~~WebID~~

FedCM

The why*, what, who and when

@goto

* for details, see TPAC 2020

TPAC 2021

Why?

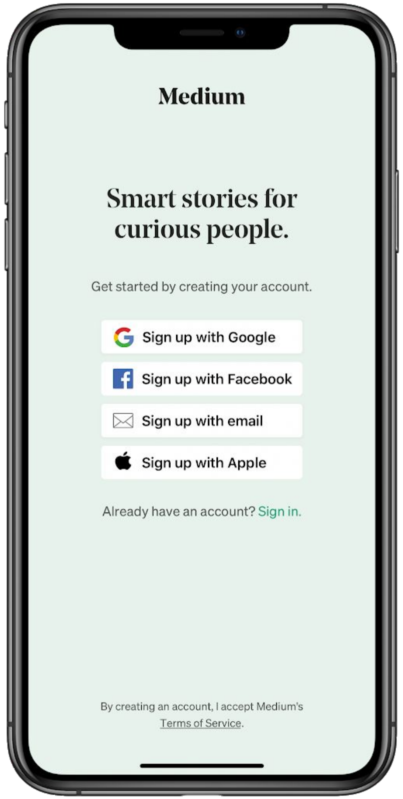
Federated Identity

What is it?

Users sign-in to a RP (relying party) with an IDP (Identity provider)

Why do we think it’s important?

Federated identity is safer* than per-site usernames and passwords



Medium

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Already have an account? Sign in.

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* phishing, password reuse, etc

Why?

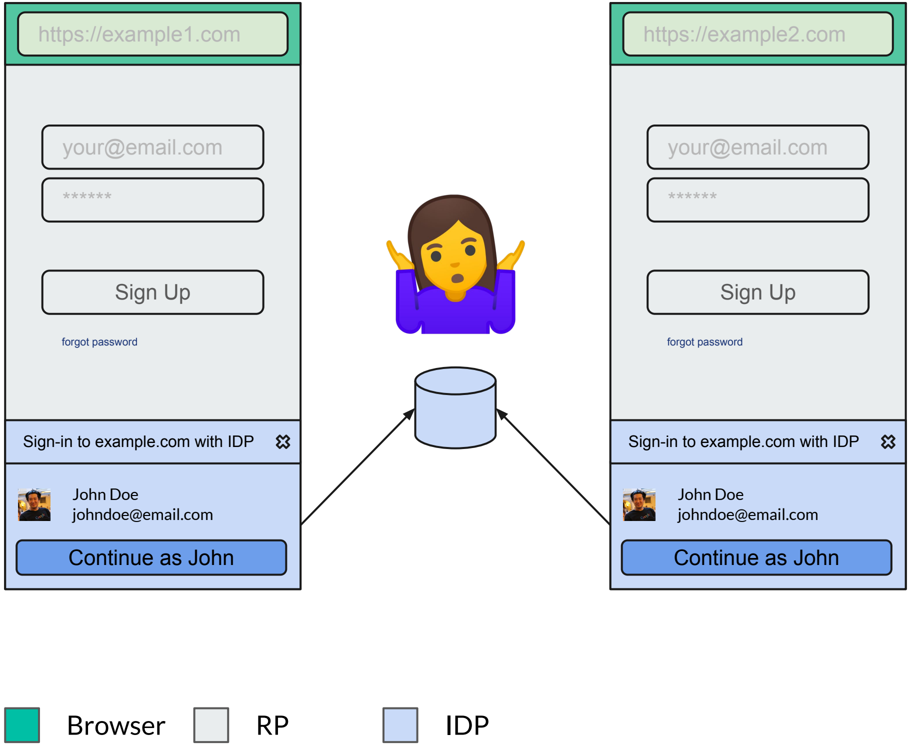
What's the problem?

By design, identity federation was built on top of low-level primitives*.

By accident, the same primitives also enable cross-site tracking.

* iframes, third party cookies, redirects

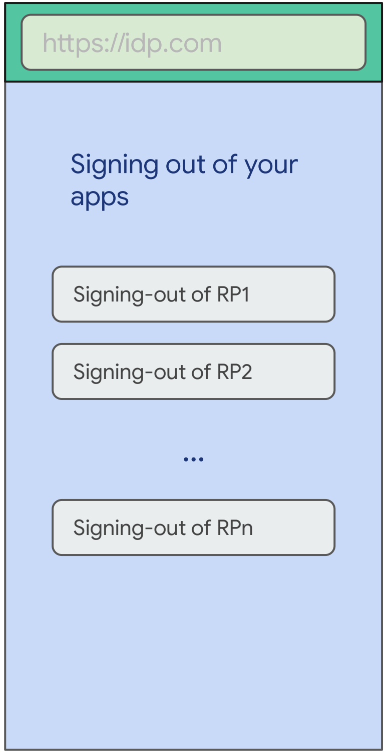
The classification Problem



Why?

3P cookies use in Federation

front channel logout



https://idp.com

Signing out of your apps

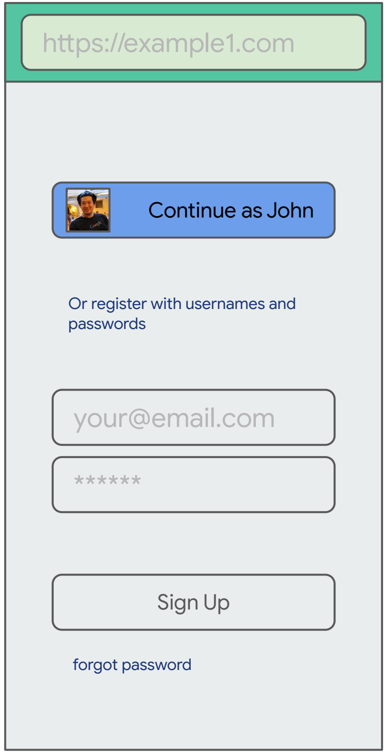
Signing-out of RP1

Signing-out of RP2

...

