

ACTT's Online Conference 2020

Future of Online Learning Quality-Best Practices in Artificial Intelligence and Competency-Based Credentialing

Roundtable 2: Educational Partners




November 5th, 2020



THE UNIVERSITY OF TRINIDAD AND TOBAGO

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University of Trinidad and Tobago

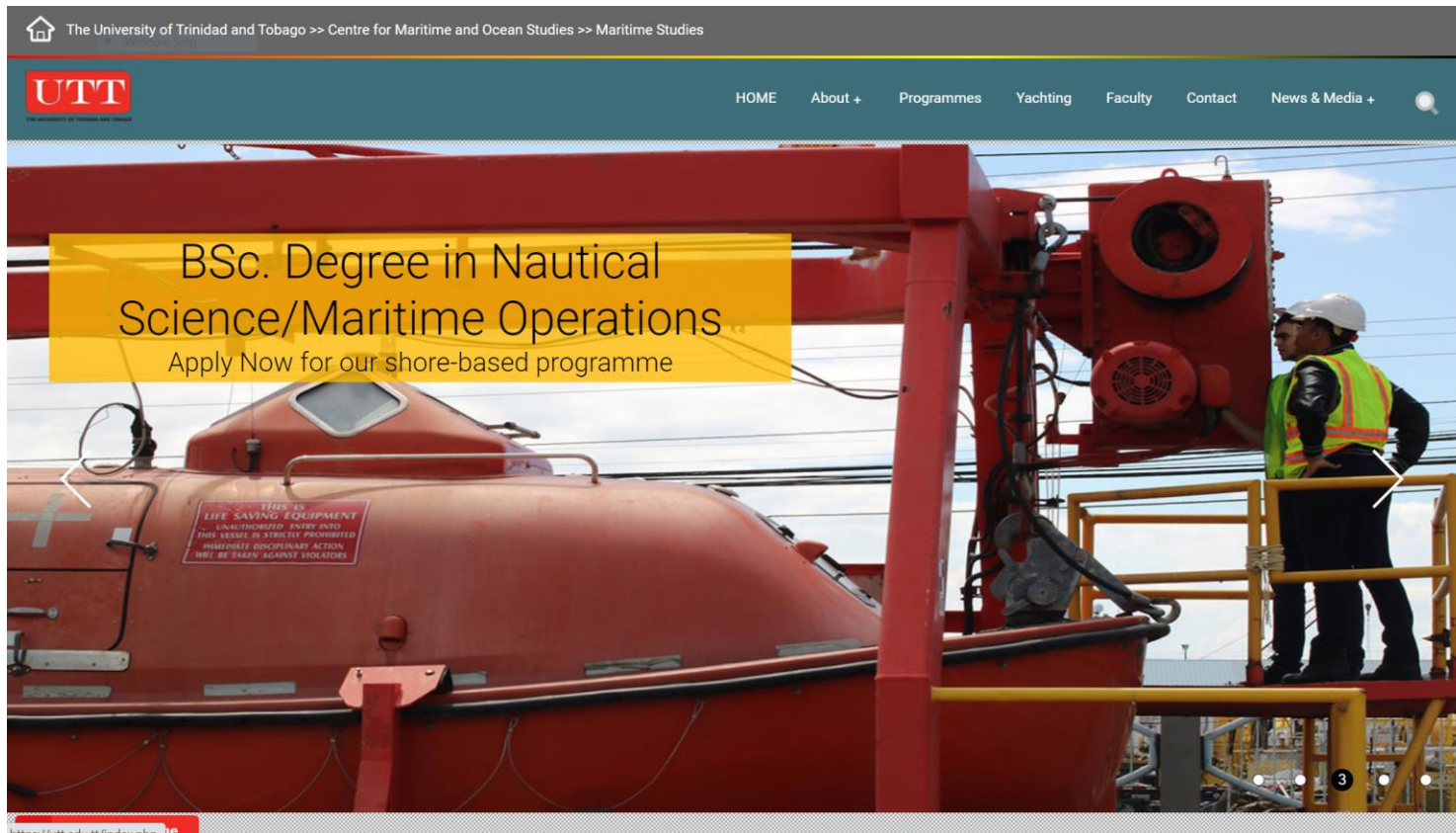
Post Covid Pathways

RESTORE 	EVOLVE 	TRANSFORM 
#1. Cost Management Reducing institutional costs and increasing workforce efficiency	#1. Student Success Advancing student support services to help students attain academic and career goals	#1. Institutional Culture Contributing to a culture of transformation
#2. Online Learning Strengthening online and hybrid education	#2. Equitable Access to Education Providing technologies, support, and policies for diverse users	#2. Technology Alignment Identifying and applying sustainable digital strategies and innovations
#3. Financial Health Revising budget models and IT governance	#3. Online Learning Progressing from emergency remote teaching to online learning	#3. Technology Strategy Developing an enterprise architecture that keeps pace with strategic change
#4. Affordability & Digital Equity Providing increased support for students' technology needs and enabling technology availability	#4. Information Security Developing a cybersecurity operations strategy	#4. Enrollment & Recruitment Exploring and implementing creative holistic recruitment solutions
#5. Information Security Providing information security leadership	#5. Financial Health Partnering to develop new funding sources	#5. Cost Management Focusing on digital transformation

Educause's 2021 "Top IT Issues" fell into three scenarios: Restore, Evolve and Transform. Source: "Top IT Issues 2021: Emerging from the Pandemic," an Educause conference session presented by Susan Grajek.

