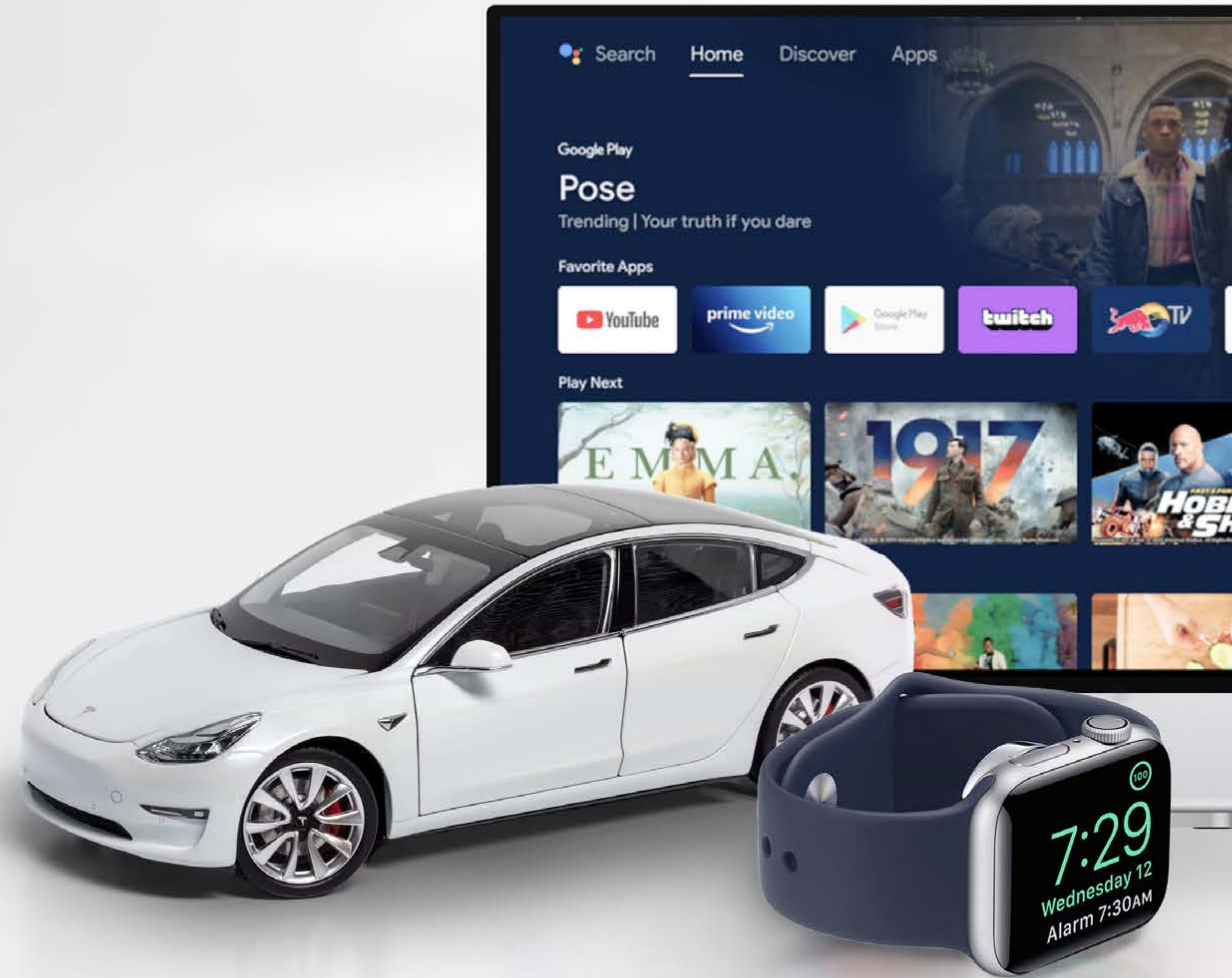


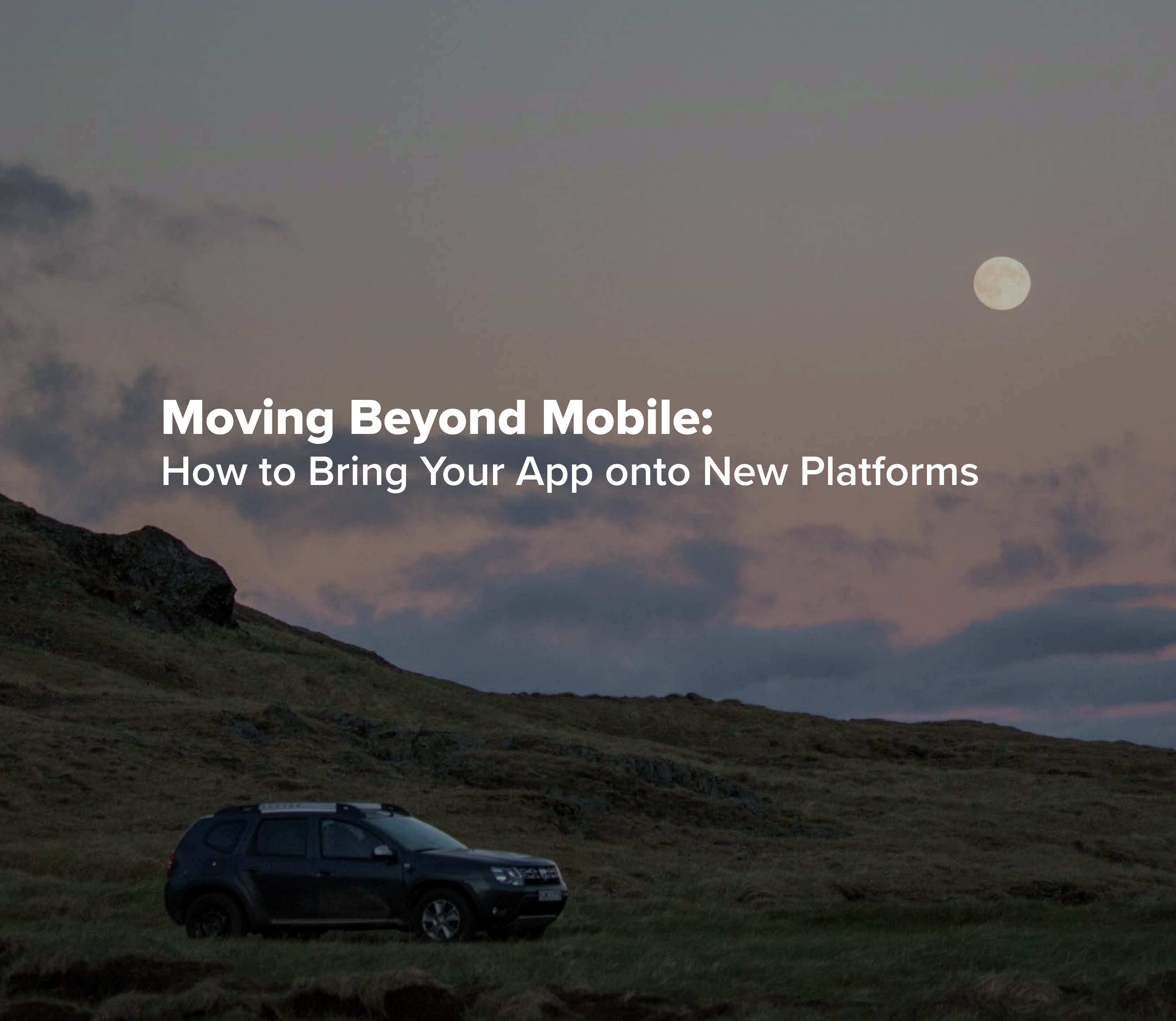
SPRING 2022



Moving Beyond Mobile: How to Bring Your App onto New Platforms

By Wells Stringham Head of Experience





Moving Beyond Mobile: How to Bring Your App onto New Platforms

Content

Foreword	02
Executive Summary	04
From learnings to lessons	05
First things first	07
Cars The opportunity Our learnings	09
Smartwatches The opportunity Our learnings A case study - NurseGrid	17
Connected TVs The opportunity Our learnings	27
Final thoughts	34
About Apply Digital	35
Credits	36

Foreword

New technologies and trends are emerging in what seems like a daily occurrence — from the metaverse and AI to composable tech stacks and beyond. Staying on top of these developments is imperative to any organization’s success and growth. So at Apply Digital, we’re working to support our company and our clients to do just that with The Lab, a dedicated team made up of internal talent across all disciplines.

The Lab focuses on what’s on the horizon in the months and years ahead to explore up-and-coming technologies, trends, and techniques that are important to our clients, present and future. And we do more than just research. Apply Digital’s discipline experts assess and deliver on strategy, product and project management, UI, UX, and development for each topic of interest.



