



OOOPS...  
WE DID IT AGAIN

**TALES FROM THE  
FRONTIER OF YOUTH E-  
THERAPY RESEARCH**

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# WILD WEST

NEW FRONTIER





# BUFFALO BILLS WILD WEST

AND CONGRESS OF ROUGH RIDERS OF THE WORLD.

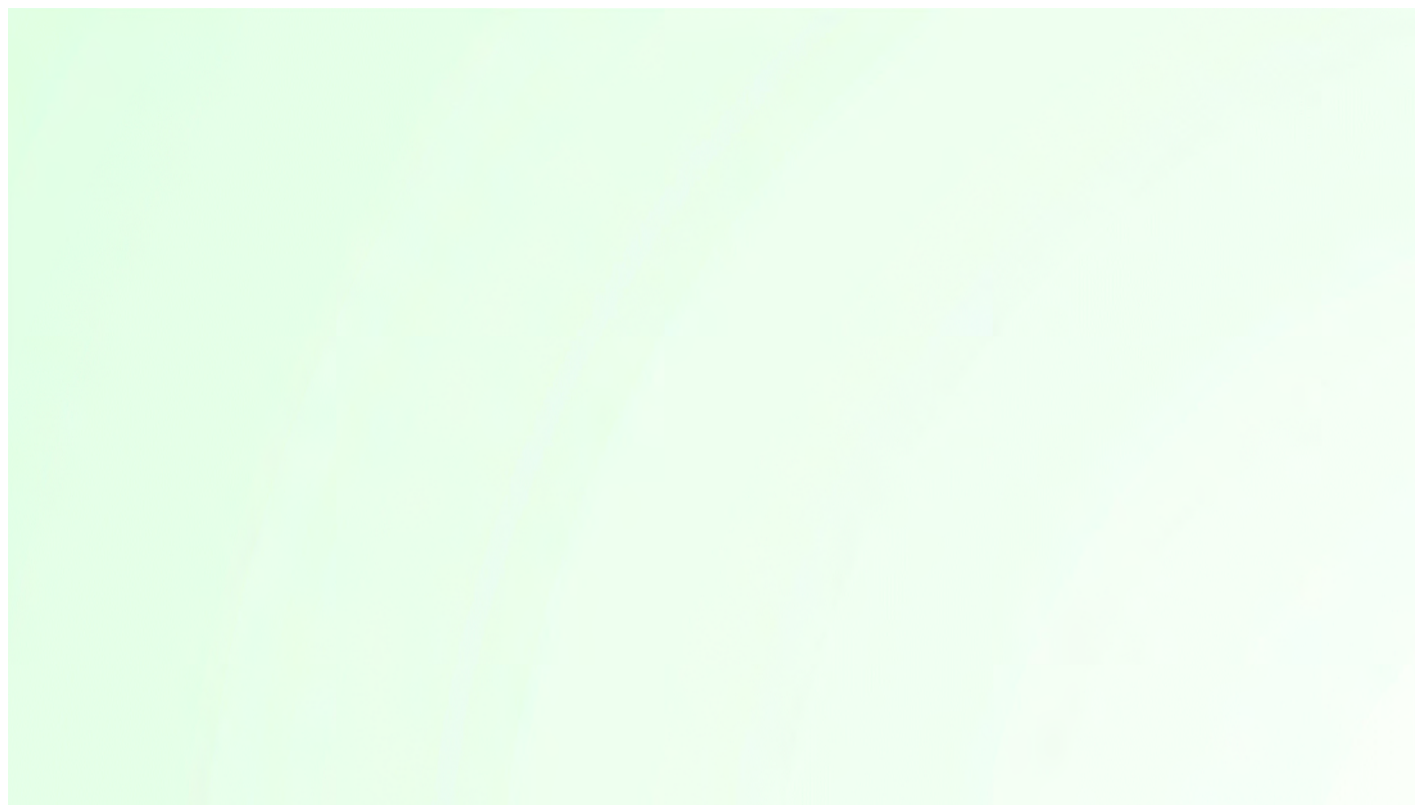


COL. W.F. CODY  
BUFFALO BILL  
WILL APPEAR  
AT EVERY PERFORMANCE



# THE VISION OF HABITS

(HEALTH  
ADVANCES  
THROUGH  
BEHAVIOURAL  
INTERVENTIONS)



