THE UNIVERSITY OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

APT Young Professionals and Students Programme (APTYPS) Final Report

Prepared for the Asia-Pacific Telecommunity (APT)

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Overview

The initiative, called "Tech for Change: The Asia-Pacific ICT Innovation Challenge" was designed to inspire students at the University of Queensland Business School to create ICT strategies that address socio-economic challenges in the Asia-Pacific region. The event was hosted by the Business Information Systems discipline and managed by experienced academics: Professor Stan Karanasios, Dr. Morteza Namvar and Dr. Katie Williams.

Event Format and Participation

The hackathon combined dynamic problem-solving with innovative hackathon elements. Students formed teams to gather and analyse data, developing evidence-based ICT solutions. These solutions were then presented, addressing critical areas such as Climate Change, Socio-Economic Disparities, and Gender and Equity in the Asia-Pacific region.

The event attracted a diverse group of student participants, including undergraduates and postgraduates from the Information Systems major, Business School, and other university departments interested in technology.

Mentoring and Development

From August 12, weekly mentoring sessions were conducted by Professor Stan Karanasios, Dr Morteza Namvar, Dr Katie Williams and Mr. James Boyce (a PhD student). These sessions were instrumental in shaping the students' ideas into viable solutions.

Key Events and Timeline

- **May-July:** Information sessions introduced the hackathon to over 2,000 students.
- **August 5:** Registration and information session with 118 students signing up.
- **August 29:** Final presentations of the solutions.

Outcomes and Impact

- **Participation:** 40 students formed 12 groups, actively participating in the final event.
- **Investment:** Over 20 hours of mentoring and a $3,000 contribution from the School of Accounting, Finance, and Information Systems (AFIS) enhanced the experience.
- **Projects Developed:** 12 impactful solutions were presented, addressing various socio-economic issues.

Winners

Winners were awarded for the best technology strategy and best data driven strategy. First was awarded $1,000x2 and second $500x2 contributed by the School of Accounting, Finance, and Information Systems (AFIS) at UQ Business School.

Place	Stream	Title
1st Place	Data	Heart to Heart: Unveiling Indonesia's Cardio Crisis
	Strategy	A sustainable system to prevent and reverse the effects of rising sea levels, protecting vulnerable lands while fostering social and economic prosperity

Business School

28 October 2024

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2nd Place	Data	Developing a classification model to forecast future water stress challenges
	Strategy	Transforming Housing Crisis into Sustainable Housing in Australia
3rd Place	Data	Game On, Plastic Gone: India's Strategy for Environmental Change
	Strategy	Alleviation of child marriage by ensuring Bangladeshi receive quality financial education and funding to have no reason to exploit their children for money

Attendance and Feedback

The event witnessed participation from key industry leaders and government officials who served as panel judges, providing invaluable feedback to the participants. Notable attendees included:

- **Mr Zipping Liu**, Deputy Secretary General, Asia-Pacific Telecommunity (APT)
- **Mrs Stephanie Glanville**, Senior Policy Officer, Australian Department of Infrastructure, Transport, Regional Development, Communications and the Arts
- **Mr Tony Hayes**, Chair of the Business Information Systems Industry Advisory Board
- **Mrs Paris Li**, Technology Advisory KPMG
- **Mrs Mayus Nath**, Associate Director, Manager O'Connor Marsden
- **Mrs Jessica Morgan**, Global Development Project Coordinator, UQ International Development
- **Mrs Allanah Grech**, Partner Success Manager, Australia Computer Society

The event was also attended by over 20 staff from the Business Information Systems Discipline, and the Deputy Head of School for Accounting, Finance and Information Systems.

The feedback from students and industry was overwhelmingly positive, highlighting the event's organisation, the quality of presentations, and its broader impact.

Future Plans

Given the success of the event, plans are underway to expand the scope and run it again in 2025. Collaborations with the Asia-Pacific Telecommunity and other partners are anticipated to continue, enhancing the event's reach and impact.

This project closure report confirms the successful completion of the ICT Solutions Hackathon and outlines the significant educational and societal contributions it has made, setting a robust foundation for future editions.

