IBM Workplace Impact + Software Acquisition Findings & Opportunities

Part 1

Colleen Corkery – UX Researcher; Workplace Impact Team, CIO Design + Jon Temple Workplace Impact Team Co-lead

IBM

Workplace Impact Team (WIT) mission

Understand IBM employees

Determine key needs and measure how effectively those needs are being met – from an end-to-end, cross-application perspective

Identify and quantify pain points

Reveal pain points that are the costliest to IBMers and quantify these in a single score, the UXI (User Experience Index), that measures the full task experience
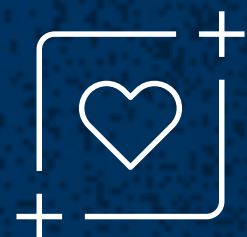
Share insights and strategize on solutions

Understand and prioritize problems, identify solutions, provide insights to strategy teams and assign ownership to a tribe or squad to update along with key metrics or KPIs to use to track improvements

Research: Detailed task analysis, and UX research to identify and quantify pain points and gaps.
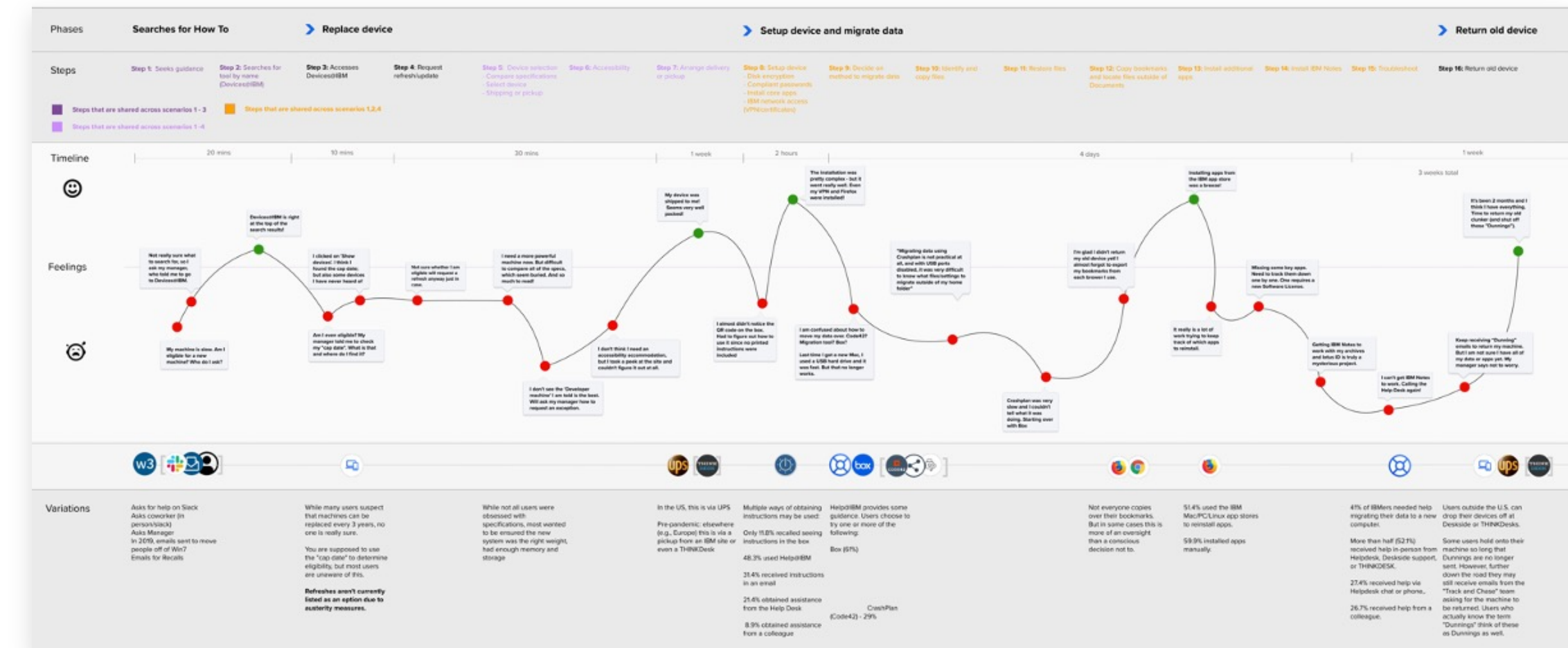
Strategy: Identify optimal solutions (golden threads), quantify potential improvement.
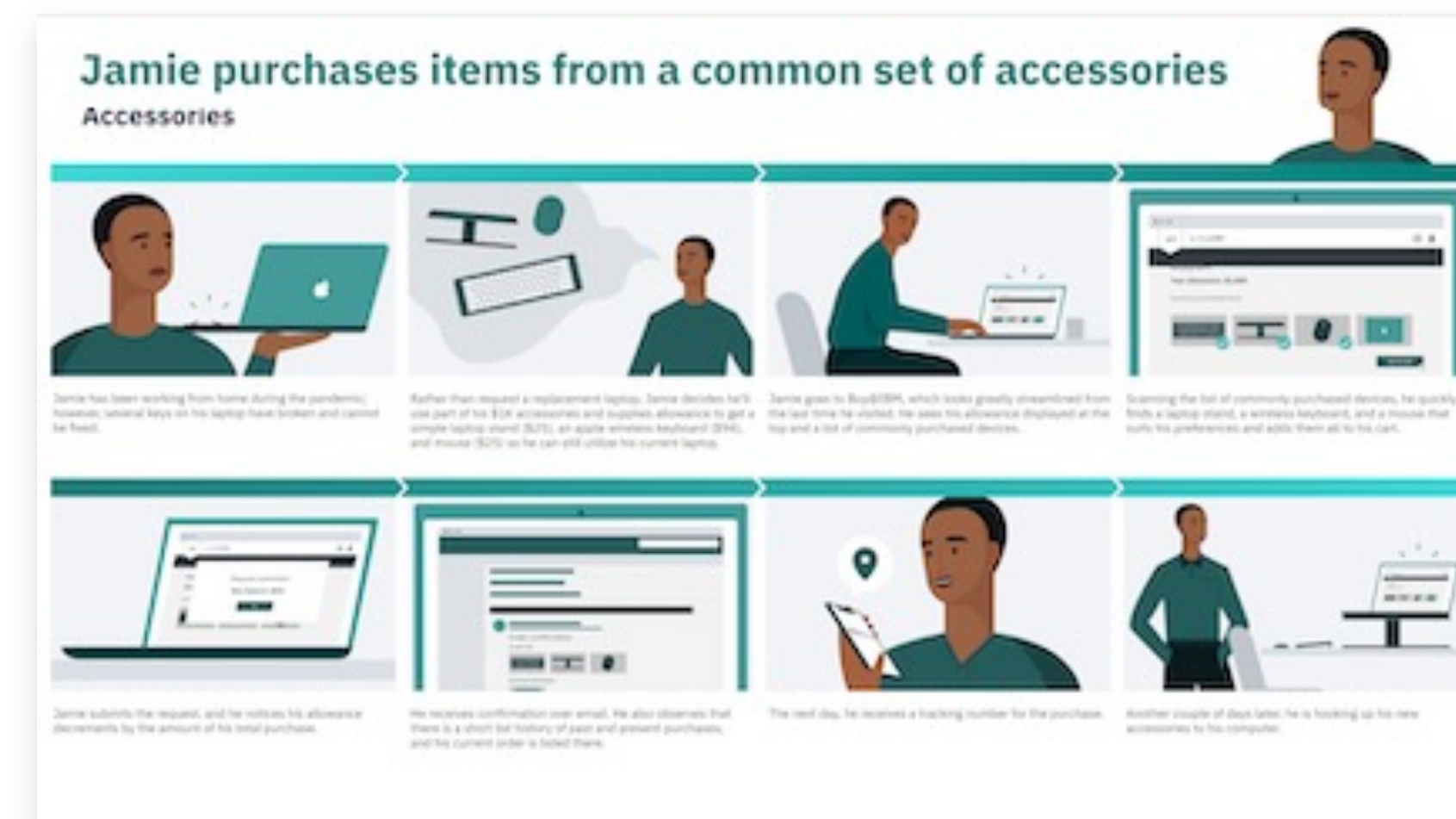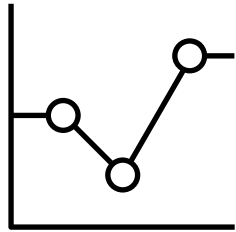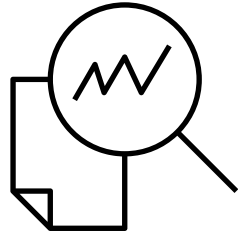

