DeakinDigital

Credentials for your career

Challenges to Higher Education:
Open, Free and the Emergence of Credentials

Presentation at The LINK Lab

University of Texas, Arlington

26 September 2014

Alignment to LINK Lab interests

- What will universities look like in 2025? 2050?

- How will social networked technologies transform learning?

- How will learning analytics help us better understand teaching and learning?

- Is the future of learning personalized, connected, and global?

- What role does a modern university play in the shaping work in the 21st Century?

- What pedagogical and support systems do universities need in order ensure success for all learners?

What is the status quo?

Where are we today?

Has the role of universities changed over time?

If we look back 800, 400, 200, 100… let's say 50 years…

What about the world?

After the Internet Bubble (15 yrs)

Where are we today?

- 50x more Internet users (2.4 billion)

- Online connections that are 180x faster (10.5 Mbps) or better… or worse…

- Always-on connectivity of mobile (164m US smartphone users)

- We're all socially connected (so great businesses spread faster)

- We all have one-click purchase power (Apple, Google, Amazon, eBay)

- The VC market has right-sized (returned back to mid 90's levels & less competition)

- Lower costs to start a business (95% reduction), many more companies created & funded by angels / seed and changes to VC thinking

- But it often still takes VC to scale a business (thus large capital into industry winners like Uber, Airbnb, SnapChat, etc)

Scope of change

- In everything else, the change has been fundamental

  - the way we access information / knowledge

  - the way business operates and transacts

  - the way people communicate

- Yet we preserve our industrial-age view of education…

It's not about cheap courses…

ADDRESSING AFFORDABILITY

Drivers for change

- Ernst and Young: *University of the Future* cites drivers for change as:
  - Democratisation of knowledge and access
  - Contestability of markets and funding
  - Digital technologies
  - Global mobility
  - Integration with industry
    - http://www.ey.com/AU/en/Industries/Government---Public-Sector/UOF_Change-will-be-driven-by-five-trends
- Rising student debt
  - Australia: > 30 bn and growing (one student in 2012 with debt of 400k)
  - USA: > 1.2 trillion (exceeds credit card debt)
- Student expectations of change in teaching and learning practice
- Changes in the work ↔ learning ecosystem
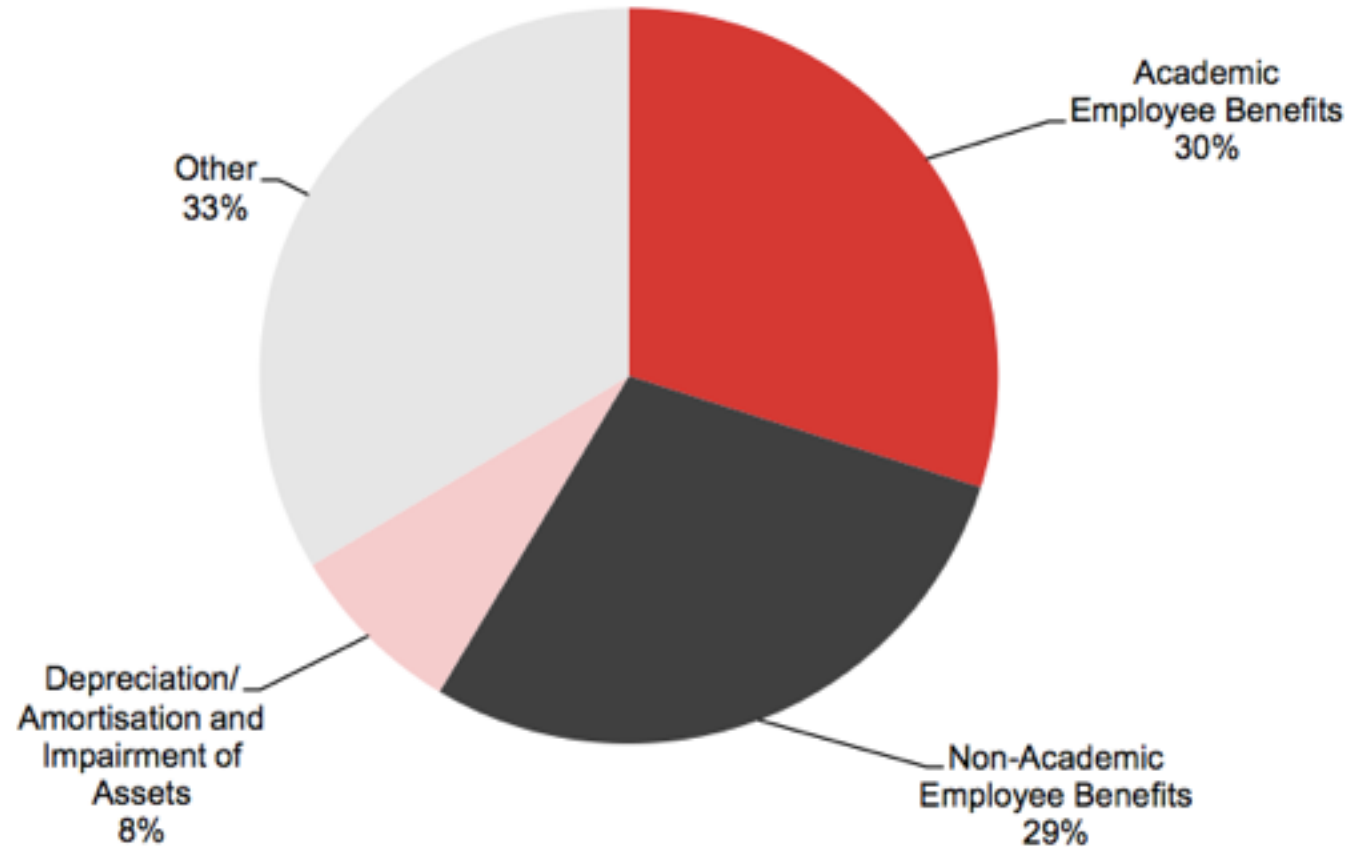- *Smarter Australia* (Universities Australia – see later slides)