Signing-out of RPn

personalized buttons



https://example1.com

Continue as John

Or register with usernames and passwords

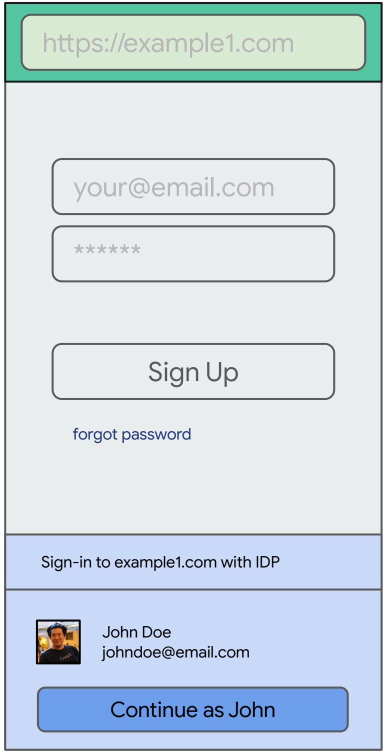
your@email.com

******

Sign Up

forgot password

social widgets



https://example1.com

your@email.com

******

Sign Up

forgot password

Sign-in to example1.com with IDP

John Doe
johndoe@email.com

Continue as John

🟩 Browser □ RP 🟦 IDP

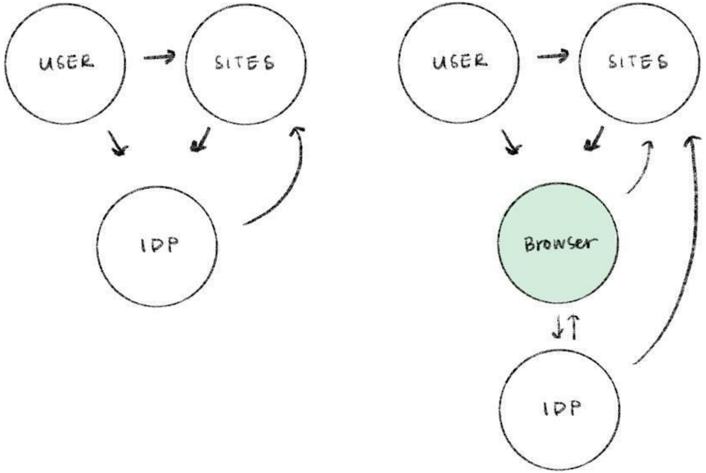
What?

What’s FedCM*?

A high-level, identity-specific, privacy-preserving browser API that enables identity federation to continue thriving on the web.

* Federated Credentials Management API **

* * Yeah, I know



What?

Classes of solutions

Permission

Browser is only involved to capture user consent for tracking.

Pros

Backwards compatible. Extensibility.

Cons

Permission-blindness* ineffective at driving change.

* on the way of the job to be done

Mediation

Browser renders parts of the IDP flow in the browser consent moments.

Pros

Deployable by IDPs. Meaningful permission.

Cons

Ossification*.

* basic auth anyone?

Delegation

IDP delegates much of the responsibility for minting tokens to the browser.

Pros

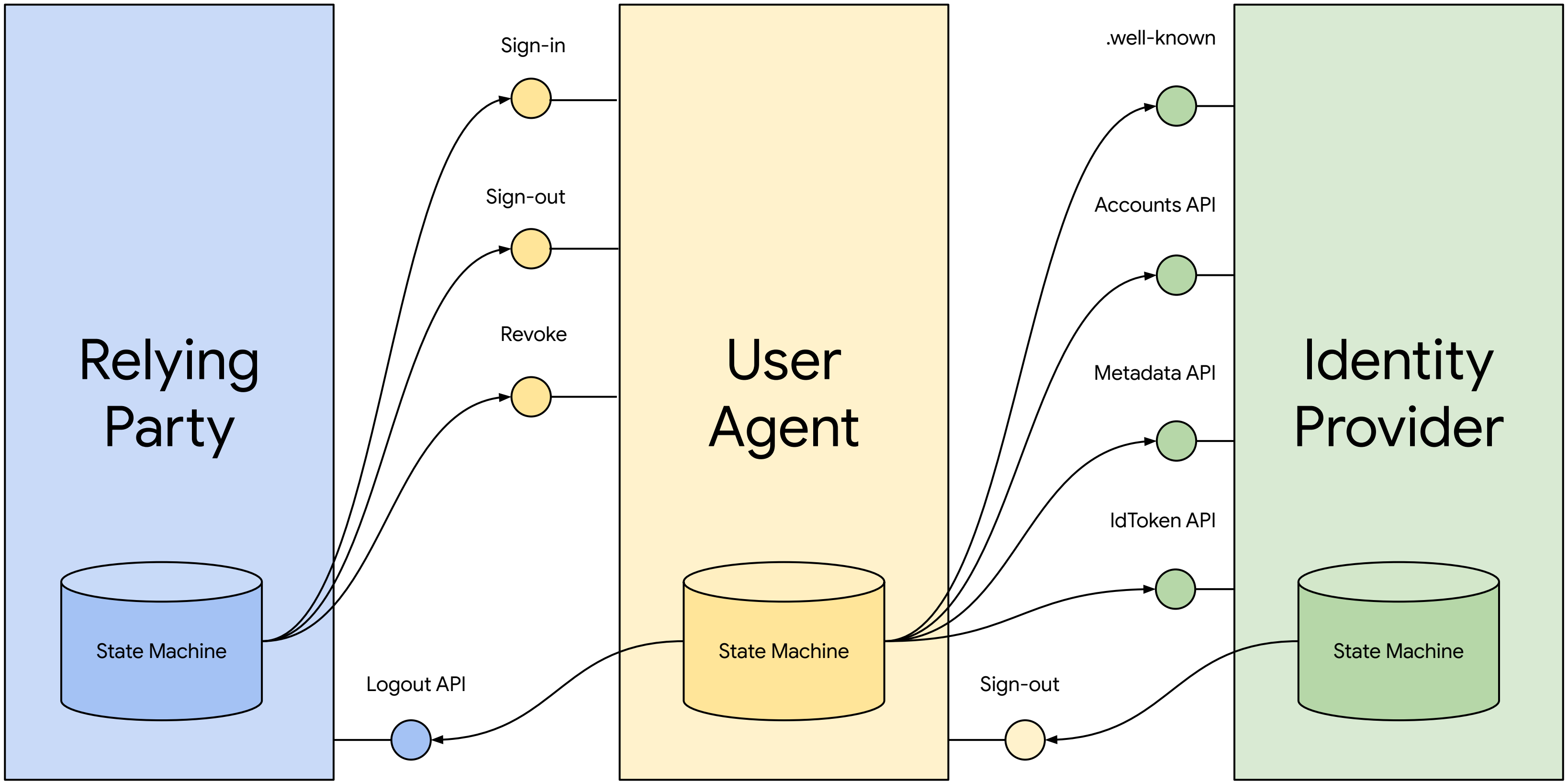
Frictionless, consequence-free.