42%
Less steps
(38 to 22)

56%
Less pain
(61 to 21)

Benefits of this approach

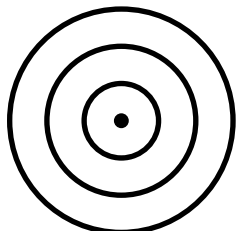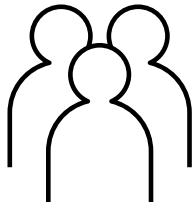Measure end-to-end experiences - not just applications.

Compare across experiences to drive prioritization.

UXI

Provide real, aspirational goals for project teams.

Facilitates cross-team and cross-domain cooperation.

Identifying high-priority areas to conduct end-to-end research

Hundreds of hours of user interviews were conducted to understand the common and critical tasks IBMers perform to do their jobs.
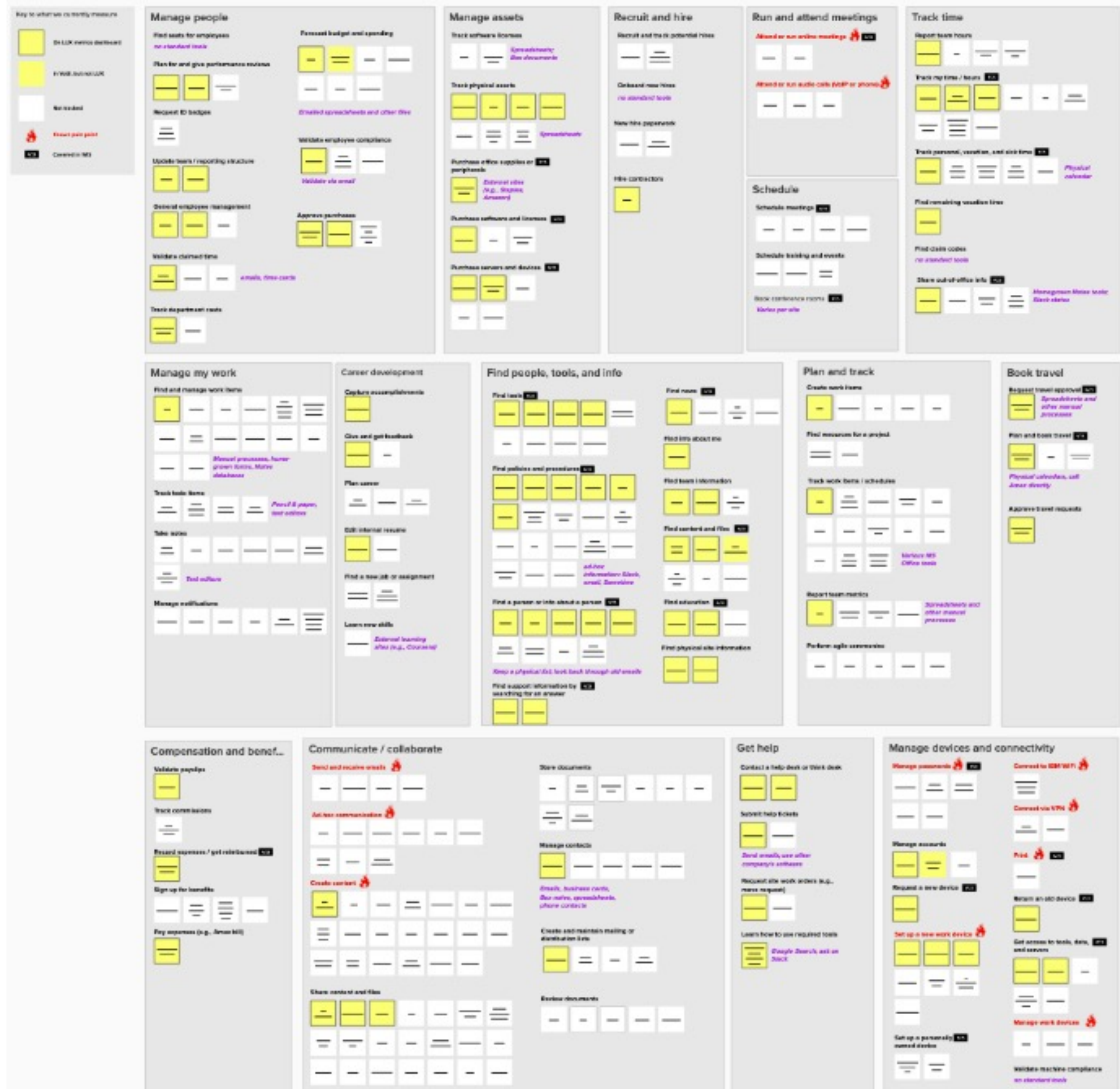
Process & Research Methodologies