Micro/Nano Credentialing @ UTT

Maritime Technology Cooperation Centre – Caribbean (MTCC)



The screenshot shows the website for The University of Trinidad and Tobago (UTT). The navigation bar includes links for HOME, About +, Programmes, Yachting, Faculty, Contact, and News & Media +. The main content area features a large image of a red life-saving equipment (LSE) vessel on a yellow platform. A worker in a white hard hat and high-visibility vest is visible on the right. A yellow banner is overlaid on the image with the following text:

BSc. Degree in Nautical
Science/Maritime Operations
Apply Now for our shore-based programme

Below the banner, a red warning sign is visible on the LSE vessel, which reads: "THIS IS LIFE SAVING EQUIPMENT - UNAUTHORIZED ENTRY INTO THIS VESSEL IS STRICTLY PROHIBITED - IMMEDIATE DISCIPLINARY ACTION WILL BE TAKEN AGAINST VIOLATORS".

At the bottom left of the screenshot, the URL <https://utt.edu.tt/index.php> is displayed. A small red 'e' icon is also present. A page number '3' is visible in the bottom right corner of the image area.

The Virtual Handshake ...



AI – what are we using it for?

- Grading – repetitive processes
- Support teaching --- augmenting the instructor
- Data mining of student information

WHAT IS EDUCATIONAL DATA?

There is more to educational data than test scores...



CONTEXTUAL/ STUDENT CHARACTERISTIC DATA

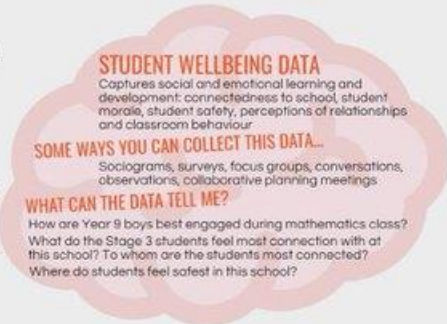
SOME WAYS YOU CAN
COLLECT THIS DATA...
Enrolment information, student
profiles, parent surveys and
meetings, attendance roll

WHAT CAN THE DATA TELL ME?
How many students are bi-lingual?
Which students consistently miss more
than one lesson per week?
Which students have been identified as at-
risk academically? Socially?



