CO-DESIGN FOR DIGITAL HEALTH: INSIGHTS FROM CREATING AN OPEN ACCESS COURSE, METHODS LIBRARY, AND PILOT SUPPORT SERVICE FOR THE KING'S HEALTH PARTNERS DIGITAL HEALTH HUB

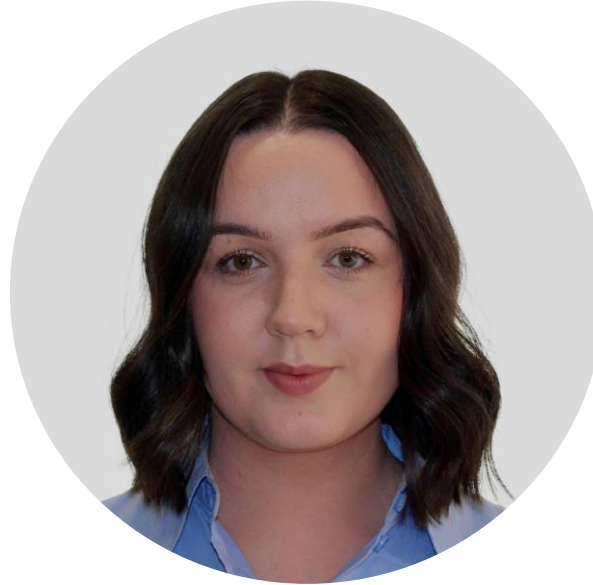## DR LILI GOLMOHAMMADI, EMELIA DELANEY & LANA SAMUELS

KING'S HEALTH PARTNERS

Who are we?

Dr Lili Golmohammadi

Research Associate

Emelia Delaney

Research Associate

Lana Samuels

**Patient and Public Involvement
and Engagement member**

This session at a glance...

- **Introduction to the King's Health Partners Digital Health Hub: who we are and what we do**

- **What is co-design and digital health?**

- **Our work so far...**

- **In discussion with one of our Patient and Public Involvement and Engagement (PPIE) members...**

- **Feedback and questions!**

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Digital Health Hub

You are here: Home   >   Our work   >   Digital health and data sciences   >   Digital Health Hub

The King's Health Partners Digital Health Hub is an accessible national multi-disciplinary resource made possible by investment from the Engineering and Physical Sciences Research Council (EPSRC).

The Hub supports training, co-creation, translation and the acceleration of digital health technologies.

The Digital Health Hub brings together expertise from across King's Health Partners, including representatives from NHS and social care, patients and the public and industry partners, to provide support, share knowledge, and create opportunities to promote UK digital health.

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Launch of the KHP Digital Health Hub - March 2024
From a UK research institute
Copy link
Watch on ▶ YouTube

Co-design team

Professor Glenn Robert
Research Profile
Glenn Robert is Vice Dean (Research & Impact) and Head of Division, Methodologies at King's College London. His research in organisational studies and sociology focuses on healthcare innovation, quality improvement, and co-production/co-design.

Professor Louise Rose
Research Profile
Louise Rose, RN, PhD is a Professor of Critical Care Nursing and Research Division Head at King's College London, UK and an honorary Professor in Critical Care and the Lane Fox Respiratory Unit at St Thomas' Hospital in London. Her research aims to improve outcomes and experiences for mechanically ventilated patients from emergency to home care.

Professor Wei Liu
Research Profile
Wei Liu is a Professor of Design Engineering and Innovation, with extensive teaching, research and leadership experience across design, engineering and management. Wei is also Co-Editor of The Design Journal, the official journal of the European Academy of Design (EAD)

Dr Siobhan O'Connor
Research Profile
Siobhan O'Connor is a Senior Lecturer at King's College London who researches how to co-design digital health technologies with patients to support self-management.

Dr Lili Golmohammadi
Research Profile
Lili Golmohammadi is a Research Associate in digital health co-design at King's College London. She has a multidisciplinary background in design, technology, and social research.

Emelia Delaney
Research Profile
Emelia Delaney is a Research Associate in digital health co-design at King's College London with experience in environmentally sustainable design, design processes, and design management.

Patient and Public Advisory Group

Helping DHH projects establish consistent, meaningful patient and public involvement and engagement (PPIE)

UK RI Engineering and Physical Sciences Research Council

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What is co-design?

Co-design is the process of creating and/or developing a product or service in collaboration with *all* those involved in using and realising that product or service.

What co-design isn't...

- Already deciding what you think the issue or solution is

- Working with people on just one phase of the process (there is not a single 'co-design phase'!)

