FEBRUARY 2022

The value of Human-centred Design in accelerating Pharmaceutical R&D

A Point of View and White Paper

frog Part of Capgemini Invent

There is an opportunity to streamline the complexity of R&D to make the process of drug discovery and clinical trials faster, simpler, more productive and more enjoyable. Through Human-centred Design.

frog partnered with a global pharmaceutical company to save $300m across their clinical trial portfolio by using Human-centred Design to develop a trial management and experience platform.

Reducing complexity

Minimising white space and streamlining processes in a thoughtful way that considers and achieves organisational goals and the individual priorities of stakeholders.

Fostering inclusivity

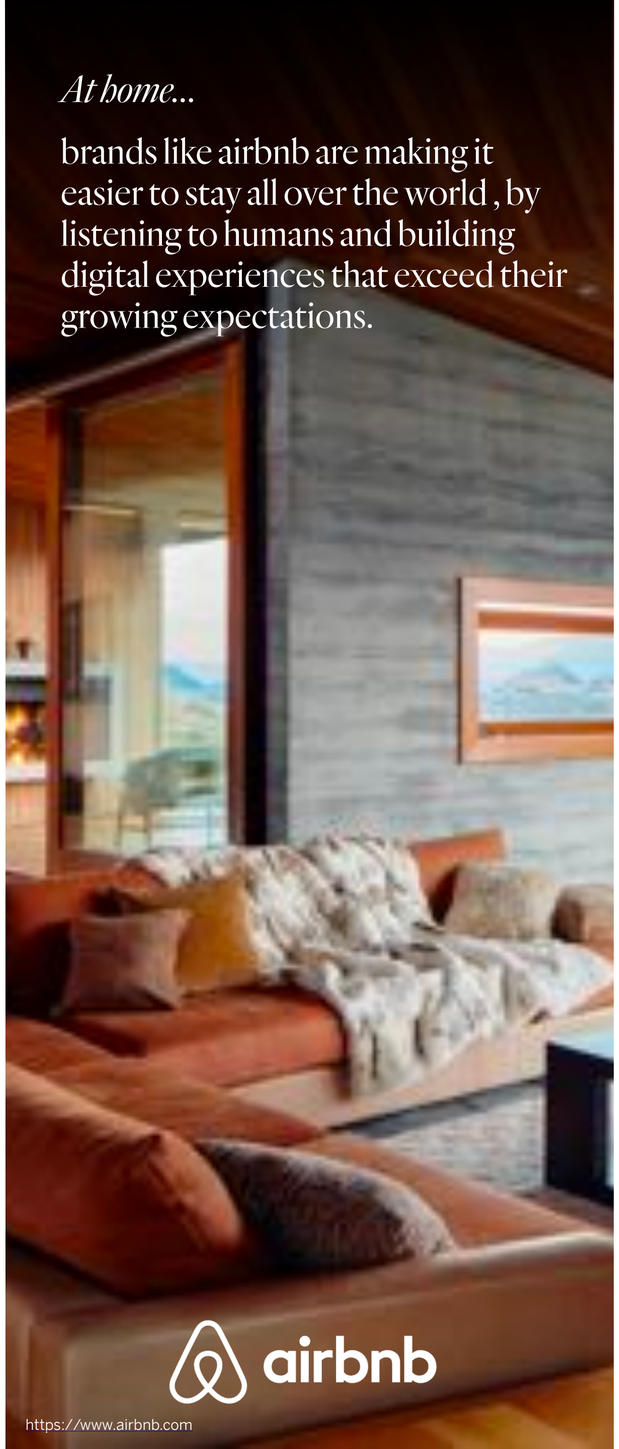
Creating conditions that recognise all viewpoints. Ensuring diversity in all aspects of the R&D process - from executive decision making, to clinical trial participation.

