hi I'm Carl Seaver and I'm Kolchak

we are UX engineers that prototype new

search experiences for Google in

previous sections of this series you

learned about how paper prototyping

sketching and digital prototyping tools

can help you explore your ideas and set

a direction for your design team at the

core prototypes or stories about the

future they helped us create a shared

sense of our current state our future

vision and the path we'll take to get

there

in this section we'll be talking about

native prototyping and when we say

native prototyping we mean getting your

hands dirty and writing some code this

can mean writing Android applications

with Java constructing iOS apps with

Swift or writing HTML CSS and JavaScript

for the browser as much as possible this

is done using real devices real data and

real users our goal for this video is to

show you how you can leverage technology

to really bring your ideas to life this

will let you start testing in real world

scenarios and start pitching your ideas

to users and stakeholders now we'll look

into each of these areas in more detail

and show you how they'll come together

to turn your idea into an actual product

do you know what the best thing about

being a prototyper is toys lots and lots

of toys when you prototype natively

you'll start building and testing your

design ideas on real devices think of

this as an extension of your design

process all of this technology becomes

your new canvas and the code you write

becomes your new paintbrush we all know

that building and experience for our

phones is important but how would the

experience of your product change if a

user interacted with it a watch in the

home on the TV or in a virtual world

thinking about how your product is

actually experience in the real world is

one of the primary goals of data

prototype so how do you get started well

as you may have guessed this type of

prototyping requires strong technical

proficiency depending on which platform

you use this could mean writing code in

Java Swift C++ Python JavaScript or any

number of other programming languages

you'll also need to be proficient in the

ecosystem and SDKs of whatever platform

you're building on whether that be

Android

i OS a web browser or even hardware

platforms like they arduino nowadays our

devices are loaded with technology

gyroscopes accelerometers speakers

cameras microphones in the GPS are all

important part of the technology that

helped shape the experience your user

has with the product and they all are

pretty hard to prototype traditional

design tools like Photoshop or sketch or

even some of the digital prototyping

tools you saw earlier sometimes the best

way to prototype an experience is by

writing code but when you prototype you

have a much different intent we call it

the hackers mentality you will be

exploring taking a lot of risks and

probably a lot of shortcuts in your code

and that's okay I should also mention as

you conduct these explorations this is a

really great time to try out specific

libraries and frameworks and assess

whether they are a good fit for your

product remember prototyping is meant to

be low commitment feel free to throw

away code whenever you need to and

really use this opportunity to explore

experiment and learn in the next section

Carl will show you how you can take all

your prototype explorations and start

validating them with real users now that

you've got a solid baseline on the

technologies you use for your app you

need to consider how users will respond

to your new features one of the main

benefits of native prototyping is that

you'll have a realistic experience that

you can put in the hands of your users

to collect valuable feedback because a

good user experience is much more than

just the look and feel of your

application designing for your target

market means making the investment and

understanding how your users will react

to the layout animation and input

characteristics of the experience

seeking validation early in the product

lifecycle will help you identify the

features that most resonate with your

users and focus your design and

development efforts in that direction

integrating the simple process of design

prototype test and validate into your

workflow will afford you the opportunity

to craft more delightful moments into

your app and hit the sweet spot with

your audience when seeking feedback from

your users be direct with the questions

you hope to answer using the prototype

ask for specific actionable assessments

on the important elements of your core

journey you may be surprised to learn

that the features that are important to

you might not be as important to your

users building on the technology choices

you've made along the way you can gain a

better

understanding of how the whole

experience will come together you'll be

more effective in guiding your product

direction and team because you have the

data to support your decisions you've

gone through rounds and rounds of

iterations explored with technology and

put your product in front of real users

to get validation you're now ready for

one of the most important parts of the

prototyping process pitching your idea

it's one thing to explain your vision to

someone but what if you can hand it to

them

and let them feel and experience it all

for themselves at Google we are often in

the position of getting buy into a new

product initiative or feature with our

own stakeholders we use prototypes to

tell the stories of our ideas you can

start pitching at any point but when

you've invested time into exploring and

validating with prototyping you can tell

a very compelling story because you're

able to prove through the feedback and

data that you've accumulated that your

idea has a strong value proposition this

is why we recommend investing and

prototyping before getting locked

heavily into the engineering phase use

the process to build strong arguments on

why your product will succeed and let

the prototypes be the proof in this

video we've taught you the value of

native prototyping why you should

explore with technology how to validate

your products direction and effectively

communicate your vision to stakeholders

and users alike native prototyping can

be used at any point in your product

lifecycle whether it's a new product

launch or an upgrade to an existing

feature prototyping with real devices

real data and real users will put your

team on a fast track to success and help

you identify the sweet spot in the

marketplace for your app the key is to

invest in the process and leverage

prototyping is an integral part of your

workflow this will help you build better

products that your users will love thank

you for taking the time to watch our

prototyping series you've seen

everything from paper to digital and

Native prototypes and somewhere in that

spectrum is the right method to tell the

story of your idea

I encourage you to experiment with all

these tools see what feels right for

your idea in your organization there's

no silver bullet no magic process just

ways to design prototype test and

validate try build fail refine and

repeat so you can hit the sweet spot

with your audience thanks again