

Unit 2: The Human Centered Design Process

Sherly Quezada, Jiayu Xu, Emilie Zhou

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Topic: Overly Confusing Complex Systems



GOALS

- ❖ Reimagination of the current Figma layout to benefit beginner users
- ❖ Focusing on helping users with **finding solutions and answers to their questions** and making the purposes of Figma's features more **intuitive**
- ❖ Helping Figma to become more usable, accessible, and ethical

Research - Ecosystem Collection Map

RESEARCH DIRECTION

- ❖ Identify features that contribute to systems becoming overly complex.
- ❖ Gain understandings of how these features affect user experience.

RESEARCH PLAN

- ❖ Conduct interviews with people who have experience using an overly complex system.
- ❖ Find scholarly articles for more insight.

Ecosystem Collection Map

How might interaction designers reduce the unethical consequences of existing digital media?

TOPIC: Overly confusing complex systems
(With a focus on Figma)

Users and other stakeholders

- beginner users are our primary focus when it comes to looking at overly confusing and complex systems, since this complexity affects their entry to a field the most
- application / system developers are also stakeholders since they stand to lose profit from making their product difficult for beginners

Context: physical, cultural, social, etc.

- Social: when it is hard to learn how to use a system and being able to use that system is seen as a skill, resources to help new users can become harder to find. This can be for reasons like experienced users putting tutorial content behind paywalls, or gatekeeping in order for experienced users' skillsets to continue to hold value.
- Cultural: important to acknowledge that consistent and reliable access to the internet is a privilege that not every potential user has. When information on a complex system is only available in certain forms, it becomes privilege to have access to that information

Associated activities

- lots of secondary research to try and learn to use the system
- buying bootcamps or online workshops to have someone walk the user through learning how to use the system
- not being able to use the system immediately because of the need to go through a learning phase

Issues associated

- when a system seems too hard to learn / unapproachable, people will be less willing to learn how to use it even if it can help their workflow
- it is unethical for a complex system to be made without good + accessible documentation and tutorials because then learning how to use a powerful tool can solely really on a user's privilege to access
- paywalls for tutorials, for example
- Figma: while it is a powerful tool, it is daunting for new users, especially since there is no formal tutorial

Desired outcomes

- designers of complex systems should implement tutorials that new users are forced to go through when using the system for the first time
- designers should include some beginner friendly features (some described in design trends)
- readable and easy to find documentation for a system and it's features should be readily available for users

Emotions

- confusion: at first glance there's a lot going on, it's hard for a user to get a feel for where to start
- frustration: not knowing where start, feeling like you are too unskilled as a user, having to go to multiple sources to learn how to do something
- helplessness: sometimes it's hard to find documentation to start the process of learning how to use an application. Sometimes its too hard to comb through the content that IS available

Design trends/behavioral patterns

- some applications have search bars/help menus that help explain a tool's function
- ability to toggle a feature that gives a brief description of a tool's function when you hover over it
- official help forums that the community can contribute to with questions, answers, and suggestions

Existing products

Examples of products that first time / beginner users have trouble using to it's fullest potential because of confusion:

- Figma
- Phototshop (and most of Adobe Suite)
- FL Studio
- Microsoft Excel
- Autodesk Maya

Research - Interviews

INTERVIEW PLAN

- ❖ Understand how users learn to use new platforms and what features they find helpful during this time.
- ❖ Identify Figma problem areas based on interviewee experience.
- ❖ Identify steps Figma users take when encountering problems.

INTERVIEW HIGHLIGHTS

- ❖ Interviewees were not aware of the official Figma help forum and would often turn to Google or YouTube when they felt stuck.
- ❖ Interviewees commented that it would be helpful to have some sort of compulsory tutorial for when a new user starts working in Figma.

