

Resourcing Innovation

- Talent management initiatives
- Accurate forecasting of future skill needs
- Linkage with leading universities
- Human Capital
- Organizational Capital
- Network Capital

Transfers of economically useful scientific knowledge from universities to industry generates substantial economic growth as the experiences of classical high technology regions (e.g. Silicon Valley) and emerging new technology centers around the world demonstrate

***Listening
Linkage
Leading***

Researching innovation

- *Creanova* - EU Project (2008 - 2011)
- Innovation and creativity in learning
- Towards definitions and impact
- Link to regional development
- Applied studies and test cases
- *Discovering Vision*
- *Embedding Vision*





Elements of sustainable models

- Learner centered
- Competence driven
- Community focused
- Pervasive technological presence
- International cooperation
- Learning process (application modes)
- Individual value (humanistic approach)
- Curiosity

3. Change: universities, business, policy

- Education both structure and process
- Aims and goals vary considerably
- Education systems mirror world, society and relationship-matrix of which they are part
- Education systems as constraining as liberating
- Forum for ideas or market for products? Or both....?
- Commodification of knowledge
 - *Impact on education systems (Freire, Illich, Field)*
 - *Impact on work (Braverman, Haraszti, Davis)*
 - *Impact on community*
- Knowledge and learning centrally linked as product and process dimensions

From Newman to Kerr



John Henry Newman (1873) *The Idea of the University*

1. Primary purpose of a University is intellectual and pedagogical
2. Range of teaching within University is universal; it encompasses all branches of knowledge, and is inconsistent with restrictions of any kind.
3. The University prepares students by allowing them to learn about "the ways and principles and maxims" of the world
4. True education requires personal influence of teachers on students.

Clark Kerr (1963) *The Uses of the University*

1. Modern university is diversified – a multiversity
2. Serves needs of society, economic and cultural
3. Think tank – essential to progress
4. *Master Plan for Higher Education* (1960) in California

The triple helix



- Concept: Industry/University/Government
- How does learning sustain innovation?
- Access to and validation of knowledge central concerns
- Changes in governance: autonomy; budgets; performance based practice
- Shift to external accreditation away from Ministries
- Emergence of more complex processes of innovation and commercialization of research
- **Triple Helix Systems of Innovation** (*Ranga & Etzkowitz 2013*)
- What is now the role of the University?

Outlook for partnership



- Miller (2003) fundamentally optimistic about transformational potential of new knowledge architectures
- Carneiro (2007) identifies
 - Paradigm shifts (industry-globalization-utopia)*
 - Delivery modes (role-access-customized)*
 - Driving forces (State-market-community)*
- Intangible assets are the core economic competencies on which strategy depends and a key feature of Europe's knowledge economy
- For businesses this includes intellectual property components (licenses, patents, copyrights, trademarks, etc.) and more subtle intangible capacities embedded in strategic, differentiating competencies.

University: changing roles and expectations

- Stakeholders expect universities to respond to needs beyond classic education, teaching and research
- Strengthening the knowledge economy
- Restructuring basic institutions
- Assimilating new populations
- Access, social mobility, critical thinking and sustainability
- Embedding complexity of modern societies in a dynamic socio-economic-learning matrix
- Industry/corporate linkage occurs in this context
- Best practice is multidimensional depending on these needs

EU thematic Objectives (2014-20)



- Research and innovation
- Competitiveness for SMEs
- Employment and labour mobility support
- Social inclusion and combating poverty
- Education, skills and lifelong learning
- Institutional capacity building.

The Irish example



- The net effect of Ireland's policy of targeting mobile foreign investment is seen in the locating in Ireland of 24% of all available US manufacturing investments in Europe, and close to 14% of all FDI projects locating in Europe
- Since 1980, 40 per cent of all new US inward investment in European electronics has come to Ireland
- The quality of the Irish education system and the existence of a high skills labor pool recognized as being critically important to the attraction of inward investment
- In contrast to the leading US Universities, Irish universities not seen as providing such "cutting edge" graduates as might be required for specialist research and product development work.

Policy framework in Ireland



“Ireland by 2013 will be internationally renowned for the excellence of its research, and will be to the forefront in generating and using new knowledge for economic and social progress, within an innovation-driven culture.”