For instance, our Strategy team is investigating how to make a long-lasting — not marketing-driven — impact in the metaverse as project managers work to understand how to mitigate risks in a space with more unknowns. And UX and UI designers are navigating how users behave in this 3D space and identifying best practices for all device types, whether completely immersive or mobile.

By creating demonstrable work, we prove to our clients that we can put what we learn into practice, empower our project teams with the skills to deliver quality results, and position ourselves as experts on cutting-edge products.

We look forward to discovering the unexplored and building upon the solid foundations that have already surfaced in the digital space such as the platforms mentioned in this report. By assembling our learnings about cars, smartwatches, and TVs, we hope this report will offer you the insights needed to succeed in a new space.

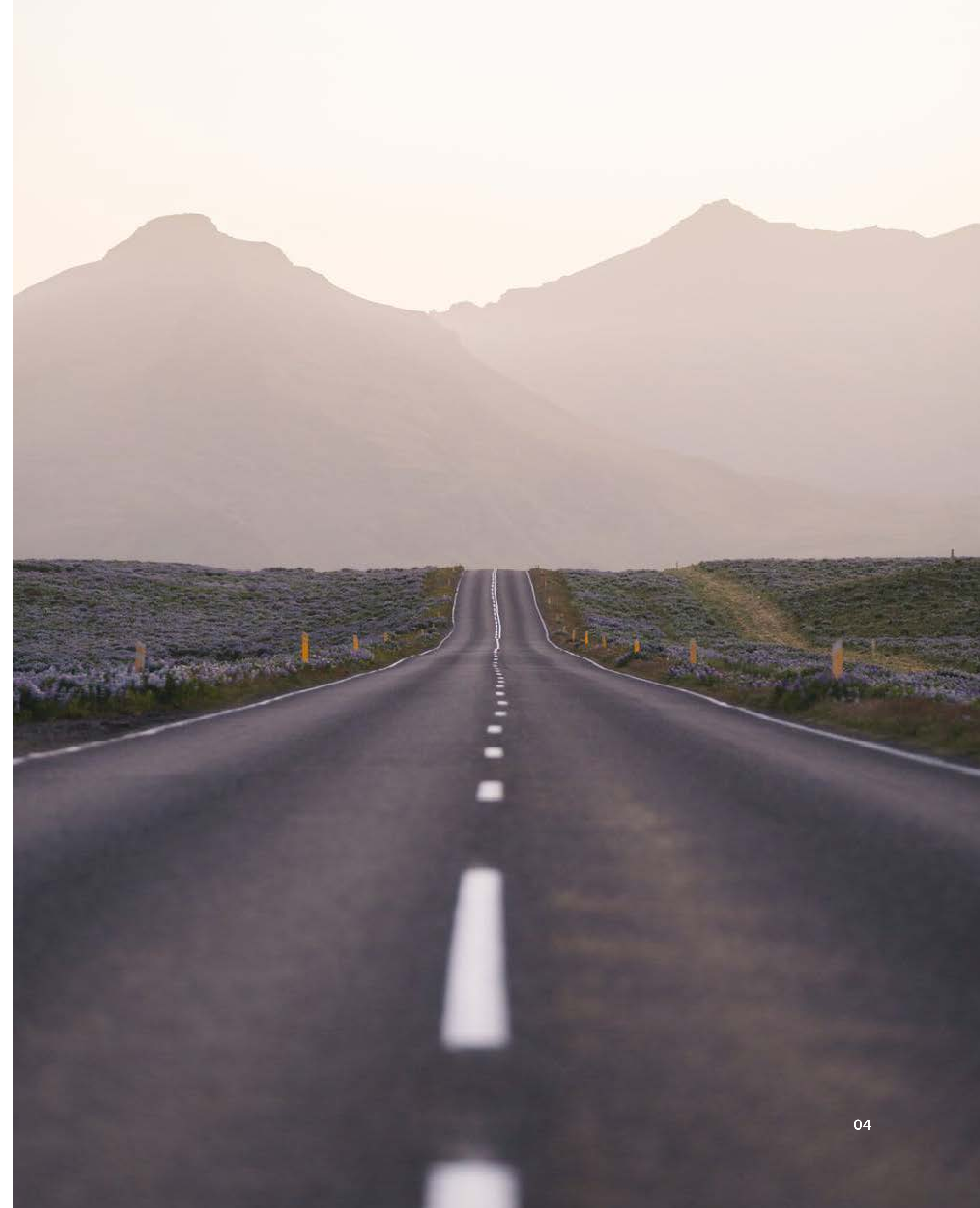
Scott Michaels

Chief Product Officer, Apply Digital

Executive Summary

Launching and maintaining a successful mobile app is an incredible accomplishment, but how can you differentiate your app in a way that makes it stand out?