Cons

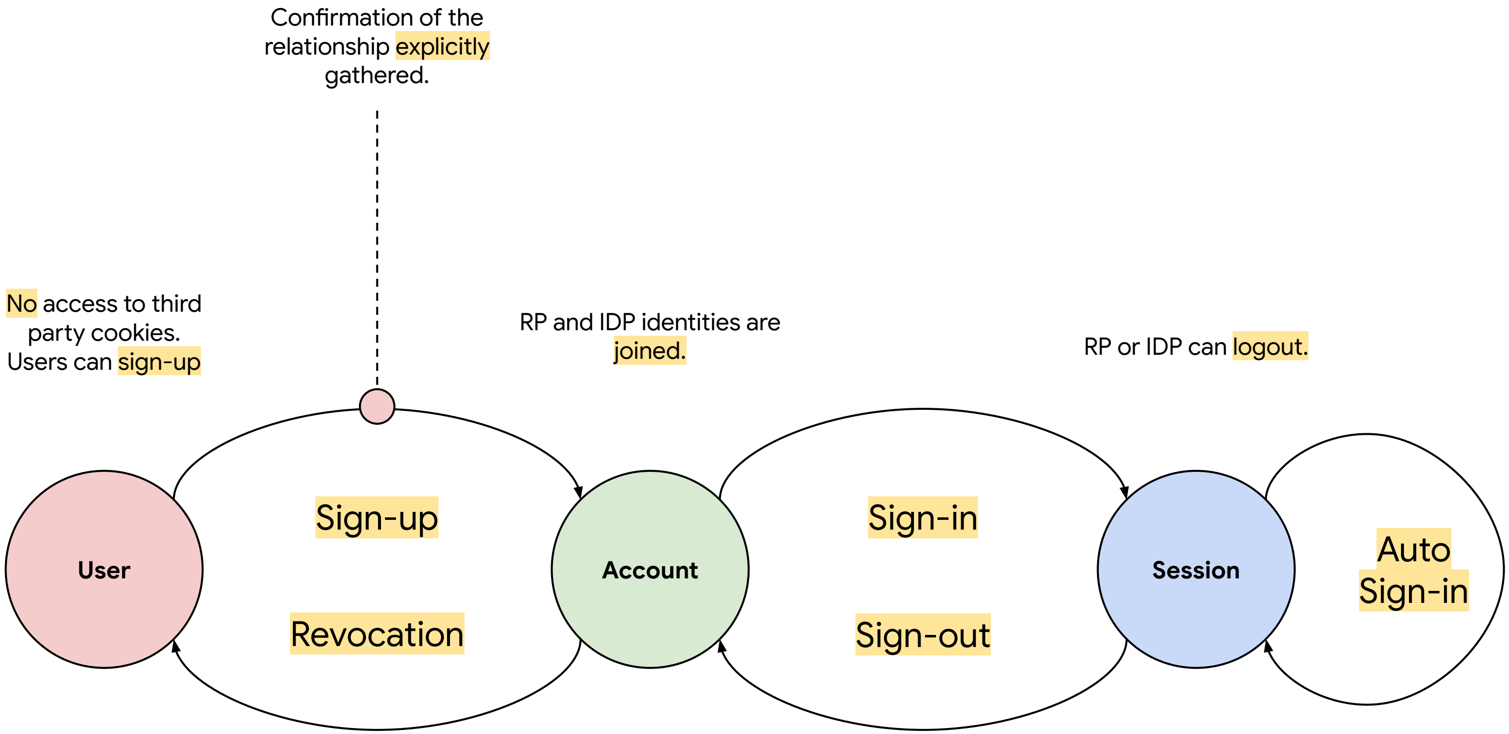
RP backwards incompatible *.

* reminder: O(M) of RPs

What?



Relying Party
State Machine
Sign-in
Sign-out
Revoke
Logout API
User Agent
State Machine
.well-known
Accounts API
Metadata API
IdToken API
Sign-out
Identity Provider
State Machine



Confirmation of the relationship explicitly gathered.

No access to third party cookies. Users can sign-up

RP and IDP identities are joined.

RP or IDP can logout.

User

Sign-up

Revocation

Account

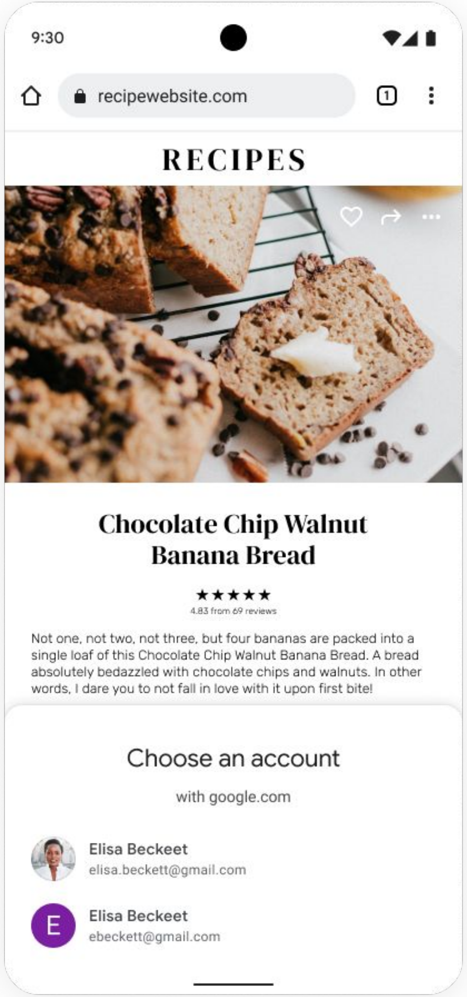
Sign-in

Sign-out

Session

Auto Sign-in

What?