1 Identify high-priority task for end-to-end research
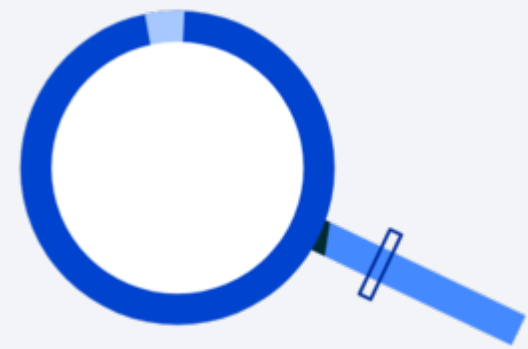
2 Conduct UX research methods to identify user behavior & pain points
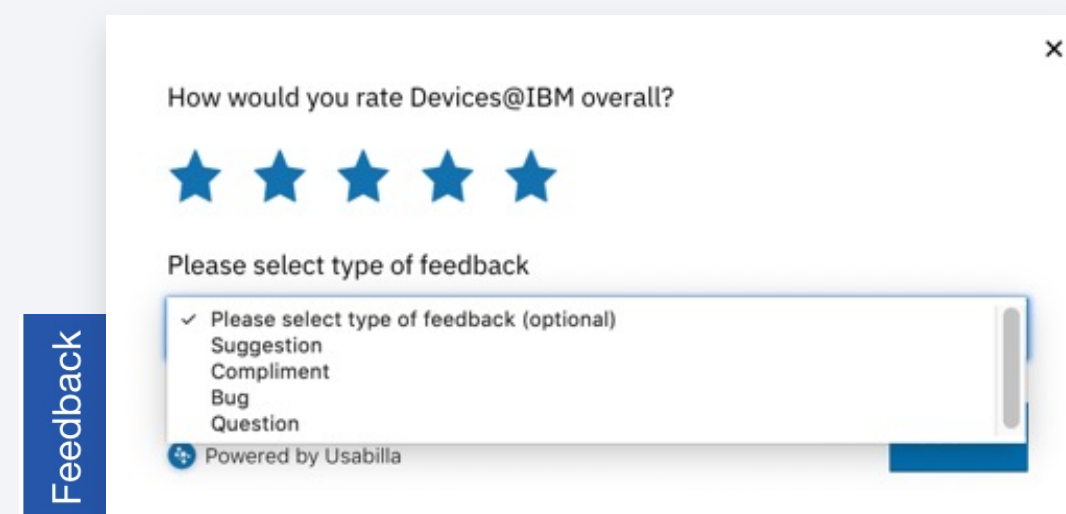
3 Complete Task analysis: Identify main user scenarios