Student Debt in Australia

UNIVERSITIES AUSTRALIA
DISCOVER LEARN LEAD

The peak body representing Australia's universities

Search.

35

ABOUT US   POLICY & ADVOCACY   SUBMISSIONS & REPORTS   MEDIA CENT

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15 July, 20...

...ow the poverty line as ...years according to the findings of

...mprehensive report, soaring personal debt ...61 in 2006 to $37,217 in 2012 - have also resulted ...d distress among students, with more than two-thirds of

Students loan scheme blows out to $30 billion

BRUCE MCDOUGALL & PETER BODKIN · THE DAILY TELEGRAPH · JANUARY 16, 2014 12:00AM

The most expensive students have racked up individual debts of $413,252, $313,308, $248,078, $244,198 and $200,743 under the interest-free Higher Education Loan Program (HELP), data obtained by The Daily Telegraph reveals.

Cost allocation of traditional higher education

Staff (total) ≅ 60%
Other Costs ≅ 32%
$Deprec^n$ etc ≅ 8%

2012 Operating Costs of all NSW universities

- Academic Employee Benefits 30%
- Other 33%
- Non-Academic Employee Benefits 29%
- Depreciation/Amortisation and Impairment of Assets 8%

https://www.audit.nsw.gov.au/ArticleDocuments/269/07_Volume_Two_2013_Macquarie_University.pdf.aspx?Embed=Y%3E

