Getting Started in Clinical UX

Dr Gyles Morrison MBBS MSc
Clinical UX Strategist

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Hi 👋,
I’m Gyles

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THE
BLACK UX
SOCIETY

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What is Clinical UX?

How Clinical UX differs from other forms of UX

UX

The **experiences** people have with **anything designed**

Healthcare UX

The experiences people have with **healthcare technology** and **services**

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Healthcare UX

Clinical UX

The experiences **clinicians** and **patients** have with **healthcare technology** and **services**

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The Clinical UX Pillars

The main principles that define Clinical UX

The Clinical UX Pillars

1. **Humanitarian Design**
   Everyone deserves to live a life with dignity, using products and services that respect their humanity

2. **People-Centred Design**
   The needs, wants and limitations of all people affected by a solution are kept at the centre of the design process.

3. **Cyclical Design**
   The design process is an endless series of cycles to learn, improve and solve problems

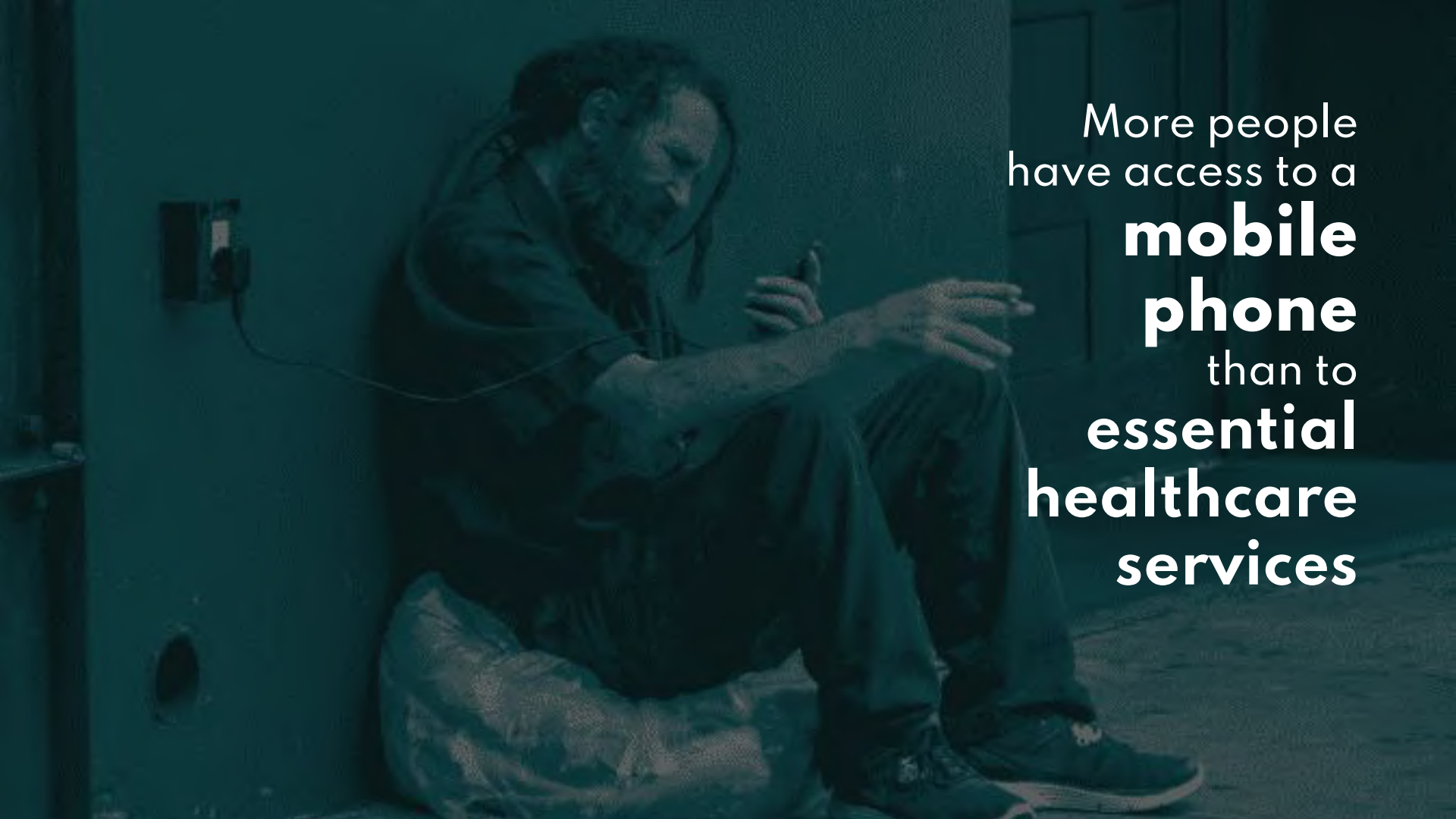
4. **Evidenced-Based Design**
   Facts and scientific findings support decision making and designing, proving the value of solutions

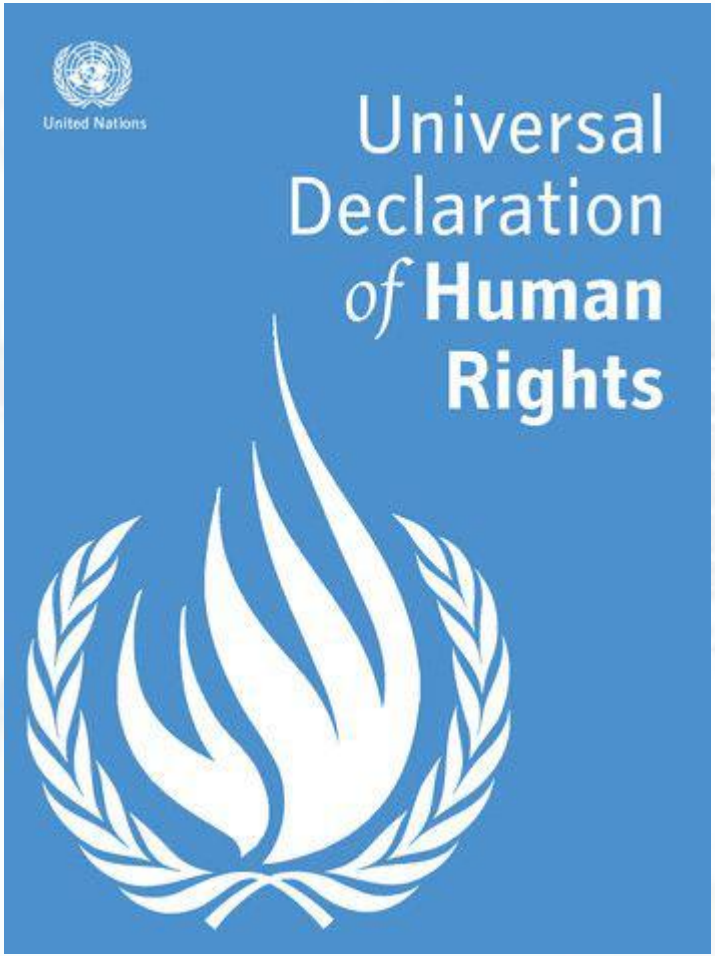
5. **Ethical Design**
   Solutions, and the means to make them, should be morally just for all who use or are impacted by them.