4 Create journey maps per scenario, capture pain points
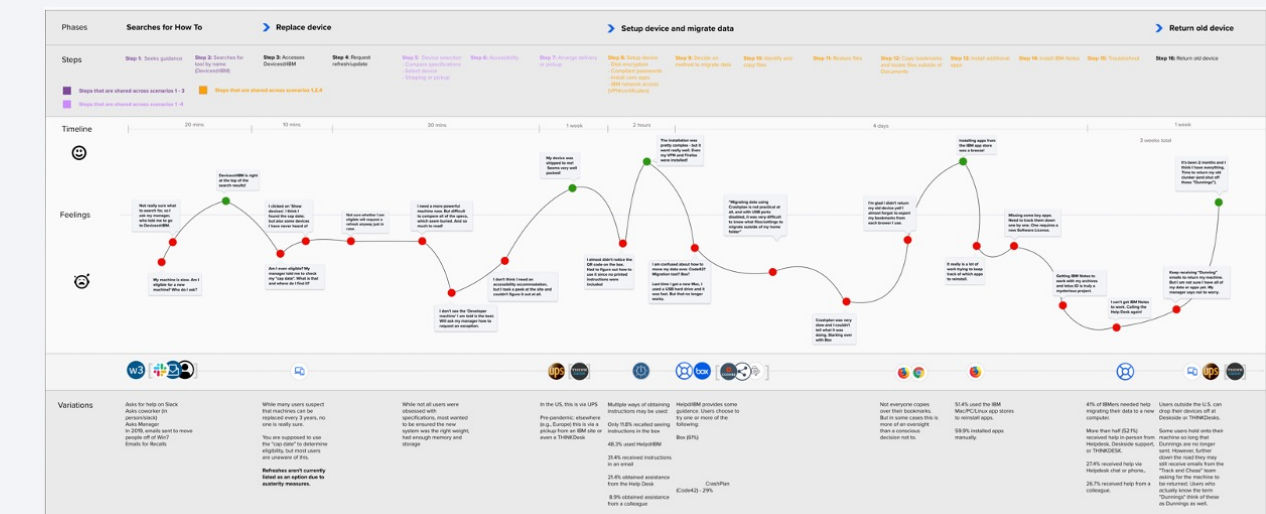
5 Detailed complexity analysis, PURE scoring of steps
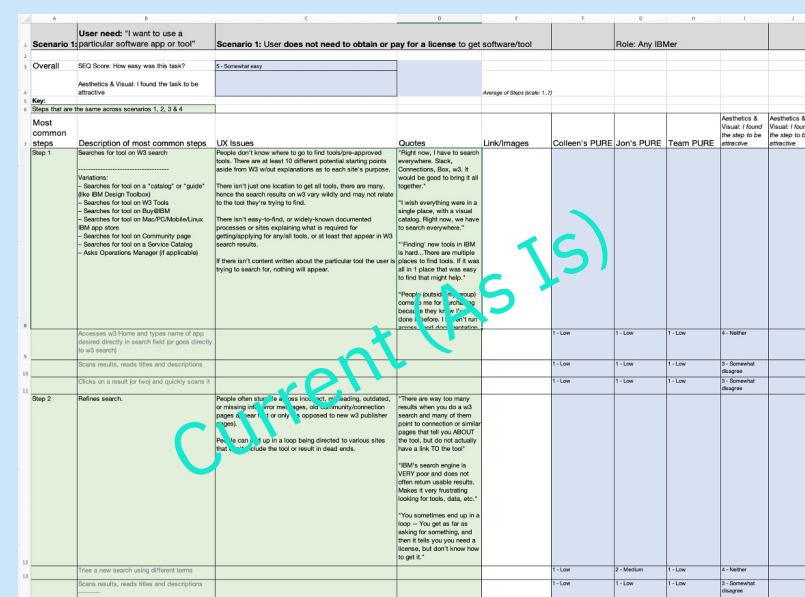
6 Construct to-be state that reduces friction (golden thread)
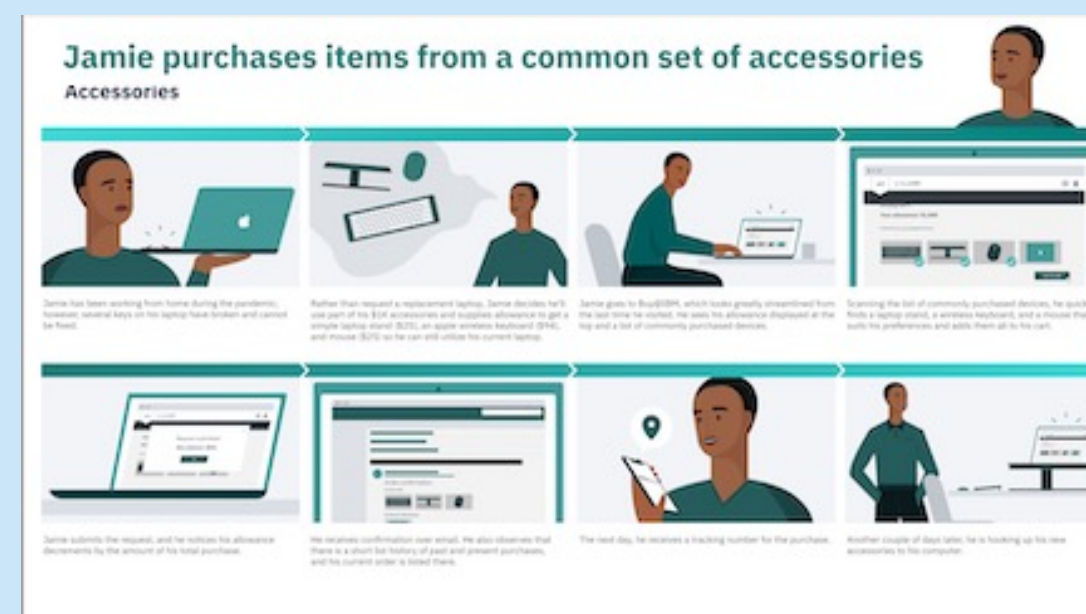
7 Score PURE of to-be state; recalculate UXI score against target
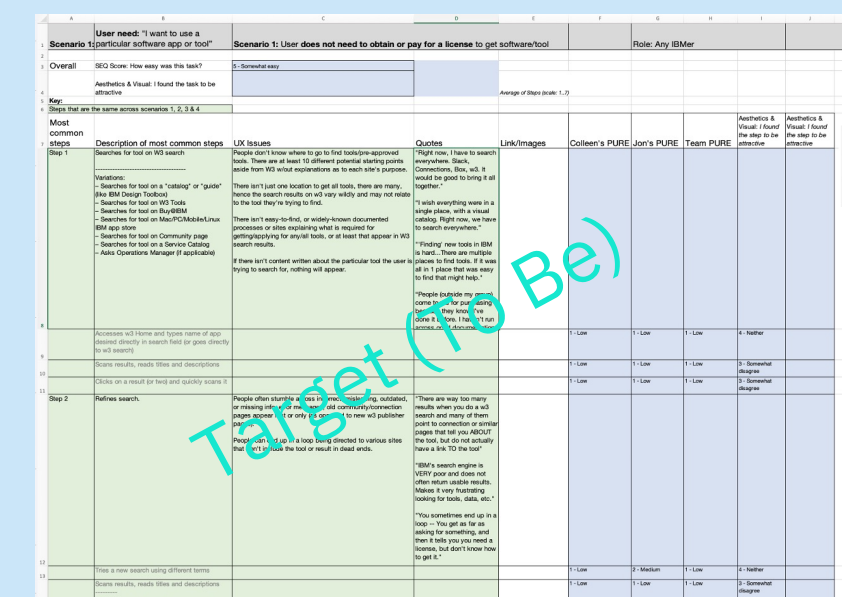
Deep Dive – Software Acquisition

UX Researcher: Colleen Corkery

IBM | CIO Design

The problem(s)

1. Unhappy employees who can't get important software to do their jobs

Based on survey data, a significant number of IBM Employees expressed **negative sentiments about their experiences finding and acquiring software** vital to conducting their jobs.

2. Disparate sites + painfully long processes, misinformation, and lack of guidance

IBM **employees didn't know where or how to find important software**, which is **spread across multiple site**s owned by varying teams across IBM. **Vital software needing to be purchased couldn't be found** by employees at all

The process for purchasing software through IBM's procurement team isn't explained or easily found, and the entire process takes up to 6 months.

3. Company-wide software "sprawl" + security issues

Due to the complexity of finding software, IBM **employees were purchasing and downloading software on their own without security approvals.**

IBM now has **thousands of individual contracts** with various software companies creating a "sprawl" of software that **isn't taking advantage of global contracts, losing thousands of $$ each year**.