Project Constraint Model

The Iron Triangle   – "you can have any two"
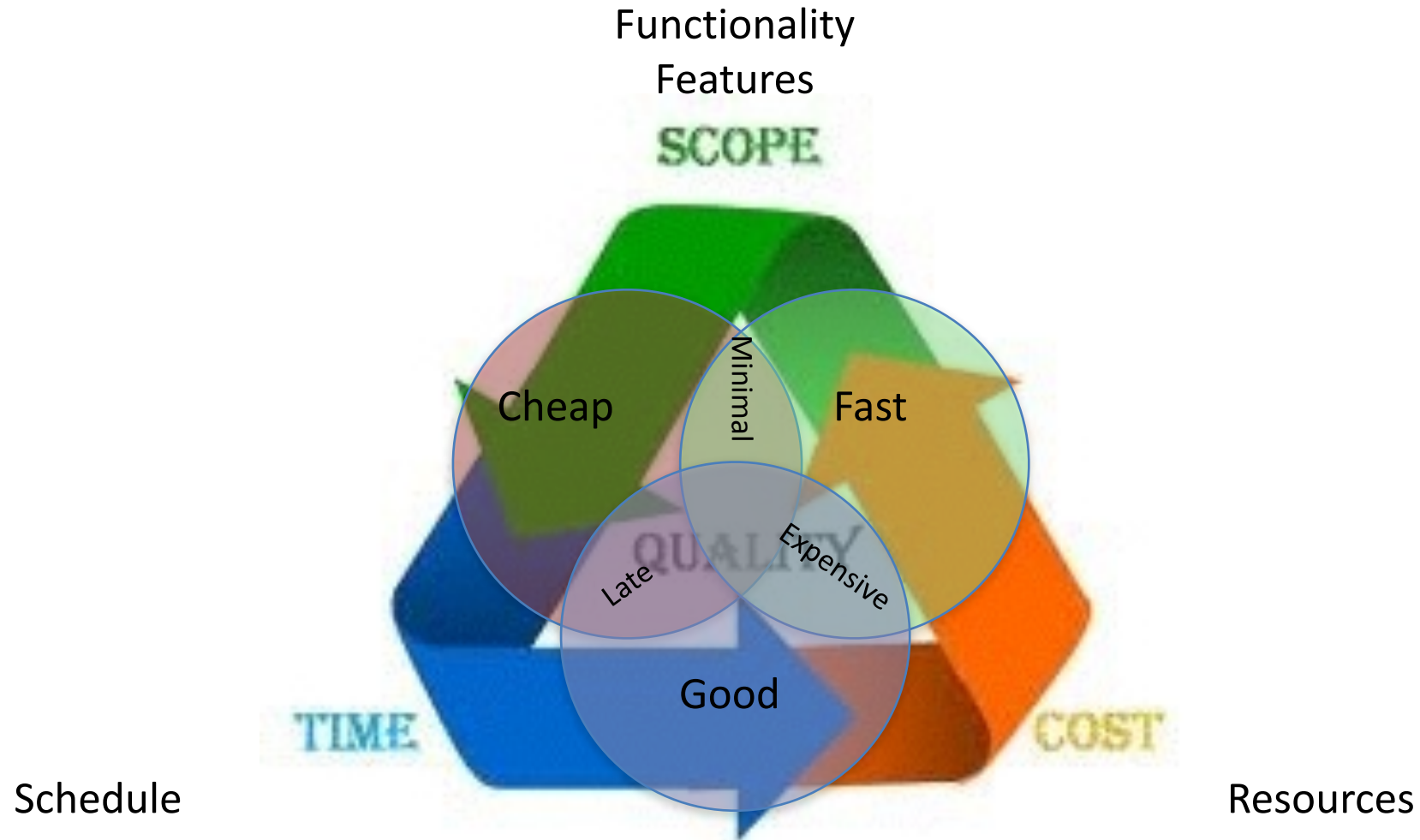
Products and Services: Unbundling of education

From this…

Enroll in qualification (bundle)

- Core curriculum with approved electives

- Provider delivers courses and content

- Tutorials, Practicals, Labs, etc

- Provider has some responsibility for progress

- Provider's information resources are included

- Provider examinations and assessments

- Accreditation with an award

- Variable Fees (20k – 38k per year)

- Additional Fees may be charged

To this

- Select and register for a certification

- Self-guided according to personal/career goals

- Access content from anywhere (free – fee)

- Fee-based; simulations; experience (incomplete)

