



## Impact Case Study

# Engaging Pacific Islander Youth in UNICEF and Climate Change – Research Analysis

### Introduction and background

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The United Nations Children’s Fund (UNICEF) is one of many not-for-profit organisations that need to distribute important information on matters such as health, emergencies, education, and climate change to vulnerable communities.

In particular, its Pacific Island chapter, UNICEF-P, wanted to explore ways of engaging youth in the Pacific in issues vital to their immediate and future wellbeing. UNICEF-P recognised that social media could have value in engaging young Pacific Islanders in a more interesting and effective way.

To that end, in 2011, UNICEF collaborated with Monash University to develop an online game to help youth in the Pacific to engage more with UNICEF and understand more about climate change, including strategies for adapting to and dealing with how climate change affected their lives.

Pacific Islander youth participated in the co-creation of the “Pacific Climate Change Challenge Game” (PC3G), an information system presented as a Facebook-based game. Previously, young Pacific Islanders had not significantly engaged with UNICEF-P’s Facebook content. Through the game, they now had an opportunity to take on different roles in the development of a tool that would empower them to make decisions about their lives.

PC3G was successful in that aim, as UNICEF reported in its 2011 “Behind the Bytes” press release.

“When the UNICEF Pacific Facebook fan page was used merely to share information, fans did not display any significant engagement in posted content. However, when invited to co-create content for the Facebook page, interaction in terms of fans sharing comments, ideas and expressions of interest grew by more than 1600%. Similarly – the number of new subscribing fans to the UNICEF Pacific Facebook more than tripled. Using the social media site for two-way communication with individuals and groups in other words proved more effective to engage with them.”

The game was then successfully used by UNICEF in other regions, too.

Monash University researcher, Julie Fisher published a report on PC3G – [Engaging Pacific Youth through a Facebook Game](#) – in 2012.

The report’s conclusion noted that the game was still in development and would be evaluated as a tool in the future.

### The research

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In 2019, RMIT undertook the ‘after the fact’ analysis and evaluation of PC3G, led by RMIT’s Professor Karlheinz Kautz (research). The team also included Tomas Jensen (development) from UNICEF Pacific Islands and Monash University’s Gro Bjerknes and Julie Fisher (one of the original PC3G researchers).

The ongoing RMIT-led evaluation of PC3G is examining various areas of the game and the game development process, including how it created value for UNICEF-P, Pacific Islander Youth, and the development team, and why it worked so well to improve engagement with the not-for-profit organisation.

The evaluation may help in replicating the game’s success in other areas.

### Funding

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A grant from Canada’s Commonwealth of Learning supported the development of PC3G in 2011.

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**What's next...**

## Project outcomes

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After analysing the digital game, the research team has been publishing its findings in a series of ongoing reports. These include:

- “The Process of Co-Creation in Information Systems Development: A Case Study of a Digital Game Development Project”, by K. Kautz, G. Bjerknæs, J. Fisher, T. Jensen (2019) in *Advances in Information Systems Development: Designing Digitalization, Selection of Best Paper Proceedings of the 27th International Conference on ISD*, (revised version), Lecture Notes in Information Systems and Organisation, Vol. 34, pp. 187-206, Springer Publishing Company, Berlin, Germany  
[https://ideas.repec.org/h/spr/lnichp/978-3-030-22993-1\\_11.html](https://ideas.repec.org/h/spr/lnichp/978-3-030-22993-1_11.html)
- “Applying Complex Adaptive Systems Theory to Understand Distributed Participatory Design in Crowdsourced Information Systems Development” by Kautz, G. Bjerknæs, J. Fisher, T. Jensen (2020) in *Australasian Journal of Information Systems (AJIS)*, Vol. 24 (Selected Papers from ACIS 2018)  
<https://doi.org/10.3127/ajis.v24i0.2225>
- “Information Systems Development as Value Co-Creation”, by K. Kautz, G. Bjerknæs (2020), *Communications of the Association for Information Systems*, Vol. 47, pp. 1-24  
<https://aisel.aisnet.org/cais/vol47/iss1/37/>

## Overview of the impact

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PC3G was also installed by UNICEF Madagascar, Voices of Youth (another UNICEF organisation) and Unite for Climate (Action) and involved young people from around the world: including the Pacific Islander youth, research students from Bangladesh, Hong Kong, and Melbourne, and juvenile testers in China.

Through the game, climate change issues were brought to the attention of Pacific Youth in a non-intrusive way. Rather than laying blame for the situation, the playfulness of the game encouraged young people to engage in preventative action to deal with climate change and its possible consequences. In the paper, “Applying Complex Adaptive Systems Theory to Understand Distributed Participatory Design in Crowdsourced Information Systems Development”, the researchers concluded that the game was an example of how distributed participatory design (DPD) could be used in projects to create both a process and outcome that encouraged engagement and appreciation by all stakeholders.

The analysis also confirmed that as information systems projects necessarily evolve during development, the use of complex adaptive systems (CAS) provided a better understanding of how best to manage DPD as a way of approaching information systems development (ISD).

CAS also provided a good framework for reflecting on the project after completion and collecting data on the lessons learned from the process.

The evaluation of PC3G has in its turn resulted in numerous articles, several of which have been nominated for or won awards, including:

- “A Process Model of Co-Creation as an Approach to Information Systems Development”, Best Paper Awards at the 27th International Conference on Information Systems Development (ISD 2018)
- “Distributed Participatory Design in Crowdsourced Information Systems Development”, Runner up for Best Paper at the 29th Australasian Conference on Information Systems, Sydney, NSW Australia, December 3-5, 2018

## Next steps

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Professor Karlheinz Kautz continues to develop and publish further findings related to the original research.