Initial UX Research

1 Reviewed existing research & artifacts
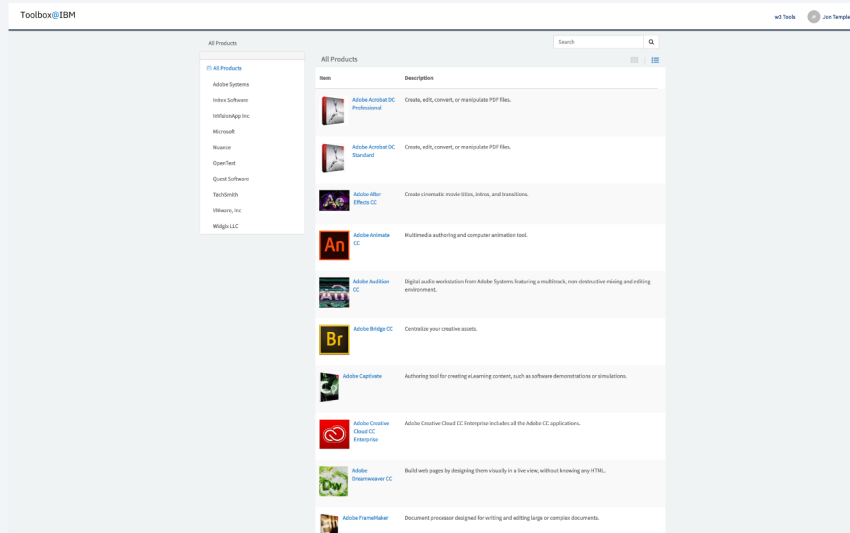
2 Analyzed Usabilla NPS User feedback on various sites
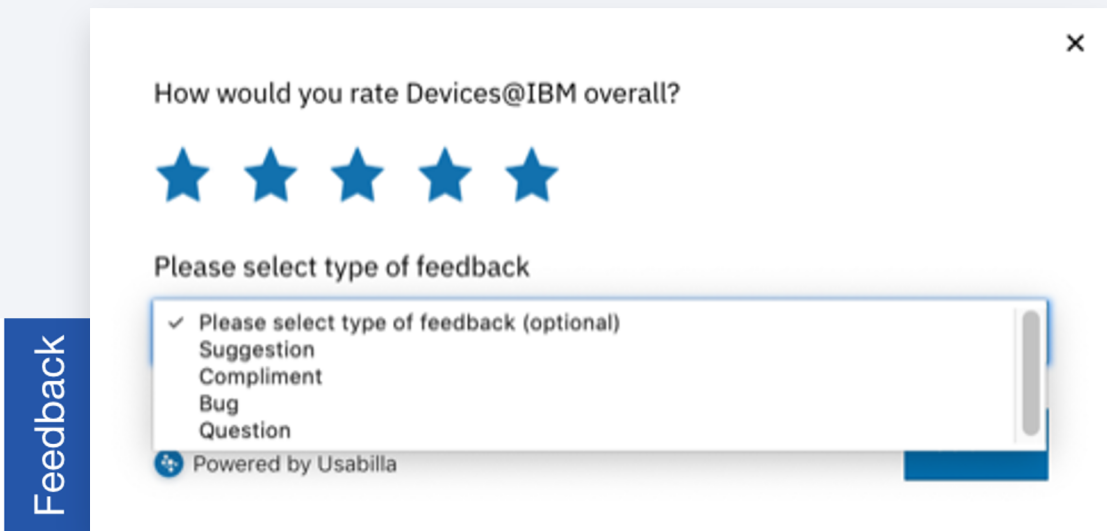
3 Analyzed workplace impact survey results

4 Interviewed SMEs

Buy@IBM, SLM, Devices@IBM, Box, Code42, Data Migration Tool, eAMT, Help@IBM

5 Conducted user interviews

6 Created UX research artifacts including:

– Journey maps
– Task analysis + PURE scoring
– Recommendations

Artifacts & Methodology – Journey mapping, Task analysis + PURE Scoring, recommendations

UX Research provides input to:

1) Task analysis: How users really complete their tasks in the real world, in a true end-to-end fashion; 2) Identification of pain points (and quotes)

Artifact 1: Journey Maps

- Identify all scenarios

- Create a journey map for each scenarios

Artifact 2: Task analysis – PURE scoring

- List out each user scenario and step-by-step documentation of tasks with evaluations of each step.

- Score each scenario using PURE (Pragmatic User Ratings by Experts)

- Mathematically combine each into a single score

- Large component of UXI

Artifact 3: Actionable insights

- List of identification of top pain points & opportunities

Rational experience

IBM | Workplace Impact Team

User need: "I want to use a particular software app"
Identified 5 scenarios:

1 User does not need to obtain or pay for a software license

2 User needs to obtain a software license but does not need to go through Procurement

3 User needs to obtain a license via Procurement, and IBM has company-wide agreements with vendor

4 User needs to obtain a license via Procurement, and IBM *does not* have company-wide agreements with vendor

5 User needs to find IBM-approved open source software

Created Journey Maps for each scenario:

1 "I want to use a particular software app":
User does not need to obtain or pay for a license (Happy Path)

2 "I want to use a particular software app":
User needs to obtain a license but does not need to go through Procurement.

3 "I want to use a particular software app":
User needs to obtain a license via Procurement, and IBM has company-wide agreements with vendor

4 "I want to use a particular software app":
User needs to obtain a license via Procurement, and IBM does not have company-wide agreements with vendor

5 "I want to use a particular software app":
User needs to find IBM-approved open source software

Rational experience

IBM | Workplace Impact Team

Journey Maps: Software acquisition (detail example)

1

"I want to use a particular software app":

User does not need to obtain or pay for a license (Happy Path)

Phases	Searches for info how to acquire tool			Seeks assistance	Finds the tool		Gets Tool

Steps

Step 1: Searches for tool on W3 search

Step 2: Sorts through search results and refinement

Step 3: Leaves W3 search and looks for answers or tool on other sites, in particular Help@IBM

Step 4: Asks on various Slack channels or coworkers for guidance

Step 5: Finds a link driving to the App Store, W3 Tools, or a Catalog.

Step 6: Searches for and finds the tool in/on/from:
– Catalog/guide
– W3 tools
– Manager/ops manager
– IBM App store if downloadable/installable

Step 7: Installs/downloads tool directly from:
– Catalog/guide
– W3 tools,
– Mac/PC/Mobile/Linux IBM app store
– Online

■ Steps that are shared across scenarios 1-4

Timeline

20 mins | 10 mins | 1 hour | 20-30 mins

2 hours total

Feelings

I don't know where to start looking... I will try searching for info on the tool I want

I found only 1 result and it was a dead link!

I can't find anything on the tool I want. Let me see if I can find the tool in another place... maybe Help@IBM?