- Responsible for own progress and motivation

- The web; community resources

- Certification-based assessments

- Certifications: Professional capability frameworks

- Unbundled fees; from free to service-based fees

- Consumer driven

A changing landscape

COMPETITIVE PRESSURES

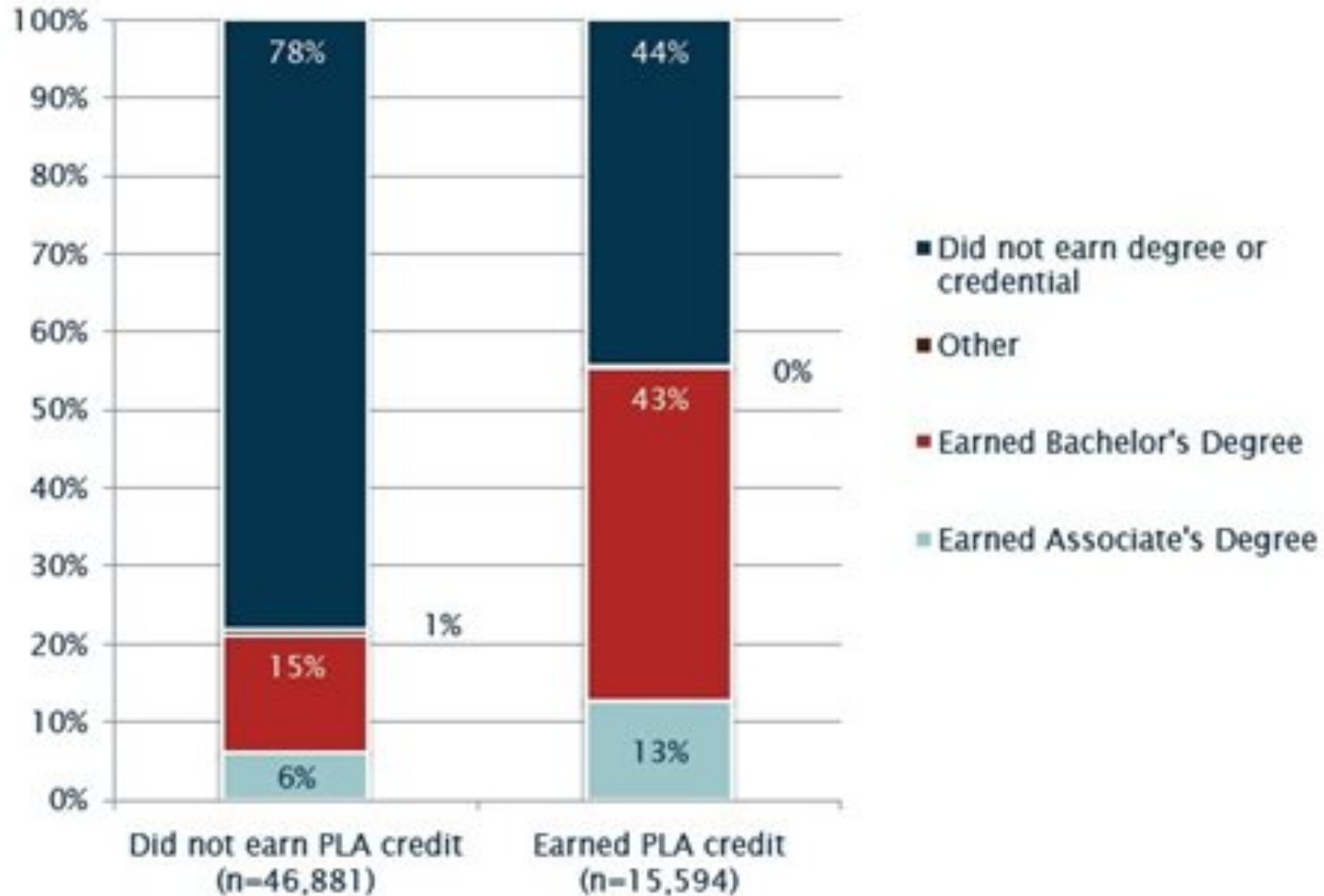# Examples of the changing landscape of higher education

