

## Main Grant 2022/23

### 2022/23 Main grant - report

Application No. GR000032022\_23 From Ms Anna Zam

Form Submitted 3 Apr 2024, 10:23PM NZDT

## Grant report

### Instructions

Thank you for completing your funded initiative.

This form will be placed on our website for transparency and enables us to understand and share the work you have done through this grant.

Please complete and submit this form no later than the date stipulated in your funding agreement. If you cannot meet the deadline, contact us to arrange an alternative date by emailing [funding@internetnz.net.nz](mailto:funding@internetnz.net.nz). You may not be eligible to apply for further grants from InternetNZ if this is not submitted.

The completion of this form should be overseen by someone with intimate knowledge of the funded mahi.

**\* indicates a required field**

### Grant initiative update

#### Initiative title \*

Digital Equity is an Environmental Issue

#### Provide a short summary of the work that was completed as part of this initiative.

\*

This initiative set out to contribute to research understanding of the relationship between access to household broadband internet and climate resilience within New Zealand.

This project aimed to explore the role in which digital equity has on a Just Transition (as adopted by the Ministry of Business, Innovation and Employment, which is to "bring people together to transform disruptive change into positive change"). It is intended that this initiative add to debates surrounding the convergence of the digital and net-zero future imperatives which are beginning to gain traction within academic literature.

The United Nations (UN) Climate Change Conference (COP) conference on climate change offers world leaders a meeting point to make urgent and meaningful commitments to reducing emissions. An overarching objective is to limit global temperatures to 1.5 degrees Celsius above pre-industrial levels by 2050. In this context is a body of literature which explores whether digital technologies and information management are part of the climate emissions problem or a potential solution (Merrill, Schille-beeckx, & Blakstad, 2019). Recent attention has shifted to focus on how digital technologies can positively impact climate mitigation (Dwivedi et al., 2021).

The COVID-19 pandemic exacerbated the existing digital divide by moving many important services and resources online. This shift has created more challenges for communities who either lack or have inadequate access to the internet within their homes. However, it is often necessary to people's wellbeing and for a community's efforts to adapt to environmental issues as a result of climate change such as natural disasters -not unlike the experiences across the north island following Cyclone Gabrielle. This situation reveals where it is critical in the context of natural disaster response that information is accessible via the internet, given often how fast response times are necessary to complex and evolving situations.

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The Department of Internal Affairs Te Tari Tai whenua in its Digital Inclusion Blueprint ('Blueprint') acknowledges a growing body of research that there is a valid link between digital inclusion and wellbeing. This research intended to develop this further by making links between not only digital equity and wellbeing, but climate equity. There are significant challenges to digital inclusion, particularly in 'grey housing' regions. This research provides additional insight into the hypothesis that digital equity is needed most in communities where climate inequities are most prevalent.

This was determined by a methodology consistently of qualitative semistructured interviews and an open anonymous survey. The interviews underwent a structured process, commencing with audio recording, followed by transcription, and subsequent analysis. Thematic analysis was employed to elucidate recurring concepts and underlying patterns within the responses to show that there is a diverse set of experiences between a household's capacity to access internet, as well as a household's capability to navigate the internet, in relation to the household condition or geolocation.

Elements of the survey looked at whether mobile phone access featured more heavily in certain grey housing regions than others; age-demographics such as whether there was a relationship between access through intergenerational living i.e., young members of households help the older generation with access and what methods of internet access was available, if household broadband internet was not, and any relationship between owner-occupier versus tenanted homes.

Access to the internet was a barrier in rural areas such as in Hokitika and Greymouth (5 interviews conducted) but less so in Tokoroa (where 6 interviews were conducted) due to the connectivity relative to other larger towns where local infrastructure provided a buffer against digital inequity. For instance, residents in Tokoroa had greater access to the internet was provided such as at local schools, libraries or via support at social services through the Ministry of Social Development. By comparison, 14 semi-structured interviews in Tairāwhiti Gisborne, key themes to why there is a lack of digital connectivity included trust, time and resources, resistance and reliance on local community collaboration as well as awareness and education.