Research - Key Interview Observations

INTERVIEW 1

- Likes that Figma is collaborative
- Doesn't like that it's hard to learn
- Never used Figma's help page
- Has used Adobe XD as a substitute for Figma
- Thinks a tutorial at the beginning would be useful to help users with navigating

INTERVIEW 2

- Uses Google and experienced friends when needs help
- Thinks compulsory guidance would be helpful
- Finds interface unfriendly for non-technical users
- Should be more interactive
- When you move the cursor above a icon, pop up describes its function

INTERVIEW 3

- New to Figma
- Uses YouTube tutorials a lot
- Doesn't want to pay for a tutorial / bootcamp
- Didn't know about Figma help page
- Likes programs that have search bar that help you find a specific tool
- Odd that there's no tutorial

Secondary Findings

ON COMPLEX SYSTEMS:

- ❖ “...complex systems can be potentially very dangerous and lead to catastrophic failures” (Cook)
- ❖ “...identifying the failures of a complex system requires people interacting and testing to determine what works well and what doesn't” (Cook)
- ❖ “...have to be careful with changing complex systems since changes existing systems may actually lead to new failures” (Cook)

ON USERS:

- ❖ “...easy to fail to recognize the full range of users who might be interested in using or need to use a particular system” (Petrie)

We conducted secondary research from articles and online resources to learn more about influences and associations of overly confusing complex systems.

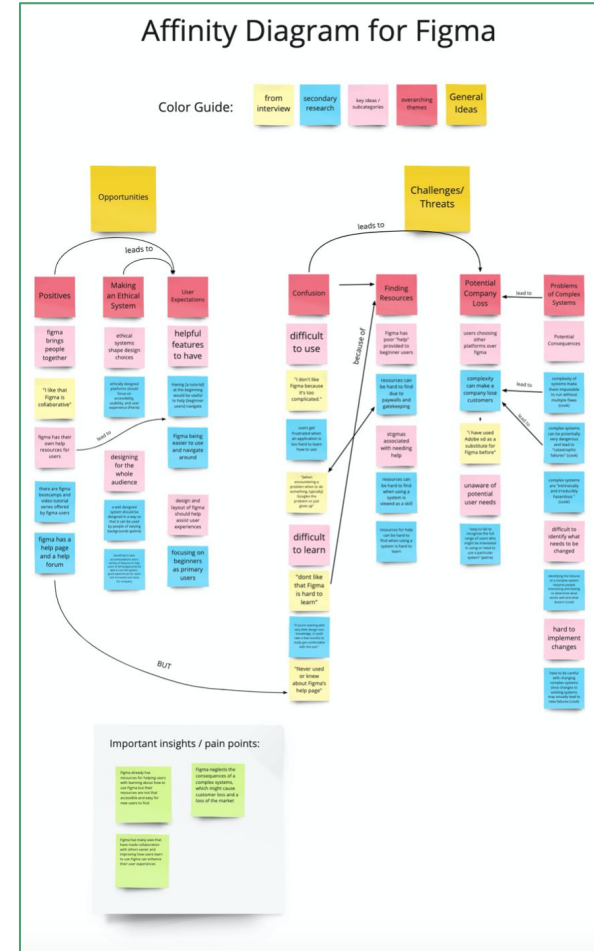
We narrowed down our findings to identify specific issues and problems relevant to Figma.

Citations

Cook, Richard. “How Complex Systems Fail.” *ResearchGate*, Cognitive Technologies Laboratory, 1 Jan. 2002, www.researchgate.net/publication/228797158_How_complex_systems_fail.
Petrie, Helen. “The Evaluation of Accessibility, Usability and User Experience.” *Academia*, 26 Oct. 2015, www.academia.edu/2347204/The_evaluation_of_accessibility_usability_and_user_experience.