- Stopping people say "no" - (vetoing) an idea

Engineering and Physical Sciences Research Council

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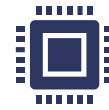# Co-designing a digital health technology

Defining 'digital health'

'Digital health' combines digital technologies with health and care. Examples include:

Smartphone apps & online tools for treating or diagnosing conditions, preventing ill health, or promoting public health

Programmes to analyse data from medical devices (such as scanners, sensors, or monitors)

Implants

Virtual Reality (VR)

Artificial Intelligence (AI)

Wearable devices

Robots

Standalone software and interfaces

What should a co-design for digital health course, methods library, and support service look like?
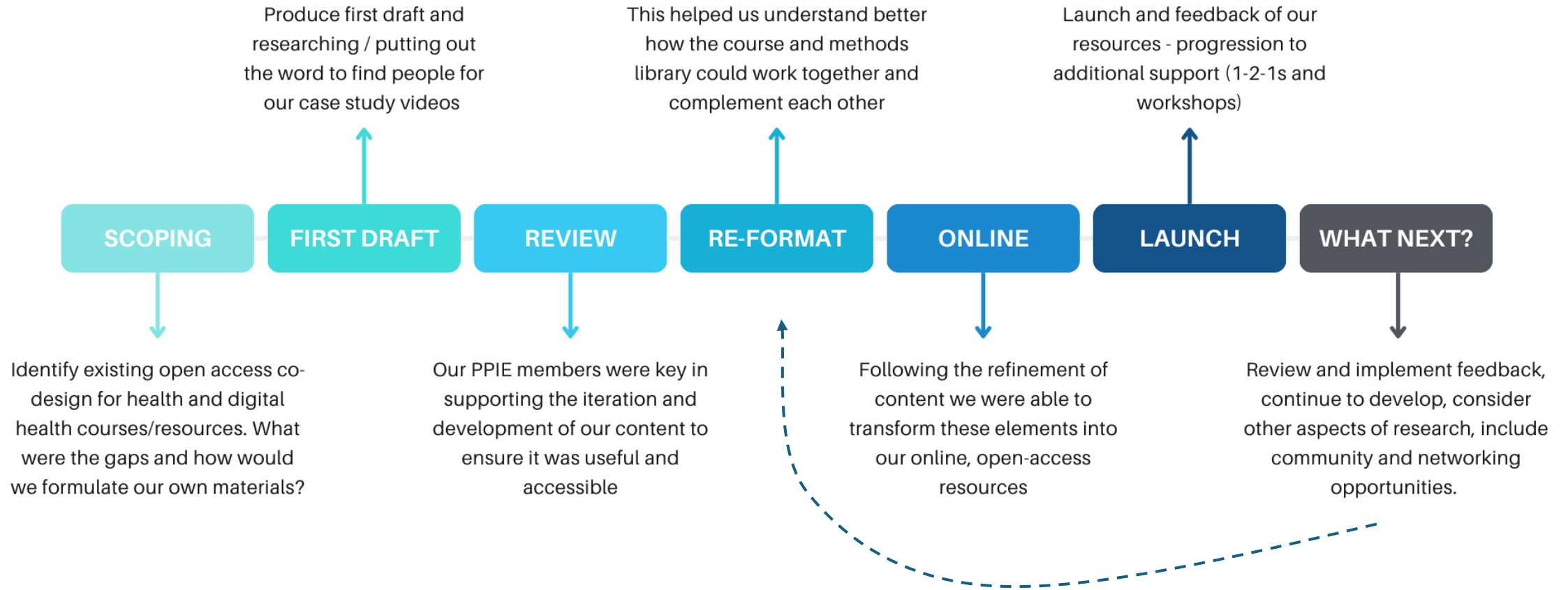

Image by MetsikGarden, on Pixabay

Our journey so far...

Produce first draft and researching / putting out the word to find people for our case study videos

This helped us understand better how the course and methods library could work together and complement each other

Launch and feedback of our resources - progression to additional support (1-2-1s and workshops)

SCOPING — **FIRST DRAFT** — **REVIEW** — **RE-FORMAT** — **ONLINE** — **LAUNCH** — **WHAT NEXT?**

Identify existing open access co-design for health and digital health courses/resources. What were the gaps and how would we formulate our own materials?

Our PPIE members were key in supporting the iteration and development of our content to ensure it was useful and accessible

Following the refinement of content we were able to transform these elements into our online, open-access resources

Review and implement feedback, continue to develop, consider other aspects of research, include community and networking opportunities.

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Our resources...