In this ever-adapting world of technology, opportunities to branch out into new or previously unexplored platforms are arising. From cars, smartwatches, and TVs, each platform has their unique pros and cons but bring with them a lot of value depending on your business goals. Whether that's reaching a new target audience, striving to better serve an existing one, or filling a digital gap in your organization or industry, you'll need to understand how each platform works and what approaches to take in order to find success.



From learnings to lessons

As a digital innovation, products, and experiences company, Apply Digital has worked with clients on a variety of platforms, technologies, and projects. Our commitment to learning is culminating in our new innovation initiative, The Lab. Driven to always stay one step ahead of the curve, The Lab's focus on research and development will empower us to help our clients digitally transform their organizations to meet changing markets.

From learnings to lessons

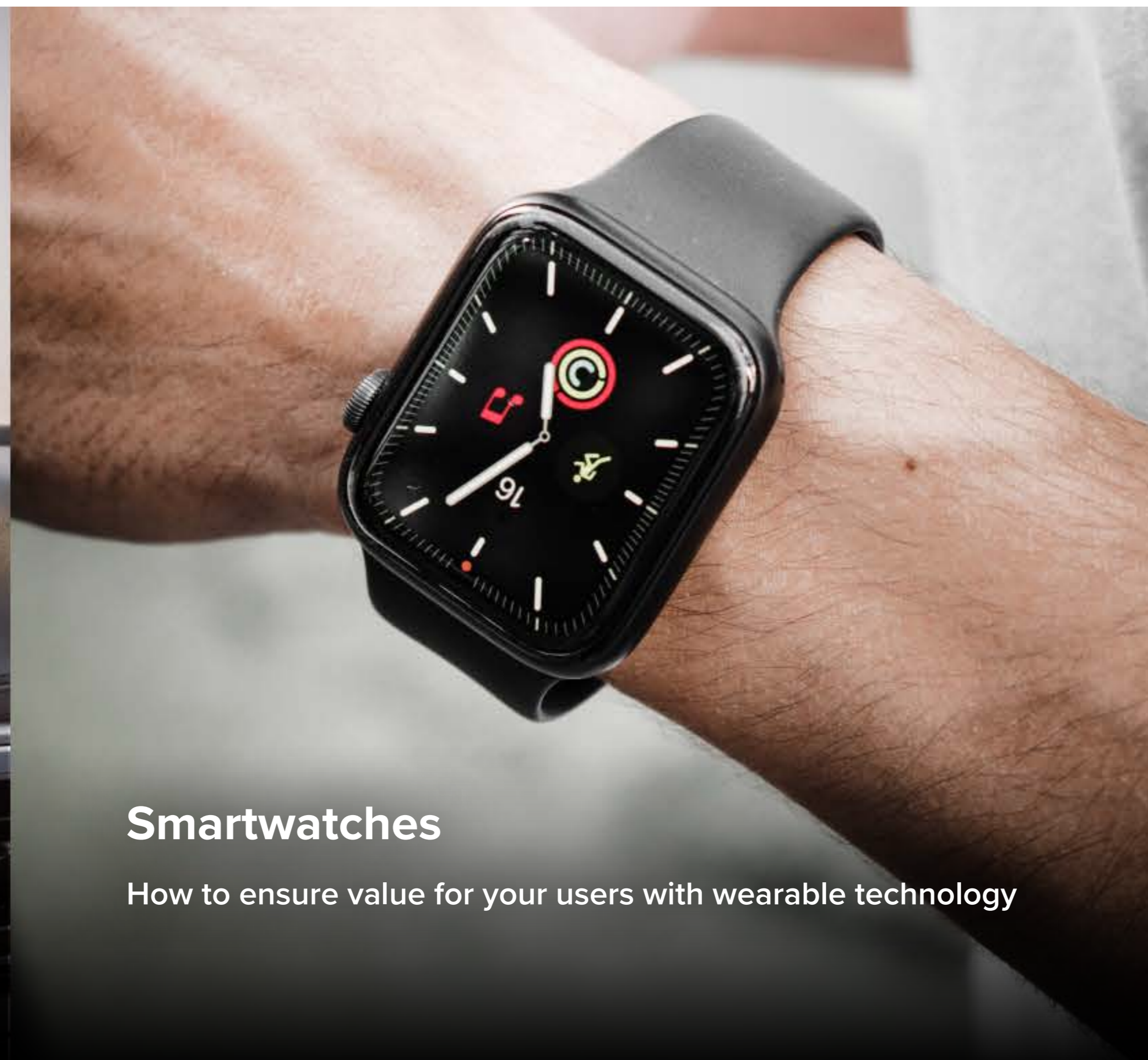
Our work on platforms such as cars, smartwatches, and connected TVs is just the beginning of this exploration of new technologies and approaches for our clients. We want to share our learnings so you can use these insights to take your mobile app to the next stage.

What you will learn:



