

 Ad Hoc

How Ethnography Make APIs Usable

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Agenda

- Definitions
- Why ethnography for APIs
- What is a usable API
- Discovery to design API functionality (case study)
- Understanding communities to make APIs usable (case study)
- Takeaways
- Questions

What are APIs

APIs are digital “pipes” that connect UIs to backend systems.

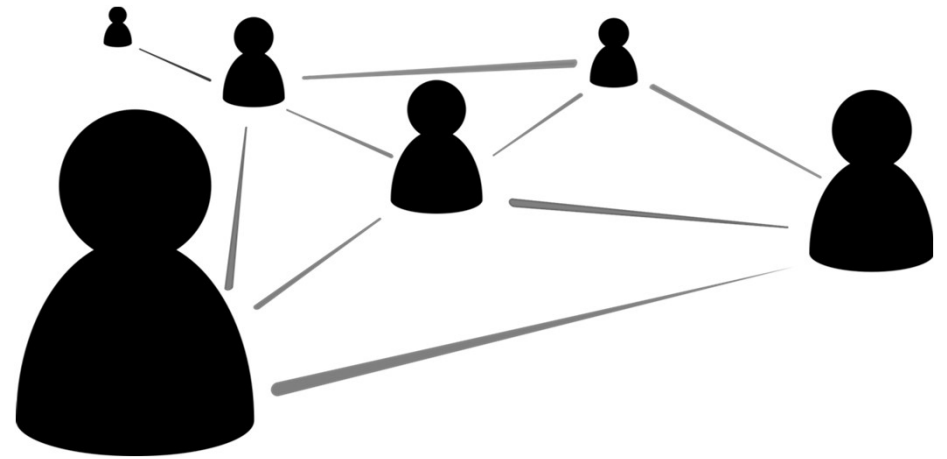
Government APIs

In the context of government, APIs allow people to conduct transactions with government agencies, like apply to benefits or manage their health records.

What is Ethnography

A methodology to study:

- How groups organize
- Relations within the group
- Shared meaning
- Shared identity



Why ethnography for APIs?



APIs are Collective Objects

- Groups of developers collaboratively and collectively consume APIs.
- Frontend and backend teams work together to integrate front-end to back-end systems, run tests, and monitor and troubleshoot integration issues.