Common transformational themes

- Affordability

- Competency-based / Outcomes-based

- Transferrable, workplace skills

- Recognition of experience and learning already acquired

- Often a focus on partnerships

- Engagement with Open Education Resources / Courses

- Focus on adult learners, typically "non-consumers"

Relationship of PLA to success

Figure 1. Degree Completion by PLA Credit-earning for All Students

Legend:
- Did not earn degree or credential
- Other
- Earned Bachelor's Degree
- Earned Associate's Degree

Did not earn PLA credit (n=46,881): 78%, 15%, 6%, 1%

Earned PLA credit (n=15,594): 44%, 43%, 13%, 0%

Recent CAEL study:

62,475 students across 48 Colleges

Result:

Students with PLA 2.5x more successful in earning degree

What is "Open"? And do we care?

VERSIONS OF OPENNESS

Open?… Free?…

- What do we mean by Open?

  - Open does not equal Free

  - Definitions of Open vary according to context

    - Open participation vs Open Source

  - Open Education Resources are Free and Open

  - Open Education may be participation and/or no cost

- The transformational shift is from…
  Open Education to Open Credentialing

The anomaly with OER

- Raison d'être

  - Reuse

  - Revise

  - Remix

  - Redistribute

- Only 1 R is prevalent

  - OER's are typically consumed by "adoption" (basic Reuse)

  - little or no "adaptation" (the other 3 Rs)

- Caused by problems in content format and lack of simple tools

The "next big thing"?

ANALYTICS AND COGNITIVE SYSTEMS

On the cusp... From Big Data to Cognitive computing...

- Big data models

  - Useful but still based on thinking like a machine

  - We speak their language

- Cognitive computing models

  - Next generation... thinking machines

  - They speak our language

- What will this mean for student experiences, learning, research, and roles?

