



How to build digital health products that users love and trust

HANNO

We help healthcare companies create flagship digital products

What's to come...

Digital health apps are becoming more accessible to patients and customers and an increasingly viable option for healthcare practitioners too.

Advancements in technology have seen a boom in the number of digital health apps¹. Indeed the choice for users is overwhelming.

Over 325,000 health apps are now available to download² and 200 more are released each day.¹

But despite the volume of services on the market, only a handful of health apps have found significant user adoption...

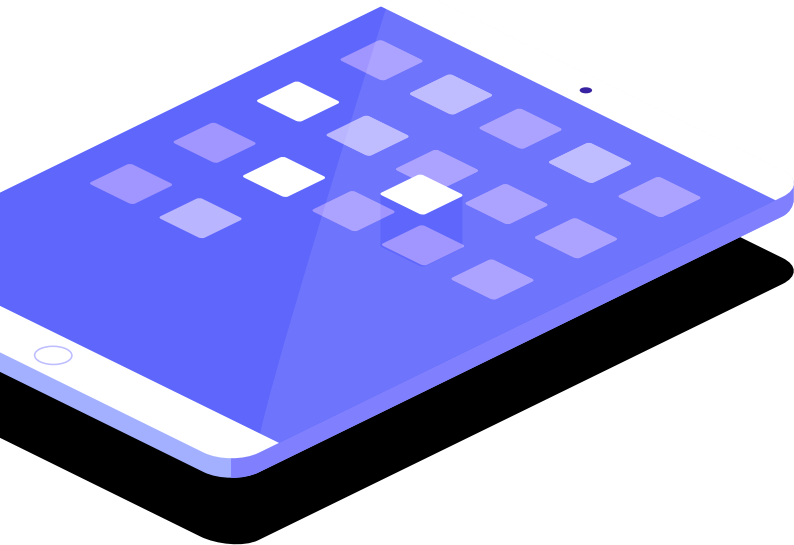
Why is this? And what can digital health providers learn from the success stories?

Our experience working with successful disruptive businesses, both in health and also in other emerging markets, makes it clear to us that **the way in which digital health products are built is just as, if not more, important than the new technology they take advantage of.**

By adopting a different approach, you too can start building digital health products that users will love and trust.

In this paper, we'll first walk through some of the key lessons to take from successful products. Then we'll show you the actionable steps you can take to replicate that success for your own organisation.

The digital health market today



As smartphones, wearables and vital-sign-specific sensors reach technical maturity, it's becoming increasingly possible to accurately monitor and manage health without a trip to the doctor's office.

That's big news for patients, customers and healthcare practitioners alike and has ramifications far beyond Silicon Valley.

Europe is predicted to be the world's largest MHealth Market in 2018, with a value of €7.1b and annual growth of 61.6%³.

But despite technological progress and favourable financial outlooks, an *American Medical Association* survey has found that **fewer than 30% of US healthcare practitioners are actively recommending digital health technologies to their patients and only 13% are actually using them in their practice**¹. This means that...

The consumerisation of digital health technology is largely being driven by users themselves.

While the healthcare practitioner would traditionally have been a user's first port of call for health information and advice, technology is beginning to change this. Nowadays, users look to their mobile *first* for information on their symptoms, then seek a second opinion from their mobile *after* they have seen a healthcare practitioner.

When it comes to general health and wellbeing advice, user behaviour is starting to shift away from the traditional brick and mortar system to a digital-first approach. What's more, improvements in sensor technology suggest that this trend will affect *condition management* too. In short...

Users are taking matters of their health into their own hands, and they're expecting you to keep up.

How this looks to your future customers



This growing market is already becoming hyper-competitive

There were over 325,000 health apps² and 340 consumer wearable devices available to consumers in 2017, with more than 200 health apps released each day¹

The sheer range of apps presents an overwhelming number of options for users, which they must often navigate without guidance from their healthcare provider. In the absence of guidance, users will often default to selecting the most popular apps. So we see a trend where a limited number of apps account for a significant majority of downloads¹:

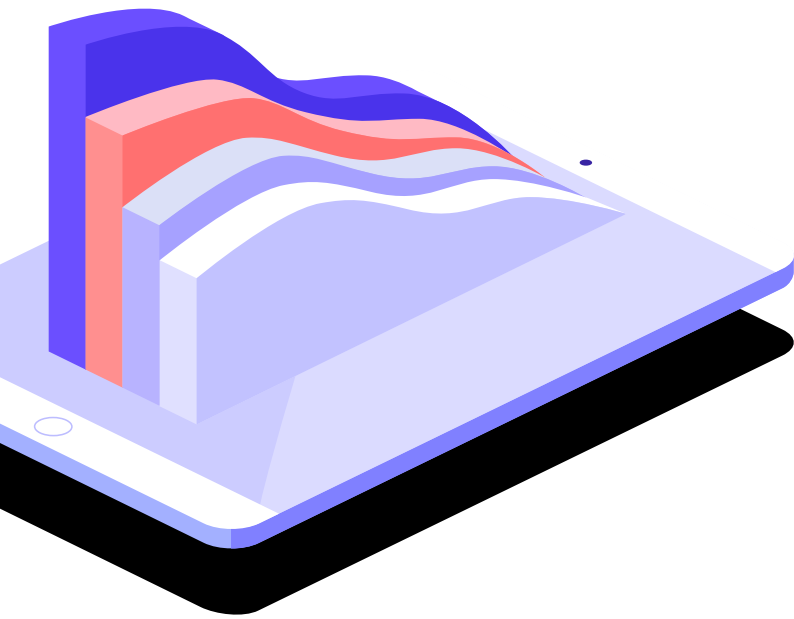
Nearly half of all health app downloads were driven by just 41 apps (each had over 10 million downloads)¹.

Only 2% of digital health apps have more than 500,000 active monthly users².

86% of all health apps have fewer than 5,000 downloads¹.

With such a skew, the biggest challenge facing digital health providers is **user adoption, engagement and retention**.

Why are so few digital health services winning traction?



Many businesses are scrambling to build the next killer app or implement AI, chatbots or wearables into their services.

But our view is that they are **funding technology rather than solutions**, investing heavily in transient technologies **without truly understanding the needs of their users**. In many larger organisations, this is compounded by an outdated approach to building and launching new digital products—a process which is often very slow, rigid and resource-intensive.

Technology has allowed businesses to get closer to their customers than ever before. But many of those businesses are still frightfully distant from the people they're serving.

Advancement in technology alone won't help you move the needle on user engagement, nor win the hearts, minds and business of your customers.

The technology is simply redundant unless users adopt it, love it and trust it.

As with most emerging markets, it is startups that are leading the way.

To avoid being left behind, larger health providers and incumbent market leaders need to take lessons from their smaller, software startup competitors.

The digital health startups leading the way



Oscar has built a straightforward user experience that humanises health insurance—making it simple, intuitive and transparent.

Founded
2012

App launched
2014



Adoption
105K
new users
in 2017 alone

Valuation
\$2.7
billion



Zocdoc's online marketplace allows users to easily find and book appointments with doctors and fill out paperwork in advance, simplifying access to healthcare and delivering a hassle-free customer experience.

Founded
2007

App launched
2010



Adoption
Over 6M
patients use
Zocdoc every
month in the US

Valuation
\$1.8
billion



23andMe's web-based genome research platform lets users explore their ancestry, genealogy, and inherited traits—helping them understand their unique DNA, find relatives and identify genetic health risks.

Founded
2006

App launched
2012



Adoption
Over 3M
in more than 50
countries

Valuation
\$1.5
billion



Sharecare places the customer at the center of their own healthcare, providing an online platform that makes it easy for people to engage with information, programs and resources to better manage their health and wellness.

Founded
2010

App launched
2015



Adoption
68M
consumers

Valuation
\$1.5-2
billion



Headspace provides on-demand, guided meditation sessions via a world-class, human-centred digital experience, bringing mindfulness to every aspect of users' lives.

Founded
2010

App launched
2012



Adoption
20M
users with 12M ac-
tive monthly users

Valuation
> \$250
million



Fitbit offers wireless, wearable sensors and an accompanying app that help track a person's daily activities and promote a healthy and active lifestyle.