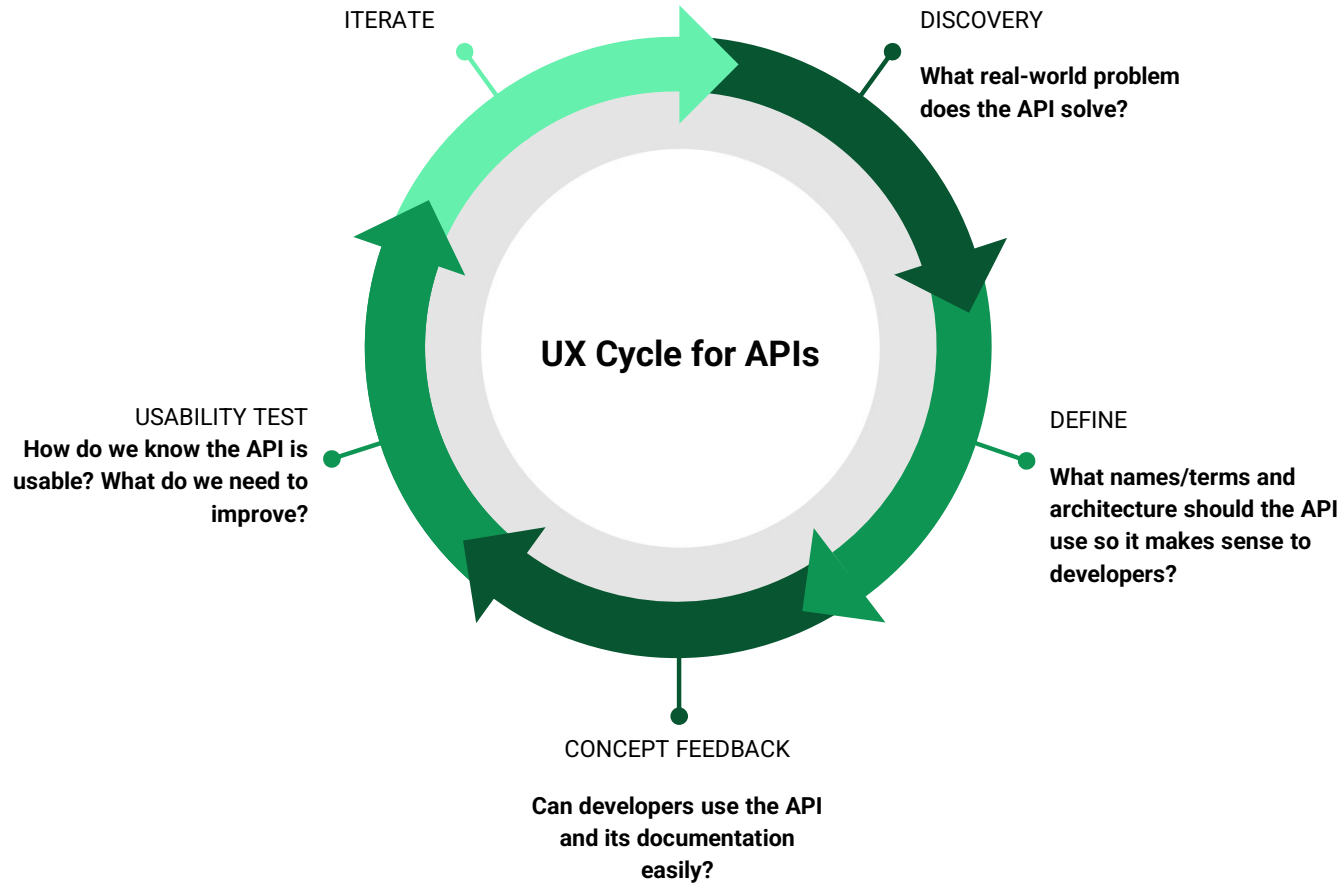
Ethnographic methods are instrumental to understanding:

- How teams share knowledge,
- Build a common understanding and practices to maintain that shared understanding
- Use APIs.