Further support and evidence

- Appendix 1: attached provides the slides of the Information Session
- Appendix 2: student LinkedIn posts
- Appendix 3: student presentation slides
- Appendix 4: photos from the event

Faculty of Business, Economics and Law
The University of Queensland

Acknowledgement of **Country**

The University of Queensland (UQ) acknowledges the Traditional Owners and their custodianship of the lands on which we meet.

We pay our respects to their Ancestors and their descendants, who continue cultural and spiritual connections to Country.

We recognise their valuable contributions to Australian and global society.

Who are we?

Dr Stan Karanasios

Associate Professor
BIS Discipline Convenor

Dr Katie Williams

Senior Lecturer in BIS
BIS Major Convenor

Dr Morteza Namvar

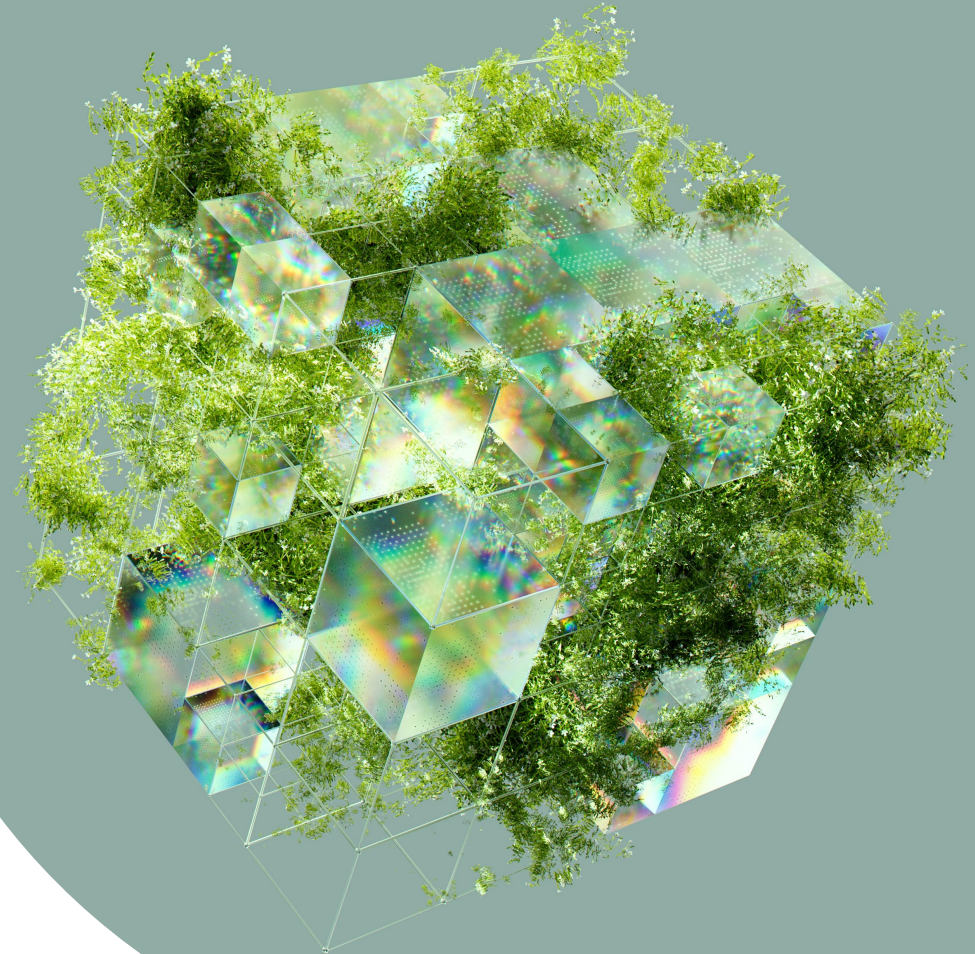Senior Lecturer in BIS

Mr James Boyce

PhD Student in BIS

Tech for Change - Expression of Interest

Todays Agenda

1. "What's in it for me?"

2. The Purpose, why and how (guide to success)

3. Example (Technical vs Strategy)

4. Group Formation

5. Next Steps + Q&A

What's in it for me?