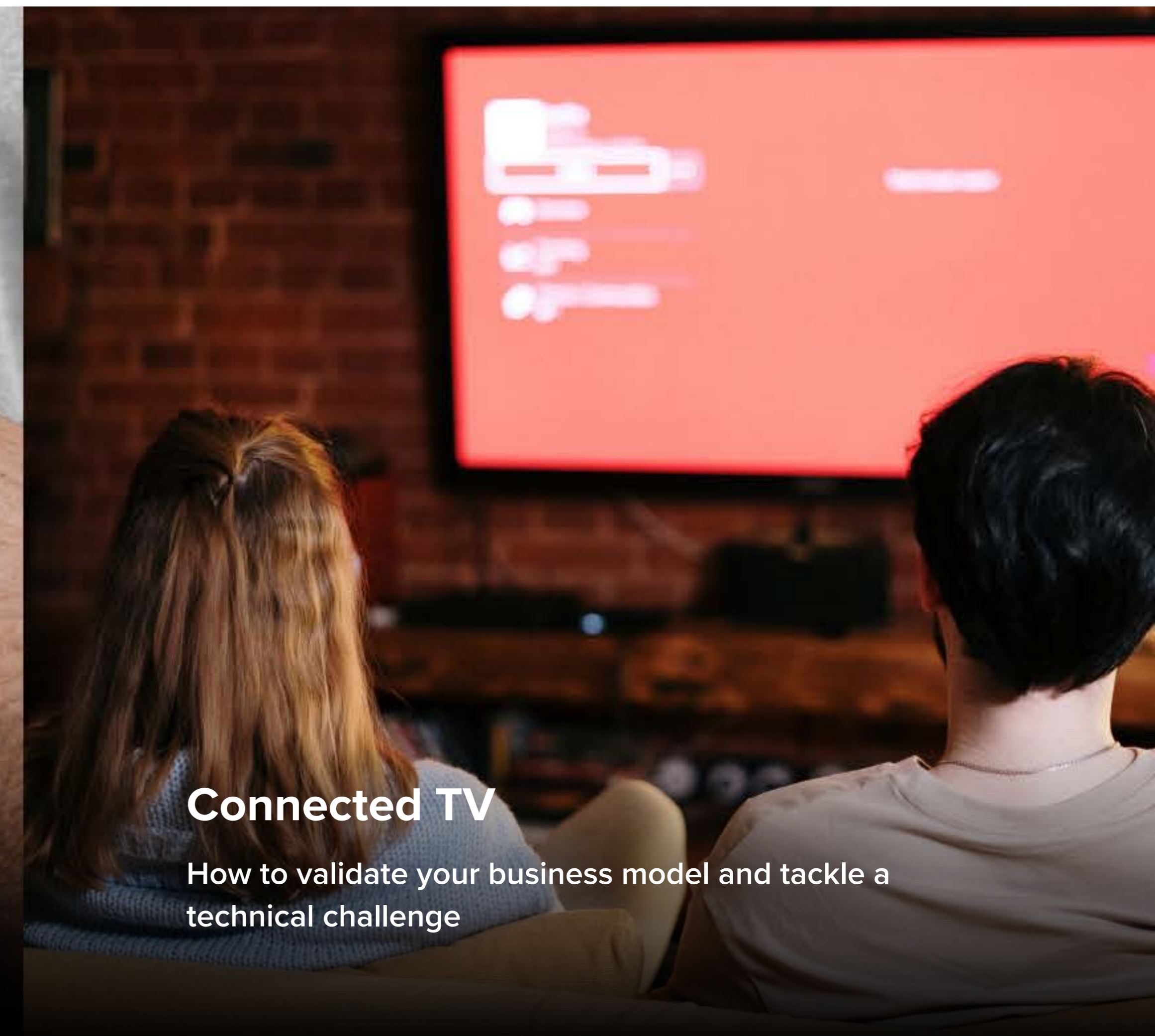
Car

How to take advantage of an evolving automotive world



Smartwatches

How to ensure value for your users with wearable technology



Connected TV

How to validate your business model and tackle a technical challenge

First things first

An important note

Having an existing mobile app will make expanding into a new platform easier. That doesn't mean you can't find success with a net new app built for other platforms, but you'll just need to ensure that it will bring enough of an impact to live exclusively within those systems.



Keep in mind

App stores limited to cars, smartwatches, and connected TVs typically get less user traffic than mobile app stores. This can make it more difficult, but certainly not impossible, for users to find your app.

However, lower user traffic also brings a unique benefit: less competition. The market for these platforms is still growing, which means many companies are yet to expand their mobile apps to new digital spaces. Getting started now gives you a leg up on your competitors and proves to your users that you're thinking about the future.

No matter what

Nail down the 'why'.

Why now?

Why this platform?

And why is it a viable and valuable option for everyone?

Now let's get into the specifics.





Cars

 **1930**

First mass-market car AM radio

 **1952**

FM radio enters cars

 **1956**

Recorded music brought to cars

 **1964**

Cassettes come onto the scene

 **2001**

Digital music and the iPod

 **2014**

CarPlay's premiere

 **2030**

Predicted that all cars will have some level of built-in connectivity



Our cars are getting smarter every single day. And it's up to companies to determine if taking advantage of this evolving automotive world is the journey for them.

These three facts will help you make a decision:

Fact 01:

On average, Americans spend [an hour of their day in the car](#)

While you may not be able to take advantage of every single minute, McKinsey claims that by 2030, car connectivity could represent a [value pool ranging from \\$450-\\$750 billion](#), with 45% of all new vehicles coming with personalized controls and infotainment content for occupants.





Fact 02:

80% of new cars sold in the U.S. support CarPlay and in 2020, Android Auto hit 100 million downloads

With so many cars implementing CarPlay and Android Auto, it's no wonder entertainment companies are looking for ways to get their foot (or key) in the door. Audi and Disney have partnered up to bring VR games and movies into cars to make long trips more fun, as [Tesla strives to do the same.](#)

Fact 03:

As countries around the world are implementing green policies and climate action initiatives, [electric vehicles \(EVs\)](#) are speeding down the road to mass use — an industry that, in 2021, had global sales reach [6.75 million units, 108% more than in 2020](#)





Finding ways to pass the time while charging your EV has led to an exploration of new in-car experiences — and making use of dead time. Tesla is leading the charge with their [Model 3](#) car which allows drivers to watch Netflix, Hulu, or YouTube and play Tesla's onboard video games, all while charging at the station.

If entering the car platform system sounds like the route for you, how do you get started?

