



**Software  
development,  
procurement, &  
management  
fundamentals**

**User-centered  
design**

**Part 3 of 5**

**Presented by 18F for:  
Office of Child Care, HHS**

**August, 2022**

# What is 18F?

**18F is a technology and  
design consultancy for  
the U.S. Government,  
inside the government.**





We share the same  
motivations as you:  
**delivering great  
service to the public.**

# Software development, procurement, & management fundamentals series

1

Agile  
management

2

Product  
ownership

3

User-centered  
design

4

Software  
development  
practices

5

Agile  
Contracting

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# In user-centered design we will cover:

- What is user-centered design?
- Why it is important in building and buying software?
- What does user-centered design look like in practice?
- What good design/research look like?
- Resources



# / What is user-centered design?

User-centered design is a process that **starts with the people you're designing for** and ends with new solutions that are tailor made to suit their needs.

It involves deep inquiry, research, and rapid iteration.

## What is user-centered design?

# Identify your users

- Who will be using the product?
- How will it be used?
- Who is this product meant to impact and serve?
- What are their needs and pain points?



/ Why it is important in building and  
buying software



# Why do we center software design on users?

**...because the software is for the users**

Designing with and for users reduces project risks by ensuring the software is solving actual problems...

**/What does user-centered design look like  
in practice?**

# User-centered design

Has many different names....



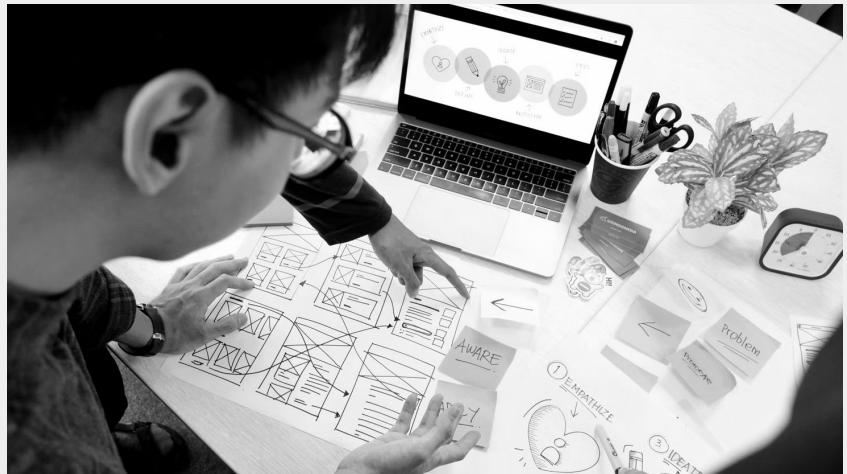
but are always advocates for the users of your software, and work with you and the team to keep understanding the user and improving your product to meet their needs.

How do you make a complex process into one that is simple, accessible and (maybe even) desirable for users?

## Ask them.

Many different research methods that take varying degrees of effort and provide different impact.

Check out 18F Method Cards at [methods.18f.gov](https://methods.18f.gov)



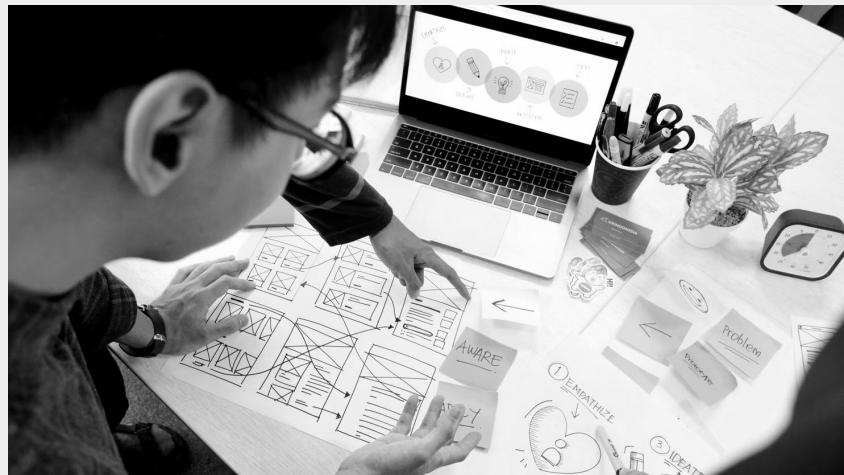
Many different research methods that take varying degrees of effort and provide different impact.