From simple and social to complex and deep

Stanford University on LinkedIn

Melbourne University on LinkedIn

University of Texas on LinkedIn

California Institute of Technology

Deakin University on LinkedIn

Cortana… Siri… Google Now…

The future of Google Now…

IBM Watson and health

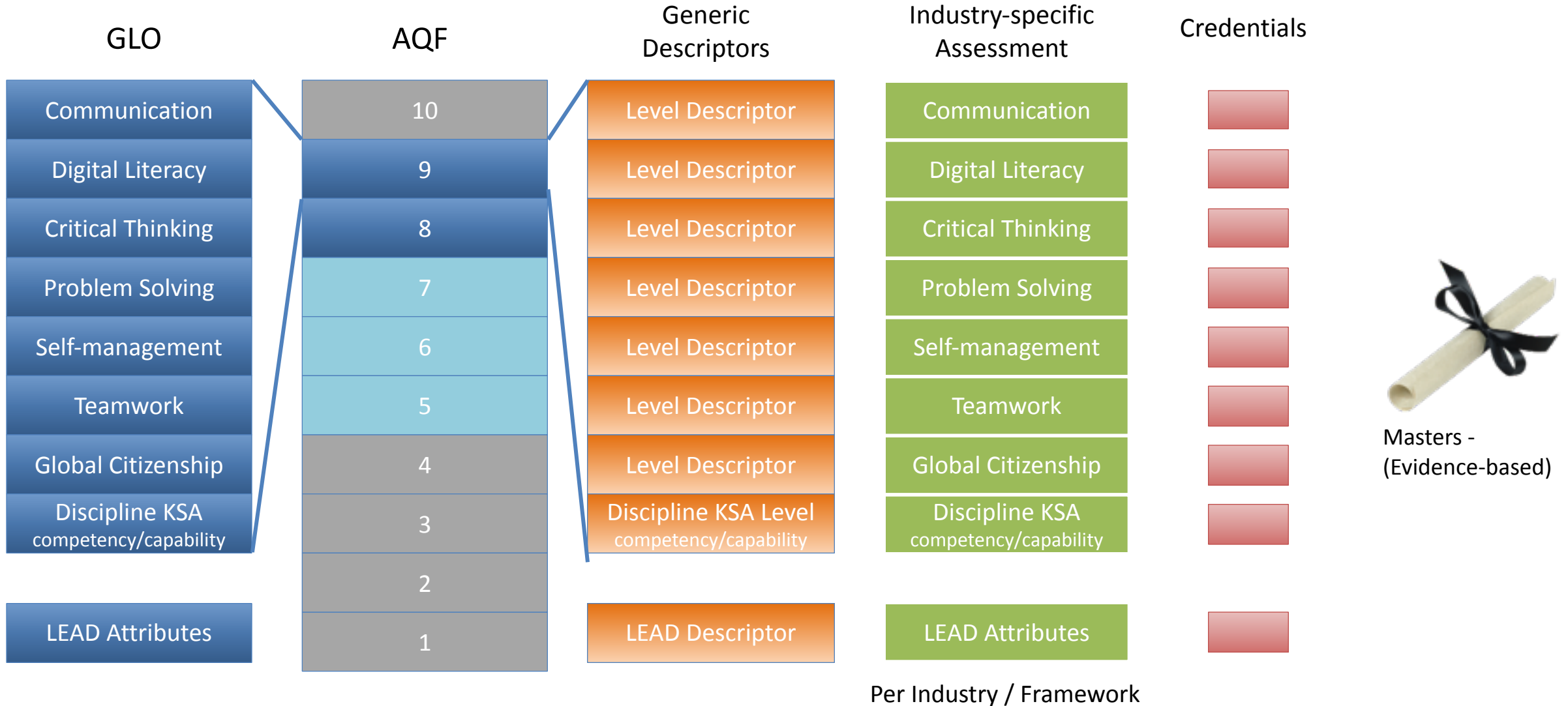Key theme: cognitive systems are beginning to join the conversation…

Looking at credentialing from the customer's view…

DEAKINDIGITAL: OPEN CREDENTIALING

DeakinDigital's model is premised upon:

- Democratisation of knowledge and availability of content

- Digital disruption's trend to make that which was monolithic more granular (eg music; publishing etc)

- Systemic pressures on traditional education models

  – Lack of affordability

  – Lack of scalability

  – Unmet demand, especially in emerging economies

- Intention to shift from credit hour models

- Better alignment with transferrable workforce skills

Framework Alignment Model

GLO	AQF	Generic Descriptors	Industry-specific Assessment	Credentials
Communication	10	Level Descriptor	Communication	
Digital Literacy	9	Level Descriptor	Digital Literacy	
Critical Thinking	8	Level Descriptor	Critical Thinking	
Problem Solving	7	Level Descriptor	Problem Solving	
Self-management	6	Level Descriptor	Self-management	
Teamwork	5	Level Descriptor	Teamwork	
Global Citizenship	4	Level Descriptor	Global Citizenship	
Discipline KSA competency/capability	3	Discipline KSA Level competency/capability	Discipline KSA competency/capability	
	2			
LEAD Attributes	1	LEAD Descriptor	LEAD Attributes	

Masters - (Evidence-based)

Per Industry / Framework

Graduate Learning Attributes - Barrie paper

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- - Commercial in Confidence - -