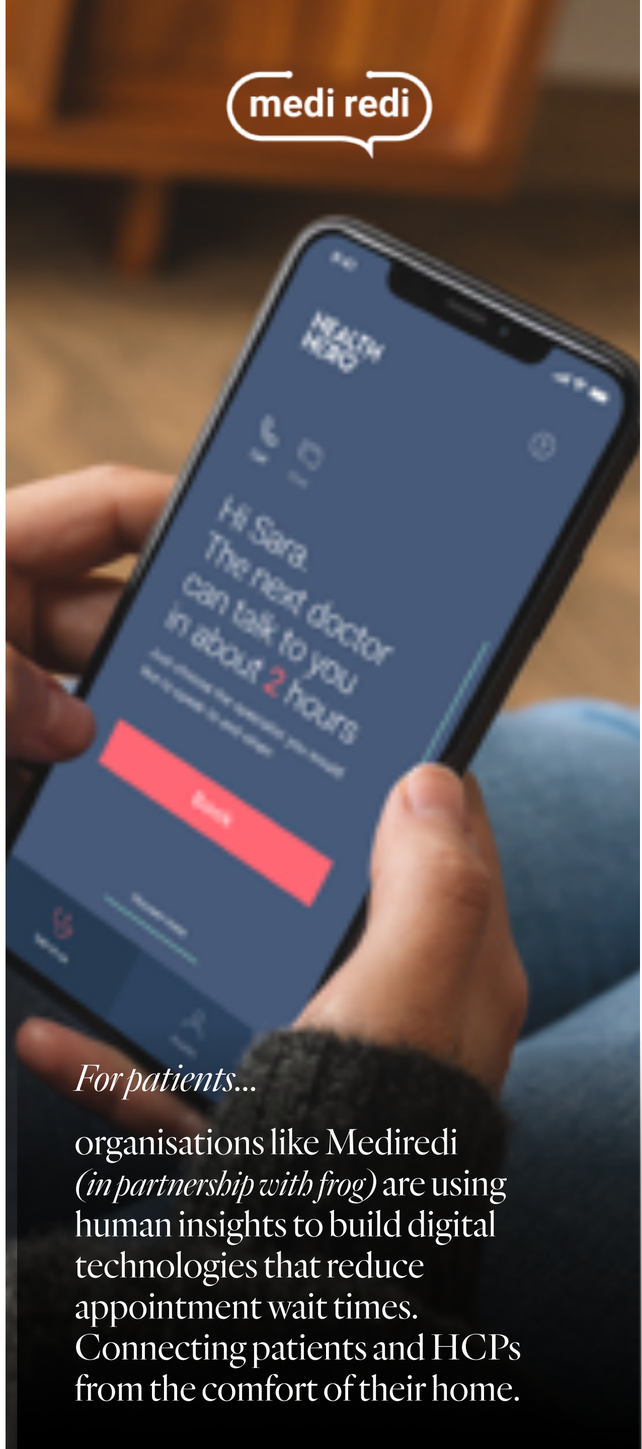
Shaping the right tools

Placing humans at the centre of the process to create intuitive solutions that solve real, everyday challenges. These tools seek to provide command and control over processes and data.

We're all humans and we all need to be productive. Whether at home, in the lab, or as a patient in a trial.

Human-centred Design is an approach to designing services, products and experiences that reduce complexity. It is informed by an understanding of human needs, business goals, and technical feasibility. This also creates a return on investment through: executive command and control of trial operations, faster recruitment, more trials completed, and more empowered researchers.





TRIAL OPERATIONS AND EXPERIENCE

What if you could create conditions that minimise waste, redundancy and white space during trials, whilst also improving the patient and investigator experience?

Clinical trials are difficult to manage and administer due to complexity of communication between the different stakeholders. Complex data collection needs, regulatory and compliance, and a requirement to keep patients engaged in the trial means that often we look to technology to solve the problems.

By examining and rethinking trials at a systems level, Human-centred Design simplifies the whole journey for administrators and patients; reducing unnecessary steps, managing live data and documents, supporting adherence and enabling confident cross-stakeholder decision-making.