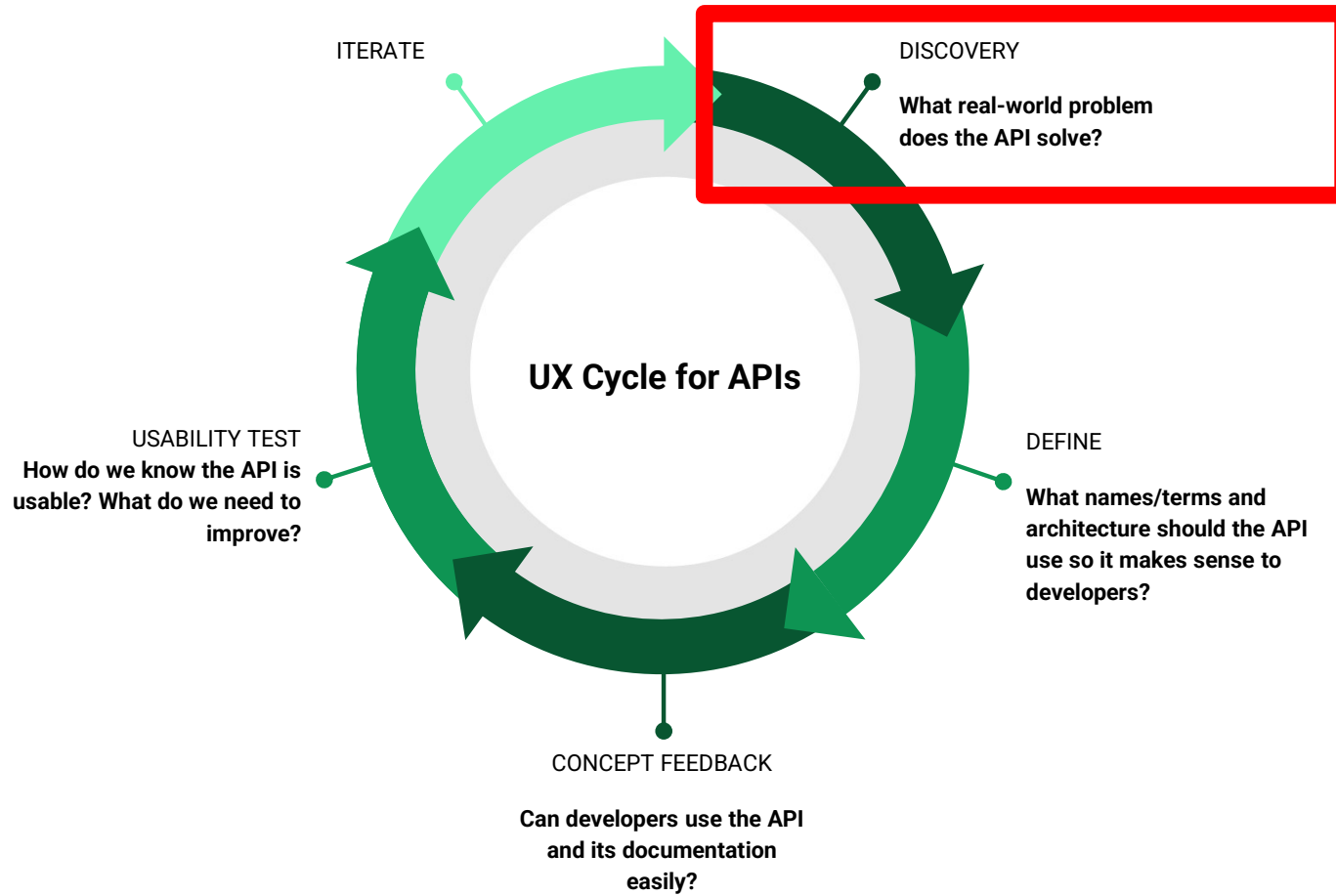
What is a usable API?