- A Real-world project

- Contribution to your portfolio of work, extra-curricular activities and teamwork

- Presentations will be judged: Australian government, Asia-Pacific Telecommunity, BIS advisory board

- Prizes (CASH POOL and certificates)

Prizes and Outcomes

Prizes (Per stream)

- First Place: **$1,000** + Winners Certificate

- Second Place: **$500** + Winners Certificate

- Third Place: Winners Certificate

Each team will receive an official participation

certificate.

The Purpose

- What is Tech for Change?

- Why an Asia Pacific Focus?

- Why is what you are doing important?

How to Succeed

Criteria	Weight
Presentation	20%
Problem Definition	10%
Solution (Evidence, Analysis or Strategy)*	40%
Link to UN Sustainable Development Goals	10%
Recommendations	10%
Q&A	10%

*Solution Differences:

- **Technical Stream**: the solution section can be your data analysis/data solution.
- **Strategy stream**: the solution section can be your technology related strategic idea/plan.

Example Presentation

Team name

(un)-Happy Feet

Problem Definition:

- Little Penguin populations at Penguin Island (Western Australia) are **reducing year on year**, whilst tourism at the breeding sites increases.
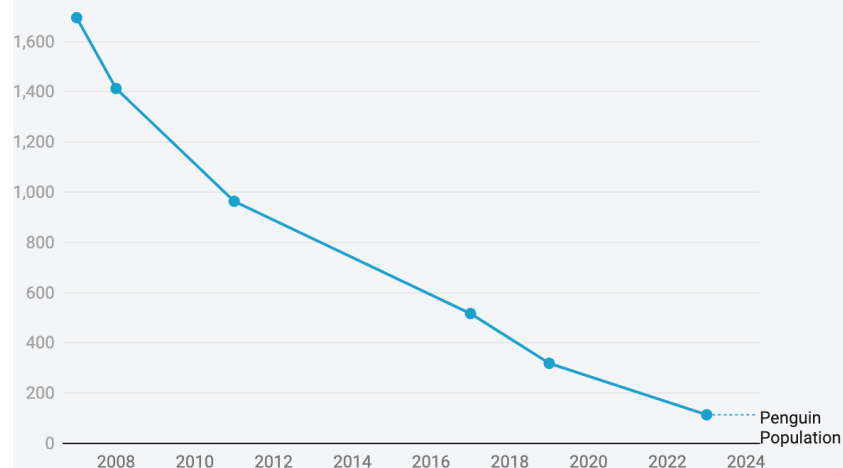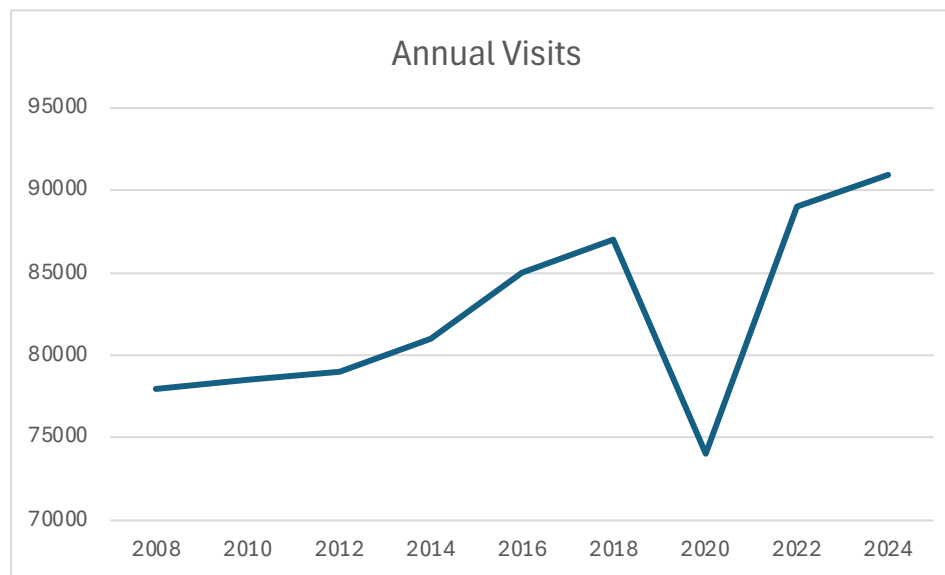
Example Presentation

Problem Definition:

Little Penguin populations at Penguin Island (Western Australia) are reducing year on year, whilst tourism at the breeding sites increases.