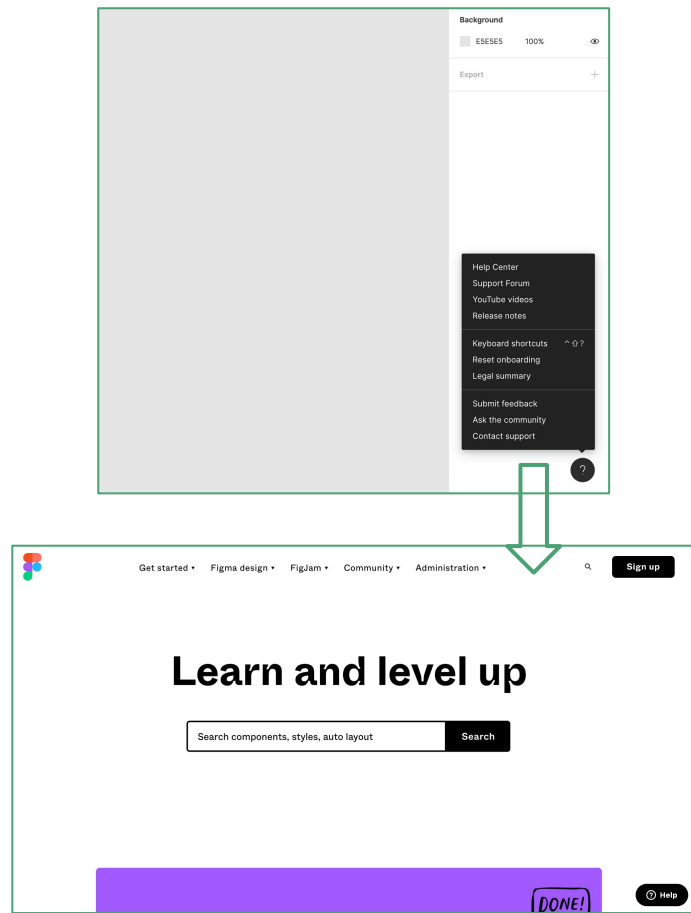
Synthesis

- ❖ We created an affinity diagram for Figma by starting with opportunities and threats of its current interface.
- ❖ We found the links between the factors and potential consequences.
 - This helped us target the users' needs more directly
- ❖ We finalized the important insights that concluded what Figma was lacking and needed to improve.

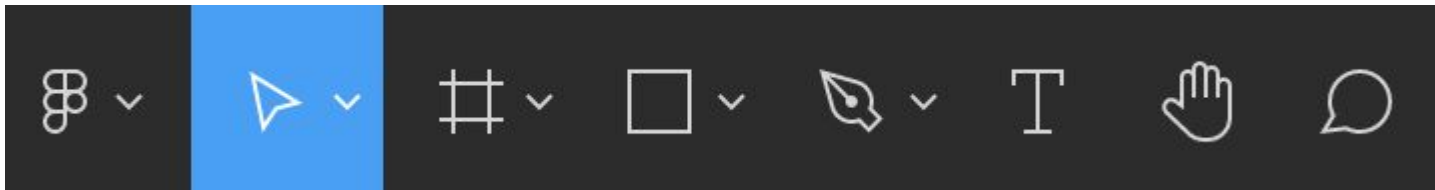


Pain Points and Opportunities

- ❖ Figma already has resources for helping users with learning about how to use the platform **BUT** their resources are not that ***accessible*** and easy for new users to find.
- ❖ Improving how users learn to use Figma can **enhance** their user experiences.
- ❖ Our primary user is identified as **new users** or those with little experience.



Brainstorming - “How might we...”



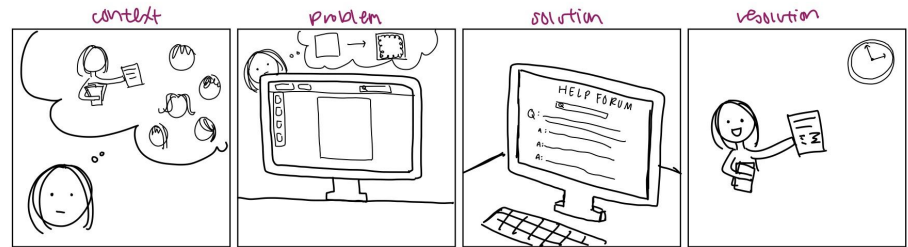
- Make it easier for users to find desired tools and understand their core functionalities?
- Make tool capabilities clear in an easy way for users to digest?
- Improve traffic to the Figma support forum?
- Make Figma more user friendly for beginners?
- Reduce confusion and make features more intuitive for users?
- Make Figma easier to navigate for new users?
- Incorporate principles of ethical design to make Figma more accessible and inclusive?

Brainstorming - Scenarios + Storyboards (Emilie)

SCENARIO

- ❖ Sarah wants to design a flyer but has no experience with any design tools.
- ❖ She opens Figma and is prompted to step through a short tutorial.
- ❖ As she works, she uses the search bar at the top of her workspace to look for any tools or suggestions
- ❖ Sarah is then able to quickly find tools she needs and feels satisfied with her work.