The Clinical UX Design Pillars

1. Humanitarian Design

Everyone deserves to live a life with dignity, using products and services that respect their humanity


More people
have access to a
mobile
phone
than to
essential
healthcare
services



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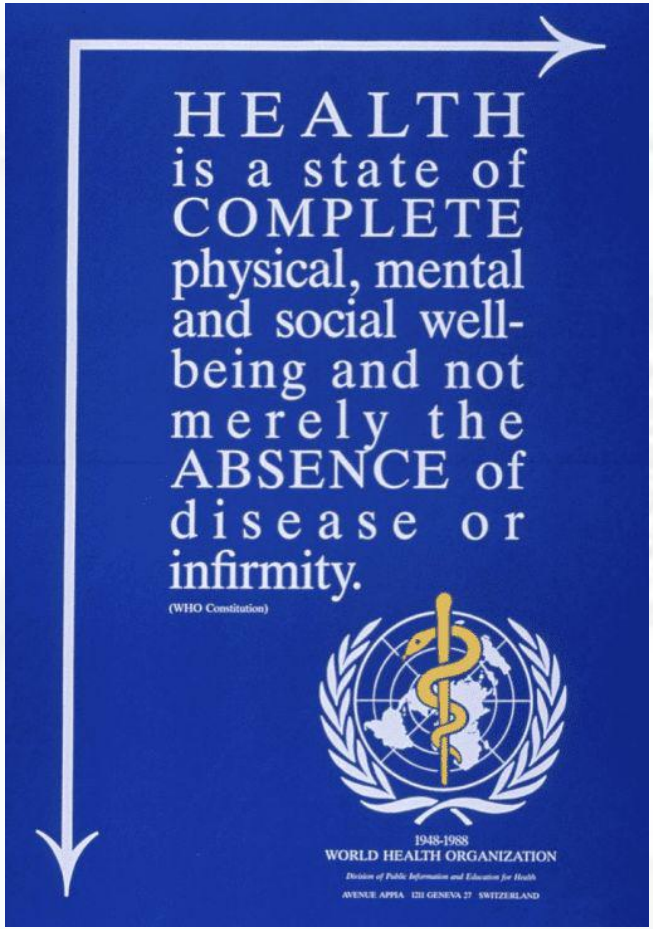

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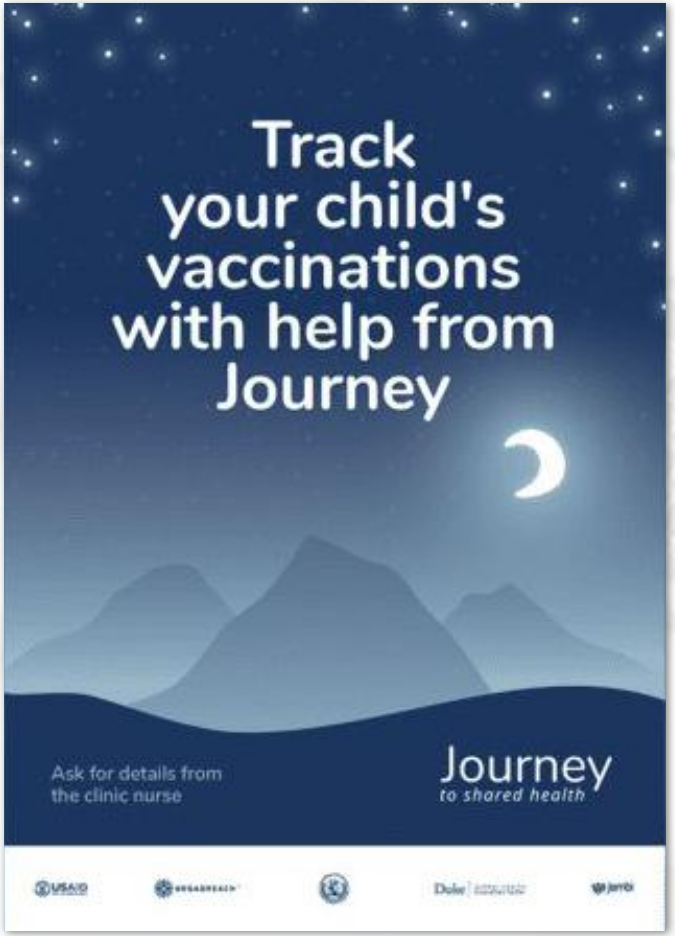
USAID
Know
your child's
vaccination
status with
pride today



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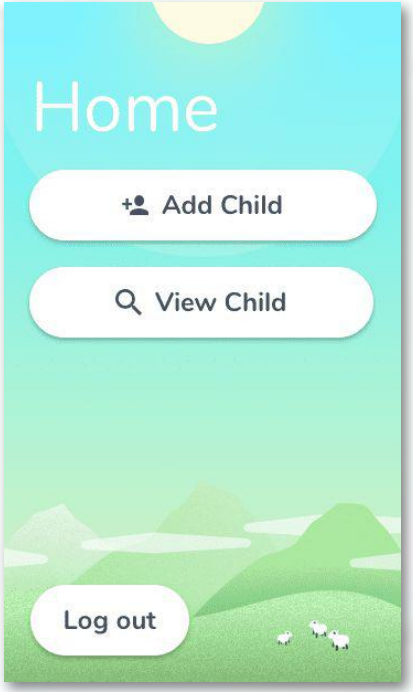
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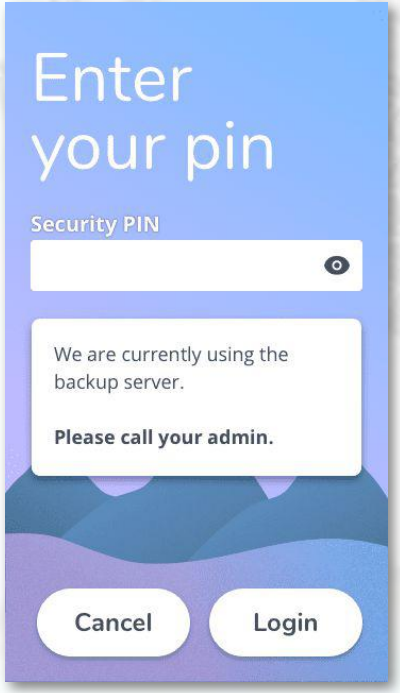
Add Child
View Child
Log out


Enter your pin
Security PIN
We are currently using the backup server.
Please call your admin.
Cancel
Login