Founded
2007

App launched
2011



Adoption
23.2M
active users at
the end of 2016

Valuation
\$1.1-1.9
billion



Founded
2012

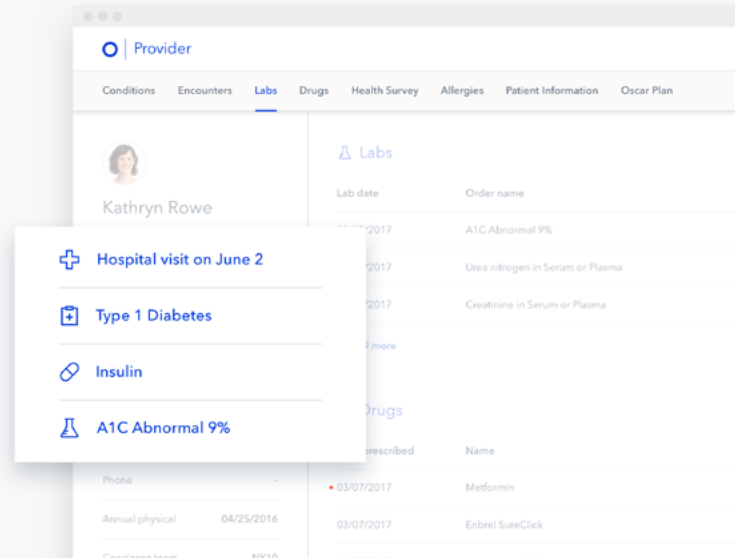
App launched
2014

Valuation
\$2.7 billion

Adoption
105k new users in
2017 alone

Oscar is a health insurer on a mission to humanise healthcare. They have quickly become one of the most recognisable names in the industry by making their product simpler and more transparent than the competition.

Oscar focuses on changing the way big healthcare companies provide their services. Complex, tedious paperwork is replaced by an intuitive app and premium user experience⁴.

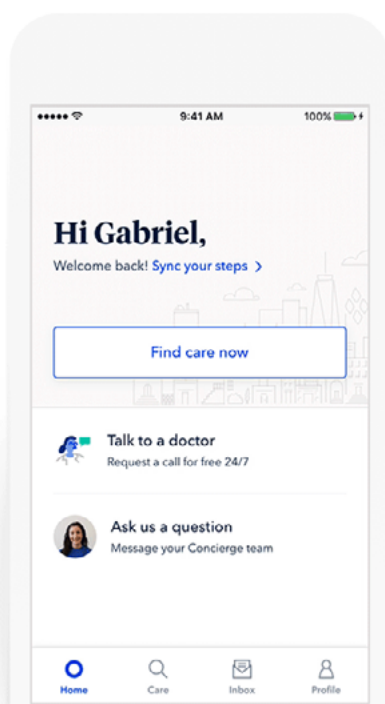


How did they succeed?

Oscar's design team brought their users into the development process early on and carried out user interviews. This helped them understand how the use of healthcare apps differs from other digital products and enabled them to introduce features that were better adapted to the medical landscape. Their emphasis on user-driven design opened the door to a more human connection with their customers.

Oscar's app is crisp and straightforward and unlike many apps, which are designed to minimise costly human interaction, is heavily based around routing the user to talk to someone—be that a nurse via text; a doctor via phone; or the concierge team via the app. A strategy which is very much succeeding:

23% of Oscar's users use telemedicine and video consultations for free diagnosis and treatments by in-house health professionals. That's nearly 8x the US national average of 3%⁵.





Founded
2010

Valuation
> \$250M

App launched
2012

Adoption
20M users in 190
countries

Headspace is a guided meditation app that evolved from an events business. Their product has helped make meditation and mindfulness more mainstream worldwide. It's big in the corporate world too—employees of companies such as Uber, LinkedIn and Google regularly use the app in their workplace. **The Headspace app is currently ranked as the 12th most popular app in the 'Health & Fitness' category in the iTunes App Store.**

How did they succeed?

Headspace focused on providing a world-class design and user experience from day one. As the app grows, **they continue to conduct user testing and to track and analyse sophisticated usage data to understand what users are looking for.** This has had a major impact on user adoption and retention⁶.