How might we reduce confusion & make features & navigation more intuitive for new users?



Sarah is a busy high school

student who wants to make a

flyer to advertise for her

club's fundraiser event.

Sarah is using Figma and wants

to make a poster for her flyer. She

wants to know if Figma has any tools

that can help her with that.

Sarah uses the search bar at the

top of her workspace to look for

tools or suggestions that could help her.

She also uses Figma's help forum to

see if other users had the same problem

and found helpful solutions. She is then

able to quickly find the tools she needs.

Sarah is able to finish her flyer

in a short amount of time. She appreciates

the tips she got on the help forum and is



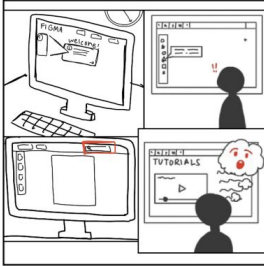
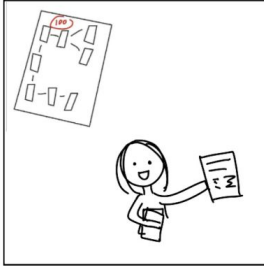
proud of her work.

Brainstorming - Final Storyboard

GOALS

- ❖ Focus on new users.
- ❖ Combine the best of our solutions from our individual storyboards.
- ❖ Focus on features that are implementable and don't make the system more complex.

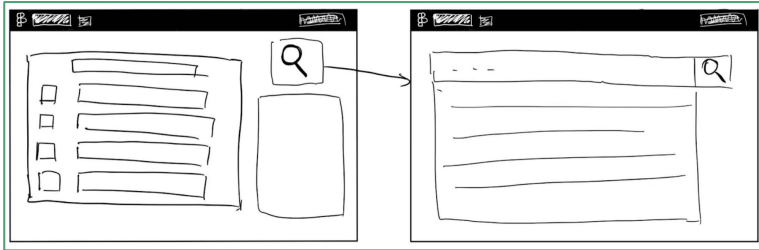
How might we make Figma more user friendly for new users?

Context	Problem	Solution	Resolution
			
Annie is taking her first design class. For her first assignment she is asked to make an interface storyboard for a mobile app. Her professor and peers recommend she use Figma to create a high quality product.	Annie feels overwhelmed and that Figma is hard to navigate. There are a lot of tools and new users don't know where to start when working on new projects. Without a formal tutorial, users are tempted to move to other services.	New users are prompted to step through a tutorial that goes over navigation tools and important features. They can also turn on a function that describes the tools they hover over. There's also a search bar at the top where users can search for tools. If they can't find what they're looking for, they will be prompted to the help forum page that has tutorials, walkthroughs, and suggestions from other users.	New users are no longer getting intimidated or frustrated by Figma. By taking advantage of new help features, new users are able to build confidence and because they can easily find solutions to their problems they use Figma more often. Annie is able to create something that she's proud of in a short amount of time.

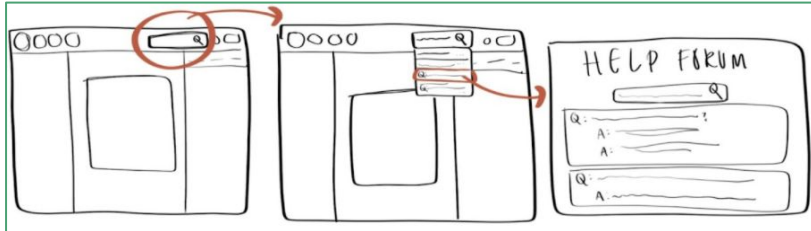
Creating - Wireframes

We explored different ways to provide more support to users.