9:30

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Chocolate Chip Walnut Banana Bread

★★★★★

4.83 from 69 reviews

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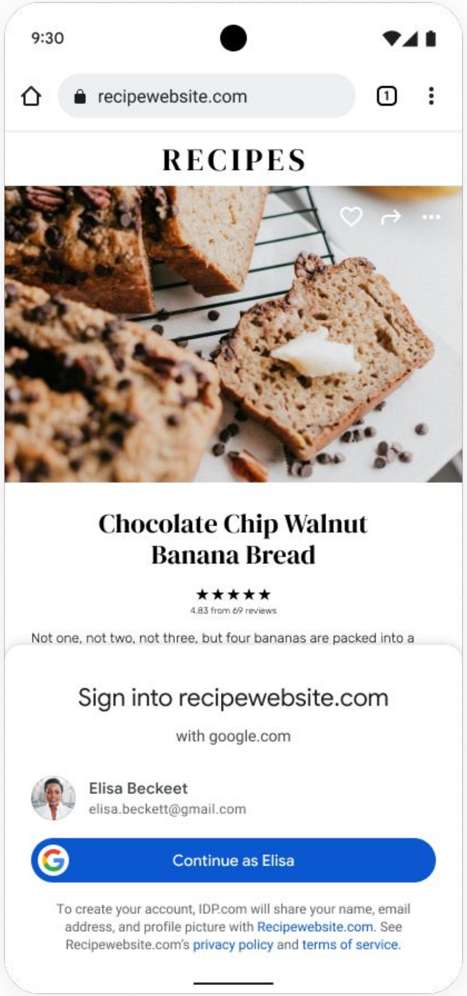
Choose an account

with google.com

Elisa Beckeet
elisa.beckett@gmail.com

E Elisa Beckeet
ebeckett@gmail.com



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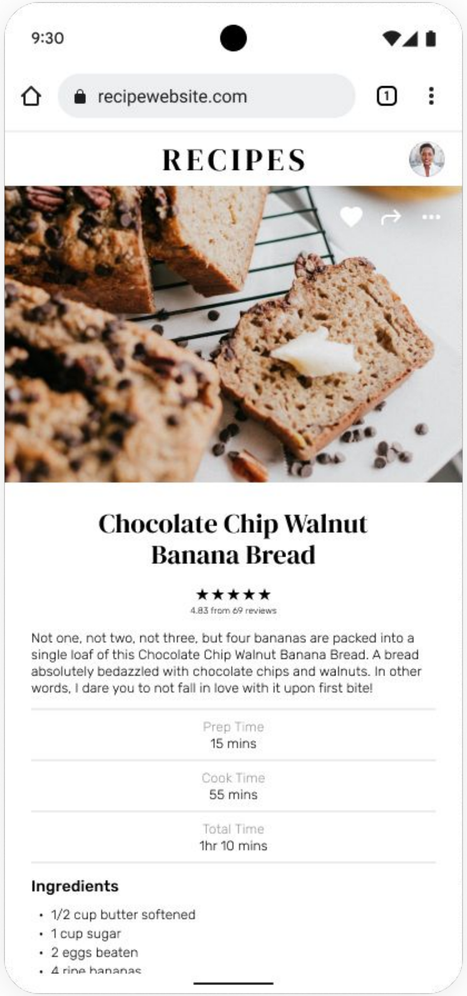
with google.com

Elisa Beckeet
elisa.beckett@gmail.com

Continue as Elisa

To create your account, IDP.com will share your name, email address, and profile picture with Recipewebsite.com. See Recipewebsite.com's privacy policy and terms of service.



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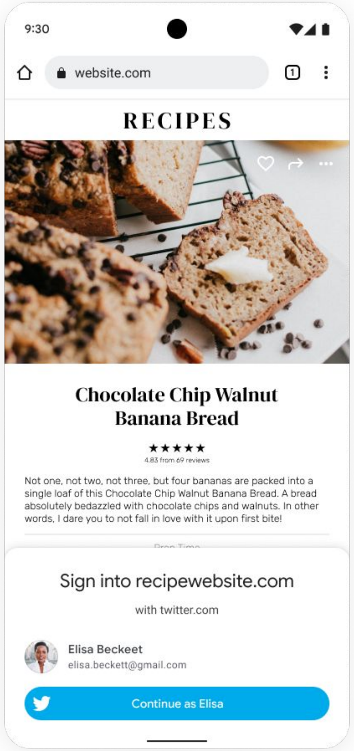

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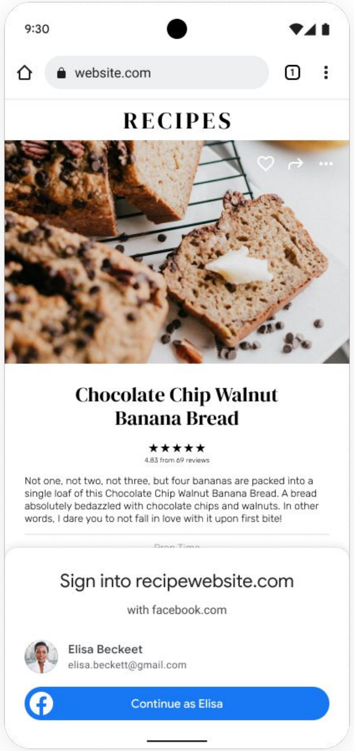

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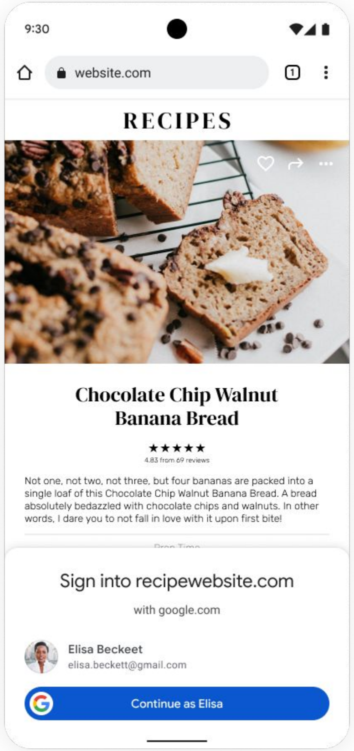