By gathering more data on this topic, these insights can inform where a just transition to a shared low-carbon, high-tech and connected future is needed most. There are parallels between the Blueprint, which highlights underlying challenges to the four elements of digital inclusion including 'socioeconomic factors' and 'lack of accessibility'. These factors are similar barriers which communities face when looking at how to improve their resilience to climate change and so shared problems may lead to exploring shared solutions.

Through a positive contribution lens, it can be seen that there is an important role the internet plays for citizen's access to information that is relevant to an individual's response to climate consequences. The outcome of this research showed that there is an obvious relationship between digital equity and climate equity, where digital access is critical to ensuring that a Just Transition can take place.

Describe the "who, what, where and when" of your initiative.

#### Is this initiative complete? \*

Yes  No

If your initiative is still in progress, select "no."

#### What are the outcomes of this initiative? \*

1) Academic insights were gained through this collaborative research. Establishing digital equity as an environmental justice issue therefore allows the potential of the internet as a

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platform in which information exchange and communication can occur to advance elements of environmental justice to ensure everyone has necessary skills to navigate the internet is a pre-requisite for environmental justice. Presentation of findings through AcademyEx's Research Symposium in November 2023: <https://www.youtube.com/watch?v=N5TzFuQxaZU&t=108s>

2) Further presentation of findings at the St Gallen Research Symposium in Switzerland upcoming in May 2024. This situates the problem in a global context given this research project's alignment with the St Gallen theme for 2024 being 'confronting scarcity' (see supporting documentation). This provides greater insight into the global nature of this issue.

3) Advancing discussions on climate resilience where internet access is less of a barrier (for instance in Auckland) would provide an interesting comparison to highlight any local differences between the research findings. Nevertheless an outcome of further research will show that digital access is a key pillar for addressing climate change adaptation and resilience for urban cities.

Describe major achievements resulting from this grant.

#### Which population group/s were affected by this project or program? \*

Living environment > Place-based people or groups

Living environment > Rural/regional dwellers

Living environment > Homeowners

Social and economic status > Economically disadvantaged people > Low-income people

Please choose only the group/s that were at the very core of this project/program.

#### If you have any supporting documentation, you can share it below.

This could include photos, surveys, feedback, your evaluation plan, published research or annual report.

Remember this report will be placed on our website for transparency.

#### Upload files:

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Filename: Invitation\_Anna Zam.pdf

File size: 107.1 kB

#### Upload files:

*No files have been uploaded*

#### Provide web link:

Must be a URL.

## Financial report

### Budget

Provide details of funds received and spent in relation to this grant.

**Income**

\$

**Expenditure**

\$

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InternetNZ	\$8,800.00	Fillout Forms	\$1,350.00
	\$	Travel costs	\$1,896.00
	\$	Accomodation	\$997.00
	\$	Wages	\$4,500.00
	\$	Zoom	\$22.00
	\$	Google Workspace	\$62.10

## Budget Totals

### Total Income Amount

\$8,800.00

This number/amount is calculated.

### Total Expenditure Amount

\$8,827.10

This number/amount is calculated.

### Income - Expenditure

-\$27.10

This number/amount is calculated.

### Have you experienced any issues with your intended budget? If so, please explain reasons for any major variances or for providing incomplete information:

My initial budget under-budgeted for wages for administrative work.

## Feedback

You are almost at the end of your final report. Before submitting, please take a few moments to provide some feedback.

### Please tell us how you found the reporting process:

Very easy  Easy  Neutral  Difficult  Very Difficult

### How many minutes in total did it take you to complete this form?

150

Estimate in minutes (i.e. 1 hour = 60 minutes)

### Do you have any feedback?

I have had a wonderful time working with Ciara and looking forward to sharing my insights with InternetNZ team as well as building upon this and my Master's research in an applied Doctorate.

For example, feedback on the evaluation toolkit if you used it, the process of working with InternetNZ or anything else.

### InternetNZ is a membership organisation. Would you be interested in hearing more about becoming a member?

Yes please  No thanks  I am already a member