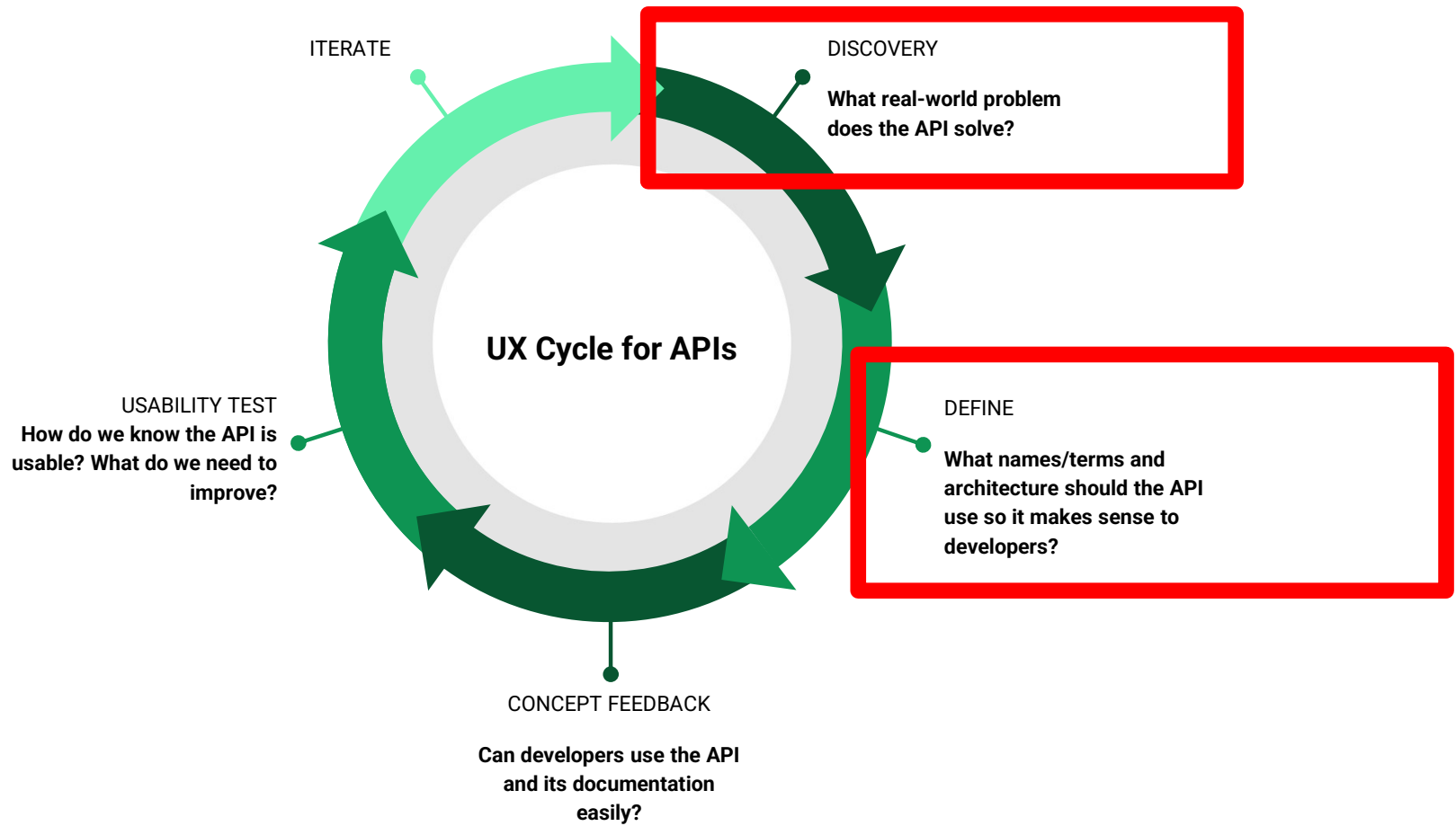
UX for APIs



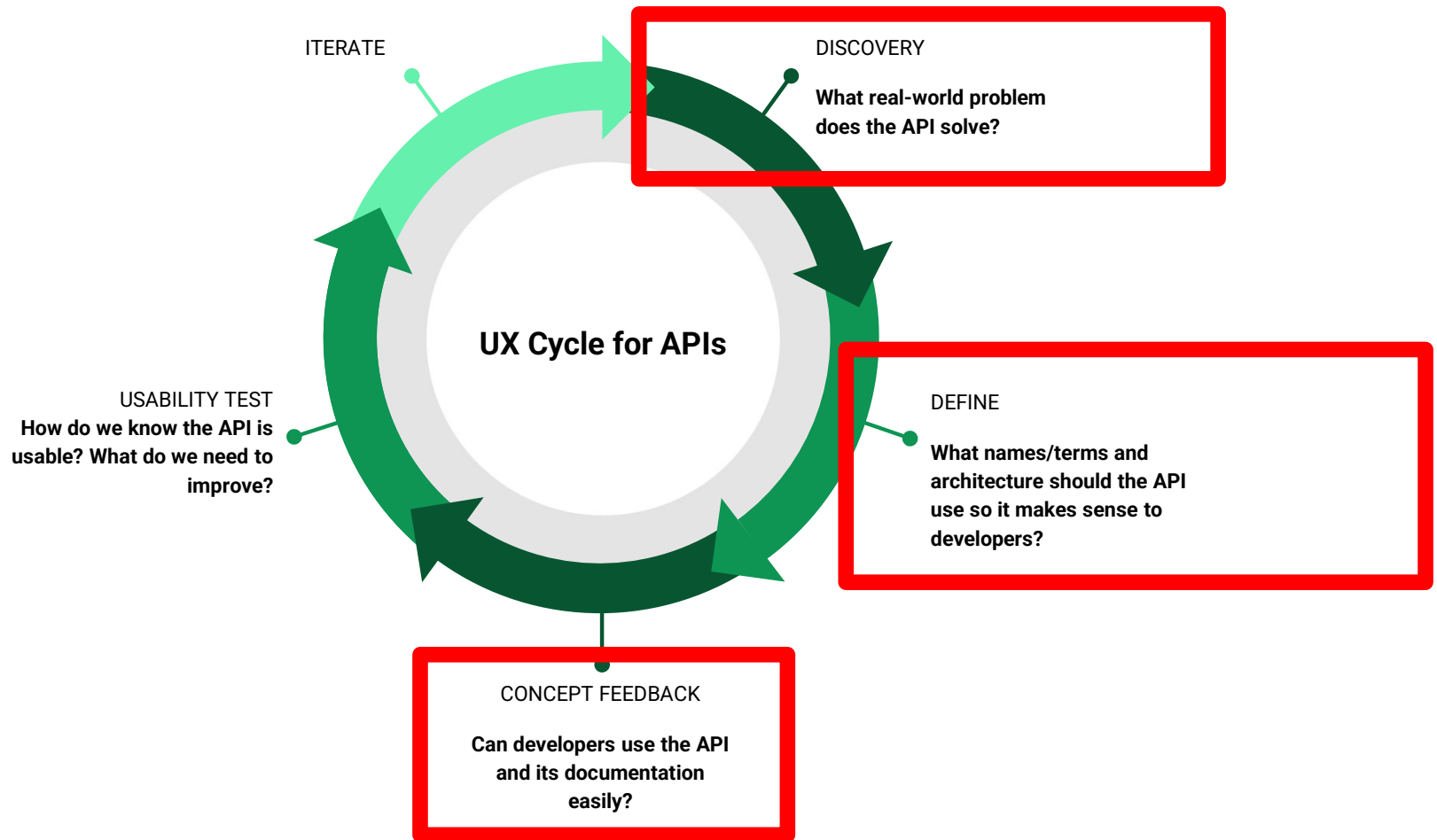
Ethnography for APIs



Ethnography for APIs



Ethnography for APIs



Discovery to Design API Functionality

Differences

Discovery

- Geared to **end-users**
- Understand processes and contexts of government services
- Define problems (policy vs. technical)

Other UX Phases

- Geared to **API users**
- Understand users' workflows and information needs
- Assess whether APIs are usable

Why Discovery Research for APIs

- Ensures the API answers the right questions