CORE BENEFITS

More remotely gathered, accurate and real-time data

Increased patient engagement & trial retention

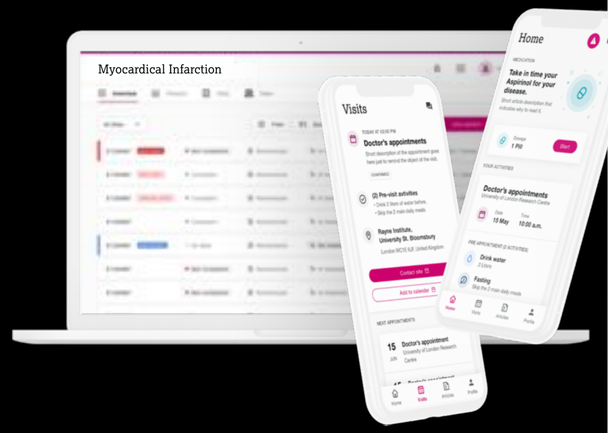
Reduced trial dropout rates

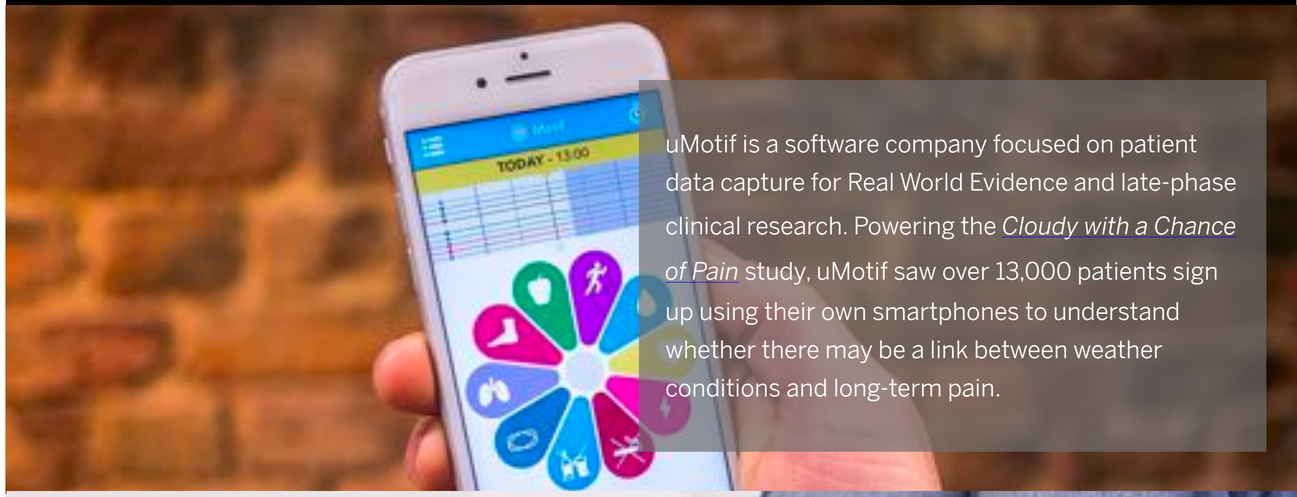
Time saved from simplified trial administration