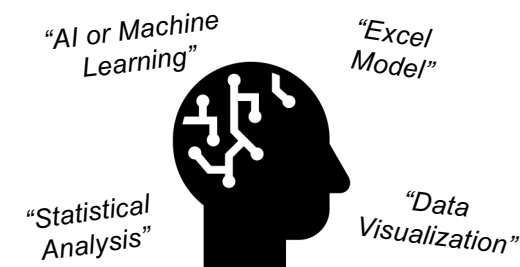*Source: (Uni. West. Aust., 2023)*

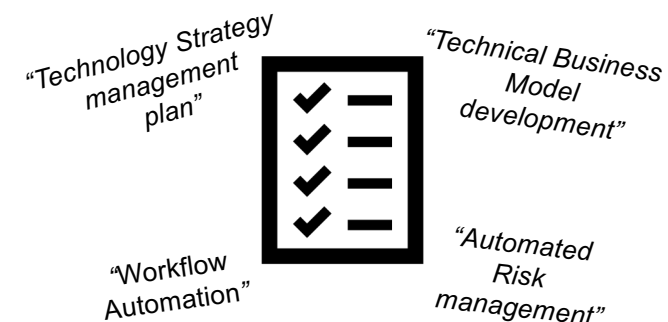*Source: (Uni. West. Aust., 2023)*

Example Presentation

Solution (Technical)

- We will begin by analysing the existing data to understand the current decline in Little Penguin populations. Next, we will develop a predictive model to forecast future penguin numbers under scenarios of continued tourist increase.

"AI or Machine Learning"

"Excel Model"

"Statistical Analysis"

"Data Visualization"

Solution (Strategy)

- We will implement a strategic plan designed to balance the protection of Little Penguin by using technology with the increasing demands of tourism.

"Technology Strategy management plan"

"Technical Business Model development"

"Workflow Automation"

"Automated Risk management"

Example Presentation

Link to Sustainable Development Goals

Goal 14.2 and Goal 15.5: Integrated Conservation Efforts

By sustainably managing coastal and marine habitats (Goal 14.2) and urgently reducing the degradation of natural land habitats (Goal 15.5), we can protect threatened species, like the Little Penguins of Penguin Island, from the adverse impacts of human activities such as tourism.

14 LIFE BELOW WATER

Target
14.2
By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans

15 LIFE ON LAND

Target
15.5
Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species

Example Presentation

Recommendations

1. **(Technical)** Implement machine learning model into council planning endeavors to better predict a controlled number of people.

2. **(Strategy)** Establish controlled access to breeding sites based on IOT data, limiting the number of visitors. To cater for the reduced tourism, implement a virtual experience utilizing VR headsets.

Q&A

- Be prepared for questions from the judges, and if time permits, members from the crowd.

- Pre-preparing some potentially obvious questions is a good idea!
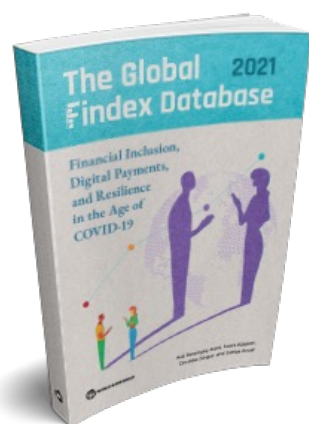
Example Presentation

References

1. *Source: (Uni. West. Aust., 2023)*

2. *Source: (West. Aust. Gov., 2023)*

3. *Source: (XYZ et al., 2023)*

Good
Practice

Example Data Sources

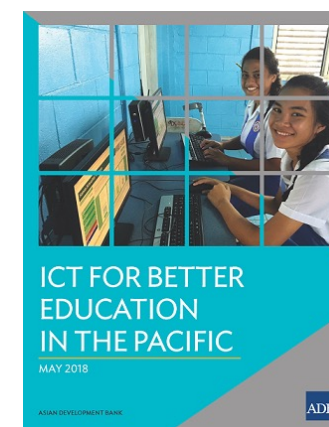- Full list can be found under "Data Links" sheet of Group Google Sheet