- If it doesn't, developers won't know what to build with it.
- If developers don't know what to build with it, you can't UX your way to adoption.

Benefits Appeal API

An example

Research Questions

- What are the different steps involved in preparing, submitting, reviewing and adjudicating an appeal?
- What end-users are involved at each step of the process?
- What is each type of end-user trying to accomplish?
- What data does each end-user need to accomplish their goals?
- What roadblocks do end-users experience?

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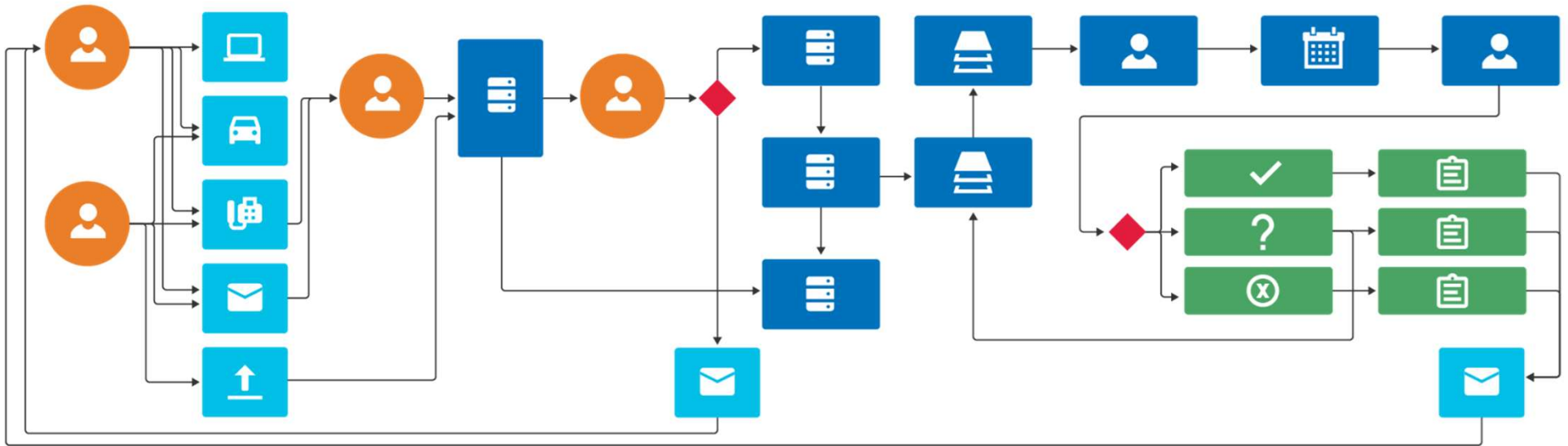
Methods