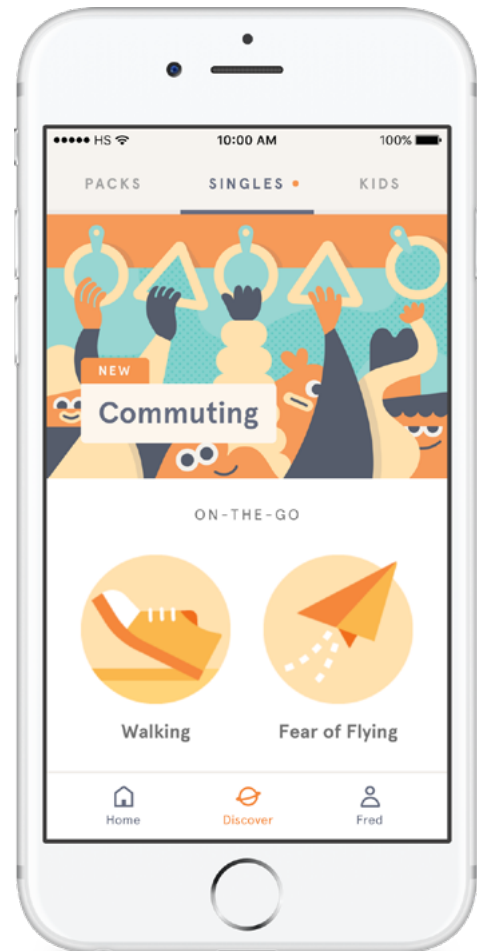
Removing barriers to adoption

Many of Headspace's users are new to meditation. Free introductory courses in the app include 10 days of 10 minute guided sessions. This **lowers upfront time and financial investment** and increases customer adoption by building habits⁷.

Customising content to user needs

Their team realised that a one-size-fits-all approach could limit user retention. They introduced a series of segmented courses on subjects such as Relationships, Health, Performance and Sports. These targeted programs allow users to **pick and choose the solution best suited for their needs.** Users can even opt for one-off 'Singles' sessions focused on specific situations⁷.

With its approachable design, encouraging animations and gamified experience, it's no surprise that the Headspace app has helped them to become one of the most recognised digital health products around.



Learn more about Headspace's design process in our [**interview with their Lead Product Designer**](#)

What you can learn from them

Large organisations can successfully apply this same startup-oriented approach to building great products.

What's more, their scale, reach and resources give them a real opportunity to change the industry, improving health outcomes, reducing healthcare costs and creating new business streams. But they need to adapt to the new reality, fast.

User needs are more important than technology trends

If you task your team with finding a way to take advantage of an exciting new technology and integrate it into your service, the results will likely fall short of expectations.

Instead, **you need to focus on how the technology can support real human needs and behaviour.**

Instead of looking for innovative ways to squeeze a new technology (such as a chatbot) into your services, you should instead speak to users first and understand specifically what their needs are. Then build apps which address these needs.