Behavioral & Attitudinal / Qualitative & Quantitative

A few examples:

- Usability testing
- A/B testing
- Interviews & Surveys
- Desirability study

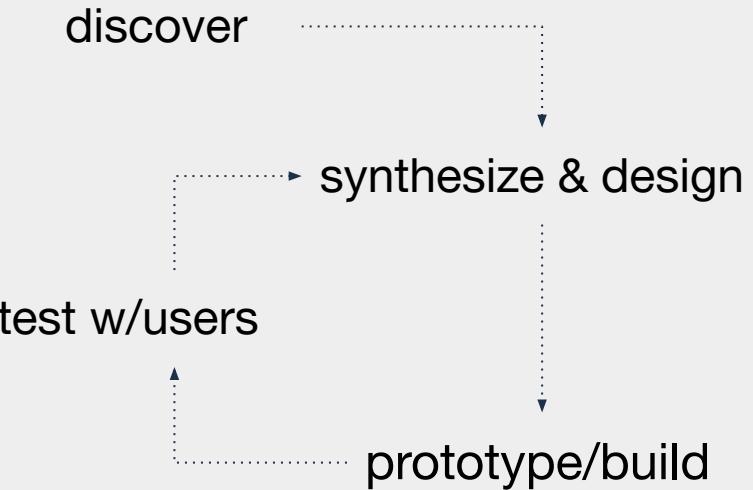
*Check out 18F Method Cards at [methods.18f.gov](https://methods.18f.gov)*



## User-centered design

# Discover, design, test, iterate

- Conduct user discovery to understand users, their needs and tasks
- Design is informed by research and testing with users
- Prototype/build - can be “paper prototype” or a feature/app deployed to dev site
- Test with actual users
- Synthesize learnings into design



# GSA small business experience

An example of what user-centered design might look like in practice

An official website of the United States government [Here's how you know](#)

**GSA General Services Administration**

**GSA awarded \$24 billion dollars to small businesses this year.**

Sell directly to U.S. Federal government, one of the largest buyers of services and goods in the world via long-term multiple award contracts, open market opportunities, subcontracting, and partnerships.

**We connect small businesses to federal buyers**

GSA manages contracts and programs that let small businesses sell products and services to federal agencies.

**Benefits of working with us**

- Can sell to all federal agencies and some state and local
- Shorter, simplified process to sell directly to government agencies
- Competitive advantage in the federal market
- Contracts set aside for certain business categories like:
  - Small businesses
  - Woman-owned businesses
  - Service-disabled veteran-owned businesses
  - Small disadvantaged businesses 8(a)
  - HUBZone businesses

**Explore GSA selling opportunities**

Tell us about your business, and we'll locate programs and opportunities for you to investigate.

**Take the opportunity quiz**

**Find your GSA small business contact**

-Select state or territory -

**Ways to sell to government agencies**

Small businesses have many ways to sell their products and services to the government. Find potential opportunities for you with [this quiz](#) or browse contracts and awards at [SAM.gov](#).

**Become a Vendor** **Open Market Opportunities** **Subcontract & Partnerships**

**Sell directly with contract schedules**

Sell directly to one of the largest buyers of services and goods in the world, the U.S. Federal government. GSA schedules are long-term contracts that allow federal agencies to buy products and services directly from businesses. Schedule purchases amount to approximately \$36 Billion per year.

**Before submitting an offer you'll need to:**

- Find the best contract program and determine its fit with the [opportunity explorer quiz](#)
- Register with SAM.gov
- Certify with Small Business Administration (SBA) for any set-asides
- Review and understand the contract schedule [solicitation](#)
- Complete self-led PDF trainings: Pathways to success and Readiness Assessment



# The problem

## Context

GSA wanted to increase the number and diversity of qualified and well-suited Small Business applicants

## Our job

Investigate how to improve the experience for small businesses working with GSA, and how to better support them.

- What are next steps GSA can take?
- Why haven't prior efforts moved forward?

The screenshot shows the GSA Small Business homepage. At the top, there's a navigation bar with links like 'Buying & Selling', 'Real Estate', 'Policy & Regulations', 'Small Business', 'Travel', 'Shared Services', 'Technology', and 'About Us'. Below the navigation is a banner with the text 'Small Business' and 'Small Business Is Our Mission'. It features a search bar and a 'What would you like to know?' dropdown. To the right is a photo of two people shaking hands. Below the banner are several small images representing different business types: Small Business, Small Disadvantaged Business Entity, Women-Owned Small Business, Service Disabled Veteran Owned, and HUBZone Small Business. A video player in the center shows a building with the GSA logo. To the right of the video, text encourages small businesses to self-certify and provides links to the System for Award Management and GSA.gov. Below the video, sections for 'Additional Information' (Forecast of contracting opportunities, Subcontracting) and 'Explore Business Models' (Get Started, Explore the Federal Marketplace) are shown. The 'Explore Business Models' section includes icons for Schedules, GWACs, IDIQs, Subcontracting, and Set Asides, each with a brief description. At the bottom, there are sections for 'Small Business Resources' (Find Opportunities, Forecast of Contracting Opportunities, SAM.gov, Public Buildings Service, Federal Acquisition Service, Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Programs), and 'Stay Connected' (News and Contacts, Connect with OSDBU, Vendor Support Center).