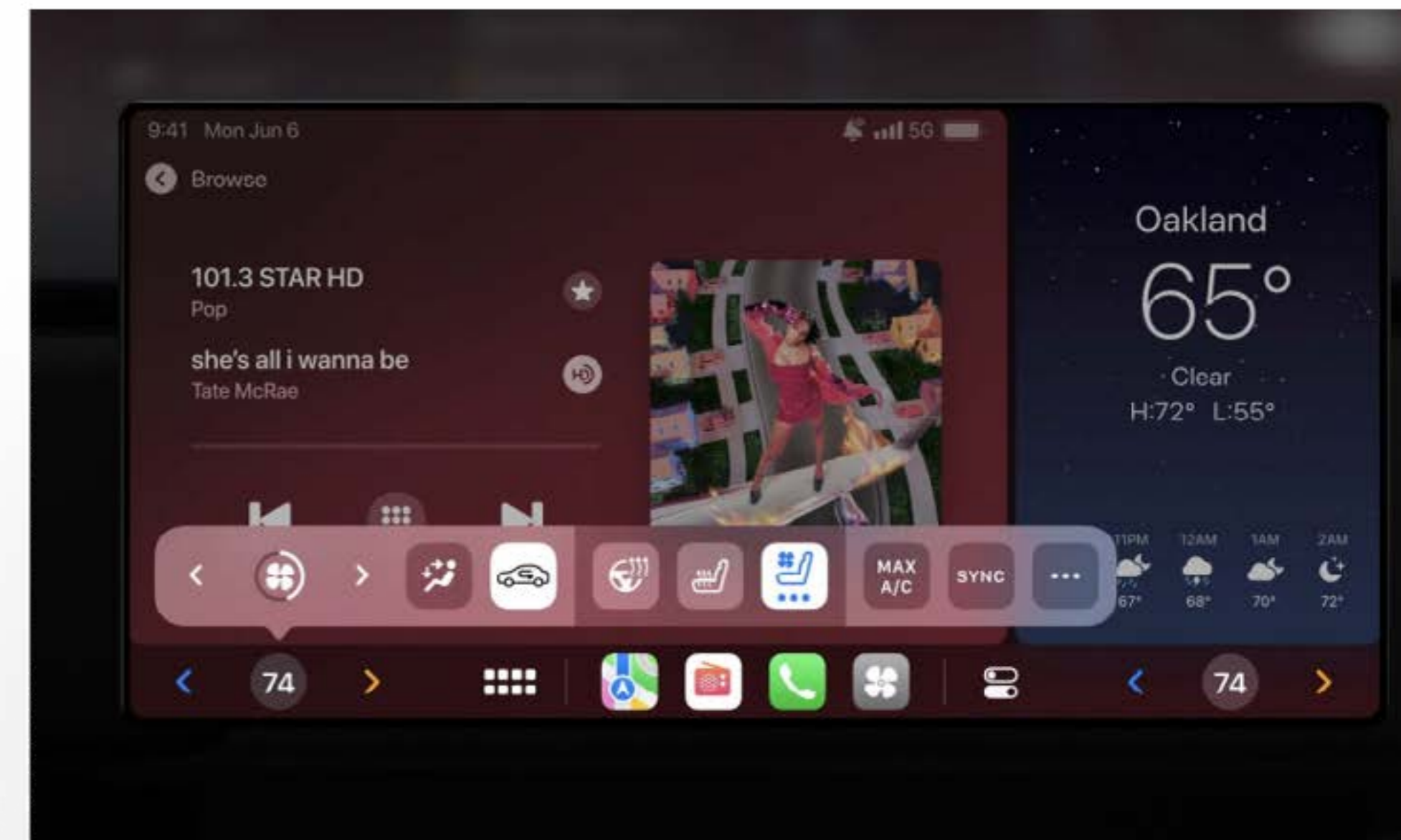


The opportunity

There are four buckets of apps typically allowed and expected in cars. [Apple](#) breaks them down as:

-  Audio apps that deliver music, news, podcasts, and more
-  Communication apps that work with Siri
-  Navigation apps that provide detailed maps, destination search, route guidance, and user notifications
-  Apps that provide unique controls within the vehicle

But these buckets are growing which means the business opportunities for designing and developing for car platforms are growing too.



Apple's CarPlay interface. *Source: Apple*

Our learnings

Business strategy

Cars are highly regulated spaces that require most video components to stop or turn off as soon as the car is in motion.

Ask yourself:

- Do you want your app to fully function as people drive?
- Is your app better suited for when drivers are parked and looking to pass the time?



Design

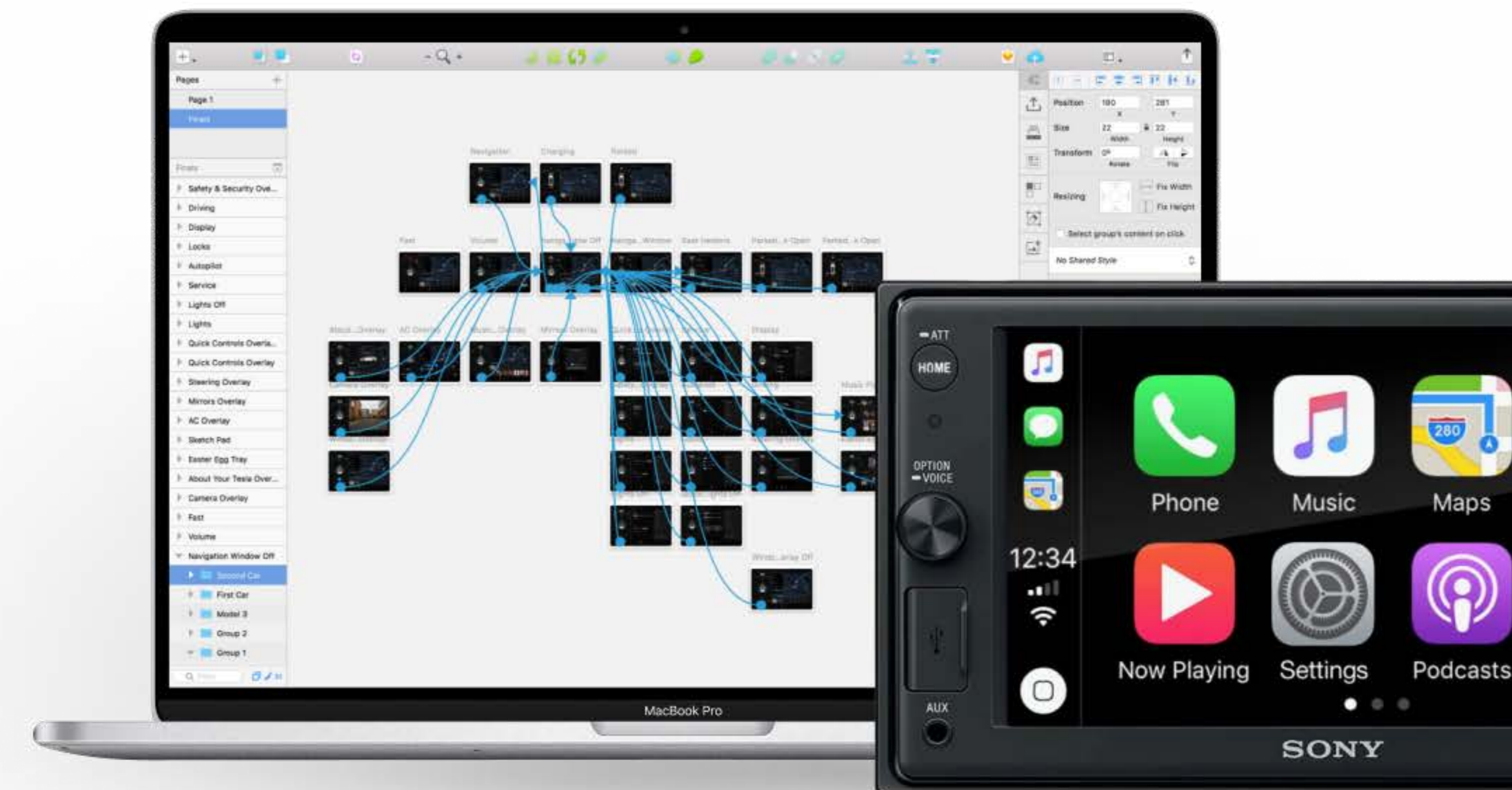
While the car interface is fairly straightforward, you'll have to adjust the design of your app and how you develop it. Remember, you're not building a mobile app, but an extension of it.