To address user needs, you need to think like a designer

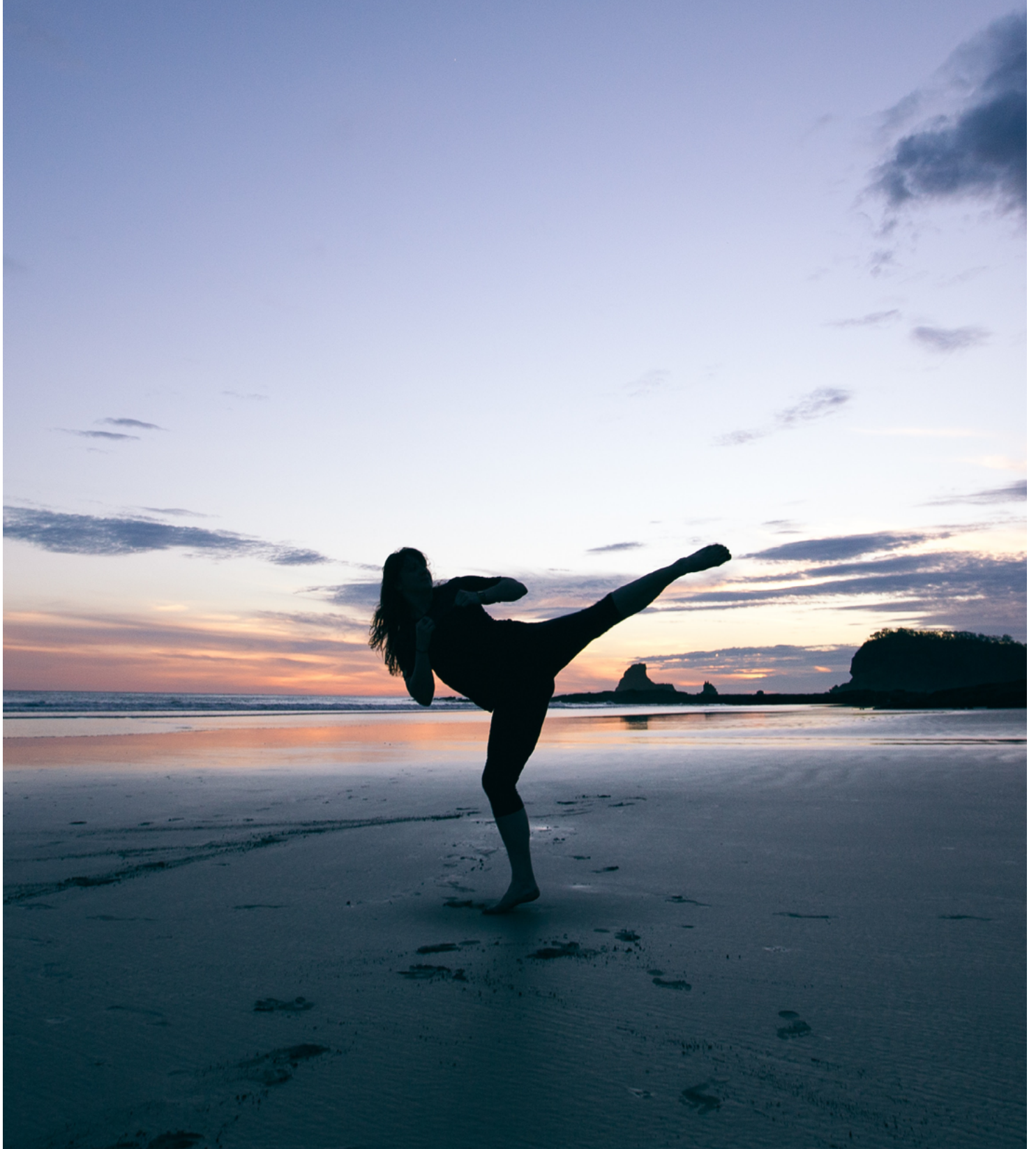
Tim Brown, co-founder of IDEO and a prominent spokesperson for the potential of great design, writes:

During the latter half of the twentieth century design became an increasingly valuable competitive asset in, for example, the consumer electronics, automotive, and consumer packaged goods industries. But in most others it remained a late-stage add-on. Now, however, rather than asking designers to make an already developed idea more attractive to consumers, companies are asking them to create ideas that better meet consumers' needs and desires. The former role is tactical, and results in limited value creation; the latter is strategic, and leads to dramatic new forms of value.⁸

Design is not about making things look pretty. Design is fundamentally about solving problems.