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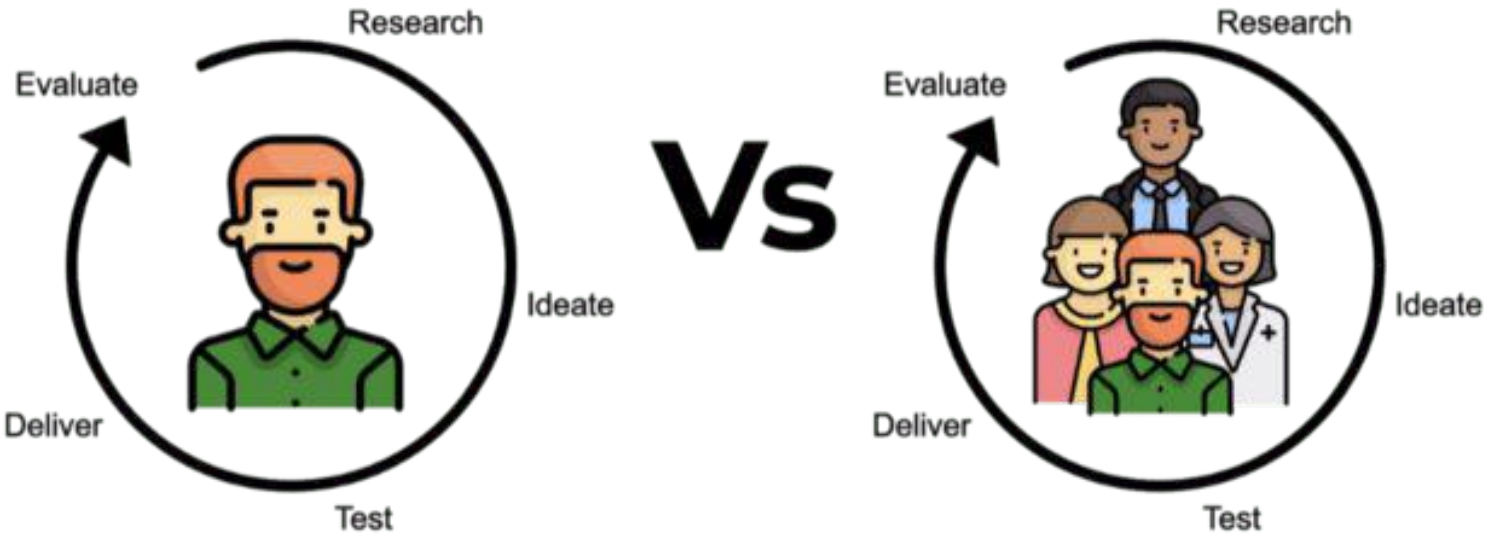
2. People-centred Design

The needs, wants and limitations of all people affected by a solution are kept at the centre of the design process.

People-Centred Design



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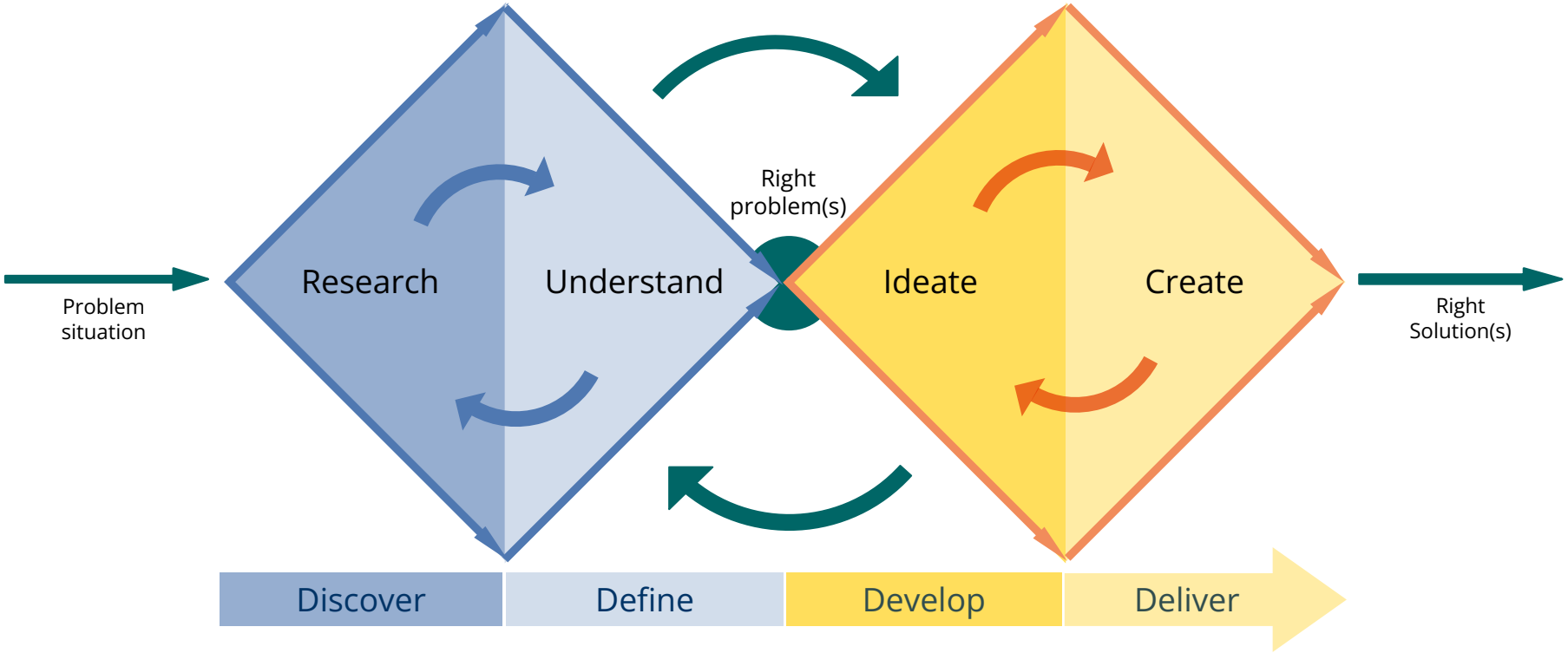
The Clinical UX Design Pillars

3. Cyclical Design

The design process is an endless series of cycles to learn, improve and solve problems

The Double Diamond Design Process



"If I live in Bradford and fall ill in Birmingham, I want the NHS to be able to treat me,"

Tony Blair – Ex UK Prime Minister
1998

"***The original vision for the National Programme for IT in the NHS will not be realised***. *The NHS is now getting far fewer systems than planned despite the Department paying contractors almost the same amount of money. This is* ***yet another example of a department fundamentally underestimating the scale and complexity of a major IT-enabled change programme***."

Amyas Morse, head of the National Audit Office

National Programme for IT

NP*f* IT

Budget 2002

£2 Billion

£4 Billion

£6 Billion

Final Costs 2011

£12-20 Billion

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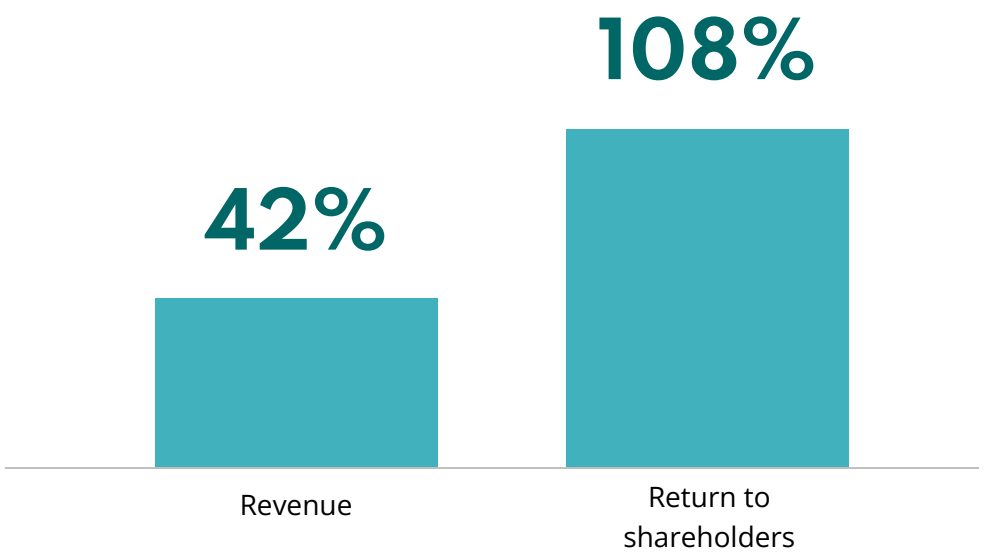
The Clinical UX Design Pillars