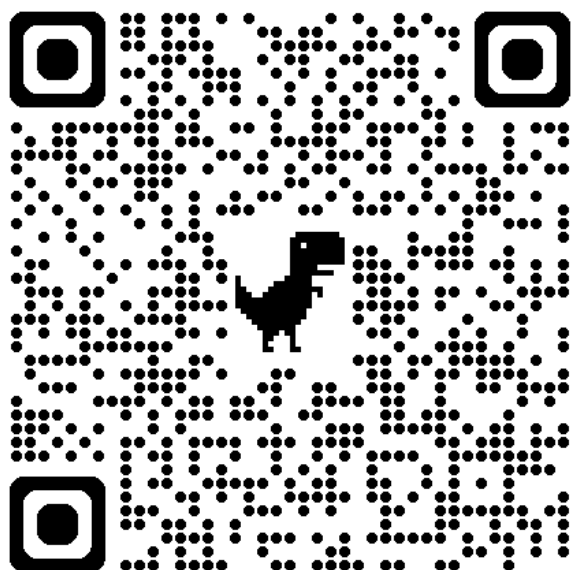Global Findex
Database

OECD

UN Data
UN E-Gov

Asian
Development
Bank

Group Formation

Create a team and sign up (QR)

- Come-up with a fun team name!
- Assign a group leader
- Find others with similar interests

Social

- Improving quality of life
- Empowering communities

Economic

- Fostering economic growth
- Ensuring resource efficiency

Environmental

- Combating climate change
- Protecting ecosystems

What Next? + Q&A

Weekly Feedback Opportunities (Times TBA)

Weeks commencing 12th August…
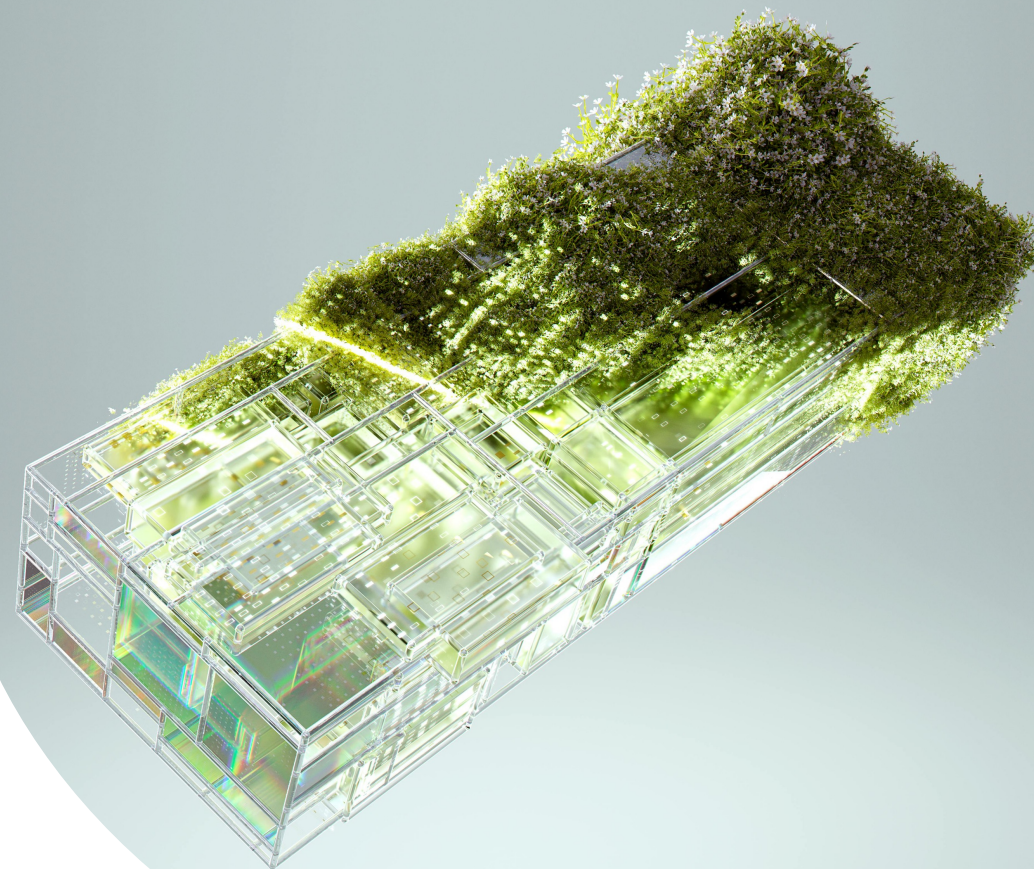
- Tuesday (Technical focus) - James & Mory