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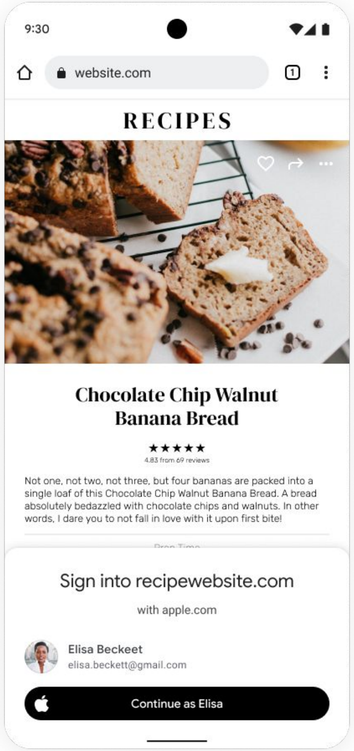

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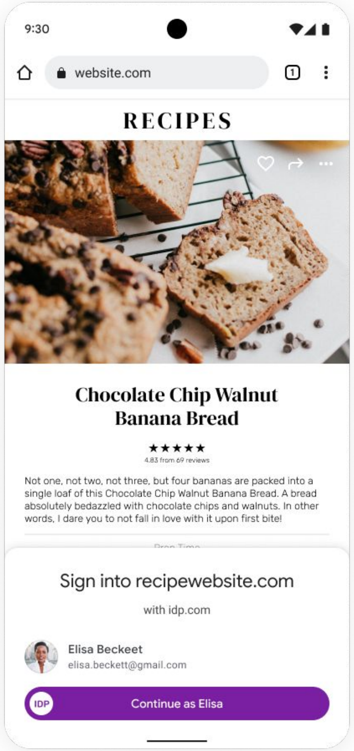

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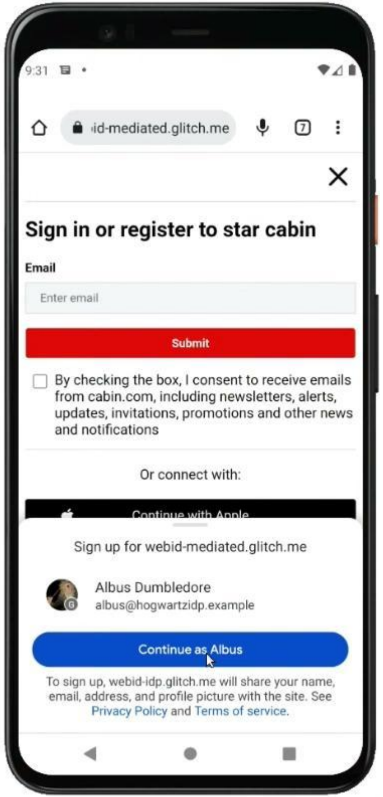
What?

Demo

What?



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Enter email

Submit

□ By checking the box, I consent to receive emails from cabin.com, including newsletters, alerts, updates, invitations, promotions and other news and notifications

Or connect with:

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Sign up for webid-mediated.glitch.me

Albus Dumbledore
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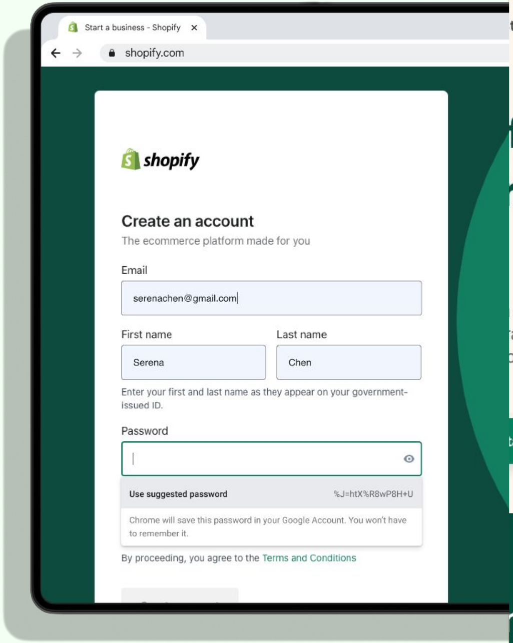
Continue as Albus

To sign up, webid-idp.glitch.me will share your name, email, address, and profile picture with the site. See Privacy Policy and Terms of service.

What?



Create an account

The ecommerce platform made for you

Email: serenachen@gmail.com

First name: Serena

Last name: Chen

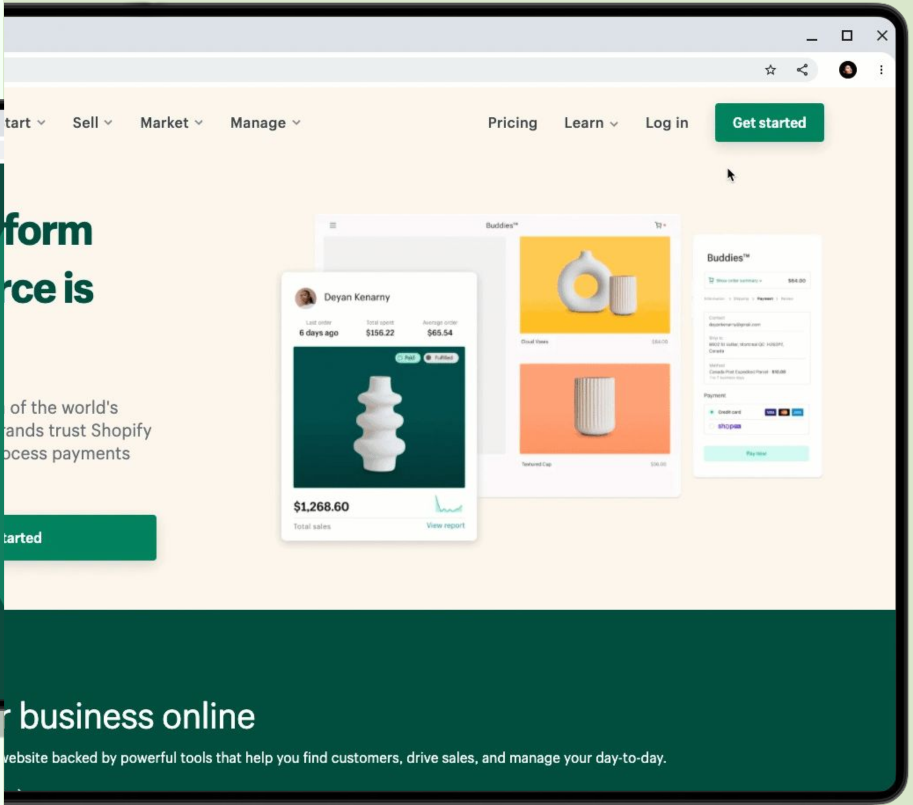
Enter your first and last name as they appear on your government-issued ID.