🔍 4. Evidenced-based Design

Facts and scientific findings support decision making and designing, proving the value of solutions

Evidence-Based Design



Total increase in revenue and return to shareholders for Medical Technology companies which embeds design from the top down compared with peer companies that don't.

Source: McKinsey Value of Design survey of 300 global companies, July 2018.

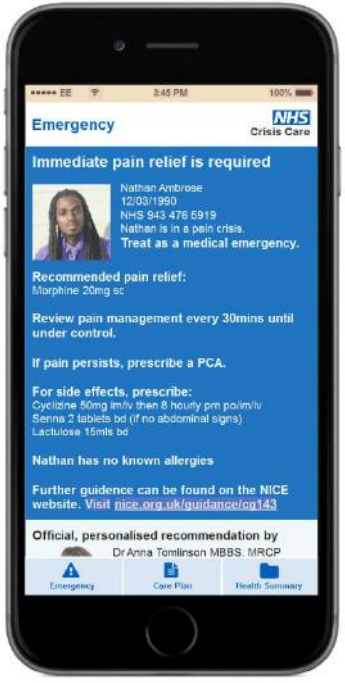
Evidence-Based Design

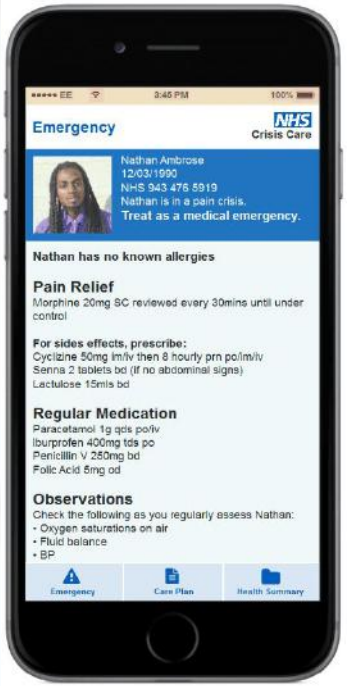
1:10:100

Prevention	Correction	Failure
Research	Design	Development/ Deployment

Source: George Labovitz and Yu Sang Chang, 1992, Making Quality Work

Sickle Crisis Care





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The Clinical UX Design Pillars

⚖️ 5. Ethical design

Solutions, and the means to make them, should be morally just for all who use or are impacted by them.

DARK PATTERNS

"...are tricks used in websites and apps that make you do things that you didn't mean to, like buying or signing up for something."

darkpatterns.com

We identified 6 systematic reviews including 23 [Randomised Control Trials] evaluating 22 available apps that mostly addressed diabetes, mental health and obesity. Most trials were pilots with small sample size and of short duration. Risk of bias of the included reviews and trials was high. Eleven of the 23 trials showed a meaningful effect on health or surrogate outcomes attributable to apps.

In conclusion, we identified only a small number of currently available stand-alone apps that have been evaluated in RCTs. The overall low quality of the evidence of effectiveness greatly limits the prescribability of health apps.

Byambasuren, O., Sanders, S., Beller, E. et al. Prescribable mHealth apps identified from an overview of systematic reviews. npj Digital Med 1, 12 (2018).

Clinical UX Competencies

The main skills and knowledge required

Clinical UX Competencies

UX	Healthcare UX	Clinical UX
User -centred design	HCPs and Patients Personas	Decision support
Exploratory Research	People Centred Design	Digital Therapeutics
Explanatory Research	Public Health and marketing healthy living	Telehealth
Experience Mapping	Healthcare branding	Remote monitoring
Information Architecture	UX writing in healthcare	ePrescribing
Iterative Design	Data visualisation	Clinical trials
Interaction Design	Medical education and patient information	EMR and PHR
Sketching and Wireframing	Health economics	Clinical messaging
Low and High fidelity prototyping	Health insurance vs Public Health	Clinical Applications
UI Design	GDPR, Privacy and Security	Medical Devices and regulations
Evaluative Research	Medical law & ethics	Software as Medical Devices
Stakeholder management	AI and Machine learning	PROMs and PREMs
Agile vs Waterfall	Computer Vision	Clinical Pathways
Storytelling and presentation skills	AR and VR	Care plans

Clinical UX Competencies

Psychology

Applying the theories of how people think and behave, and how research methods can provide insights on making useful healthcare technology and services.