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- **Remote contextual inquiries** with intake staff.

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- **Secondary research:** review of process manuals (e.g. CFR), previous research, policy documentation.
- **Over 65 hours** of in-depth user interviews with appellants, representatives, and intake staff at the agency.
- **Contextual inquiries** with appellants, representatives and intake staff.
- **Collaborative process mapping** exercises with SMEs at the agency.

Data Abstraction Maps



Findings

- Appellants and representatives do not receive status updates when they send their appeal.
- The lack of updates is emotionally taxing to appellants who feel they are “fighting the government”
- Status updates enable representatives to effectively interact with the agency on the appellant’s behalf.

API Functionality

- We designed to center transparent communication and trust.
- Throwback relevant decision data.
- Track status of appeal as it moves through the process.

Understanding Communities to Make APIs usable

Participating in the Community

- APIs, documentation, and resources are consumed by a wide range of users with different technical backgrounds and goals
 - Not just “developers”
 - You can’t foresee every use-case of your product
- API communities must extend beyond developer documentation
 - Your sample data is only as good as your feedback on it
- UX professionals must be an active part of API communities
 - And community engagement is a TEAM responsibility

API Consumers

- MUST be empowered to ask or submit questions about the API and the underlying data.
- Documentation is not enough

API Maintainers

- MUST be empowered to respond as a team in a way that is scalable.
- You can't scale individual humans, you have to build processes to protect them

Asynchronous Community Building

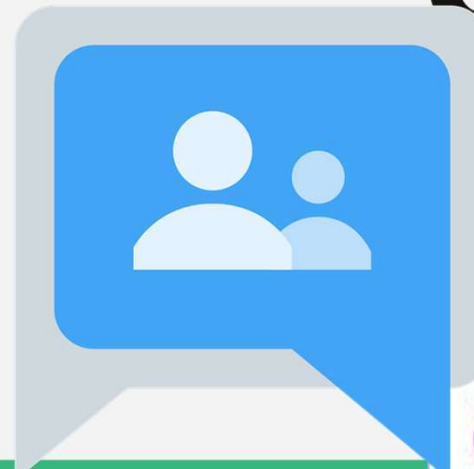
- API Documentation is the foundation to build on
 - Multiple pathways of entry are essential
 - Documentation alone is not community
- Feedback must inform gaps in documentation and existing resources.
 - Collection should be contextual, if possible.
 - Avoid bottlenecks in response
 - Give the community tools to validate common problems/solutions
- Your teams will always be iterating
 - For example - are there documentation gaps or is the documentation not discoverable?
 - What tools works best for your team?

So many tools to choose from!

Which product or service is right for your needs? Where do your users naturally gravitate?



GitHub



Synchronous Community Building

- Hosting research sessions with users to uncover user behavior
- Hosting “office hours” to respond to user questions or concerns
- Helps to build-trust and humanize both the maintainers and the users to one another
- Provides the opportunity for discovery - new ways to utilize data, ways to improve resources or discoverability, ways to empower users to build a community that is self-sustaining.

CMS API Community-Building

An example

Takeaways

Takeaways

API adoption doesn't happen automatically.

- Find out what questions people want to answer with government data.
- Research how developers use the API and the documentation.
- Package data to make it understandable.
- Invest in building communities of practice.

Questions?