Password

Use suggested password %J=htX%R8wP8H+U

Chrome will save this password in your Google Account. You won't have to remember it.

By proceeding, you agree to the Terms and Conditions



form
rce is

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rands trust Shopify
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r business online

vebsite backed by powerful tools that help you find customers, drive sales, and manage your day-to-day.

What?

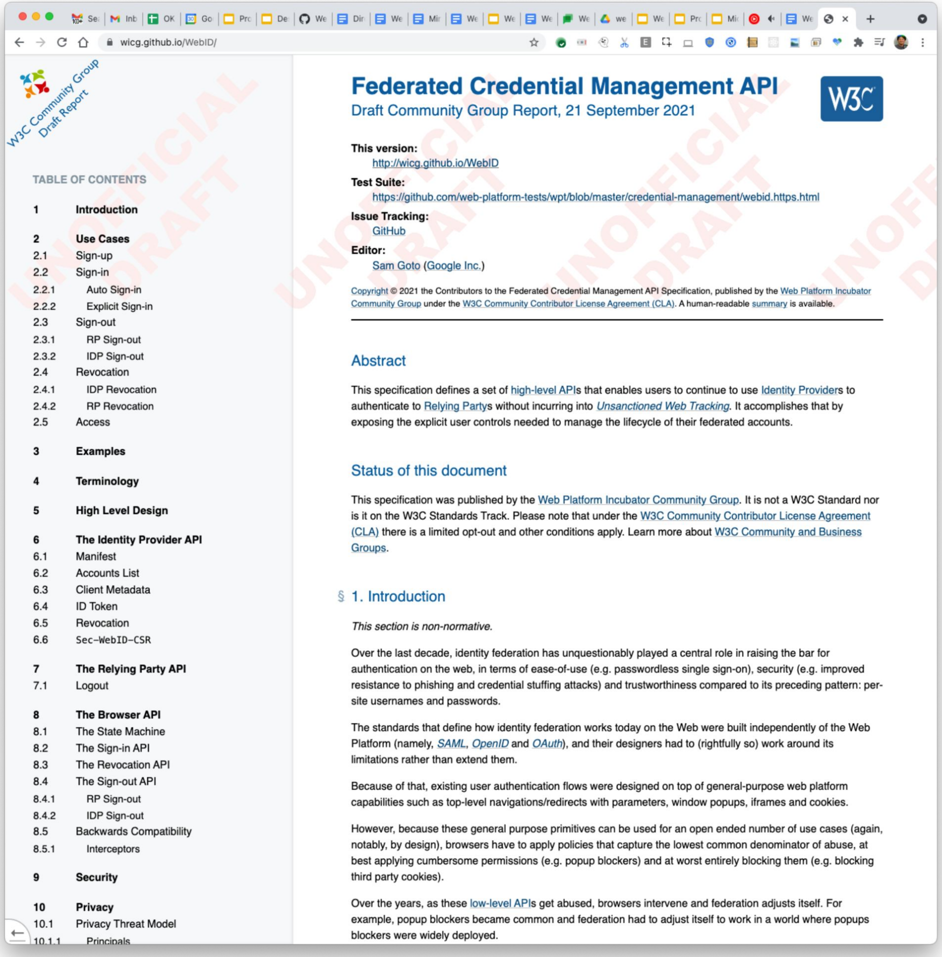


TABLE OF CONTENTS

Federated Credential Management API

Draft Community Group Report, 21 September 2021

This version:
http://wicg.github.io/WebID

Test Suite:
https://github.com/web-platform-tests/wpt/blob/master/credential-management/webid.https.html

Issue Tracking:
GitHub

Editor:
Sam Goto (Google Inc.)

Abstract

This specification defines a set of high-level APIs that enables users to continue to use Identity Providers to authenticate to Relying Partys without incurring into *Unsanctioned Web Tracking*. It accomplishes that by exposing the explicit user controls needed to manage the lifecycle of their federated accounts.

Status of this document

This specification was published by the Web Platform Incubator Community Group. It is not a W3C Standard nor is it on the W3C Standards Track. Please note that under the W3C Community Contributor License Agreement (CLA) there is a limited opt-out and other conditions apply. Learn more about W3C Community and Business Groups.

§ 1. Introduction

This section is non-normative.

Over the last decade, identity federation has unquestionably played a central role in raising the bar for authentication on the web, in terms of ease-of-use (e.g. passwordless single sign-on), security (e.g. improved resistance to phishing and credential stuffing attacks) and trustworthiness compared to its preceding pattern: per-site usernames and passwords.

