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## A Human-Centered Approach to Measuring the Impact of Evidence-Based Online Resources

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## Acknowledgement of Country

Our team would like to begin by acknowledging and paying our respect to this nation's past, present and future Traditional Custodians and Elders. I would also like to express my support for integrating their cultural, spiritual and knowledge-based practices in every aspect of our Australian society.

### Our team for this study



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Distinguished Professor



## Why take a Human-Centered approach to measuring the impact of evidence-based online resources?

- Disseminate knowledge
- Inform or support health decision-making
- Combat vulnerabilities associated with health misinformation, evidence misalignment, and science illiteracy
- To improve healthcare practice, consumer and staff experiences

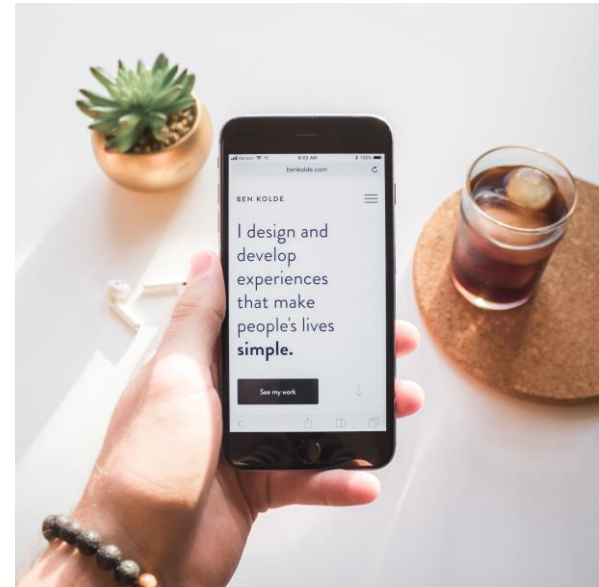


Photo by Ben Kalde on Unsplash



## What is the problem with current methods?



Photo by Mark König on Unsplash

- Most popular measures of online resources are based on proxies for success using secondary metrics, like the number of likes, visits, or followers
- Others utilise only qualitative methods relevant or applicable to small groups that are not necessarily transferable to other sociodemographic sectors



## What did we do?

- We co-designed an evaluation framework through transdisciplinary research to evaluate an evidence-based Frailty video and exemplify our emerging approach:

**PROLIFERATE**



 **frontiers** | Frontiers in Health Services

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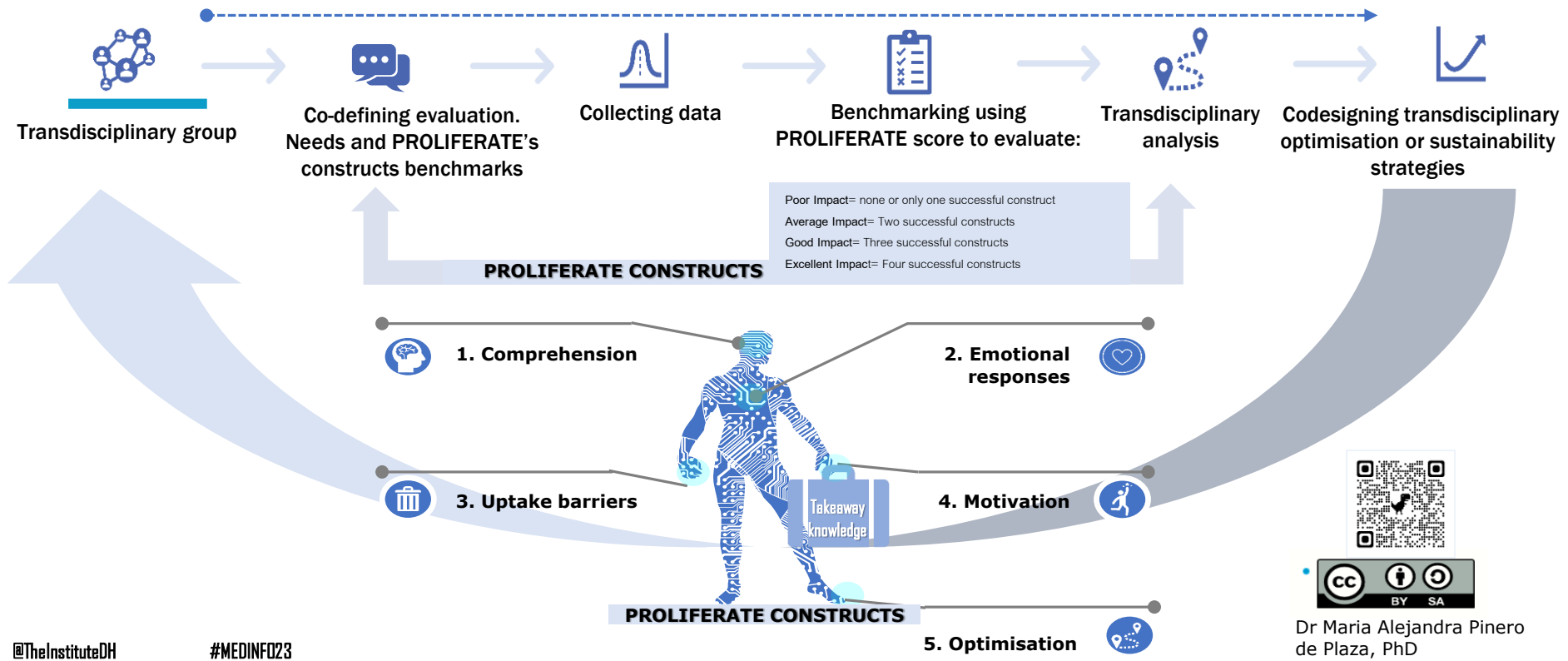
## Co-designing, measuring, and optimizing innovations and solutions within complex adaptive health systems