- You'll have less control over what shows up on the interface. [Apple](#) and [Android Auto's](#) guidelines strongly encourage consistency and legibility over custom design
- Keep things simple and easy to use
- Don't forget about aspect ratios — you'll want to ensure your layout is adaptable to varying screen sizes

Quality assurance

However, one of the biggest challenges you'll face is quality assurance and testing your app.

- Test with a real-world car entertainment system. Doing so will gain you more insights into how your app works when parked, driving, and what might make it difficult for users to interact with your app



Smartwatches



Smartwatches

It might be surprising to hear that the [first-ever smartwatch debuted in 1927](#). The Plus Four Wristlet Route Indicator allowed you to manually scroll through a paper map cartridge to help you get from point A to B.

Since then, we've seen many 'smartwatches' and watch operating systems make their way into the market.



1998 Linux Wristwatch

2002 Fossil's Palm Pilot

2012 Sony's SmartWatch

2014 Android's Wear OS

2015 Apple Watch





And with over [100 million Apple Watch users in 2020](#), [a total forecast of 253 million smartwatch shipments in 2025](#), and Apple's watchOS 6 update finally bringing their App Store directly onto the Apple Watch — making it arguably the [healthiest app ecosystem for a wearable](#) — it might be time to consider building for wearable technology.

But the big question companies may find themselves asking is, “How can we ensure our users gain value from downloading a smartwatch version of our mobile app?”

Here's how.

The opportunity

As explained earlier, car platforms typically have four buckets apps fall into, but in the case of smartwatches, there are two:



Extensions of mobile apps



Individual apps catered to the watch

Choosing which bucket to fill will depend on your business's goals and your users.



Our learnings

Business strategy

Ask yourself:

- Who is your target audience? Maybe they're tech-forward users looking for the latest and greatest apps or maybe they're people who can't have their phones on them at all times
- What is the value prop? Most smartwatches will automatically pull notifications from a phone over to a watch, so your app will need to do more than be a home for notifications to live in



Design

Just as car apps require simplicity, so will your watch apps.

- Keep the interface straightforward and prioritize what functions to include. Smartwatch screens aren't that big and not every process flow will translate well from mobile app to watch
- Design for flexibility. Because Android's Wear OS is used by a variety of companies, there is a lack of consistency in the shape and size of those watch faces

Quality assurance

Like cars, smartwatches bring their own set of testing complexities. You can mitigate this by:

- Using the design platform, Figma. They have a [plug-in](#) that lets you view your designs on an Apple Watch which we found works well but lacks the same ability for Wear OS devices
- Testing your app directly on a watch. This tends to work better than emulators as the resolution differs across watches and that's something you need to take into consideration