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## Our deliverables

- A roadmap with actionable next steps to improve the experience of small businesses
- A prototype that reimagines an existing part of small business experience informed by user research, content strategy, and design best practices
- High level recommendations around next steps, highlighting past efforts, and how to integrate with work across the GSA

# Approach

## Discovery

- Looked at work done
- Mapping journey and visioning w/key stakeholders
- Heuristic review and comparative analysis
- Reviewed site analytics
- Small business interviews

## Synthesize & Design

- Identified user goals & questions
- Facilitate co-design sessions on “How might we”
- Synthesized learning into wireframes
- Reviewed designs with key stakeholders

## Build & Test

- Built prototype
- 1 round of usability testing with 4 small businesses
- Learnings / recommendations
- Update design and prototype

# Phases of the user's journey

Discover ..... ➔ Prepare ..... ➔ Apply ..... ➔ Manage / sell



Focus:

**Prospective and new small business vendors, and the discovery stage of their journey.**

Why new & prospective small business vendors:

- GSA goal to increase number of small businesses working with the government
- Part of the journey no one at GSA is currently focusing on
- Builds off of previous work done by 18F
- Fit in 12-16 week scope of work with producing a prototype, testing assumptions and providing next steps

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# We spoke to small businesses

## Initial discovery

### Participants

- Small business owners who never worked with the government

### Interview & usability testing on current state

- What questions are small businesses asking when looking at new opportunities?
- How do they learn about business opportunities?
- What is the least amount of knowledge they need to know to determine whether it is worth trying to pursue an opportunity?
- Usability: Imagine if you heard there was an opportunity to work with GSA, what would you do?

## What we learned

# Key findings

- Opportunities are difficult to understand
- Preparing to work with GSA takes dedicated time and resources
- There are many resources in different places without a clear path
- Being successful post-award is difficult

The screenshot shows the GSA website's "How GSA Buys: Schedules and Contracts" section. It includes a sidebar with links like "How GSA Buys", "How to Buy Through Us", "How We Sell to the Government", and "Small Business". The main content area has sections for "How GSA Buys: Schedules and Contracts" and "How GSA Buys: Schedules and Contracts". It features a large image of a person holding a phone and the text: "Get started calling us now". Below this are sections for "Small Business Resources" and "Contract Opportunities". The "Small Business Resources" section includes links to "Government Contracting Facilitators", "Training Materials", and "Small Business Development". The "Contract Opportunities" section includes links to "Search Contract Opportunities", "Advanced Search", and "Log In".

*Current prospective vendor experience: landing pages for top search results*

The screenshot shows the GSA website's "We connect small businesses to federal buyers" section. It includes a sidebar with links like "How GSA Buys: Schedules and Contracts", "Small Business", and "Contract Opportunities". The main content area has sections for "How GSA Buys: Schedules and Contracts", "Small Business Resources", and "Contract Opportunities". It features a large image of a person holding a phone and the text: "Get started calling us now". Below this are sections for "Ways to sell to government agencies", "Become a Vendor", "Open Market Opportunities", and "Subcontract & Partnerships". The "Ways to sell to government agencies" section includes links to "Sell directly with contract schedules", "Sell directly to federal agencies", and "Before advertising an offer". The "Become a Vendor" section includes steps: "1. Assemble & submit offer", "2. Review & negotiate", and "3. Sell & maintain". The "Explore contracts and opportunities" section includes links to "Vendor Toolbox", "GSA Supplier Center", and "Explore contracts and opportunities". The "Training & Resources" section includes links to "Office of Small Business and Business Utilization (OSB&BU)", "Upcoming events", and "Contact".

*New design to help answer key user questions*

## What we learned about small business experience

# Opportunities are difficult to understand

New small businesses interviewed

- did not understand new terms and concepts
- found it difficult to identify different ways to work with GSA and which is the best fit

Almost all small businesses interviewed

- looked or mentioned the need to quickly access relevant and updated contracts and RFPs
- wanted to identify if their service/product is needed and who to sell to

GSA U.S. General Services Administration MENU ▾

### Explore the Federal Marketplace

Explore the federal marketplace to consider the different contracting options available, and decide which suits your small business best.