**MEDICAL AND  
HEALTH SCIENCES**



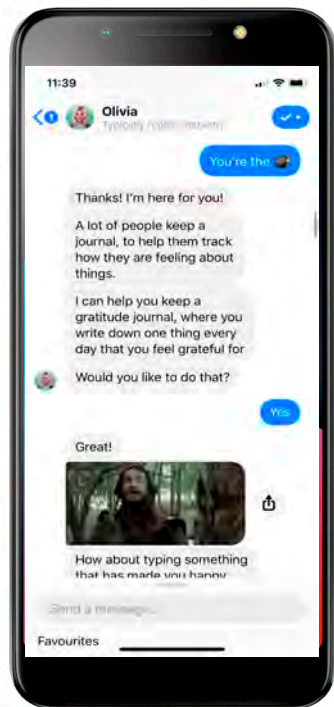
National  
**SCIENCE**  
Challenges

A BETTER  
START

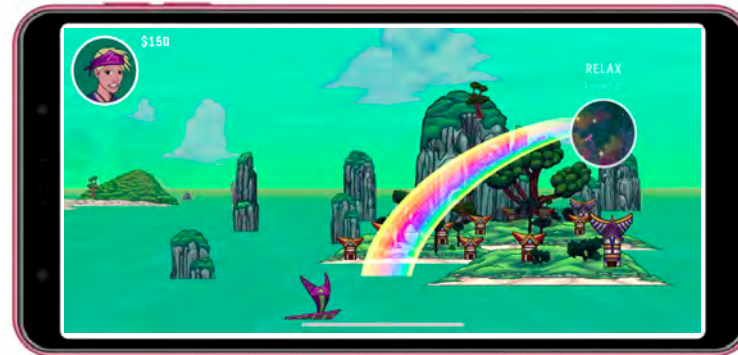
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# But first, clinical trials....

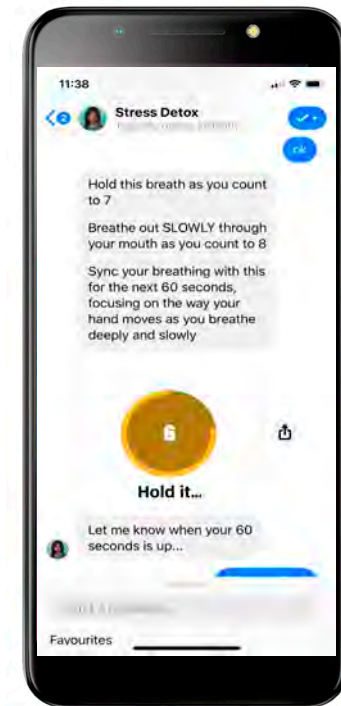
HeadStrong (wellbeing chatbot)



Quest Te Whitianga



21-Day Stress Detox



## Co-design is:

Working with the community as active participants in the design process, to create shared value









# CO-DESIGN IN PRACTICE

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Labour intensive

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Design is a creative process – at odds with an academic/scientific approach

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Challenging to do at school (lunch-time is only 50 min)

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Ideally done with the target audience

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Young people are a very discerning audience... but also tend to please adults (and their views change)

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Managing expectations vs. (pragmatic/financial) reality

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Young people's views vs. 'expert' views

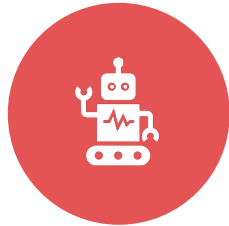








# RAPID PROTOTYPING AND RAPID TRIALS - **IN PRACTICE**



1<sup>ST</sup> PROTOTYPE (MVP) - ABOUT 1 YEAR (ETHICS, SCOPING, CONSULTATION, CO-DESIGN, TECHNICAL CHALLENGES)



2<sup>ND</sup> PROTOTYPE - BACK TO THE DRAWING BOARD, LESS INTENSIVE CO-DESIGN, MORE FOCUSED WORKSHOPPING



WATCH OUT FOR TECHNICAL DELAYS (TESTING, TESTING, TESTING)



ACADEMIC VS. COMMERCIAL TIMELINES



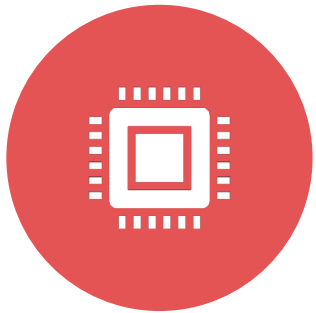
PLANNED 'RAPID RCT' - 5 MONTHS TO RECRUIT 25 ELIGIBLE PARTICIPANTS





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# RCT AND PSYCHOSOCIAL PLACEBOS - **IN PRACTICE**



RCT - the gold standard of research methodologies - is it compatible with the pace/demands of digital tech?