Capability clusters and design logic
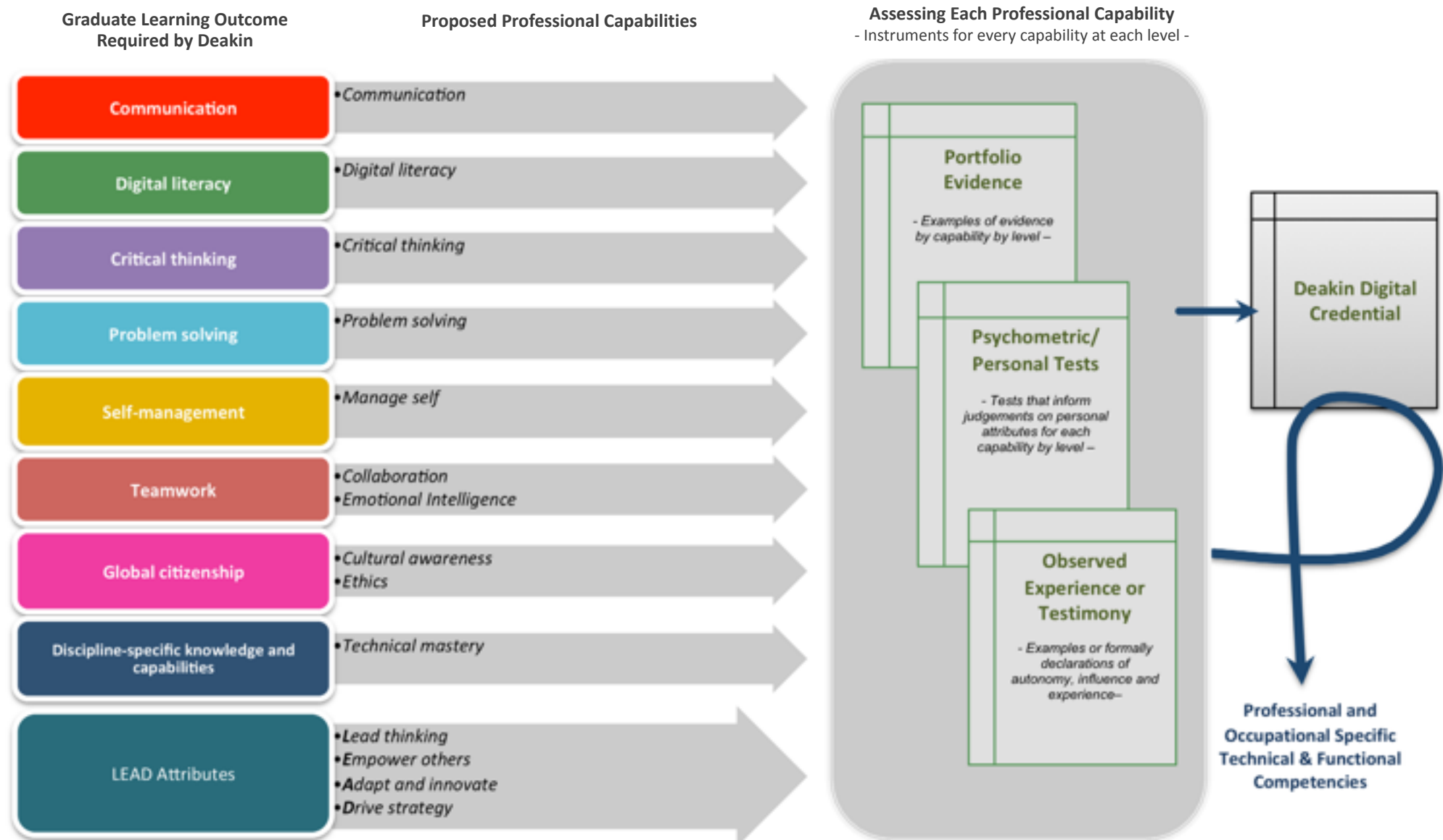
Initial Target Market

- **Non-consumers** (defined differently locally and internationally)

- **Early target market**
  - Adult learners
  - Pre-university (early entrant)
  - International students unable or unwilling to travel
  - Niche markets or industries

- **Build and expand over time**
  - Concentrate on expanding local market
  - Diversification of offers
  - Scale through partnering

Service model

- Focused on non-consumers in higher education

- Open credentialing as an alternative to higher education

- Credentialing of transferrable workplace skills aligned to qualifications

- Enabled through Prior Learning Assessment and Recognition (PLAR) of independent learning, experience and activities

- Brokering/offering a full range of customer support services

- Open content models and OER ecosystem participation

- New functions and business opportunities related to employment

Vision

To provide the most highly valued, evidence-based employability credentials for continuous career development using smart systems