I don't want to spend my own money or get in trouble if I install something not approved... I am going to ask some colleagues on Slack

Received conflicting guidance.

Someone told me to look in the App Store or w3 Tools (which I didn't know existed!)

Let's try some of those...

w3 Tools doesn't let me install apps on my Mac. Good thing I need a Web app

I found a link off of w3 Tools. It looks like I am allowed to use the tool I want!

I was able to sign in with my w3ID and it just worked!

Variations

Searches for tool on a "catalog" or "guide" (like IBM Design Toolbox), or a Community page

Searches for tool on W3 Tools

Searches in a specific software app (e.g., IT Service Catalog (SLM), Buy@IBM, Mac@IBM or PC@IBM App Store)

Asks Operations Manager (if applicable)

Other search destinations include:
Buy@IBM, Mac/PC/Linus @IBM App Stores, Community Pages, W3 Tools

Finds links driving to Buy@IBM or App Stores

Asks Manager or Ops Manager (if applicable)

Finds Procurement contact info on a "catalog" or "guide"

Link to a specific software app (e.g., Buy@IBM, Mac@IBM or PC@IBM App Store)
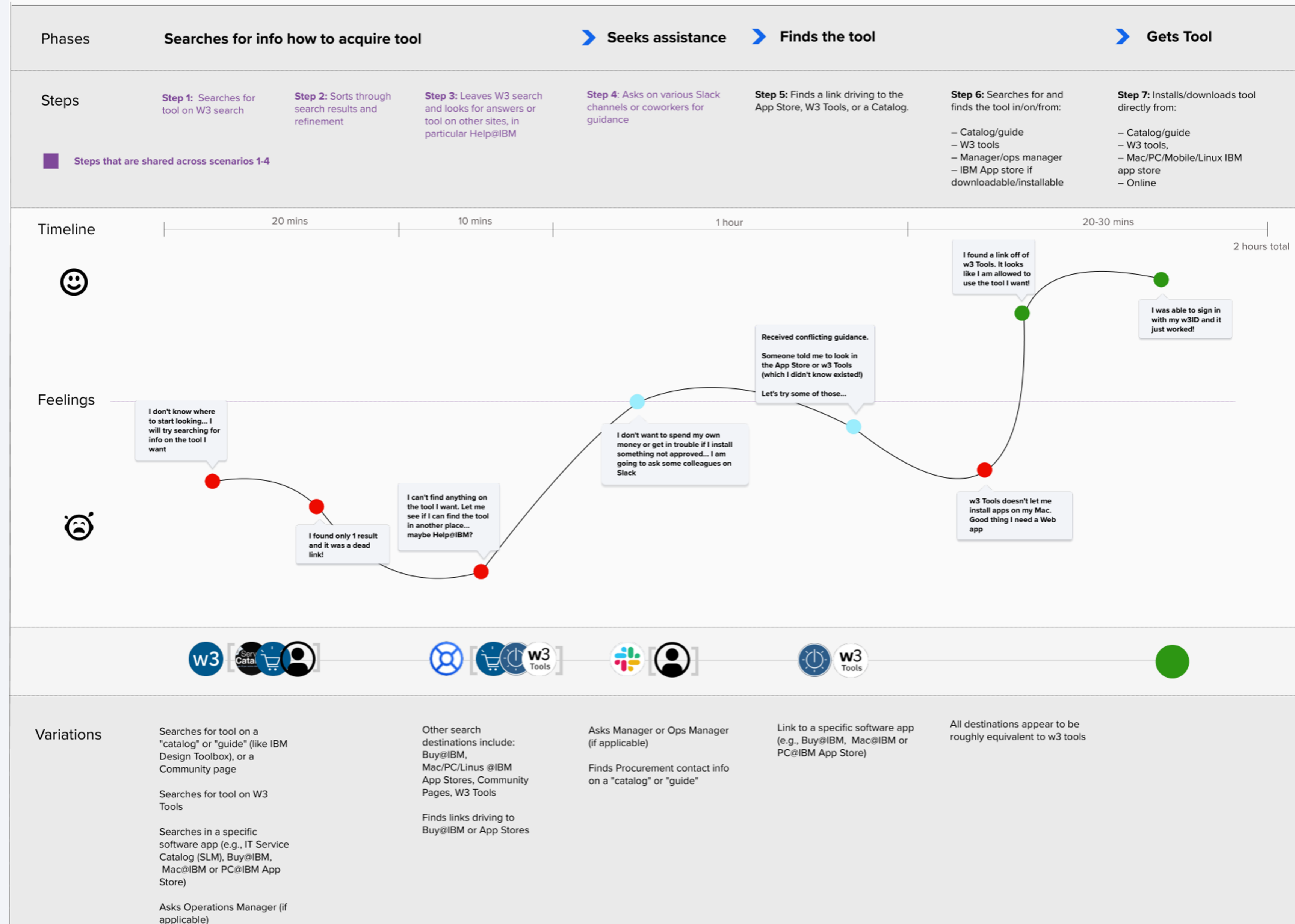
All destinations appear to be roughly equivalent to w3 tools

Journey Maps: Software acquisition (detail example)

"I want to use a particular software app":
User needs to obtain a license via Procurement, and IBM does not have company-wide agreements with vendor

Rational experience

IBM | Workplace Impact Team

PURE Methodology

Pragmatic User Rating by Experts

1 (green)	The step can be **accomplished easily** by the target user, due to low cognitive load or because it's a known pattern, such as the acceptance of a terms-of-service agreement.
2 (orange)	The step requires a **notable degree of cognitive load** (or physical effort) by the target user, but can generally be accomplished with some effort.
3 (red)	The step is **difficult for the target user**, due to significant cognitive load or confusion; some target users would likely fail or abandon the task at this point.