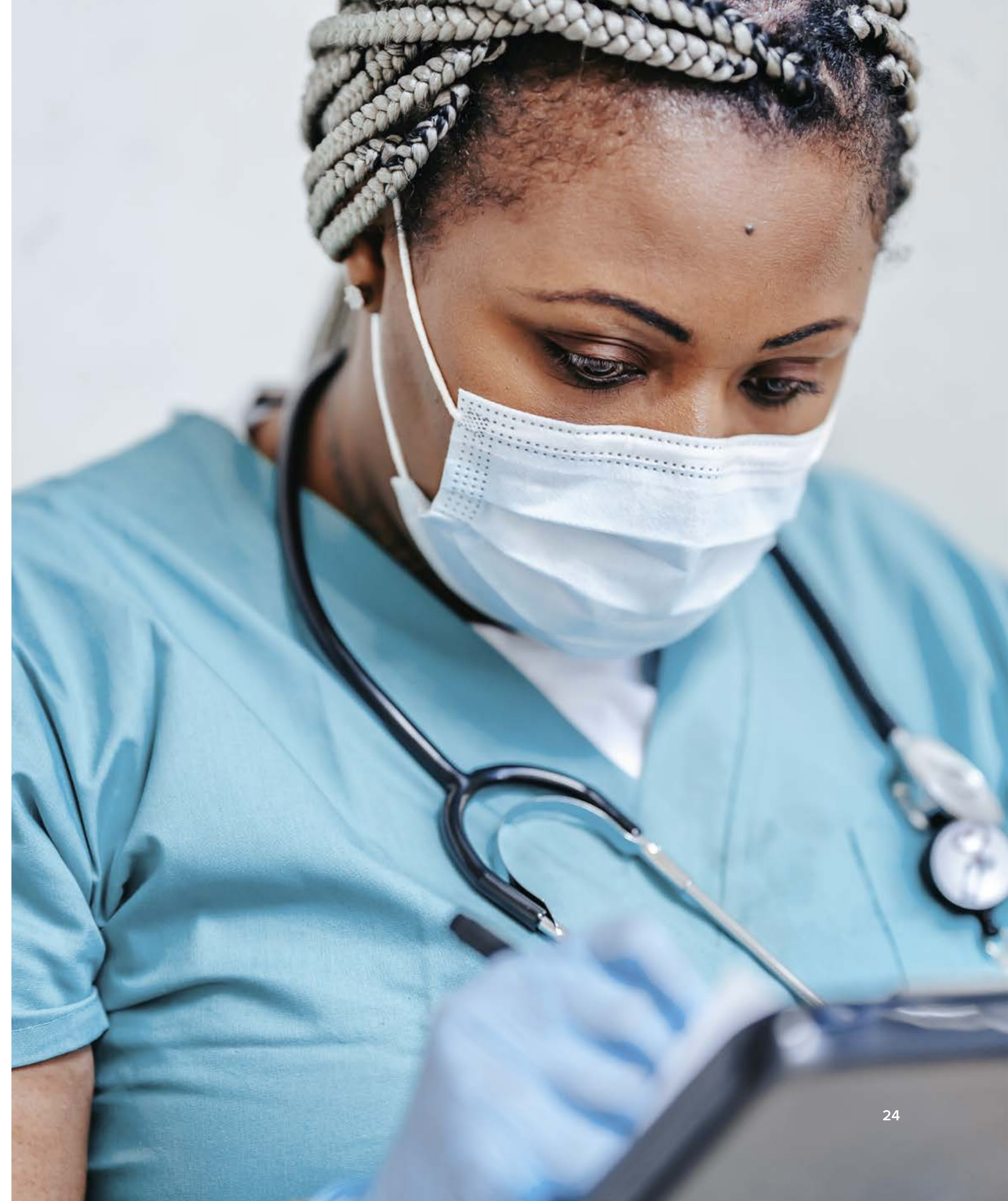


A case study

NurseGrid

Our work with [NurseGrid](#), a healthcare company, tackled many of the challenges and opportunities we've mentioned. Nurses often work at multiple locations and in different wards, so it gets complicated tracking where they'll be working and when. NurseGrid's scheduling app helps ameliorate this, but they also knew there were limitations to their mobile app since most nurses aren't able to have their phones on them during work.

So we built an extension of their mobile app and brought it to Apple's watchOS and Android's Wear OS.





Focusing in on feature prioritization

We already knew which bucket NurseGrid’s app would fill — an extension of a pre-existing mobile app — and we already knew their target user base. So the first challenge was ensuring this smartwatch version was actually useful for nurses.

We kept it simple and focused on priority functions, such as:

01

Notifying nurses of available shifts

02

Updating the status of pending shift changes

03

Displaying their schedule in a calendar view

All of which is now possible with a simple glance to their wrist — a key benefit for nurses who can’t check their phones while working.

Making notifications matter

Making sure these notifications had value was the next challenge. It's one thing for users to notice the notification coming in, and another for them to actually tap through and engage with it.

Bringing value to notifications can be achieved by asking users to complete an action. For NurseGrid, that could look like a nurse confirming they've seen a shift change or, as we work to continue building in more functionality, adding or swapping a shift right from their smartwatch.



Connected TVs



Connected TVs

Let's talk smart (or connected) TVs — which are booming in popularity. Over [half of the population in Europe and the United States own a smart TV](#) set with a forecast that there will be 113 million Americans using smart TVs in 2024.

As Roku sees their [userbase doubling in just two years](#), with roughly around 56.4 million monthly active users in the United States, and Apple TV seeing [quarter-over-quarter growth of 33% in 2021](#), is it time to build a TV app?

Well, that depends on whether or not your business model translates well to the home theatre — and if you're ready to tackle the challenges that will lead to success.





The opportunity

Building for smart TVs has its own unique context. You'll need to do a deep dive into research and understand why someone would need a TV version of your app — because it won't be beneficial for every product out there.

Our learnings

Business strategy

When we're working with clients looking to enter this space, we always make sure to ask this big question: does it make sense for you to branch out to TV platforms?

If your business model is centered around watching video content, then it's almost certain you'll need a TV app — especially if you offer long-form content.

But it's not just limited to those types of business models:

- Mobile games with decent graphics can benefit from big screens
- Audio content-based apps will enable users to take advantage of their home sound systems instead of phone speakers.

Okay, your business model translates well. Now how do you design your TV app to make your users' lives better and easier? That comes down to how you build it.





Development

Recall the last time you had to log in to an account on your television. Remember how time-consuming it was to navigate a keyboard using your remote control's arrow keys? Taking these key little details into consideration will help you design and develop a successful TV app.

Think about:

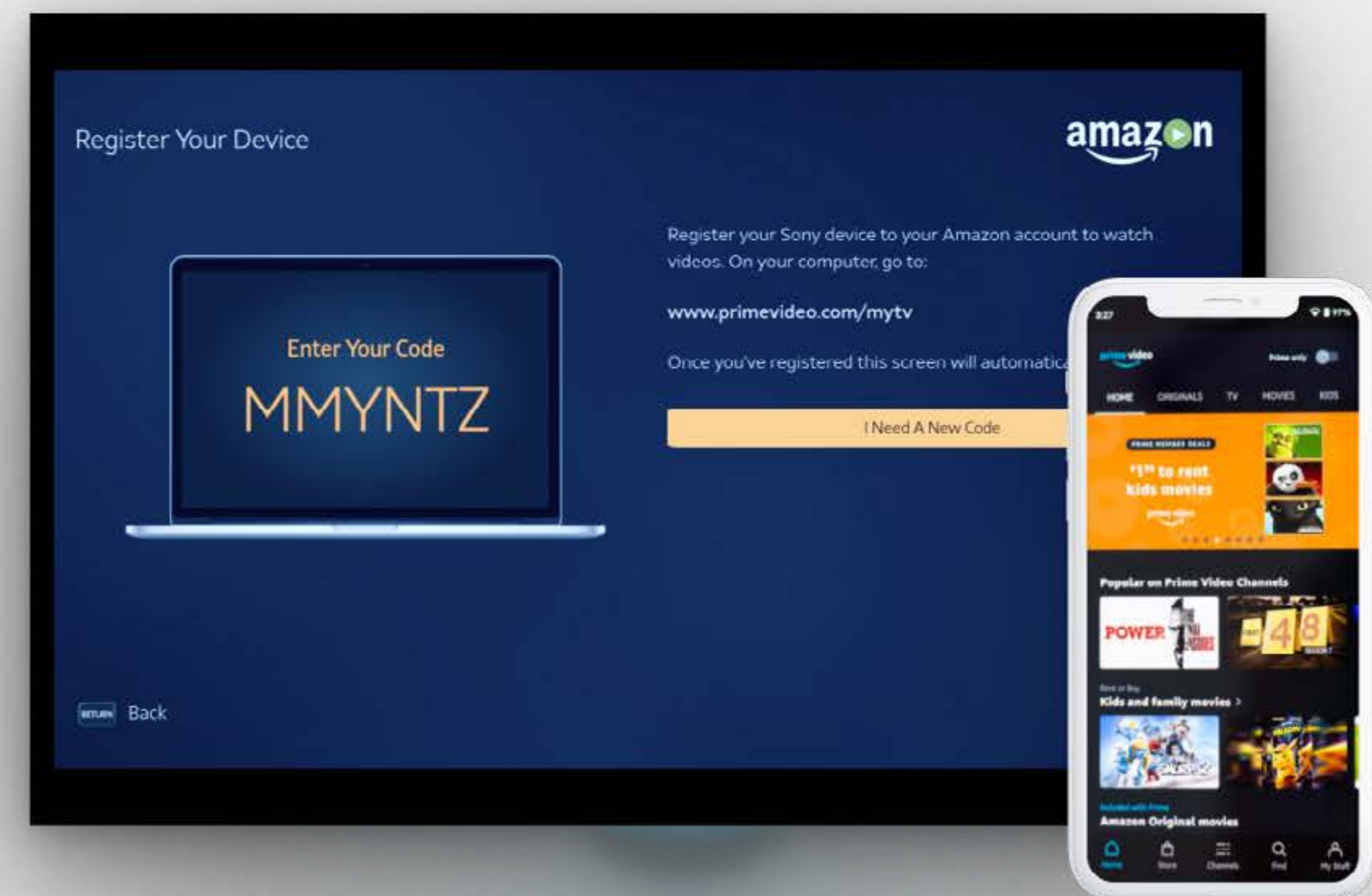
- How your users navigate through your app using remote control buttons and not necessarily a touch screen
- How to make user interactions easy — this isn't the time for innovation, but for familiarity