- Wednesday (Strategy focus) - Stan & Katie

Are there any Questions?

Additional Questions
Contact - James Boyce
j.boyce@business.uq.edu.au

Bhaarti Singh (She/Her) • 1st

Student at UQ

1mo • 🌐

🥇 🏆 I had the amazing opportunity yesterday to present at the Tech for Change Competition organised by the Asia-Pacific Telecommunity (APT) at UQ!

🩺 Our focus was to address the issue of increasing Cardiovascular Diseases in Indonesia using predictive modelling.

Big congratulations to my team **Amelia Li Elina Kostiainen** and **Ishaan Ranade** for the well deserved first position in the technical stream! Thank you for trusting me as your leader 💜

Eternally grateful to **Morteza Namvar** and **James Boyce** for their dedicated mentorship 🙏

Here's proof that hard work pays off! 🙌

Kiara Prameswari Alim (She/Her) • 1st
UQ Bachelor of Commerce | Aspiring Business Analyst | Tech Consulting | UQI...
3w • 🌐

🌟 Thrilled to share some exciting news! 🌟

Last week, my team and I had the amazing opportunity to pitch our project at the Tech for Change: The Asia-Pacific ICT Innovation Challenge hosted by The University of Queensland and sponsored by Department of Infrastructure, Transport, Regional Development, Communications and the Arts and Asia-Pacific Telecommunity.

I'm incredibly proud to announce that we secured 2nd place in the Technical Data Stream! 🎉

Our project focused on addressing the increasing risk of water stress in the APAC region. We developed a predictive model using machine learning to forecast and monitor water stress levels, aiming to assist local authorities and key stakeholders in their efforts towards sustainable resource management.

The journey has been nothing short of rewarding—balancing work, university, and weekly consultations made the final presentation even more memorable. A huge shoutout to my dedicated teammates, Joanne Chung-An Hsieh and Yubo Wang. Your hard work and collaboration made this all possible! 🙌

A special thanks to Morteza Namvar & James Boyce for their invaluable guidance throughout the challenge. Your support has been pivotal to our success!

I'm looking forward to seeing how we can continue developing this model and contribute to a more sustainable future. 🌱💧

#Hackathon #SDGs #MachineLearning #Sustainability #Innovation #APAC #WaterStress #DataScience #TechForChange #BusinessInformationSystems

Elina Kostiainen (She/Her) • 1st

Final Year Advanced Business (Hons) Student @UQ | Passion to Create Impact...

1mo • 🌐

☀️ Last night was epic!

🌏 We heard from exceptional presentations sharing ideas on how we can make a change using tech. From both the strategic and technical perspective.

🎉 Congratulations to all the teams. With a big shout out to Fantastic Four for all their hard efforts to deliver on the night Bhaarti Singh Amelia Li Ishaan Ranade.

👏🏽 Everyone is a winner!

#techforchange

👤 with **Bhaarti Singh** and 2 others

👍💚❤️ James Boyce and 39 others   5 comments • 3 reposts

Reactions

+32

👍 Like   💬 Comment   🔁 Repost   ➤ Send

Benjamin Carroll • 1st

Student at The University of Queensland - Business Information Systems

3w • 🌐

We won a #Hackathon! Let me tell you a bit more about it.

At the beginning of August, I signed up for a hackathon at #UQ called Tech for Change, organised by James Boyce, Katie Williams PhD, Stan Karanasios, and a former lecturer of mine, Morteza Namvar. The goal was to tackle a real-world problem and come up with innovative solutions.