Greater ability to scale clinical trials

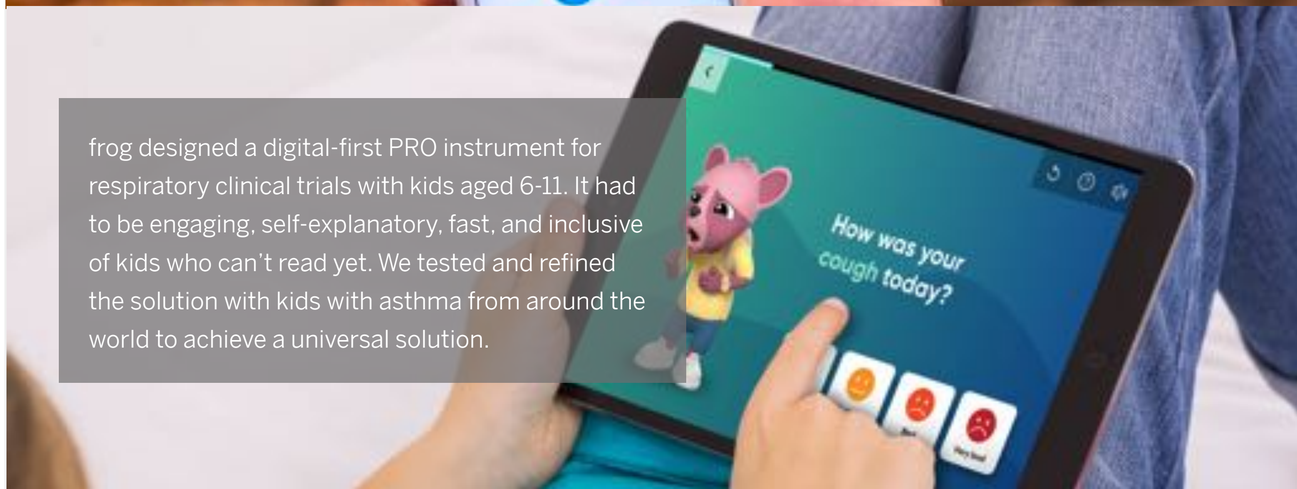
Executive command and control on trials

Working in an integrated, GXP compliant agile environment with a global pharmaceutical company, frog is designing a digital clinical trial platform for patients, HCPs, and CRAs, unifying multiple underlying systems into a seamless web and mobile experience, customisable for all future clinical trials.





uMotif is a software company focused on patient data capture for Real World Evidence and late-phase clinical research. Powering the *Cloudy with a Chance of Pain* study, uMotif saw over 13,000 patients sign up using their own smartphones to understand whether there may be a link between weather conditions and long-term pain.



frog designed a digital-first PRO instrument for respiratory clinical trials with kids aged 6-11. It had to be engaging, self-explanatory, fast, and inclusive of kids who can't read yet. We tested and refined the solution with kids with asthma from around the world to achieve a universal solution.

PATIENT RECRUITMENT

What if you could quickly and easily recruit the right patients, for the right trial and reduce trial lengths or lead times?

With often limited numbers of eligible candidates, it can be a challenge to identify a suitable and diverse population of patients and then convert them into trial participants. Limited tools and resources often make it hard to connect with patients in way that sets expectations clearly.

Human-centred Design enables the identification of potential barriers for both patients and trial sites and thus opportunities to overcome them. In doing so, it's possible to create services or experiences that bring both parties together.

CORE BENEFITS

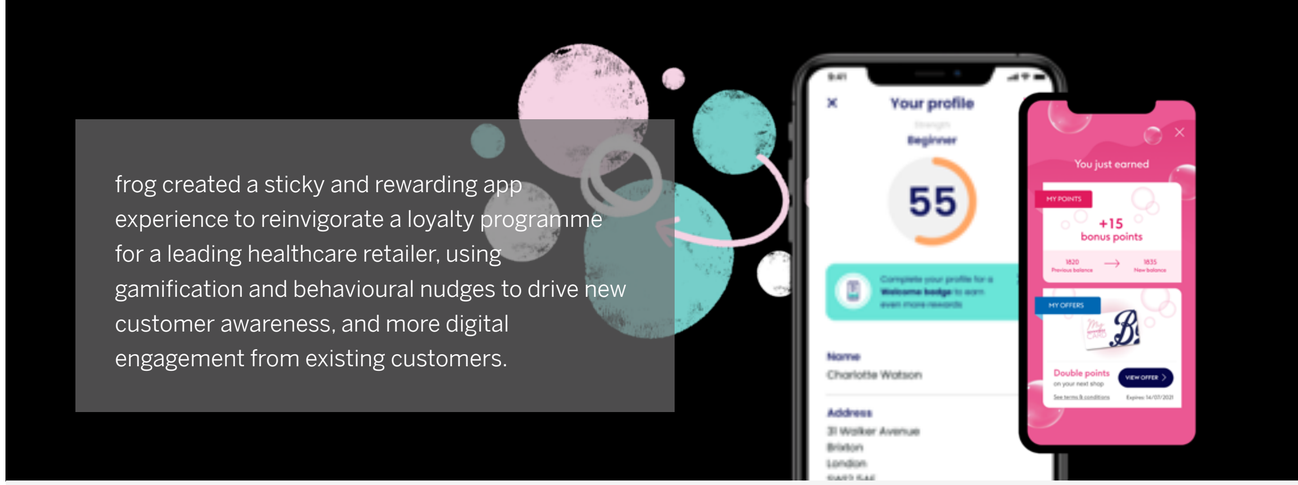
Improved clinical trial patient quality leading to fewer dropouts