**Schedules**

Become qualified to sell, and have your resources assessed, to find out if they are appropriate for pursuing a GSA contract.



**GWACs**

Learn about Governmentwide Acquisition Contracts (GWAC) for selling total IT solutions to the federal government.



**IDIQs**

Explore indefinite delivery/indefinite quantity contracts, often used for service, IT, and architect-engineering services.



**Subcontracting**

Collaborate with other businesses to provide the best value to the federal customer.



**Set Asides**

Learn more about set-aside contract opportunities designated for special interest groups.



*"This site seems informational, not so much wanting to do business with a small business. I'm leaving this wondering if this is another entity that helps businesses do business and doesn't [this site] actually have opportunities? Or can I actually do business with the GSA?" - Small business looking at current site, never worked with federal government*

## Opportunities are difficult to understand

# What we tried

- Shared strategy for plain and consistent language across sell process
- Describe programs and opportunities as they benefit the seller instead of how they relate to procurement
- Determine terms that are necessary (i.e. schedule) and give quick access to the definition.

## What we tried

### Ways to sell to government agencies

Small businesses have many ways to sell their products and services to the government. Find potential opportunities for you with [this quiz](#) or browse contracts and awards at [SAM.gov](#)

Become a Vendor

Open Market Opportunities

Subcontract & Partnerships

#### Sell directly with contract schedules

Sell directly to one of the largest buyers of services and goods in the world, the U.S. Federal government. GSA schedules are long-term contracts that allow federal agencies to buy products and services directly from businesses. Schedule purchases amount to approximately \$36 Billion per year.



#### Before submitting an offer you'll need to:

- Find the best contract program and determine its fit with the [opportunity explorer quiz](#)
- Register with SAM.gov
- Certify with Small Business Administration (SBA) for any set-asides
- Review and understand the contract schedule [solicitation](#)
- Complete self-led PDF trainings: Pathways to success and Readiness Assessment

[Get started](#)

Becoming a vendor

Contract Schedule

Open Market Opportunities

Subcontract & Partnerships

#### Sell directly with contract schedules

Sell directly to one of the largest buyers of services and goods in the world, the U.S. Federal government. GSA schedules are long-term contracts that allow federal agencies to buy products and services directly from businesses. Schedule purchases

*Screenshots showing how our prototype evolved from talking about “contract schedule” to “become a vendor” based on small business feedback.*

## What we learned about small business experience

# Many resources without a clear path

- 10+ websites and tools needed for small business journey
  - Internal GSA
  - External (SBA, SAM.gov)
- Many different agencies working to explain how to work with government including SBA and 3rd party contractors
- Vehicle contracts: it's a difficult process to apply and one that can take a lot of time

The screenshot shows the GSA Vendor Support Center homepage. At the top, there is a banner with the text "Ensure your SIP is up to date!" and a link to "View All Updates". Below this is a search bar with the placeholder "Search" and a magnifying glass icon. A blue header bar contains the text "Vendor Toolbox". Underneath, a section titled "Everything you need to..." provides information about getting first contracts, researching contract maintenance/compliance, and reporting sales. The page has a light blue background with a faint globe graphic.



*"This is our first experience working with GSA. I am trying to navigate all the resources online and it's been overwhelming for a very small company like ours."*

- post-award woman-owned small business owner

The screenshot shows the GSA Vendor Education Center website. At the top, there is a banner for "eBuy" and another for "SAM.GOV". The "eBuy" banner features the "GSA eBuy" logo. The "SAM.GOV" banner features the "SAM.GOV" logo with a stylized American flag graphic. Below these banners, there is a "WARNING" section with the text: "GSA Schedule new offeror required training is now available on the MAS Roadmap. Both the Pathways to Success training and the Readiness Assessment have been updated and no longer require a login to access or a certificate to upload." It also says "You will be redirected in 04 Sec" and "Click Here to continue immediately". At the bottom, there is a "WARNING" section with the text: "This is a U.S. General Services Administration Federal Government computer system that is 'FOR OFFICIAL USE ONLY.' This system is subject to monitoring. Therefore, no expectation of privacy is to be assumed. Individuals found performing unauthorized activities are subject to disciplinary action including criminal prosecution."

## What we learned about small business experience

# What we tried

- Clear & consistent path support the entire journey from discover to post award
- Consolidate tools and resources and present only the pieces that are needed, when they are needed
- Provide steps and ways they can track their progress
- Design & build with the entire journey in mind

An official website of the United States government. Here's how you know.

GSA Vendor Support Center

MENU ▾

### ⚠️ Updates & Information

Ensure your SIP is up to date!