Quick response to change

Social partnership and dialogue

Learning/enterprise linkage

Response to crisis of 2008



Irish innovation policy

Challenges:

- Weak venture fund network
- Excessive power in State agencies
- Stagnation in start-ups since 2000 - over reliance on MNCs
- Poor indigenous company engagement (OECD 2013)
- Poor independent research record
- Lack of strategic shared goal setting

Advantages:

- Ireland is ranked first in Europe for highest degree of SME participation of the 28 EU Member States in FP7 funding programs
- ICT, nanotechnology, health, ecology
- Changing education systems
- Creativity: music, animation, drama

What universities offer the corporate sector

- Offering a highly valued learning environment for personal growth in a time of radical change.
- Relevance in a technologically connected and evolving world
- Fostering critical thinking and the formation of values
- Providing imaginative alternatives in a time of crisis
- Facilitating access to diverse and non-traditional learners
- Maintaining independence and objectivity in research priorities
- Providing valued learning outcomes for a vastly altered student population
- Moving beyond Western models of assumed timeless excellence



4. Discovering Vision: a voyage towards excellence

- Stakeholders in corporate learning are wide-ranging, both internal and external
- Pressures on corporate and academic worlds are similar, if different in detail
- Universities to survive must be relevant and visionary
- Universities are now expected:
 - To be more outward looking
 - To provide leadership and service
 - To make efficiency gains
 - To maintain standards and quality
 - To obtain new and additional revenue sources

Shaping Trends



- Ubiquity and access
- Innovation – the new imperative
- Universities, Companies, Customers, Communities
- Quality, standards and assessment
- Curriculum or competence: institutional crisis of European educational systems



Seeing trends

- Freedom, openness and creativity in the digital economy
- Openness as global logic based on free and open-source software
- Battles over digital rights management and IPR
- Links between open content, open science and open collaboration make collaborative creativity sustainable
- Move from Information Age to Conceptual Age (*Daniel Pink 2005*)

Anticipating the future



- Excellence goes beyond mechanical quality measurement systems
- Ethics are now central to good business
- Critical role of diversity and equality approaches
- Gender and inclusion – the centrality of women
- Demographics and youth intervention
- Competitiveness and sustainability
- Universities as business or a place apart?
- Offering critical space and alternative perspectives

Imaginative discourses of change



- Skillbeck Report (2001)
 - Challenges and changes are within institutions
 - Changes are ubiquitous
 - Changes are systemic
 - Changes are radical
- *Evolving Corporate Universities* Forum (Istanbul 2012)
 - attract, retain and enhance highly skilled employees
 - invest in developing a culture of learning throughout the organization
 - spread a common culture as engines of strategic change
 - ability to promote importance, value and contribution of a learning culture
 - ensure integration of HRM systems and policies with learning initiatives
 - build genuine partnerships with world-class learning institutions



The bottom line...

An assumption of stable work patterns and linear economic development is no longer possible

Learning systems must innovate and respond accordingly



What about our schools?

- Creativity and ICEAC Study (IPTTS 2011)
- Teachers: 91% agree ICT enhances creativity
- Theory stronger than practice:
 - Only 46% of teachers use play
 - Only 41% use multidisciplinary work
 - Only 50% believe creativity can be assessed
 - Only 58% had training in ICT classroom use
 - Only 25% claim ICT quality in their schools is excellent
- Institutional resistance to change: ethos of control, discipline and hierarchy
- Innovation only exists in pockets – not generalized



Open Discovery Space

Largest single project ever funded by the European Union
Creation of a vast digital repository of OERs



Themes of UDL

1. **Inclusive learning environments** (assistive technologies/interventions, mobile environments, access, ergonomics)
2. **Resources** (educational resources, development of inclusive school, accessible educational resources, Universal Design of Online Courses)
3. **Teachers' and school leaders' competences** (curriculum design, applying UDL to Lesson Design, inclusive teaching strategies - game based approaches, independent living principles)
4. **Examination of barriers and identification of opportunities** (learning difficulties/needs of students - learning styles, barriers/challenges in classrooms of all types, UD policy and legislation, raising awareness)

Future directions

- Training of trainers
- Multilingualism
- Developing skills – competence transmission
- Developing attitudes – securing motivation
- Developing buy-in – loyalty and commitment
- Autonomous learning
- Risk taking
- Review, evaluation and research
- Service management – ‘delighting the customer’

Transformative learning

- * Planning for constant change
- * Learning to learn and un-learn (Toffler)
- * Fostering innovation and creativity
- * Moving beyond purely econometric targets
- * Three Cs:
 - * Critical reflection
 - * Courage
 - * Curiosity

Ibn Batuta (1305-69)

I set out alone, having neither fellow-traveller in whose companionship I might find cheer, nor caravan whose part I might join, but swayed by an overmastering impulse within me and a desire long-cherished in my bosom to visit these illustrious sanctuaries.



Breandán (484-577)

*Help me to journey beyond the familiar
and into the unknown.*

*Give me the faith to leave old ways
and break fresh ground with You*





Shaping the future

- Connectedness
- The need for community
- Learning in new ways
- Learning in unexpected ways

Nuálaíocht = Innovation

Conclusions

- Higher education at a crossroads: both structure and process
- Labor market and education increasingly connected
- Planetary focus is on mobility, skills and innovation
- Impact of increasing inequality of access and of resources
- Crisis as the norm
- Performance, standards, quality, reproducibility and added value at the heart of competence
- Innovative learning demands imagination and vision

Thank you

شكرا لكم

Dr. Alan Bruce
ULS Dublin

www.ulsystems.com