Clinical UX Competencies

Psychology

Healthcare
Behavioural Science

Design

Soft Systems
Methodology

Healthcare

Clinical
Pathways

Technology

Digital
Therapeutics

Professionalism

Clinical UX
Maturity

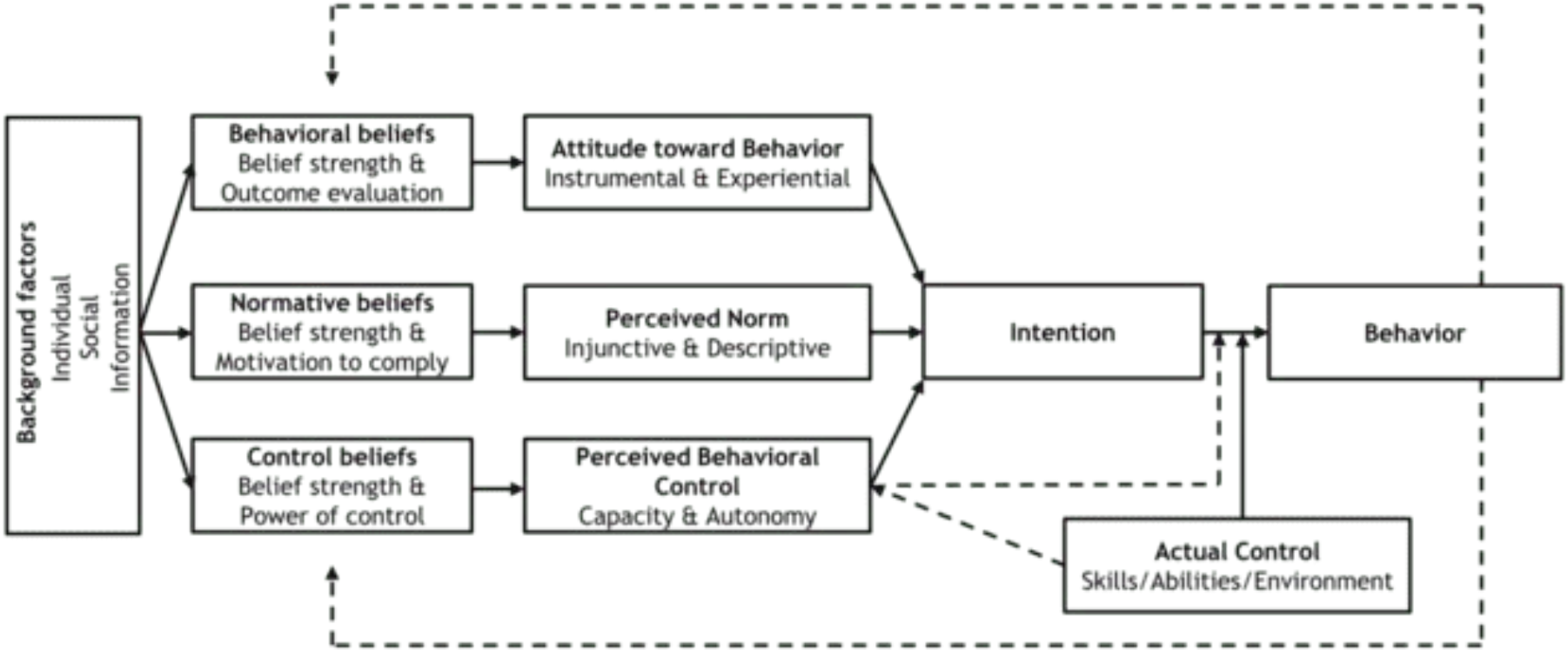
Let’s take a 2min break

Time to stretch

Healthcare Behavioural Science

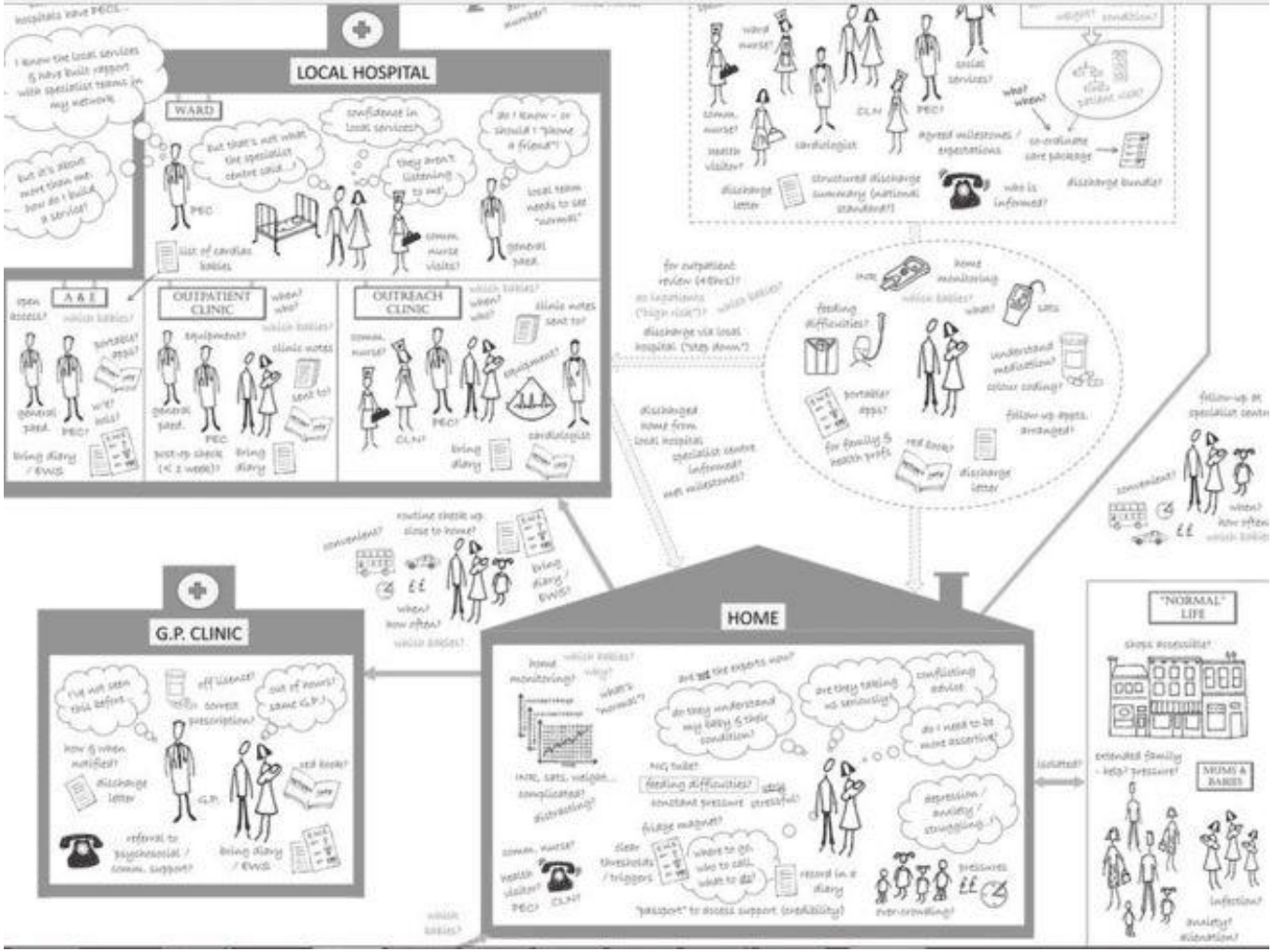
A scientific discipline to explain or predict changes in behaviours of humans and animals to encourage good, or prevent ill, health.

The Reasoned Action Approach



Soft Systems Methodology

A method of understanding complex systems in order to find the best ways to bring positive change.