Increased access to different patient populations

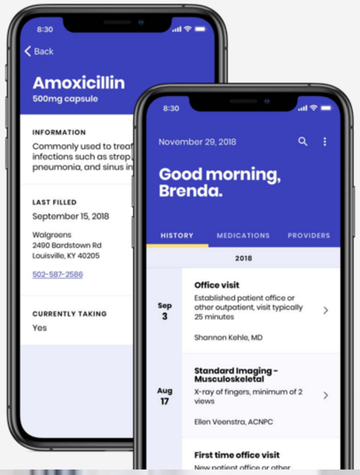
Streamlined patient recruitment processes

Reduced recruitment cost

Increased diversity of participants



frog created a sticky and rewarding app experience to reinvigorate a loyalty programme for a leading healthcare retailer, using gamification and behavioural nudges to drive new customer awareness, and more digital engagement from existing customers.



frog partnered with one of the largest healthcare payers in the US (serving 20 million+ customers) to support them in redesigning their digital experience in order to increase plan enrolment and retention. Through a mixture of qualitative and quantitive research methods, it was possible to develop a human-centred digital tool that saw an uptick of 33% in enrolment in the first month of launch.

In 2021, AstraZeneca deployed a patient enrolment management platform to boost their recruitment and enrolment for breast cancer trials.

Recently, Sanofi also enrolled 21% more patients in a trial using the same technology.

https://go.reifyhealth.com/

RESEARCH

What if you could streamline the connective tissue in research without jumping between different systems?

Machine learning models and analytics software are increasingly being used across Research, however this requires jumping between different tools and often require deep data science knowledge with time spent coding and analysing data.

Human-centred Design has enabled familiar and intuitive interfaces to be developed that allow Research professionals to engage and utilise this groundbreaking technology across their organisations.

CORE BENEFITS

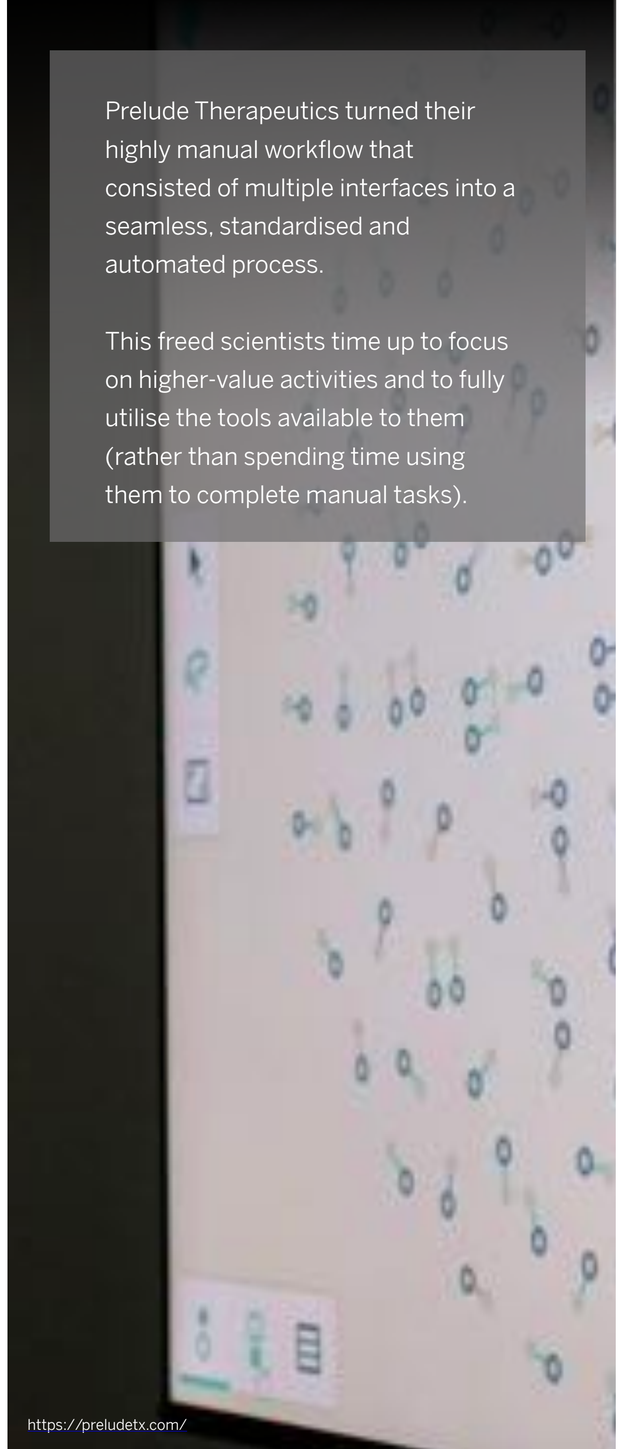
Focus can be on the right candidates for experiments, reducing wasted time and allowing for more strategic decision-making