Scenario 1: **User need:** "I want to use a particular software app or tool" | **Scenario 1:** User **does not need to obtain or pay for a license** to get software/tool | | Role: Any IBMer

| Overall | SEQ Score: How easy was this task? | 5 - Somewhat easy | | | |
| | Aesthetics & Visual: I found the task to be attractive | | | *Average of Steps (scale: 1..7)* | |

Key:

Steps that are the same across scenarios 1, 2, 3 & 4

Most common steps	Description of most common steps	UX Issues	Quotes	Link/Images	Colleen's PURE	Jon's PURE	Team PURE	Aesthetics & Visual: *I found the step to be attractive*	Aesthetics & Visual: *I found the step to be attractive*
Step 1	Searches for tool on W3 search --------------------------------------- Variations: – Searches for tool on a "catalog" or "guide" (like IBM Design Toolbox) – Searches for tool on W3 Tools – Searches for tool on Buy@IBM – Searches for tool on Mac/PC/Mobile/Linux IBM app store – Searches for tool on Community page – Searches for tool on a Service Catalog – Asks Operations Manager (if applicable)	People don't know where to go to find tools/pre-approved tools. There are at least 10 different potential starting points aside from W3 w/out explanations as to each site's purpose. There isn't just one location to get all tools, there are many, hence the search results on w3 vary wildly and may not relate to the tool they're trying to find. There isn't easy-to-find, or widely-known documented processes or sites explaining what is required for getting/applying for any/all tools, or at least that appear in W3 search results. If there isn't content written about the particular tool the user is trying to search for, nothing will appear.	"Right now, I have to search everywhere. Slack, Connections, Box, w3. It would be good to bring it all together." "I wish everything were in a single place, with a visual catalog. Right now, we have to search everywhere." "'Finding' new tools in IBM is hard...There are multiple places to find tools. If it was all in 1 place that was easy to find that might help." "People (outside my group) come to me for purchasing because they know I've done it before. I haven't run across good documentation						
	Accesses w3 Home and types name of app desired directly in search field (or goes directly to w3 search)				1 - Low	1 - Low	1 - Low	4 - Neither	
	Scans results, reads titles and descriptions				1 - Low	1 - Low	1 - Low	3 - Somewhat disagree	
	Clicks on a result (or two) and quickly scans it				1 - Low	1 - Low	1 - Low	3 - Somewhat disagree	
Step 2	Refines search.	People often stumble across incorrect, misleading, outdated, or missing info, error messages, old community/connection pages appear first or only (as opposed to new w3 publisher pages). People can end up in a loop being directed to various sites that don't include the tool or result in dead ends.	"There are way too many results when you do a w3 search and many of them point to connection or similar pages that tell you ABOUT the tool, but do not actually have a link TO the tool" "IBM's search engine is VERY poor and does not often return usable results. Makes it very frustrating looking for tools, data, etc." "You sometimes end up in a loop -- You get as far as asking for something, and then it tells you you need a license, but don't know how to get it."						
	Tries a new search using different terms				1 - Low	2 - Medium	1 - Low	4 - Neither	
	Scans results, reads titles and descriptions ---------- Rarely goes to Page 2, or adjusts sources				1 - Low	1 - Low	1 - Low	3 - Somewhat disagree	

Scoring process

1. Create detailed task analysis (discrete sub steps)
2. Map pain points / quotes against steps
3. Individual raters assign scores
4. Team score discussion
5. Add up the total scores

Journey Maps: Software acquisition – PURE scores
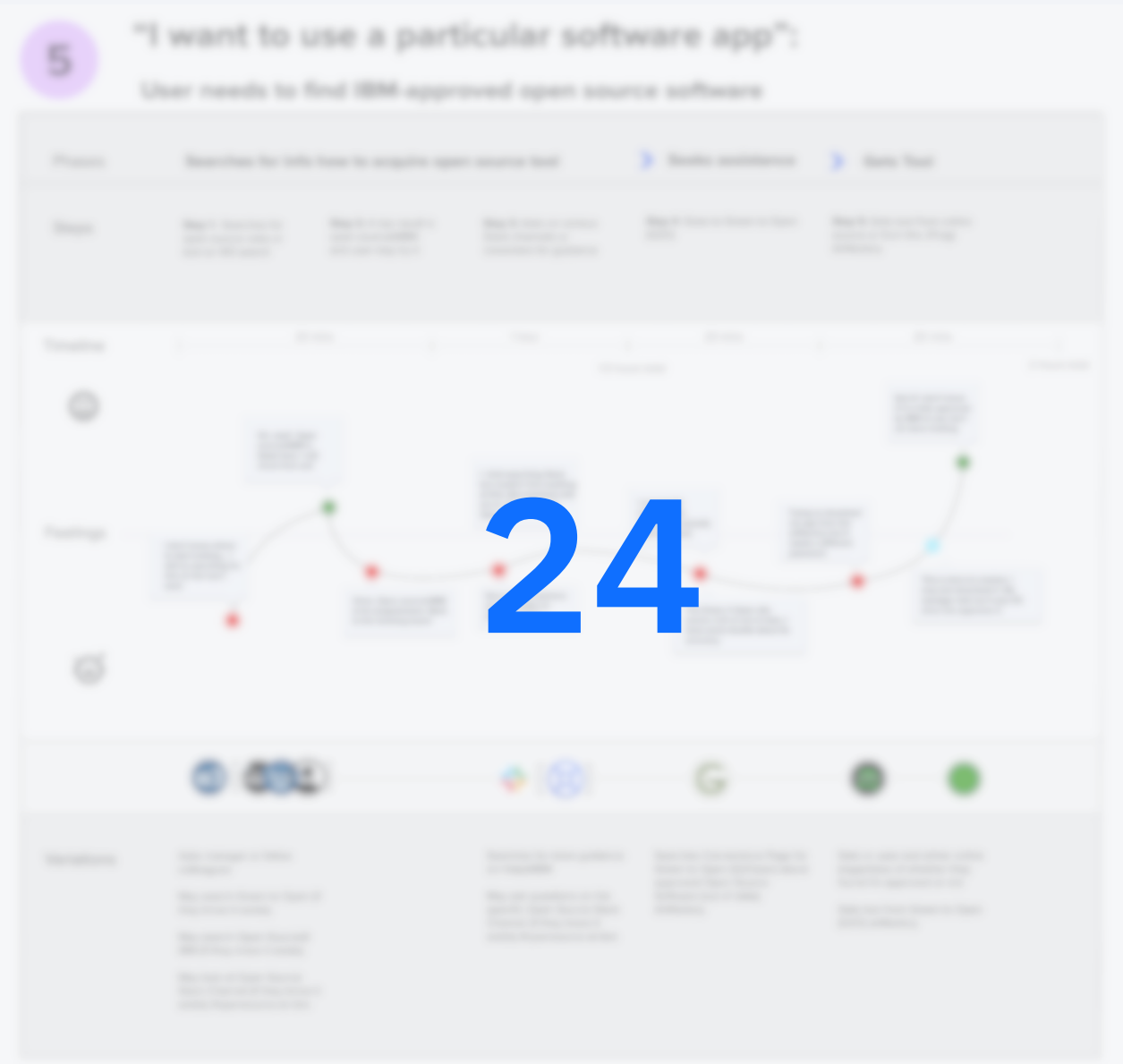
Rational experience