Attention SIP Users: make sure your SIP is up to date! The most current version of SIP is 8.8a. Submissions using older versions of SIP will not be accepted. Don't delay, download SIP 8.8a ... [Read More](#)

[View All Updates](#)

Search

Vendor Toolbox

Everything you need to...

Whether you're looking at getting your first contract, researching contract maintenance/compliance, or reporting your contract sales... the Vendor Support Center is here to provide you with the information necessary to help your business be successful.



## The small business journey

Discover ..... ➤ Prepare ..... ➤ Apply ..... ➤ Manage / sell



GSA Schedule new offeror required training is now available on the [MAS Roadmap](#). Both the *Pathways to Success* training and the *Readiness Assessment* have been updated and no longer require a login to access or a certificate to upload.

You will be redirected in 04 Sec

[Click Here](#) to continue immediately



WARNING

This is a U.S. General Services Administration Federal Government computer system that is "FOR OFFICIAL USE ONLY." This system is subject to monitoring. Therefore, no expectation of privacy is to be assumed. Individuals found performing unauthorized activities are subject to disciplinary action including criminal prosecution.

# We tested our hypotheses with small businesses

## Usability testing

### Participants\*

- Small business owners who never worked with the government
- Current applicants

### Interview & usability testing on designs

- Are small businesses able to identify opportunities and what might be their next steps?
- Are small businesses able to understand the different ways to work with GSA?
- Is there enough information for them to determine if they'd like to continue to explore opportunities?
- Is the language clear?

The screenshot shows the GSA homepage with the following sections:

- GSA General Services Administration**: The top navigation bar includes a link to "An official website of the United States government" and "Help us improve".
- GSA awarded \$24 billion dollars to small businesses this year.**: A large callout box with a grey background and white text.
- Sell directly to U.S. Federal government, one of the largest buyers of services and goods in the world via long-term multiple award contracts, open market opportunities, subcontracting, and partnerships.**: Description below the callout.
- We connect small businesses to federal buyers**: A section with a grey background and white text.
- GSA manages contracts and programs that let small businesses sell products and services to federal agencies.**: Description below the title.
- Explore GSA selling opportunities**: A button.
- Tell us about your business, and we'll locate programs and opportunities for you to investigate.**: Text.
- Take the opportunity quiz**: A button.
- Benefits of working with us**: A section with a grey background and white text.
- Can sell to all federal agencies and some state and local.**: Description.
- Shorter, simplified process to sell directly to government agencies**: Description.
- Competitive advantage in the federal market**: Description.
- Contracts set aside for certain business categories like:**
  - Small businesses
  - Woman-owned businesses
  - Service-disabled veteran-owned businesses
  - Small disadvantaged businesses 8(a)
  - HUBZone businesses
- Find your GSA small business contact**: A button.
- Select state or territory -**: A dropdown menu.
- Search**: A search bar.
- Ways to sell to government agencies**: A section with a grey background and white text.
- Small businesses have many ways to sell their products and services to the government. Find potential opportunities for you with [this quiz](#) or browse contracts and awards at [SAM.gov](#).**: Description.
- Become a Vendor**, **Open Market Opportunities**, **Subcontract & Partnerships**: Three blue buttons at the bottom.
- Sell directly with contract schedules**: A section with a grey background and white text.
- Sell directly to one of the largest buyers of services and goods in the world, the U.S. Federal government. GSA schedules are long-term contracts that allow federal agencies to buy products and services directly from businesses. Schedule purchases amount to approximately \$36 Billion per year.**: Description.
- GSA Doing Business with GSA - Roadmap Guide**: A thumbnail image.
- GSA.GOV/ROADMAP**: Text below the thumbnail.
- Before submitting an offer you'll need to:**
  - Find the best contract program and determine its fit with the [opportunity explorer quiz](#)
  - Register with SAM.gov
  - Certify with Small Business Administration (SBA) for any set-aside

/ What is good design & research?

# Good design and research is:

<b>Accessible</b>	Considers and designs for the needs of people with disabilities
<b>Inclusive</b>	Considers and sensitive to diversity of your users
<b>Ethical</b>	Prevents harm and protects users
<b>Person-first</b>	Considers the individual background, environment, and needs

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## Good product design:

- Is part of an agile team
- Designs and tests **often** with your actual users
- Designs solutions that centers the user experience within the constraints of environment/technology
- Is able to collaborate to build consensus, generate solutions, and advocate for the user

# Thank you!

## Additional resources

UX guide: [ux-guide.18f.gov](http://ux-guide.18f.gov)

UX methods: [methods.18f.gov](http://methods.18f.gov)

All guides: [18f.gsa.gov/guides](http://18f.gsa.gov/guides)