How to start thinking like a designer when building your digital health product



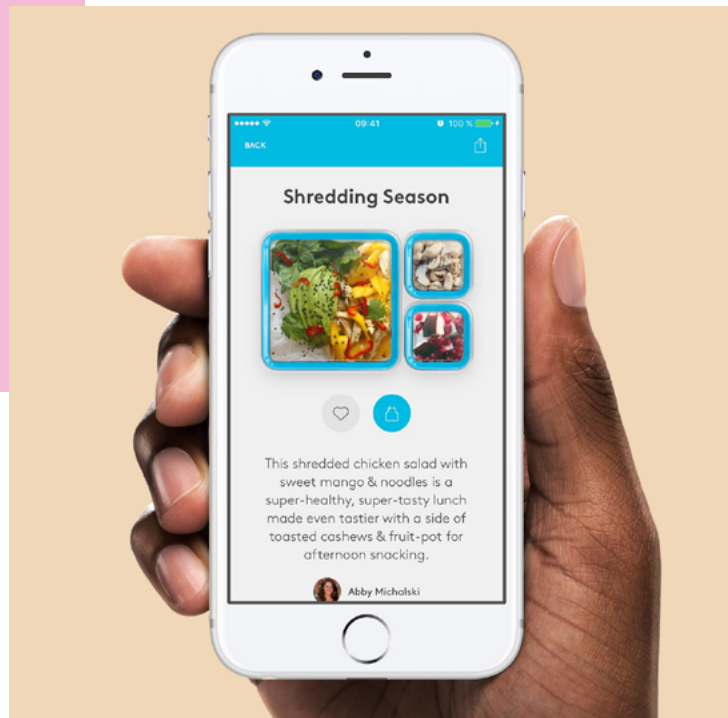
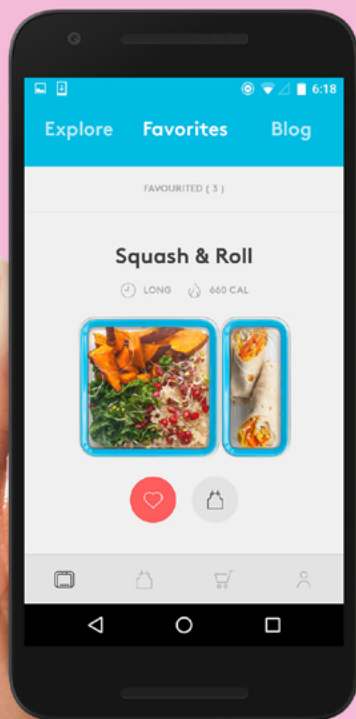
Start with Minimum Viable Products

A minimum viable product (MVP) is the **smallest and simplest version** of your product or service that can **provide value to your users**.

A traditional approach to building a product requires a locked down scope and a lot of resources to be committed upfront (including time and money). If that product fails to perform as expected in the marketplace, that failure can be extremely costly.

Prototypes and MVPs allow you to focus on learning as much as possible, as efficiently as possible. By **building and testing these prototypes**, you can obtain data, feedback and validation from real users.

MVPs allow products to be brought to market faster and with less upfront investment. By validating a version of the product as early as possible, the risk associated with building a product is significantly reduced.



How do you start building MVPs?

Start with a single, simple product solving a tiny subset of a grand problem, that can be built and tested in weeks rather than months:

1

Identify assumptions and unknowns

With your team, think about your users' needs. List what you **know** and what you **don't know**. Your MVP will be designed to confirm whether your initial knowledge and assumptions are correct.

2

Build your product in a very lightweight form

Choose a level of fidelity that is appropriate to what you need to discover:

■ A **low fidelity prototype** is used to turn initial ideas into testable and tangible experiments. These experiments are all about validating an early idea or solution before more resources are invested into it. At this stage, pen and paper or simple, clickable slide decks can be effective tools. For something a little more advanced, clickable prototypes can be built using tools such as [Pop](#) or [InVision](#).

■ A **high fidelity prototype** has a lot more functionality and interactivity and is closer in looks and polish to a final product. These should be used in the latter stages of development to test workflow, critical functions and key messaging of your product.

3

Measure, assess and adjust

From your learnings, improve or discard ideas based on user feedback and gradually increase the fidelity and functionality of your product as you narrow in on a workable solution.

Example

We made 10 prototypes in under a week for this digital health startup: [See how](#)

Bring your future customers into the process

One of the most common mistakes is to assume we know the perfect solution ourselves. But it doesn't really matter what we think, what matters is what the user thinks—does the product we're building improve their lives, reduce a pain point or make things easier for them?

The only way to validate this is to test our product with real users.

What is user testing and why is it valuable?

User testing is the process of interviewing users **to collect data on how people feel about your product, how intuitive it is to use, and to understand whether they will want, and be able, to use it in the way you're intending.** From this data, we can infer insights and use these to improve the product.

By beginning user testing early in the product development process, you spot potential user problems far sooner and can 'course correct' to resolve these. Instead of spotting a major issue in week 20 and having to discard months of work and investment, that problem can be identified and resolved on day 1.

How can you do it?

Quantitative user testing generates raw data. It's useful for obtaining an objective data point to test a hypothesis (for example, measuring the percentage of users who upload a photo in your app). Quantitative testing involves surveys, A/B Testing, eye tracking, analytics etc. and is **generally done once a product has launched.**

Qualitative user testing is generally done in an interview format, especially **while a product is being built.** It's essential for gaining a deeper understanding of users behaviour and should be your primary tool at the beginning of the product development process. For example, qualitative user testing would help us to understand the emotional reasoning behind users' reluctance to upload a photo into your app.