Making a digital health placebo control is more difficult than you think!



Is there a suitable psychosocial placebo control in eHealth?



Think twice what you can/should do in-house and what you should contract out



**APPROVED**



# SECURING ETHICS APPROVAL - **IN PRACTICE**

- Time consuming (duh!)
- Consider an application that is wide enough in scope to let you do more than one thing
- Assume 'zero history' for each application
- Expect lack of consistency - reviewers change, decisions are subjective
- Ethics committees like to see you in person
- Aim for small wins
  - we convinced the Committee that 13 and over can consent for themselves for one of our trials
  - but struggled with an an application for a chatbot on Facebook Messenger for older teens





# 'IT'S EASY AND IT'S ALL ONLINE' - **IN PRACTICE**

- Online portal (for consenting, randomization, assessment) - how to reconcile the needs of ethical and rigorous research vs. young people's expectations?
- Research assistants are more expensive and there are logistics to be considered...
- But it's much easier to ignore emails/SMS than a research assistant - data completion suffers vastly
- Risk protocol and school holidays: 10-12 week long trials are not a good fit for a NZ school term
  - Back off Term 4





# ASSESSING EFFICACY AND ENGAGEMENT - IN PRACTICE



Online screening determines whether you enter RCT or 'engagement' trial



Registration → consent → baseline → download the app (and log into it!)



Issues with PHQ-A item 9



Need to screen 2.5 participants to enter 1 into the RCT



Completion of post-intervention around 33%

Is 4 week intervention too long for an app?



Re-designing the trial to increase sample size and retention

Improving eligibility criteria and timing of assessments





# INCENTIVES - **IN PRACTICE**

- Surprisingly hard to find a suitable voucher for adolescents
- ... even harder to find one that is electronic (and one that is approved by the host institution)
- \$10 seems OK to incentivize at baseline but less so for follow-ups?
- Torous, Lipschitz, Ng, Firth (2019) - *Dropout rates in clinical trials of smartphone apps for depressive symptoms: a systematic review and metanalysis*, Journal of Affective Disorder.
  - Estimated 50% dropout (taking into account publication bias) and not related to paid or unpaid participation (adult samples)
- Consider other ways to make forms easier to fill out (fewer forms, one click, embed into the app, at the right time, human support)



# TRIALS WITH FACEBOOK MESSENGER CHATBOT - **IN PRACTICE**

- 'Conversational agents' assumed to be more engaging than web- or app-based interventions

A tale of two chatbot studies...

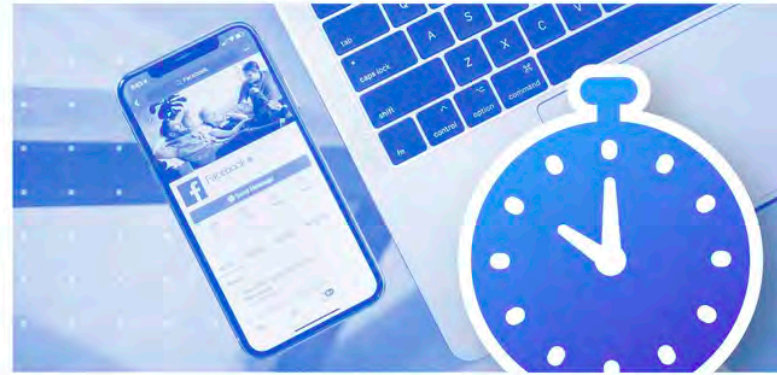
- *Ruth Williams: 21-Day Stress Detox, a chatbot for tertiary students*
  - Quick approval from Ethics Committee
  - Successful recruitment and data collection
  - Evidence of acceptability, good adherence and efficacy
- *HeadStrong: 'Wellbeing in your pocket' for adolescents 16-18*
  - Ethics Committee had multiple concerns
  - Term 4 - not a great time to recruit adolescents
  - Engagement varies a lot and data completion suffers; need more data to learn more



AND THEN...

# Facebook Messenger Changes and The Future of Chat Marketing

Messenger Marketing, News - 9 min read



# MUST HAVE'S FOR SUCCESS

- Research Fellow/Project manager (with super powers)  
- Dr Sarah Hopkins
- Boutique firms/software design partners (skin in the game)
- Champion study sites (20/80 rule)
- Long-term research partners you can rely on (KYS)
- Balance of inhouse expertise and dedicated contractors
- Great team (and frequent writing retreats)!





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