IBM | Workplace Impact Team

Top pains & opportunities – Common pain points (scenarios 1-5)

	Getting started		Finding tools	Getting tools
Pain Points	• IBMers don't know where start to find or get tools. • There isn't just one place to get or request tools – There are 10+ (for a select number of tools), without clear reasoning. • There aren't findable, clear, documented instructions for all IBMers explaining all processes.	• W3 Search & Help@IBM are frequently used to seek out a tool, but don't surface useful info, or, often any results at all. • W3 search often surfaces old, outdated sites. • Crowdsourcing answers (via Slack) becomes an IBMer's method for getting answers.	• Only certain tools can be easily found and across multiple sites. • Tools IBMers want often don't appear anywhere. • It's unclear how to get or request a tool not available on an IBM site. • There isn't a cross-linking strategy across sites.	• Only certain tools can be easily downloaded or accessed (happy path) • Users struggle to find out how to request a tool, gain approvals, and secure a license (scenarios 2 –5). • It is difficult for users to keep track of where they can get or manage their licenses. • Long-term: one location to automatically browse, obtain, request, manage all tools/licenses and installation.
Opportunities	• Create clear, easily found instructions and processes on getting tools for all 5 scenarios – need to be found via W3 search (based on user search terms) and all tool sites. • W3 Search by tool name should surface w3 tools. • Long-term: there should be one location to get or request any/all tools and be easily found via W3 search or Help.	• Identify top requested apps to improve search results. • Create a dedicated Slack channel with experts who can help IBMers across all 5 scenarios. • Deprecate W3 sites with old, outdated information. • Should immediately show that sought-for app isn't already licensed/available.	• On each current tool site, create a cross- linking strategy to other sites (e.g., W3 Tools to Buy@IBM). • Long-term: have one location to get or request any/all tools. • Long-term: Monitor requests for specific apps to determine demand.	

Employee quotes

"Right now, **I have to search everywhere**. Slack, Connections, Box, w3. It would be good to bring it all together."

"A lot of the time, there isn't complete information... **all apps should be listed at one place with clear information and a way purchase**."

"**I wish everything were in a single place**, with a visual catalog. **Right now, we have to search everywhere**."

" You sometimes **end up in a loop** -- You get as far as asking for something, and then it tells you **you need a license, but you don't know how to get it**."

"I haven't run across any good documentation on the process."

"'Finding' new tools in IBM is hard...There are **multiple places** to find tools. If it was **all in one place that was easy to find, that might help**."

"There are way **too many results when you do a w3 search**. Many tell you ABOUT the tool, but **do not actually have a link TO the tool**."

"**IBM's search engine is VERY poor and does not often return usable results**. Makes it very frustrating looking for tools, data, etc."

"Finding tools is not straightforward in IBM."

Top pains & opportunities – Common pain points (Scenarios 2-4)

Rational experience

IBM | Workplace Impact Team

	Quotes	Contracts	Purchase requests	Approvals
Pain Points	• No clear documentation on the process. • IBMers either must gain a quote themselves or go through IBM's 3rd party re-seller, SHI. SHI takes months, is inconsistent & confusing. • SHI, procurement & legal often disagree, which delays the process.	• IBMers don't know when or how to contact Procurement. • The process takes months, requires a range of approvals, and is almost entirely manual, inconsistent, tedious, rigorous, and confusing. • IBMers must find their own legal help.	• IBMers don't understand the purchase request process (Buy@IBM). • IBMers don't know where or how to find Buy@IBM. • Buy@IBM has substantial UX issues in areas ranging from search, filtering, content, visual design, and usability.	• The approval process (both through Buy@IBM and Procurement) is tedious, time-consuming, unexplained, and often includes multiple blockers. • IBMers may have to go to multiple groups to gain approvals, which could take months.
Opportunities	• Streamline processes across SHI; introduce automation. • Process should leverage prior requests on same products. • Long-term: As part of the one location/site strategy, include a streamlined way to request and receive a quote via SHI.	• Improved processes and communication across Procurement, SHI, Legal and Finance. • Dedicated Procurement, Legal & Finance contacts for each business unit. • Long-term: One site to start a contract, communicate with Procurement, & secure an approved contract. Less jargon.	• Make significant UX & UI improvements to Buy@IBM including improved search, filtering, and a clearer way to place a software request. • Surface previously purchased software in Buy@IBM.	• One location to request a tool, including a streamlined way to communicate with and gain approval from any/all necessary groups. • Streamlined approval processes created for each BU.

Employee quotes

"The time required to get approval is not consistent. **It has taken months to sort out some purchases, even if IBM already has agreements** with that company."

"It's fine when it is software that IBM is already aware of and has provisioned in some way. **It is a nightmare if you need something new**."

"**Procurement uses a lot of jargon that you're supposed to know**, about purchasers, buyers, suppliers. You have to bring in finance people, etc."

"**It is a maze working with SHI and Procurement**. There are a ton of hoops. I was a mess in the thick of it and so fed up at some points."

"**Buy@IBM is awful and doesn't work.**"

"**The quote from SHI took months to get. It took 6 months to get my request approved by Procurement.**"

"It's hard to figure out which process to go through. **You often get sent to different groups**, so it can take a lot of time. When SHI handled payment, and IBM handled the contract -- **took several months of back & forth to get it resolved**."

"**We had to find a lawyer in our BU to handle the contract.** That part is impossible. You'd think procurement would know who to go to. But I had to search on my own.

Rational experience

IBM | Workplace Impact Team

"**Buy@IBM is not customer friendly.**"

Next Steps

Attend and present software acquisition findings at workshop to further develop solutions

Interview members involved in the software acquisition process to further understand their processes, requirements, and pain points including:
- Members of procurement – US & Global
- Members of procurement strategy team
- Members of 3rd party software partner, Software House International
- Members of security
- Members of legal

Develop further recommendations and strategies & present to stakeholders

Colleen Corkery

IBM | Workplace Impact Team