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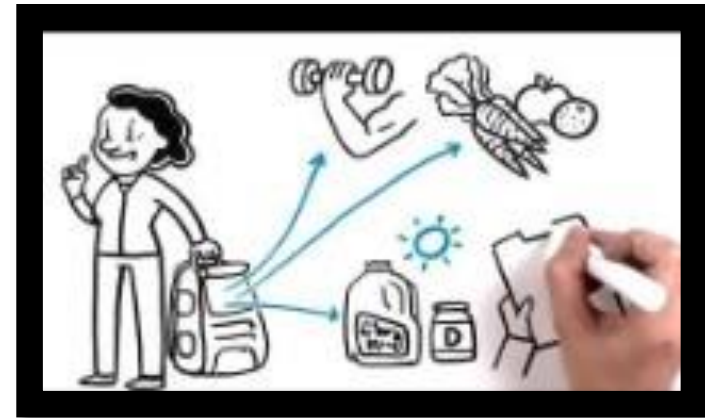
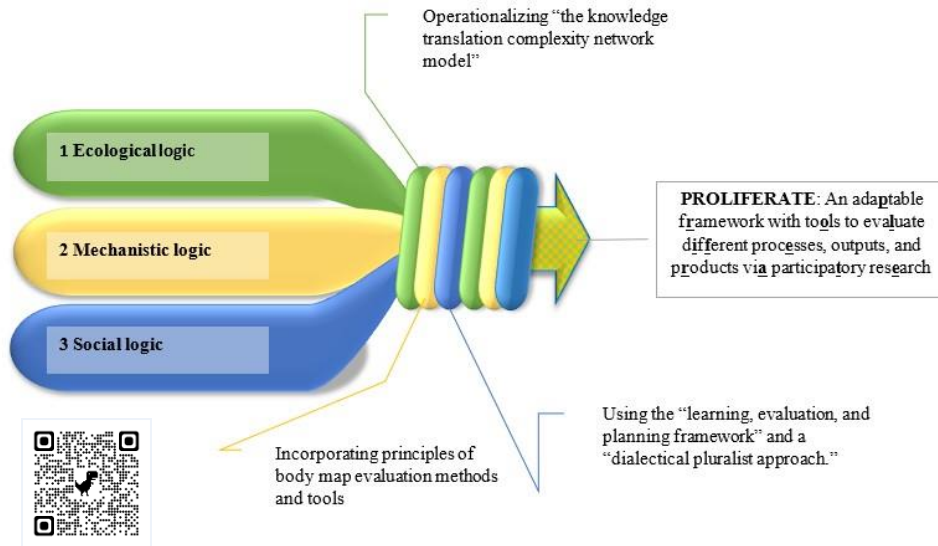


## PROLIFERATE EVALUATION





## What is the innovation of this process?



Archibald M, Ambagtsheer R, Lawless MT, Thompson MD, Shultz T, Chegade MJ, Whiteway L, Sheppard A, Pinero de Plaza, M.A, Kitson AL. **Co-designing evidence-based videos in health care: a case exemplar of developing creative knowledge translation “evidence-experience” resources.** Int J Qual Methods. 2021 Jul;20. doi: 10.1177/16094069211019623



## How did we do it?

- Participants: purposive and convenience sampling from two South Australian cohorts.
- Cohort 1: local community members (n=31, age  $\geq$  65 years) living in metropolitan locations attending a Research Showcase (Sep 2019).
- Cohort 2: First-year Nursing diploma students (n=11, ages 18 - 35 years), primarily Nepalese or Indian-born, at Torrens University (Oct 2019).