The hackathon focused on the Asia Pacific Region, encouraging participants to create technology-driven solutions aligned with the Social Development Goals. With my teammates, Lochlan Dew, and Joshua Woolley, we decided to address the challenges of rising sea levels and the protection of vulnerable lands. We met weekly to brainstorm and set goals, and it was a pleasure to work on such a meaningful project while learning more about the impact of global warming in our region.

Last week, we pitched our startup, AquaTerra, as an independent consulting firm dedicated to reversing the effects of rising sea levels and safeguarding vulnerable lands. Our mission is to foster social and economic prosperity by developing a data-driven checklist to identify the best solutions and recommend necessary resources for the effective implementation of eco projects.

The judges—representing the Australian government, Asia-Pacific Telecommunity, and the BIS advisory board—were impressed by our idea and presentation, naming us the winners of the challenge.

After the ceremony, several committee members expressed interest in helping us turn AquaTerra into a reality. We are currently in discussions with various stakeholders both within and outside the university to explore opportunities for further development.

I want to thank everyone who supported our project and encouraged us along the way. If anyone in this field feels they could contribute to our startup's growth, please feel free to reach out!

Zhuolun Han • 1st

Bachelors of Commerce/Information Technology student at The University of ...

4w • 🌐

Thrilled to announce that my team, Harambe Partners, secured 3rd place in the Tech for Change: Asia-Pacific ICT Innovation Challenge!

Organized by UQ Business School and sponsored by the APT Young Professionals and Students Programme, this competition was a fantastic opportunity to refine my ICT innovation, team management, leadership and public speaking skills. Competing against 12-13 teams of 30-40 UQ students, we developed a project aimed at tackling child marriage in Bangladesh. Our platform educates communities on financial literacy and connects them with global micro-lending services.

A big shoutout to my amazing team — **Dipal Gudhka**, **Ruvimbo Tsetsetse**, and Mandy Lee — for their incredible efforts, and heartfelt thanks to Professor **Stan Karanasios**, Dr. **Katie Williams PhD**, Dr. **Morteza Namvar**, and Mr. **James Boyce** for their invaluable guidance. 🌟
#TechForChange #Innovation #ICT #Teamwork #Sustainability #UNSDGs

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APT

Australian Government
Department of Infrastructure, Transport, Regional Development, Communications and the Arts

This certificate is awarded to

Zhuolun Han

for placing 3rd in the:

Tech for Change: The Asia-Pacific ICT Innovation Challenge

Hosted by The University of Queensland Business School, and sponsored by the Asia-Pacific Telecommunity (APT) Young Professionals and Students Programme 2024

A/Prof. Stan Karanasios
BIS Discipline Convenor
The University of Queensland

Dr Katie Williams
BIS Major Convenor
The University of Queensland

Dr Morteza Namvar
Senior Lecturer
The University of Queensland

👍❤️ You and 17 others

4 comments · 1 repost

Reactions

+10

Joanne Chung-An Hsieh • 1st

Student at The University of Queensland | Information System | Marketing | Ev...

1mo • 🌐

🚀 Last night, our team had the incredible opportunity to pitch our ideas to a of experts, academics, and peers at the Tech for Change: The Asia-Pacific ICT Innovation Challenge. We're thrilled and honoured to have secured second pl the Technical Stream!

Our project focused on addressing the rising risk of water stress in the APAC region. We developed a predictive model using machine learning to forecast a monitor water stress levels, aiming to support local authorities and other key stakeholders in strategic planning for a sustainable future.

✨ The journey to this point—from weekly consultations and meetings to bala work and university commitments—has been immensely rewarding. The mom leading up to the final presentation were truly the most memorable and valual parts of this challenge. A huge shoutout to my amazing team members, **Kiara Prameswari Alim** and **Yubo Wang** for their unwavering commitment and 100% effort. A special thanks to **Morteza Namvar** and **James Boyce** for their invalual guidance over the past month. We couldn't have achieved this without your support!

Photos from the Tech for Change: The Asia-Pacific ICT Innovation Challenge