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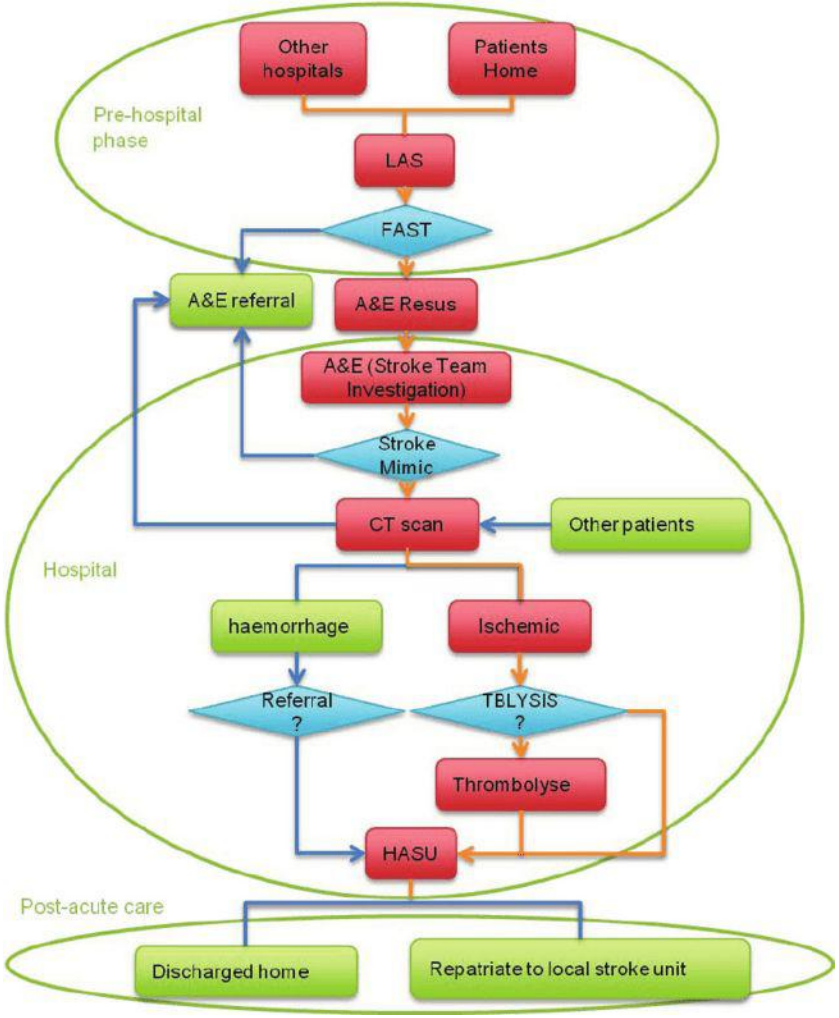
Clinical Pathways

Evidence based, patient care management tools detailing the best way to treat specific groups of patients with a predictable clinical journey.



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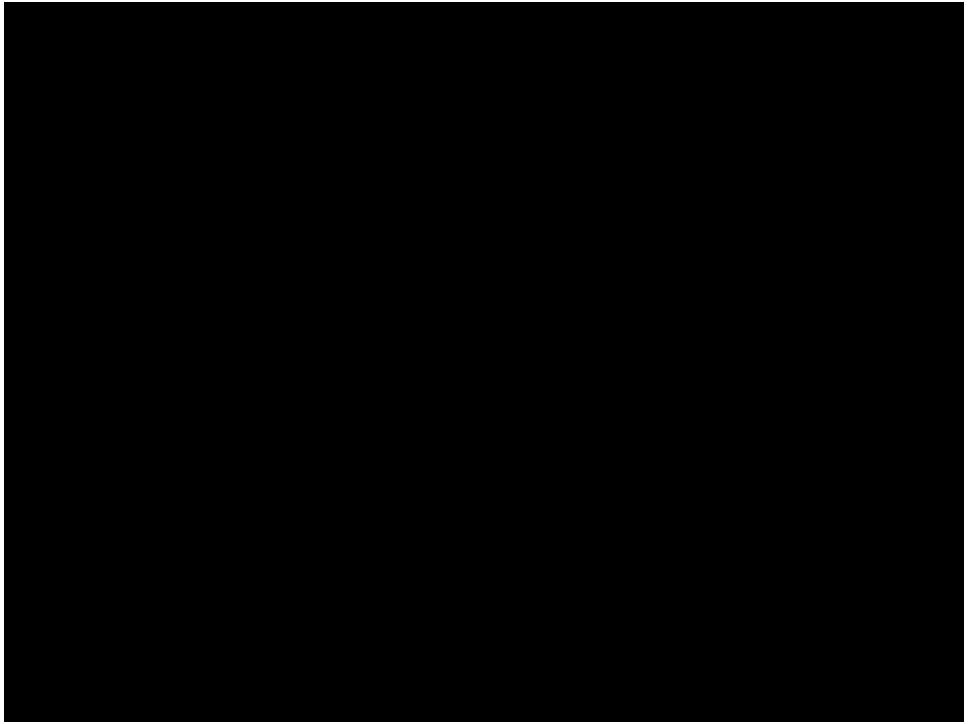
Digital Therapeutics

Any evidence based digital technology that prevents, treats, or manages ill health.

Livongo®
by Teladoc Health



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Clinical UX Maturity

A measure of how developed and embedded Clinical UX principles, practices, and processes are in a product, service, team or organisation.

"Unimaginable" cost of Test & Trace failed to deliver central promise of averting another lockdown

10 March 2021

In May last year NHS Test and Trace (NHSTT) was set up with a budget of £22 billion. Since then it has been allocated £15 billion more: totalling £37 billion over two years.

- Read the report summary
- Read the conclusions and recommendations
- Read the full report: COVID-19: Test, track and trace (part 1) [PDF 330 KB]
- Public Accounts Committee

Clinical UX Competencies

Psychology

Applying the theories of how people think and behave, and how research methods can provide insights on making useful healthcare technology and services.

Design

Knowledge of how to use creative skill to communicate ideas, problem solve, and create diverse products and services.

Healthcare

Understanding of how healthcare is delivered on a global and local level, and what the biggest health problems are that need solving by Clinical UX Designers.

Technology

The use of physical and digital solutions which make tasks simpler and life easier. These solutions can be connected to the internet, utilize radio waves or are purely offline.

Professionalism

Methods and mindsets required to thrive as an individual in any team, engage with colleagues and stakeholders effectively and raise the UX maturity of those around you.