Online Course

Co-design for Digital Health course

Course Overview
The 'how to' of co-designing digital health innovations

- Written by experts
- Introductory
- Open Access
- 100% online (Asynchronous)
- Multiple choice quiz
- Approx. 3 hours to complete
- Completion certificate

Enroll on this course

About this course

Co-design, the process of creating and developing a product or service in collaboration with all those involved in its use – can be a hi way to improve digital health and care, as well as business outcomes.

This 6-part online course offers an introduction to the foundations of co-design, how to get a digital health project started, and the fo 'Double Diamond' – a design framework which will help you structure your co-design process. You will be introduced to a range of co- and tools to help you first 'discover' and 'define' a healthcare issue or opportunity that needs addressing, and then 'develop' and 'deli health solution. Case studies featured throughout the course highlight challenges, offer advice, and showcase co-design methods an

Foundations of Co-Design

What is this section about?

In this session we explore what co-design is, as well as what it is not – and why we should use co-design. We also explore some of the potential challenges and 'tragedies' of co-design, and hear advice for addressing some of these through our case studies.

CO-DESIGN FOR DIGITAL HEALTH
PART 1 – FOUNDATIONS OF CO-DESIGN: DR LILI GOLMOHAMMADI

To ensure a better experience whilst watching this lecture, enlarge the screen

This video has an option of enabling and disabling captions

View Section 1 slides

Now underline(live!)

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Our resources...

Methods Library

Persona Profiles

What's involved?
Creating character sketches of (different types of) the people using a product or service, the personas you create will ideally be informed by your earlier research, for example, they may be composites of end users who you have interacted with previously, such as patients or healthcare professionals. Consider factors such as age, gender, education, accessibility criteria, diverse needs, interests, and habits to build a well-rounded persona profile.

Why use this?
Persona Profiles can be a great method to imagine and remind yourself of your intended end user. When you and your participants start to develop your digital health product or service, you can then refer to your persona profiles to ensure your end user remains central to your development process – for example at key decision points you can ask yourself questions about what your persona might do or think in each situation.

JIMMY
Jimmy wants to use technology to help him make music

ABOUT
Moved from Jamaica at 3, but visits every year
Used to be a batsman and supported Essex
Is a retired bus driver
Likes to spend time relaxing on the seafront
Sings in a rhythm and blues band

TECHNOLOGY
Wants to find videos and lyrics to practice for choir.
Can read text messages BUT finds it hard to write with phone

Co-created persona, Neate et al (2019)

Journey Maps

What's involved?
A visual representation of a service user's journey through a product / service over time, showing all the different interactions they have.

Image by Glenn Robert

Why use this?
It allows you to see what parts of the product / service works for service users ('magic moments') and what parts might need improving ('pain points').

How is this done?
- Identify all the key points you know about your user(s). What is it that motivates them? What do they want to achieve and why?
- Identify the key elements of a process / product / service / experience / system.
- Map their journey from the start to end. Consider all the touch points, including those 'front' and 'back' stages.
- Understand the links between all the different elements over time.
- Identify issues and needs in a service or areas where new things can be added.
- Once you have completed this, cluster which aspects you think are essential and group them into key themes and insights.

Now live!

Our support service...
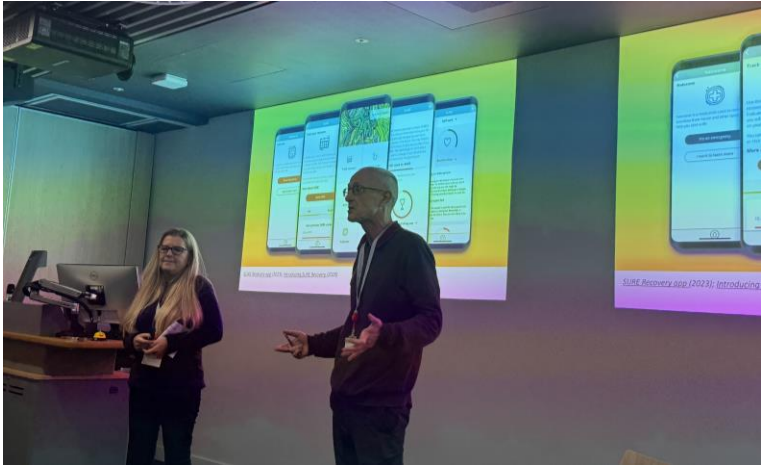
Workshops and 1-2-1s

Workshops   **1-2-1s**

Our workshops...

Planning and Facilitating Design Workshops

In conversation with one of our Patient and Public Involvement and Engagement members...

Feedback & Questions?