Increased understanding of what makes a molecule work for that particular target, leading to more breakthroughs

Increased number of drug candidates that make it to market in a shorter period of time

Increased potential for novel solutions from compound candidates

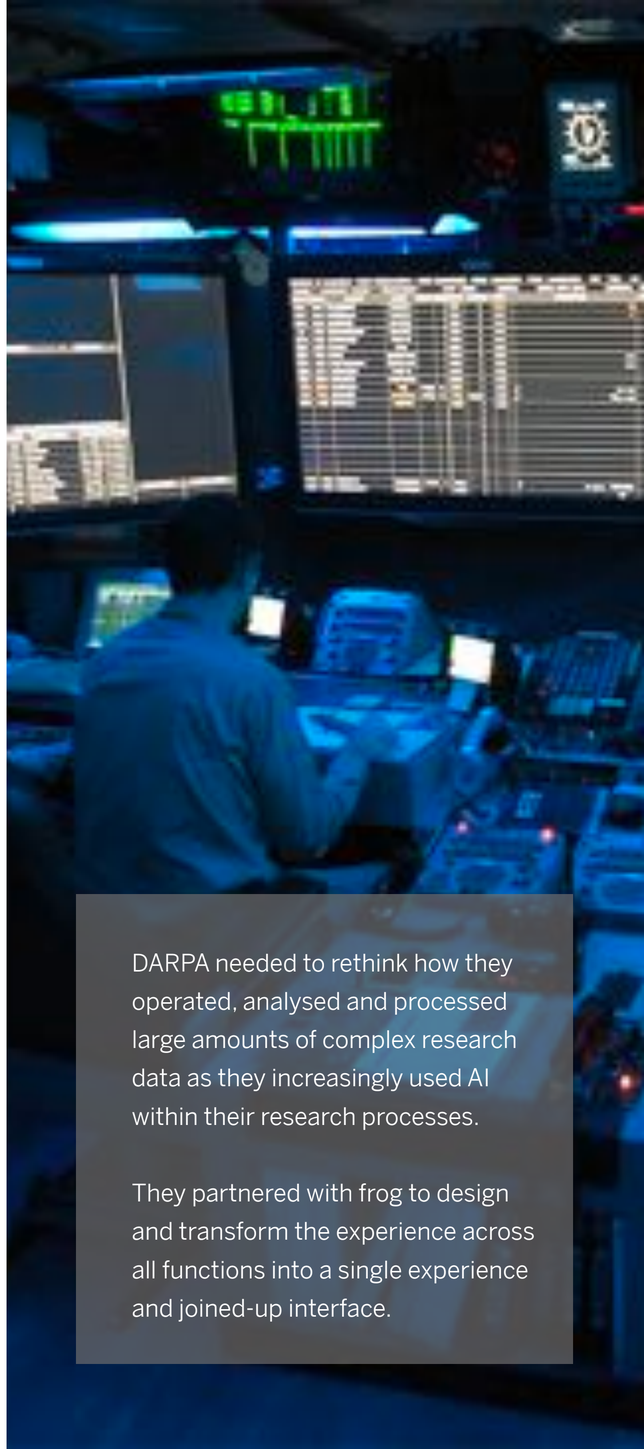
Increased number of novel candidates to test in the wet lab



Prelude Therapeutics turned their highly manual workflow that consisted of multiple interfaces into a seamless, standardised and automated process.

This freed scientists time up to focus on higher-value activities and to fully utilise the tools available to them (rather than spending time using them to complete manual tasks).

https://preludetx.com/



DARPA needed to rethink how they operated, analysed and processed large amounts of complex research data as they increasingly used AI within their research processes.

They partnered with frog to design and transform the experience across all functions into a single experience and joined-up interface.

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