Please, tick this red box  to indicate that you are aware that your response will be confidential but not collected in anonymous way because other people on your table may see your responses. So, please **do not put your name on the form**

I identify mostly as a *CONSUMER OR COMMUNITY MEMBER, PROVIDER* or *OTHER?* (please specify here): \_\_\_\_\_

My postcode: \_\_\_\_\_

My age: \_\_\_\_\_

My gender: [ \_\_\_\_\_ ]

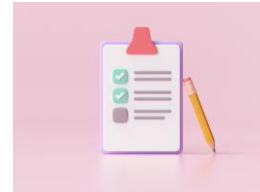
FROM THIS VIDEO I ENJOYED THIS:

THE VIDEO MADE ME THINK ABOUT:

SOMETHING FROM THE VIDEO THAT DIDN'T RESONATE WITH ME:

SOMETHING TO TAKE AWAY WITH ME FROM THIS VIDEO:

THIS VIDEO IS CURRENTLY VIEWABLE ON YOUTUBE, WHERE ELSE SHOULD IT BE AVAILABLE:







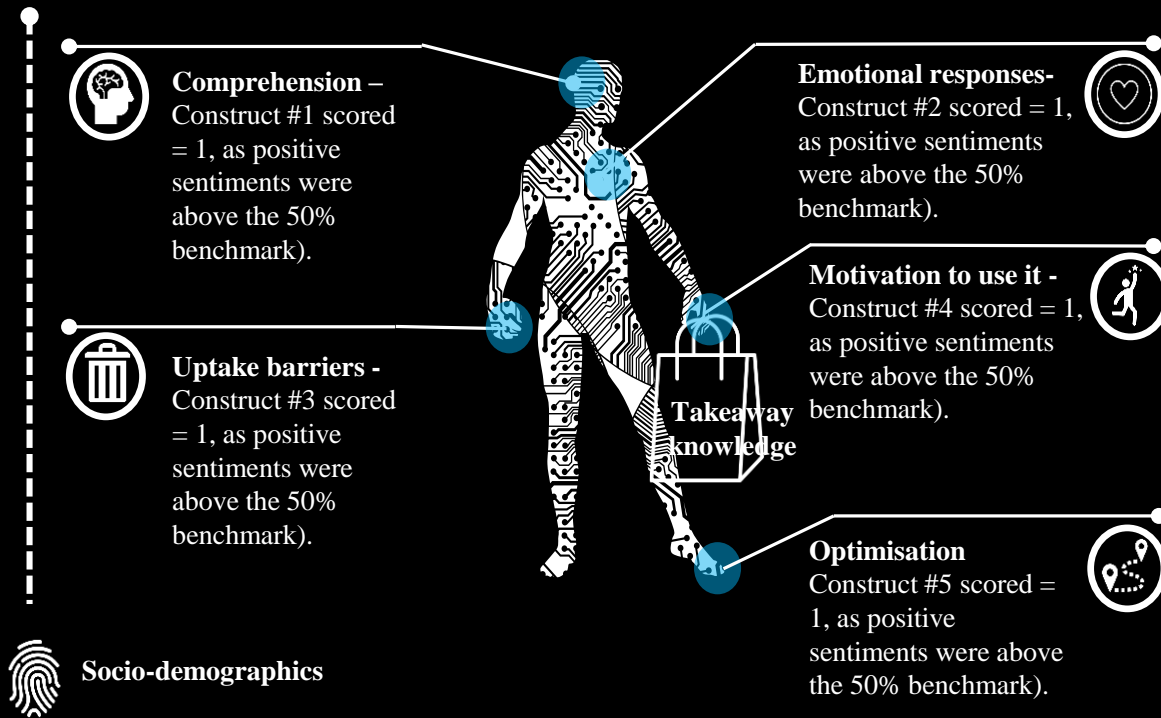
## PROLIFERATE CONSTRUCTS

# Data Analysis

## PROLIFERATE SCORE

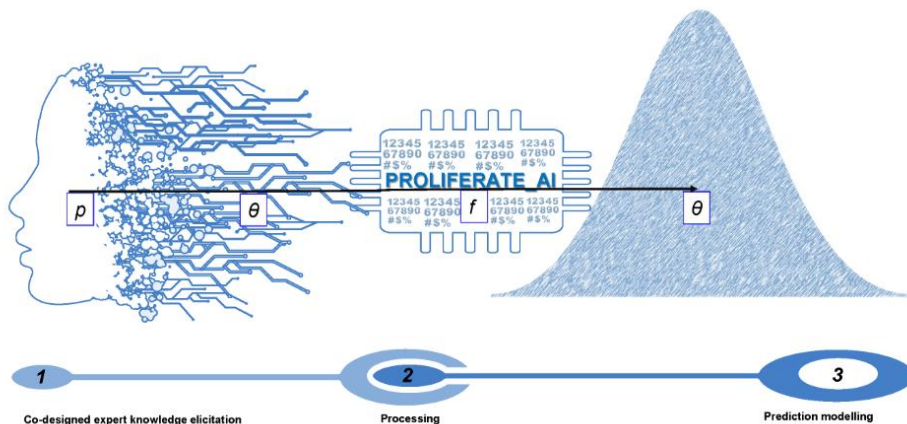
Poor Impact= none or only one successful construct  
Average Impact= Two successful constructs  
Good Impact= Three successful constructs  
Excellent Impact= Four successful constructs

**'Excellent impact':** both audiences understood the material, had good emotional responses to it, did not find major barriers to uptake, and were motivated to apply preventive strategies concerning frailty. The optimisation constructs brought important insight for KT and SI (e.g., projecting the video in targeted locations).





## We keep testing PROLIFERATE adaptations



*PROLIFERATE constructs benchmarked at 50%—algorithm and data analysis developed in R.*

Intervention Group	Prior	Mean	0.025	0.975