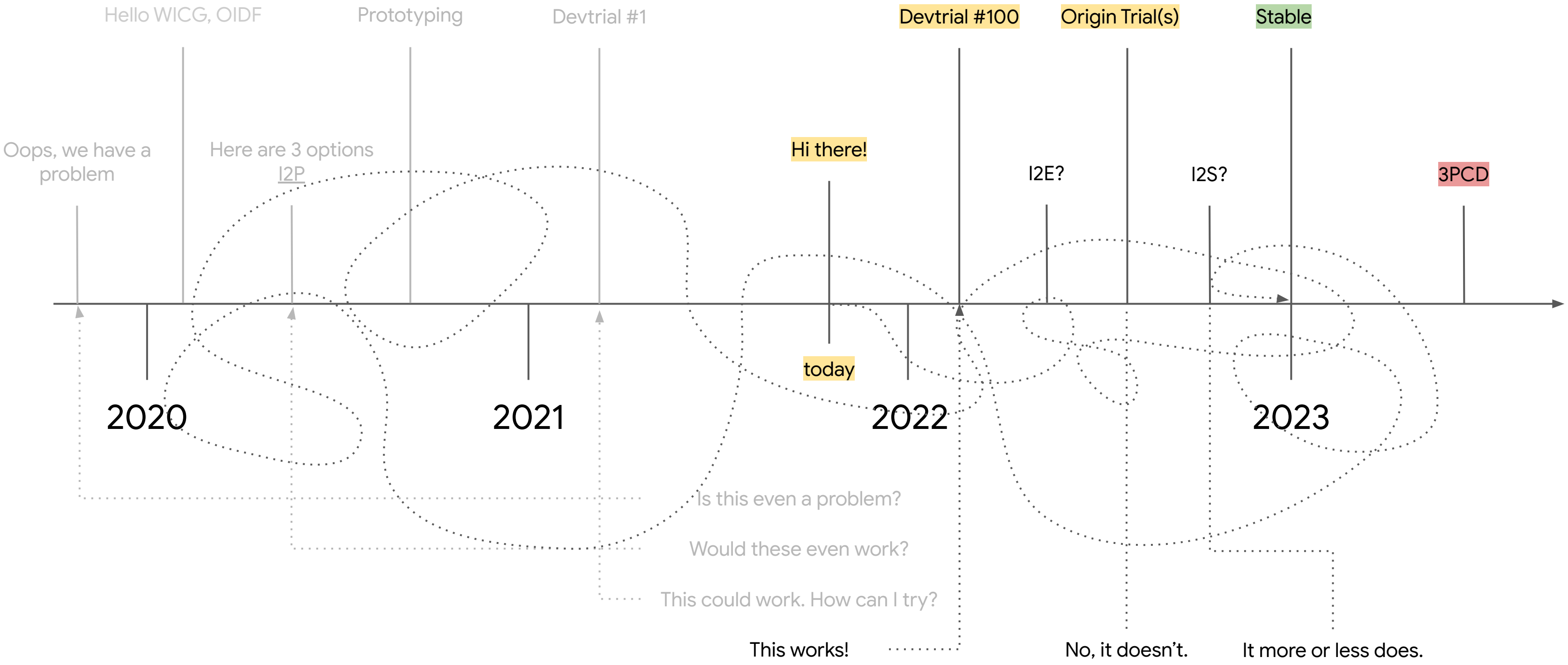
The standards that define how identity federation works today on the Web were built independently of the Web Platform (namely, *SAML*, *OpenID* and *OAuth*), and their designers had to (rightfully so) work around its limitations rather than extend them.

Because of that, existing user authentication flows were designed on top of general-purpose web platform capabilities such as top-level navigations/redirects with parameters, window popups, iframes and cookies.

However, because these general purpose primitives can be used for an open ended number of use cases (again, notably, by design), browsers have to apply policies that capture the lowest common denominator of abuse, at best applying cumbersome permissions (e.g. popup blockers) and at worst entirely blocking them (e.g. blocking third party cookies).

Over the years, as these low-level APIs get abused, browsers intervene and federation adjusts itself. For example, popup blockers became common and federation had to adjust itself to work in a world where popups blockers were widely deployed.

When?



Hello WICG, OIDF

Prototyping

Devtrial #1

Devtrial #100

Origin Trial(s)

Stable

Oops, we have a problem

Here are 3 options
I2P

Hi there!

I2E?

I2S?

3PCD

today

2020

2021

2022

2023

Is this even a problem?

Would these even work?

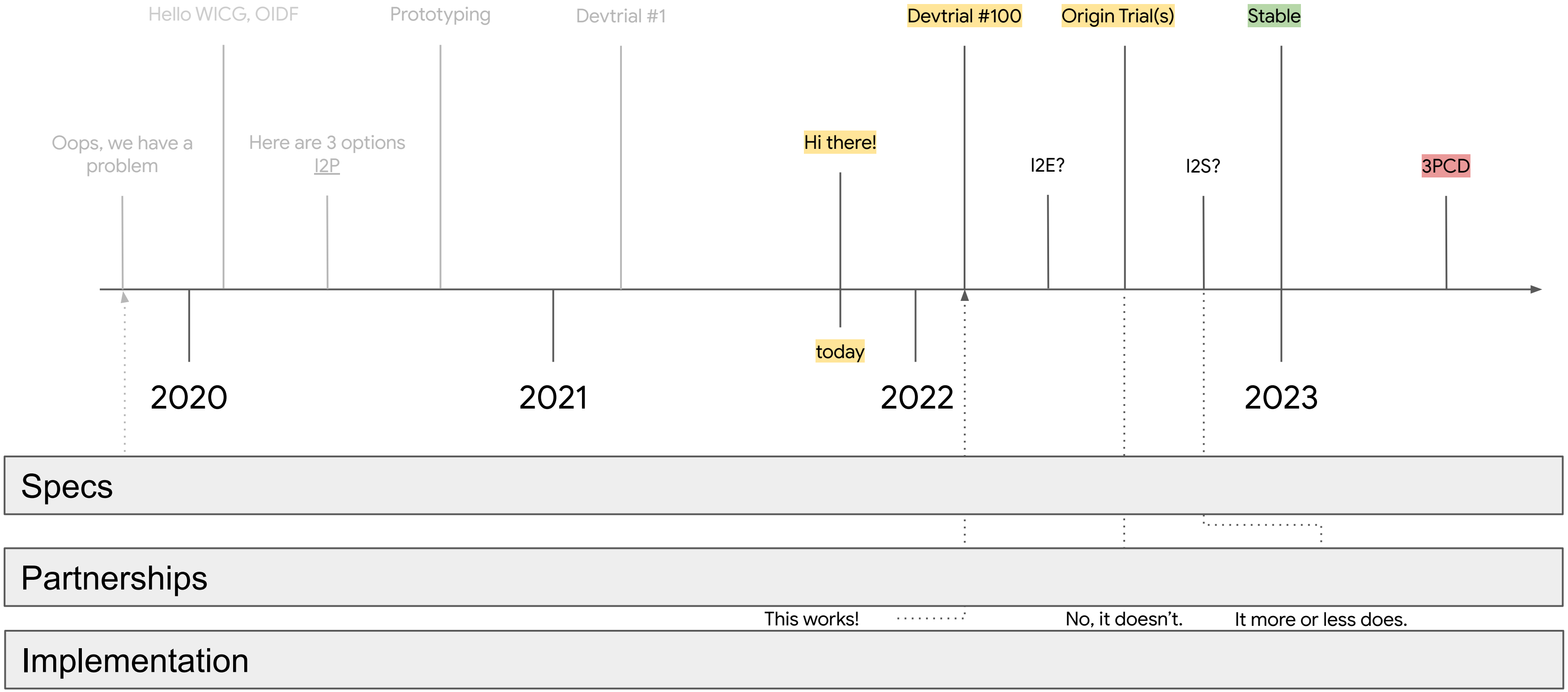
This could work. How can I try?