Formal Study

Self Study

Networking

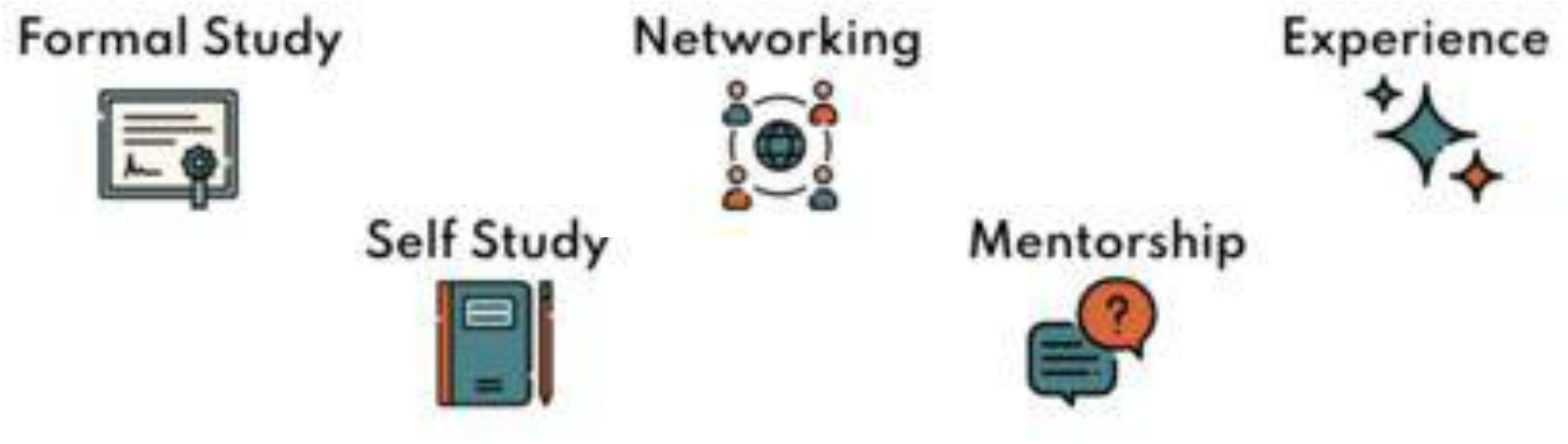
Mentorship

Experience

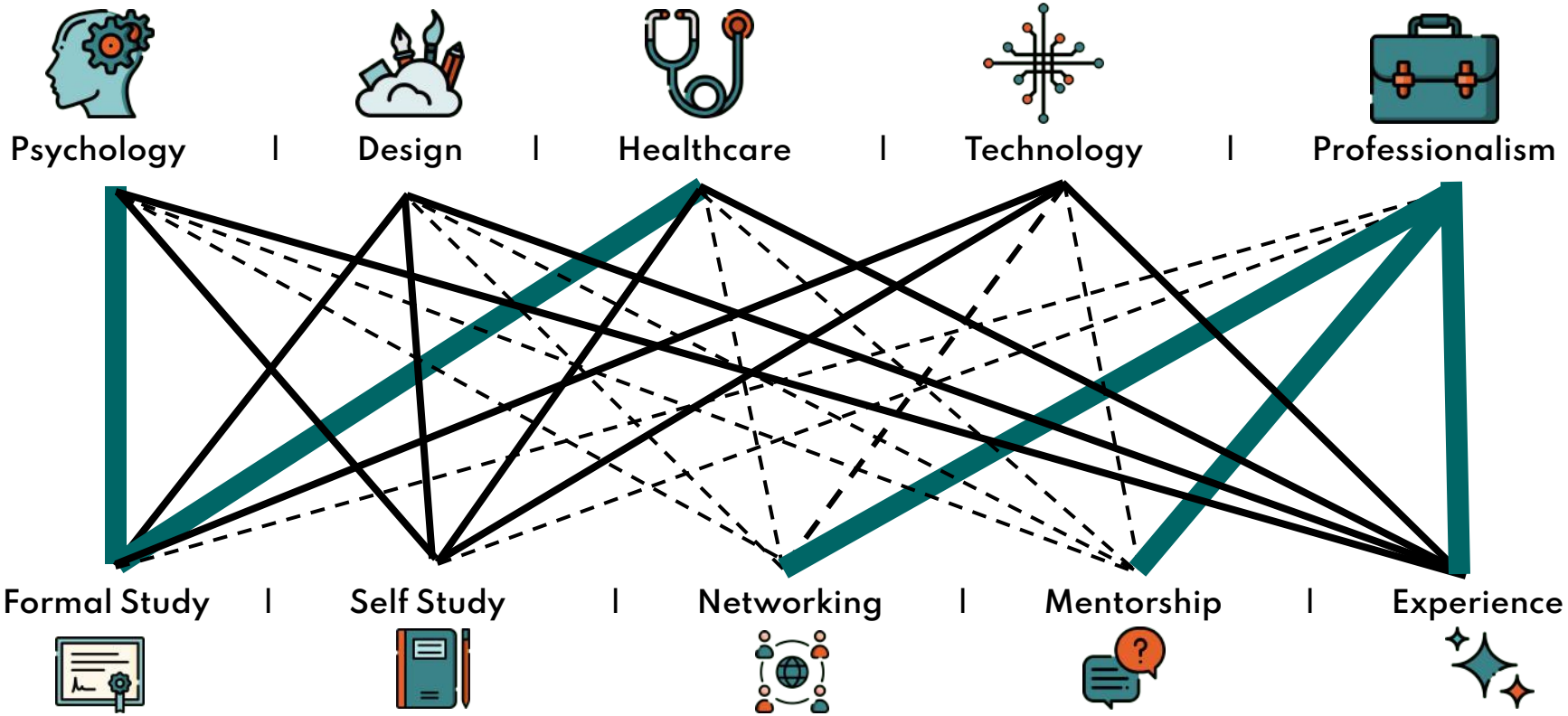
Learning Clinical UX

Options to develop Clinical UX competencies

Learning Clinical UX



Learning Clinical UX



Clinical UX Tips & Tricks

Insights on the challenges in healthcare and how to overcome them

Clinical UX Guidance

Clinical UX is not work everyone can do

It takes training and experience to be good at UX

Clinical UX Guidance

Life as a clinician is hard

A complex lack of resources makes it difficult to give consistently good care.

Clinical UX Guidance

Life as a patient is hard

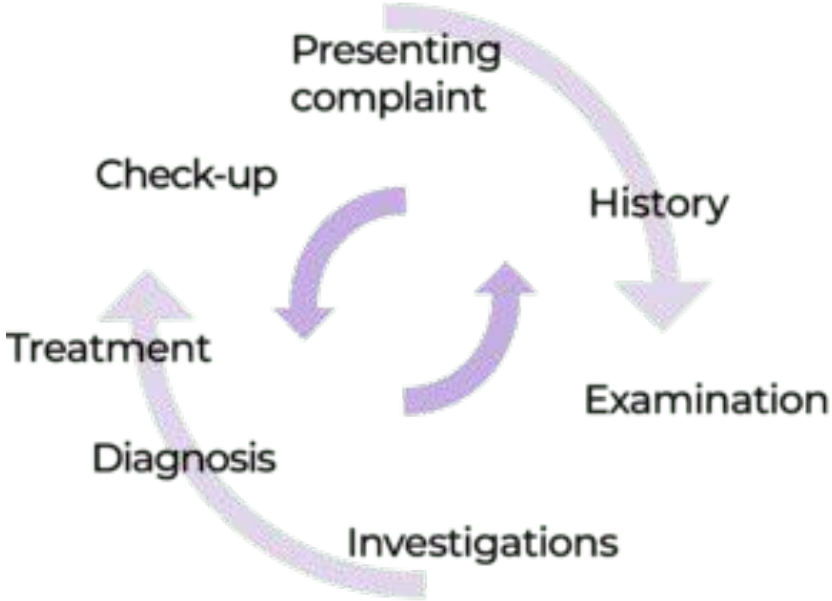
No one fully knows what it's like to be a patient unless you are one yourself

Clinical UX Guidance

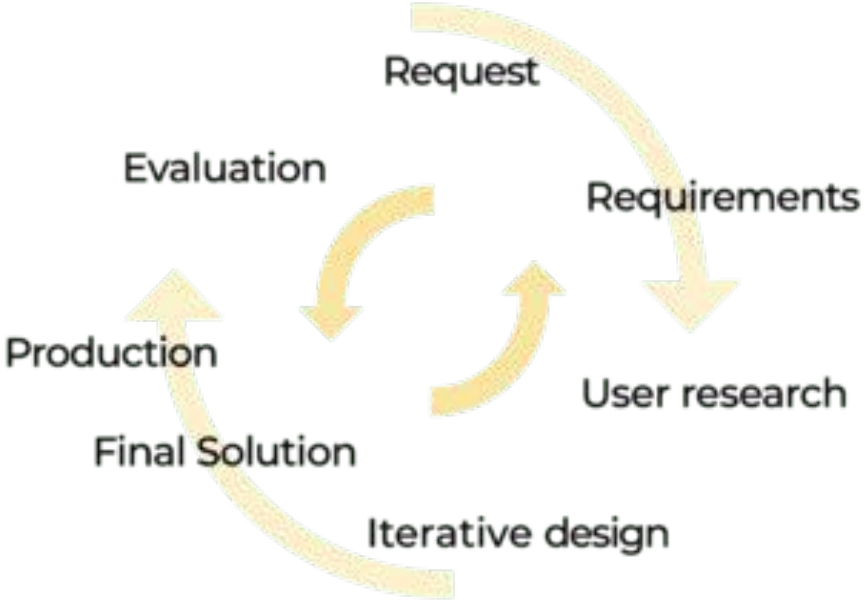
Clinicians inherently understand UX

They problem solve for a living, using a patient-centred care methodology

Diagnosing



Designing



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Clinical UX Guidance

Focus on innovation,not just inventing

Many old solutions are useful today.