SOME WAYS YOU CAN COLLECT
THIS DATA...
Observation, checklists, portfolios, work
samples, previous records, class records

WHAT CAN THE DATA TELL ME?
What learning was observed during class today?
Which students do I need to reteach today's
maths concept to?
How did the Year 4 girls in my class perform on
the authentic writing task?
How are Year 7 students progressing with skills of
Working Scientifically in science?



STUDENT WELLBEING DATA

Captures social and emotional learning and
development: connectedness to school, student
morale, student safety, perceptions of relationships
and classroom behaviour

SOME WAYS YOU CAN COLLECT THIS DATA...

Sociograms, surveys, focus groups, conversations,
observations, collaborative planning meetings

WHAT CAN THE DATA TELL ME?

How are Year 9 boys best engaged during mathematics class?
What do the Stage 3 students feel most connection with at
this school? To whom are the students most connected?
Where do students feel safest in this school?



PERCEPTION DATA

SOME WAYS YOU CAN
COLLECT THIS DATA...
Surveys, interviews, focus groups

WHAT CAN THE DATA
TELL ME?

What are parent/student/staff
perceptions of our school's:

- learning culture
- use of resources
- pedagogical practices
- differentiated teaching and learning
practices
- use of data decision making processes
- community partnership
- teacher student relationships
- student engagement
- inclusive practices

When educators have the
skills required to analyse,
interpret and make use of
student data effectively,
student academic and
wellbeing outcomes improve.

Good data is...

COMPLETE



ACCURATE



RELEVANT



ACCESSIBLE



TIMELY



INTERPRETABLE



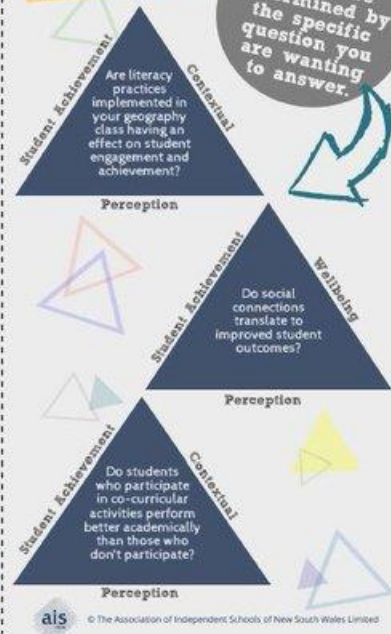
SECURE



Using multiple measures -
triangulating the data...

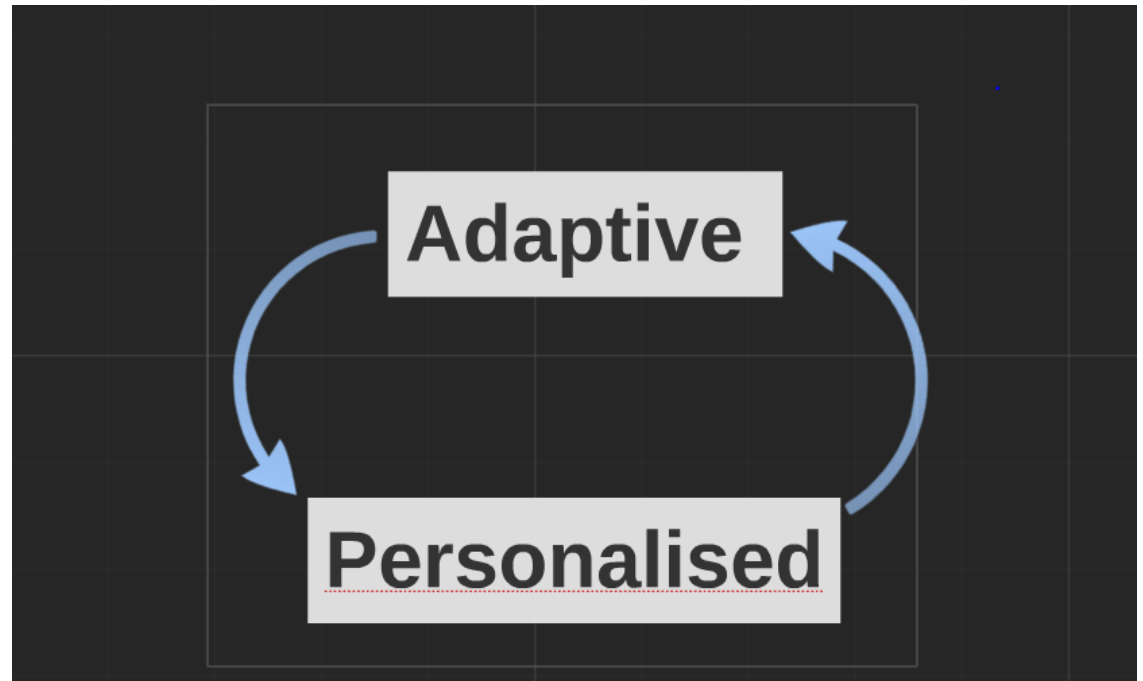
Each dataset can answer
numerous, specific questions.
Combining datasets can
provide educators and schools
with a more complex
and in-depth picture
of what is occurring.