This works!

No, it doesn't.

It more or less does.

When?



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Specs

Partnerships

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It more or less does.

Implementation

Questions?

Classes of questions

IDPs and RPs

Anything else breaks when third party cookies are deprecated?

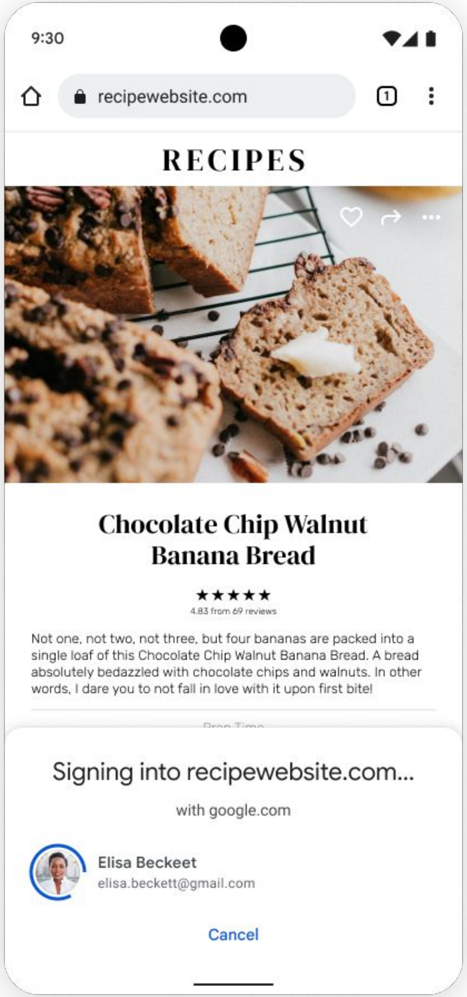
Browser Vendors

Any directional guidance? How can we help? Join us at the FedID CG?

Community

Any other concerns about 3PCD?

ANNEX



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Prep Time

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elisa.beckett@gmail.com

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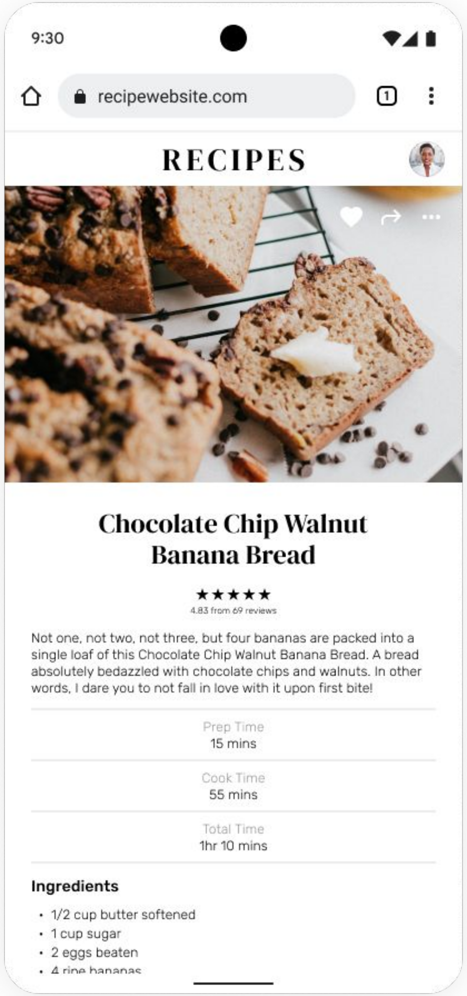

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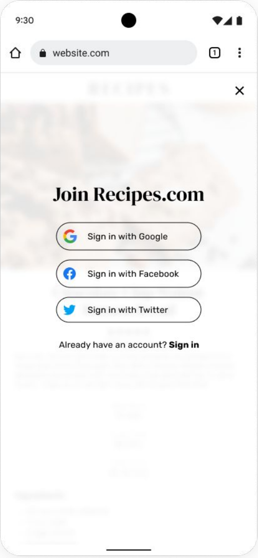

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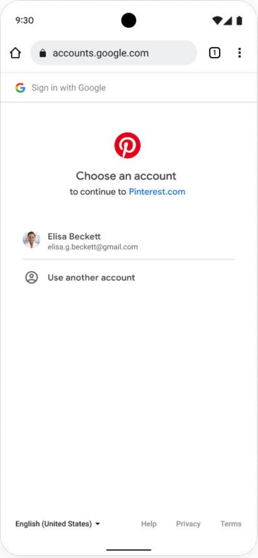

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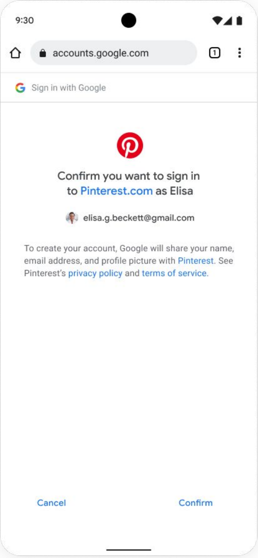

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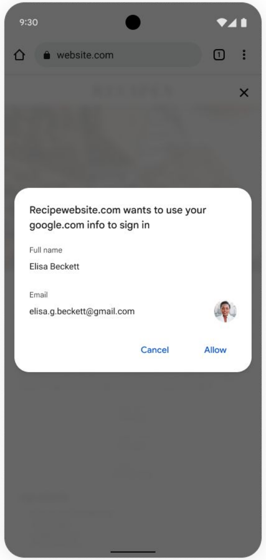

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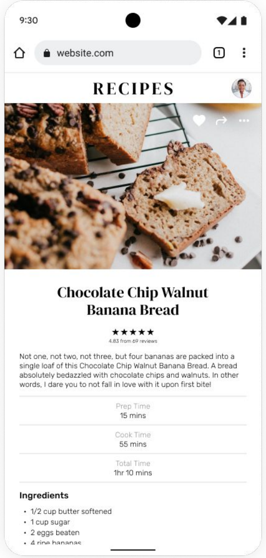
Full name
Elisa Beckett

Email
elisa.g.beckett@gmail.com



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