This blocker is easier to overcome with tvOS because users can use their phones as a remote control. So take advantage of single sign-on (SSO) and access codes.

Take Prime Video, for example, which uses QR codes to help users log in to their accounts with one simple scan using their phone.

But for Roku TV, things are more constrained to remote controls, so ensure there's an [effective navigation scheme](#) and that you aren't overcomplicating the process.

And if you're building a video content-based app, keep in mind that while tvOS can render to different resolutions, it's usually faster to make a server request. Be ready with pre-rendered versions in varying resolutions and store them on your server.



Prime Video phone login system

Design

As you design the UI, keep in mind that not everyone will have high-resolution TVs which can impact how your app and its content appear for a variety of users.

You'll need to consider:

- Using bigger, bolder fonts as thin type/fonts won't show up on a lower-resolution screen
- The way contrast ratios may differ on people's televisions



Final thoughts

Exploring new platforms not only offers your mobile app's users a new way of experiencing your product but can also reach more people on a wider scale. So whether you expand your app to cars, smartwatches, connected TVs, or all of the above, make sure you build with these differences in functionality, interface, and approaches in mind. And as always, never forget who your app is for — your users.



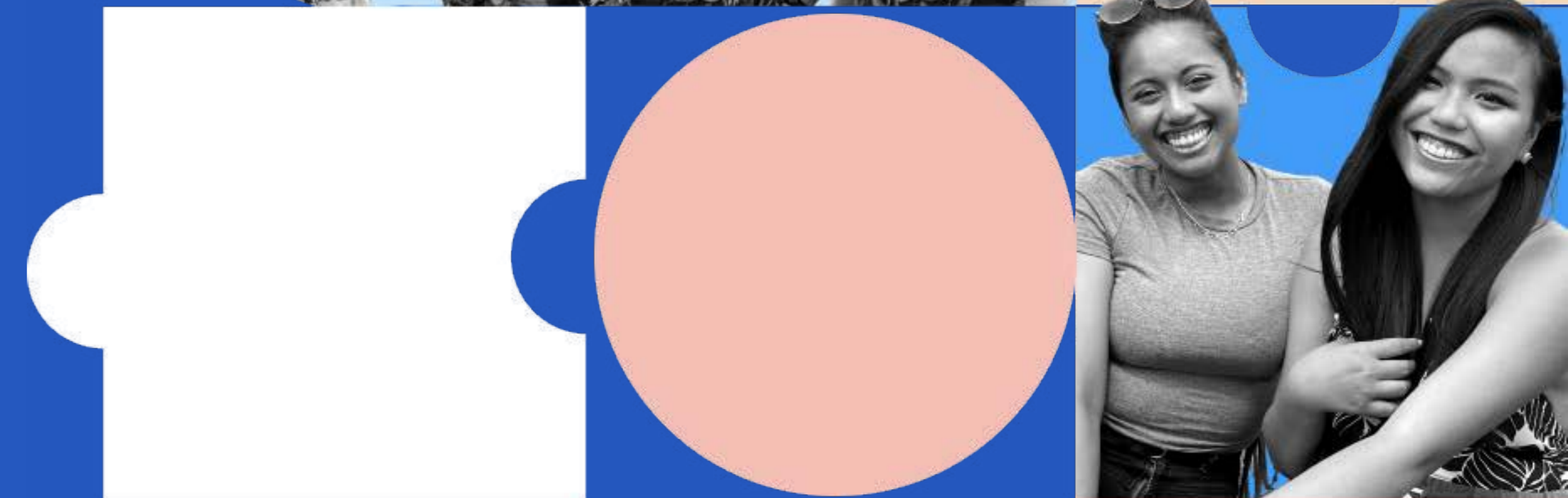
About Apply Digital

Apply Digital is an innovation, products, and experiences company.

Digital to our core, we are purpose-built to transform possibilities for people. We solve complex problems with well-executed solutions tailor-made for continuous growth — we're ambitious and our clients are too. We work with well-funded start-ups, global brands, and Fortune 1000 companies spanning industries and audiences, including EA, Moderna, League Health, and Realtor.com.

For more insights on how we can help you succeed,

email us at  hello@applydigital.com or visit our website  www.applydigital.com



Credits

Gautam Lohia

CO-FOUNDER & CEO

Report Sponsor

Wells Stringham

HEAD OF EXPERIENCE

Subject Matter Expert & Authour

Scott Michaels

CHIEF PRODUCT OFFICER

Subject Matter Expert

Sean Bowles

R&D LEAD

Subject Matter Expert

Mike Post

MOBILE TECH LEAD

Subject Matter Expert

Jaime Chang

CONTENT WRITER

Lead Writer and Researcher

Sophia Tam

MARKETING DESIGNER

Lead Designer

Liz Goode

SENIOR WRITER

Content Supervision

Mistuaki Yajima

DESIGN LEAD

Design Supervision

Daniela Valdes

UI DESIGNER

Design Support

Vaibhav Lohia

HEAD OF MARKETING

Delivery Lead

Jo Tan

PROJECT MANAGER

Project Management Lead