Which
datasets you
choose are
determined by
the specific
question you
are wanting
to answer.



Adaptive Learning ...

- Khan Academy
- EdX
- Udacity
- Coursera



Personalisation + AI + Machine Learning

Cognitive Computing

- Cognitive Computing is based on self-learning systems that use machine-learning techniques to perform specific, human-like tasks in an intelligent way.

Grading & Assessment

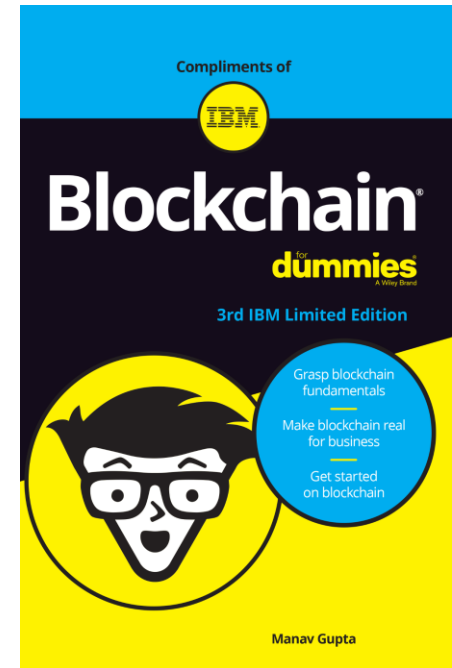
- Digital badges: acknowledge achievement and record the acquisition of skills
- Use with a self-paced learning environment (e.g. a MOOC) that is integrated into a LMS