Clinicians	Uptake barriers	0.86	0.68	0.97
	Comprehension	0.81	0.60	0.95
	Emotion	0.60	0.40	0.79
	Motivation	0.66	0.44	0.85
	Optimisation	0.76	0.56	0.91
Community	Uptake barriers	0.86	0.70	0.97
	Comprehension	0.81	0.62	0.94
	Emotion	0.62	0.40	0.81
	Motivation	0.66	0.44	0.82
	Optimisation	0.77	0.56	0.93

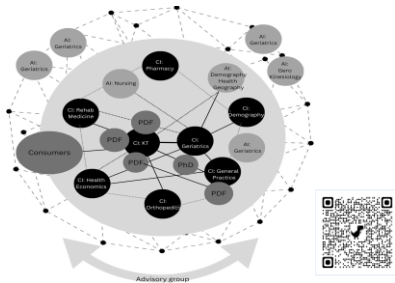
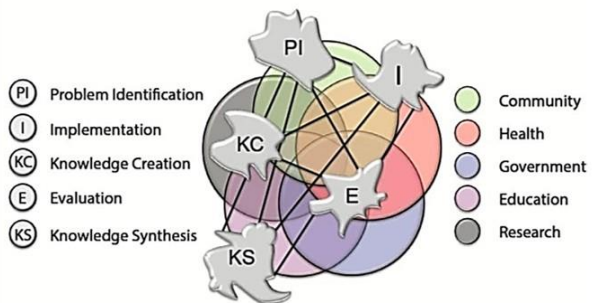
Pinero de Plaza, M.A., Lambrakis, K., Barrera Causil, C. J., Marmolejo-Ramos, F., Chew, D., et al. 2022, October 20. New Ways to Solve Complex Problems and PROLIFERATE. Flinders University. <https://doi.org/10.25451/flinders.21365796.v2>.





## Thank you for your attention and questions

More of our knowledge translation and complexity science approaches



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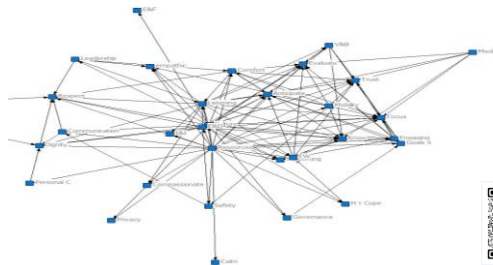
Springer Nature

[Humanit Soc Sci Commun](#), 2023; 10(1): 280.  
Published online 2023 Jun 3. doi: [10.1057/s41599-023-01789-6](https://doi.org/10.1057/s41599-023-01789-6)

PMCID: PMC10238234  
PMID: [37305353](https://pubmed.ncbi.nlm.nih.gov/37305353/)

Wicked problems in a post-truth political economy: a dilemma for knowledge translation

[Matthew Tieu](#)<sup>1,2,3</sup> [Michael Lawless](#)<sup>1,2</sup> [Sarah C. Hunter](#)<sup>1,2</sup> [Maria Alejandra Pinero de Plaza](#)<sup>1,2</sup> [Francis Darko](#)<sup>3</sup> [Alexandra Mudd](#)<sup>1,4</sup> [Lalit Yadav](#)<sup>1,2</sup> and [Alison Kitson](#)<sup>1,2</sup>



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