Clinical UX Guidance

Accept feeling overwhelmed

No one can know everything and healthcare is complicated

Clinical UX Guidance

Support the greatest health needs

We are only as healthy as our sickest member

Focus on the limiting users and vulnerable people

What is limiting user?

Any **legitimate** user who may have **difficulty** engaging or achieving a goal with a product or service.

Tim

User

Pippa

Limiting User

Laura

Abuser

What is vulnerable person?

Any person who **fails**, or is **at risk of failing**, to have their basic **human rights protected**

The Disabled

The Elderly

The Pregnant

The Young

The Abused

The Homeless

The Impoverished

The Asylum Seeker

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Serve the underserved

What is an underserved person?

Any person whose **needs** are **not met, or actively considered**, by a product or service they can be a **legitimate user** of.

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NHS

This article is more than 2 months old

From oximeters to AI, where bias in medical devices may lurk

Analysis: issues with some gadgets could contribute to poorer outcomes for women and people of colour

Nicola Davis *Science correspondent*

Some research suggest that oximeters work less well for patients with darker skin. Photograph: Grace Carp/Getty Images

The UK health secretary, Sajid Javid, has announced a review into systemic racism and gender bias in medical devices in response to concerns it could contribute to poorer outcomes for women and people of colour.

Writing in the Sunday Times, Javid said: "It is easy to look at a machine and

Most viewed

Doubts cast over AstraZeneca jab 'probably killed thousands'

Live Javid says criticism of Carrie Johnson in Ashcroft book sexist and misogynistic - UK politics live

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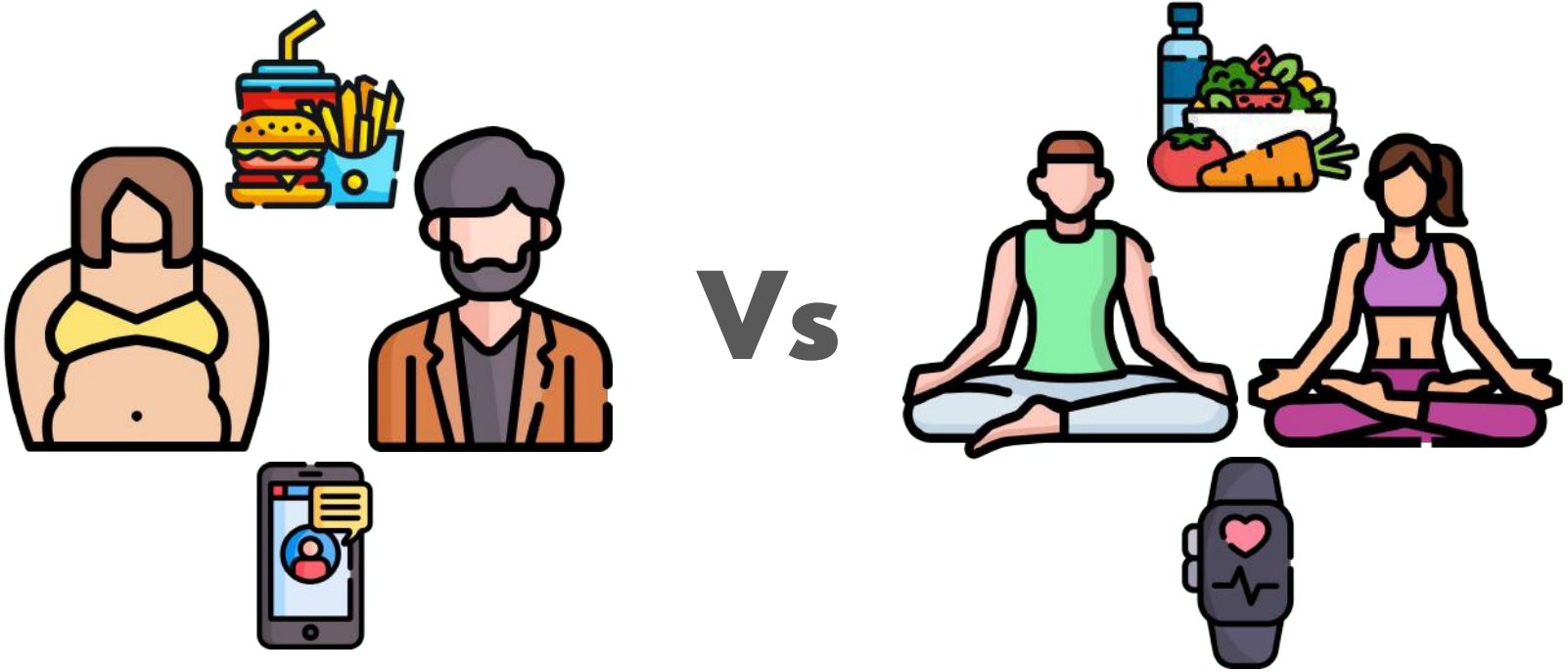

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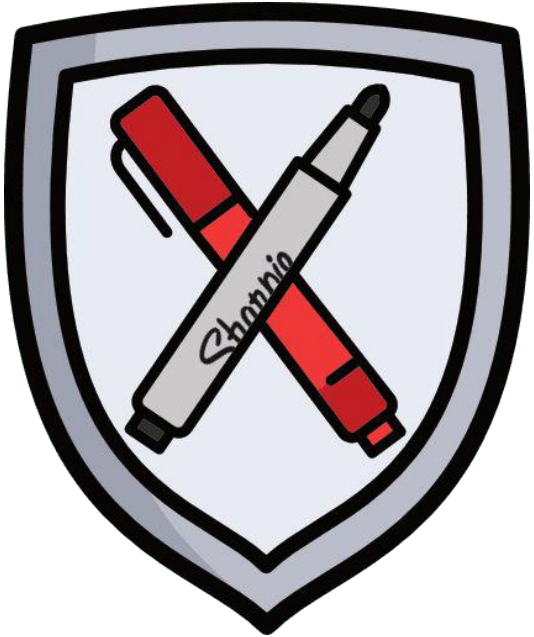
Call To Accept

Call To Action



Call To Arms

Your greatest wealth is your health

THE CLINICAL UX ACADEMY™

Visit

clinicalux.org

to find out more

Thanks for listening

Please stay in touch

Dr Gyles Morrison

@drgylesmorrison

gyles@clinicalux.org

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