Data Control

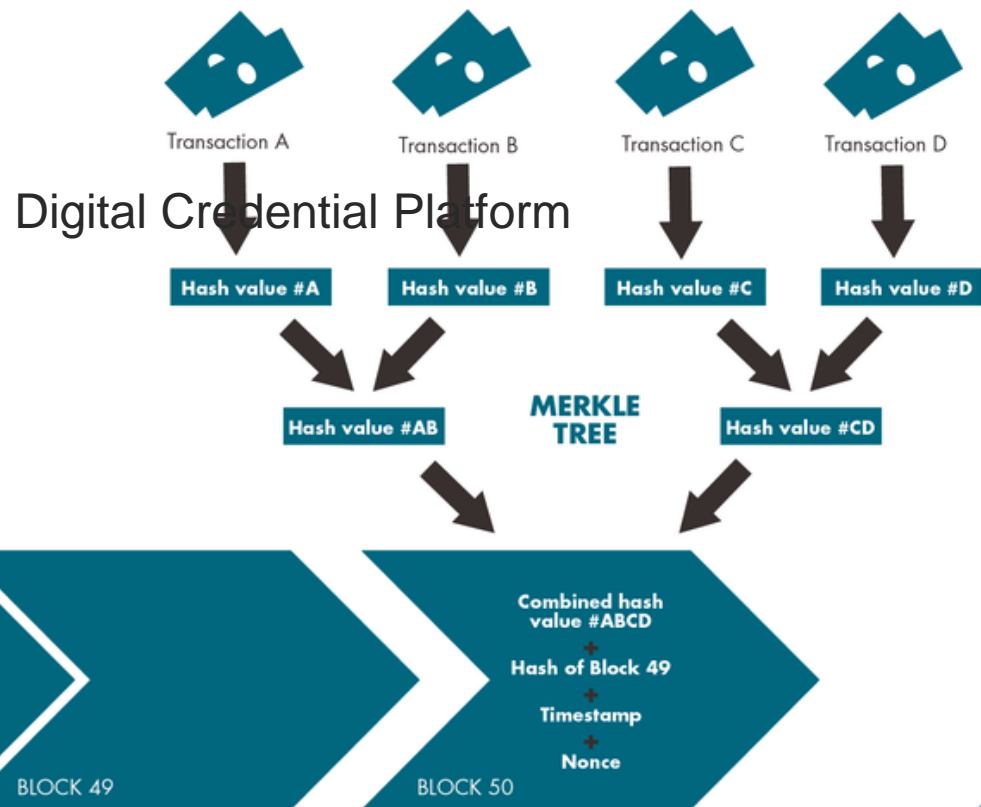
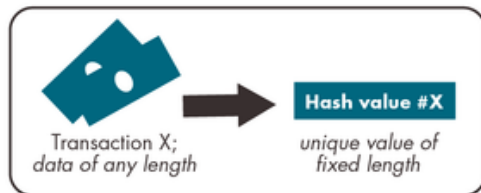
Ethics

Micro Credentials and Block Chain

Automate the digital badges issuing process after a learning module, course, or program is completed.



HOW THE BLOCKCHAIN WORKS



Badges

uBadges: Earn. Issue. Share. Rewards.

Digital Badges + Blockchain = Universal Transcripts
Supporting Skill Development and Lifelong Learning!

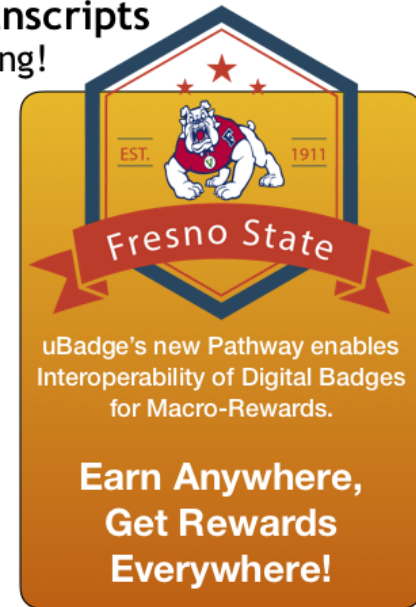
Learner-Owned

uBadges embrace Blockchain to improve data verifiability, availability, and reliability for the evidence of learning. Powered by Blockcerts and OpenBadges technologies to ensure the Integrity of the Digital Certificates



uBadges provides an institutionalized hierarchical Issuer structure to avoid badge silos within Fresno State!

**One University
One Solution**



uBadge's new Pathway enables Interoperability of Digital Badges for Macro-Rewards.

**Earn Anywhere,
Get Rewards
Everywhere!**

**uBadges: Fresno State Blockchain-powered
Micro-credential Platform**

2018-19 Cal-State Innovation Grant Award Recipient.
Presented by Technology Services

FRESNO STATE
Discovery. Diversity. Distinction.

President's
SHOWCASE
of Excellence 2019

Recommendations to ACTT

- Create an Open Badges based ecosystem for TnT institutions and the Region
- Catalyse the Build of a Digital Credential Platform
 - Use open standards to avoiding vendor lock-in (and mitigate bias embedded in algorithms)
 - Badges developed based on Blockcerts, an open standard for building apps that issue and verify blockchain-based official records
 - Embrace Blockchain technologies to improve data verifiability, availability, and reliability for the evidence of learning.



Thank You!

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