Qualitative interviews would usually have been conducted in-person in the past, often in a dedicated testing lab. But this has the potential to skew interview results by pulling users into an artificial environment. Thanks to video conferencing and screen sharing software, **carrying out these interviews remotely is now very simple and efficient.** Some powerful user testing services are Hanno's own platform, [PingPong](#), as well as [Lookback](#) and [UserTesting](#).

Generally, you only need to interview 5 people to validate an iteration of your product.⁹

Good moderating skills are key to making a user feel comfortable and obtaining great insights. **Ask open and unbiased questions**, but remember you're not trying to sell your product—let the user do most of the talking and observe and note what they do and say.

Look for insights, not instructions. Behaviour is more than just words. Look for the meaning behind what your users are telling you. Success is down to your team's ability to infer insights rather than take feedback at face value.



Why not use focus groups?

Focus groups are costly and can be heavily skewed by groupthink.

It can be difficult at times to conduct effective one-on-one qualitative interviews. Focus groups present an even more challenging environment, with more voices and tricky group dynamics which often drown out quieter voices¹⁰. The emotional decision to buy or use a product is often a very personal one and what a user says in a focus group setting often doesn't match up with what they actually do in the marketplace.

Launching and scaling your product

When to launch

Once you think you're ready to open up your product to quantitative testing, launch! **You don't need to do a grand unveiling and release every single feature right away. Launch the product early in its simplest, validated form, with a limited feature set**, then release updates and new features in small batches as you continue to learn more about your users' behaviour.

What to do next

Product design is dynamic and never static.

Once you start to see validation and usage from a wider group of users, you'll likely want to scale and improve the product. But exercise caution! You'll need to **ensure your teams are continuing to focus on problems, solutions and barriers to user engagement**, not just their assumptions about what would make the product better.

Combine the *quantitative* usage data you draw from the live product with continued *qualitative* user testing. The blend of the two will enable you to infer the kind of insights that will help you dramatically improve your product's traction and growth in the marketplace.



Conclusion

While the value of digital health tools is becoming increasingly clear, the underlying technology alone is not enough to win the hearts and minds of consumers.

Larger healthcare organisations can learn a great deal from their software startup counterparts. Ultimately, these are the players who have been able to get closer to the people they're serving and implement digital health technology in the most effective way. They don't just promise to improve lives, but actually deliver on that promise for millions of people every day.

So as you develop your digital health product, think like a designer and keep the following in mind:

- **Start small and focus on solving a tiny subset of the grand problem.**
- **Think and plan in weeks, not months.**
- **Bring your users into the process as early and as frequently as possible—carrying out in-depth conversations to better understand their needs.**
- **Launch fast, test, validate and repeat as you scale and grow.**



We help healthcare companies create flagship digital products



Jon Lay
Partner

Over the past few years at Hanno we've worked with everyone from nascent startups to huge corporate health teams, getting hands-on and helping them to build and launch digital products, websites and apps.

We're incredibly excited about where digital health is headed—done right, the combination of powerful new technology and great design can improve the health of patients and customers in ways that would have seemed impossible just a few years ago.

We know that these changes in the industry can seem intimidating. But we see this as a huge, exciting opportunity for those who approach it correctly.

If you'd like to discuss how these lessons can apply to your business, reach out to me—I'd love to talk.

Get in touch with Jon
jon@hanno.co

Sources

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² Research 2 Guidance: mHealth App Economics 2017 Current Status and Future Trends in Mobile Health: 'How digital intruders are taking over the healthcare market', 2017.

³ Deloitte. How digital technology is transforming health and social care, 2016.

⁴ [What the Oscar team learned designing apps for healthcare.](#)

⁵ [Oscar Health Fact Sheet.](#)

⁶ [Forbes - Meet Headspace, the app that made meditation a \\$250 million business.](#)

⁷ [Headspace - Product lessons learned, Medium.](#)

⁸ [Tim Brown: 'Design Thinking', Harvard Business Review, 2008.](#)

⁹ [Jakob Nielsen: 'How Many Test Users in a Usability Study?', Nielsen Norman Group, 2012.](#)

¹⁰ [Give Good UX - 4 reasons focus groups don't work.](#)