



 ADULT
LEARNING
SYMPOSIUM

Micro-Learning: A Way to Enhance Learning Pathways

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Agenda









- Project Current Landscape
- Changing Learning Landscape
- Micro-Learning
- Study and Findings



Project Current Landscape



Disruptive and Shared Economy

 UBER World's largest taxi company	 airbnb World's largest accommodation provider	 WeChat skype World's largest phone company	 Alibaba Group World's most valuable retailer
Owens NO	Owens NO	Owens NO	Owens NO
 Taxis	 Real Estate	 Telco Infra	 Inventory

 f Most popular media owner	NETFLIX World's largest movie house	 App Store Google play World's largest software vendors
Owens NO	Owens NO	Owens NO
 Content	 Cinemas	 Apps



Jobs are changing rapidly

- App Developer
- Social Media Manager
- Uber /Grab Drivers
- Driverless Car Engineer
- Cloud Computing Specialist
- Big Data Analyst/Data Scientist
- Sustainability Manager
- YouTube Content Creators
- Drone Operators

“The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn.”

— Alvin Toffler



Singapore's Transformative Journey

To be a Smart Nation, Singapore has to take full advantage of information technology, said Mr Lee.

It is not just about owning more handphones, having the fastest Internet connection, or using self-driving cars and artificial intelligence.

"(It is about) using IT comprehensively to create new jobs, new business opportunities, to make our economy more productive, to make our lives more convenient, and to make this an outstanding city in which to live, work and play," he said.

*Prime Minister Lee
2017 National Day Rally*

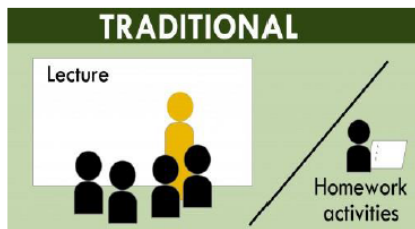


Changing Learning Landscape



How People Learned in the Past

- Independent
- Text-based
- Classroom-based
- Traditional degree route
- Study before working





How Learning has Changed?

- Online / Blended
- Multimedia  
- Internship / Apprenticeship
- Continuing Education
(Seminars, Workshops)





Learning Challenges



Workers lack of
time



Lecturers limited
knowledge



Speed to market



Knowledge changes
faster than one can
learn



Too many
distractions



Learners' Expectations Today

Lifestyle	Learning Expectations
On-the-go	Engaging, attention-grabbing multi-media content
Always-on	Curated, bit-sized content drip-fed over longer time intervals
On-demand	Immediate , anytime, anywhere access to relevant information
Crowd-sourced Learning	Interact and learn from various content contributors
Gamification	Learning environment is centred around gaming elements with stages to level up, compete and reward mechanisms.



Need for Learning Pathways

- It is a sequence of educational programs that provide a specific path
- It should be a continuum in a particular domain that spans across a time period



Micro-Learning (MLC)



Micro-Learning

Micro-learning is generally characterized by low time commitment, small chunks, short effort and narrow topics --but is complex as a whole.

– Hug & Friesen

Shorter = more engagement | more completion | more retention | more application



Traditional Training

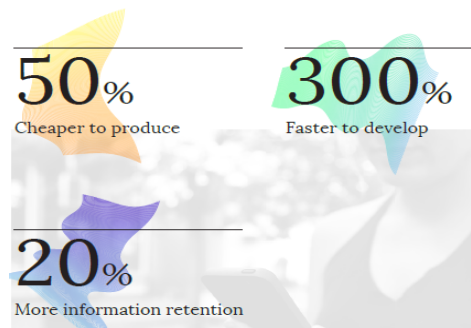
- Costly
- Structured
- Trainer-driven



Microlearning

- Cost-effective
- Flexible
- Learner-driven

Faster, cheaper, more effective





What does Micro-Learning Mean?

Micro-learning does not mean simply breaking down classroom training into shorter segments and putting them online.

- Each lesson is focused on a specific, self-contained segment of the overall learning objective.
- No lesson is longer than 8 to 12 minutes
- The pace changes every 60 to 90 seconds.
- Short, interspersed assessments between lessons reinforce learning.



Advantages

Time	relatively short effort, low operating expense, low time consumption, subjective time
Content	small or very small units, narrow topics, rather simple issues, based on the principle of micro-content
Curriculum	small part of curricular setting, parts of modules, elements of informal learning or blended learning
Form	fragments, facets, episodes, "knowledge nuggets", skill elements
Process	separate, concomitant or actual, situated or integrated activities, iterative method, attention management
Mediality	print media, electronic media, mono-media vs. multi-media
Learning Type	repetitive, activist, reflective, pragmatist, conceptionalist, constructivist, connectivist, behaviorist; also: action learning , classroom learning, corporate learning



Study and Findings



Aim

- Explore how micro-learning can be used as a mechanism to formulate learning pathways



Subject

- Two focus areas:
 - Cyber-security
 - Data Analytics
- Population: Working adults
- Modules developed using Micro-Learning:
 - Introduction to Cyber Security
 - Introduction to Social Media Analytics



Micro-Learning Strategy

- Leverage on existing content platforms (e.g. Gnowbe, CoursePad)
- Develop templates for the micro-learning content
- Select MLC content that would serve as a foundation for a learning pathway



Results: Learners' Perspective

Bite-sized
content was
useful

Optimize their
time

Platforms
were easy to
use

Provided a
pathway to
start from



Results: Faculty's Perspective

High
participation
rates

MLC helped
introduce
domain areas



Thank you !