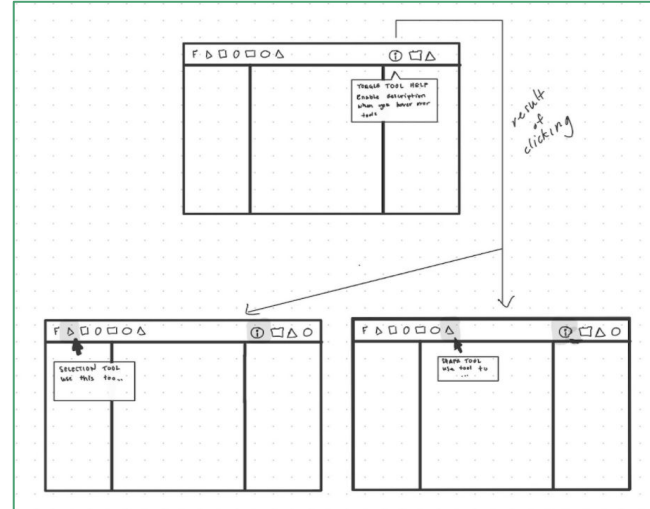
❖ SEARCH BAR WITH SUGGESTIONS



❖ GUIDED ACCESS TO HELP PAGES



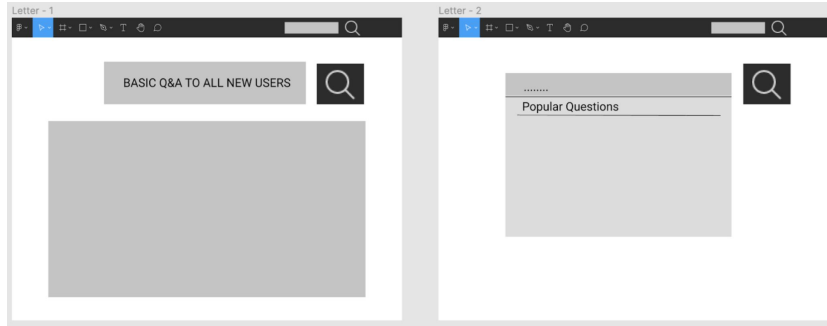
❖ TOOL DESCRIPTIONS



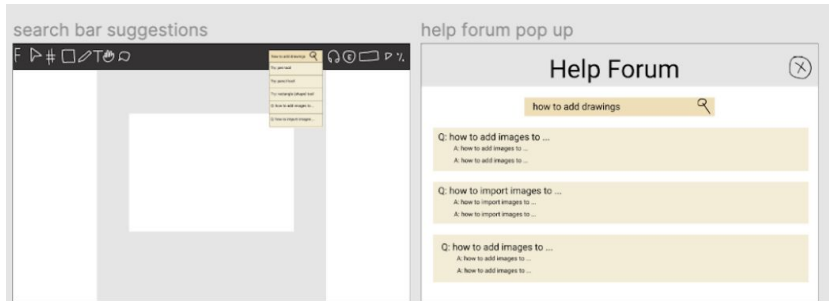
Creating - Lo-fi Prototypes

We refined ideas to make sure that these features would be different than what Figma's interface already offers.

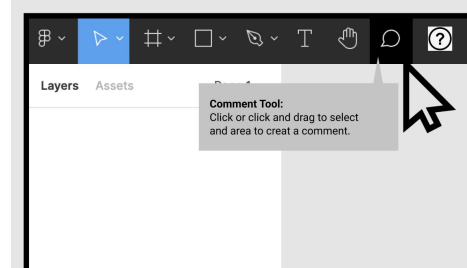
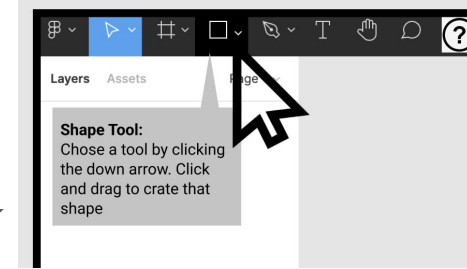
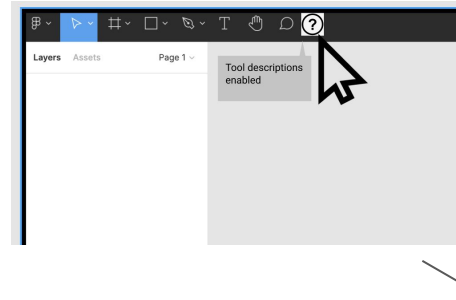
❖ SEARCH BAR WITH SUGGESTIONS



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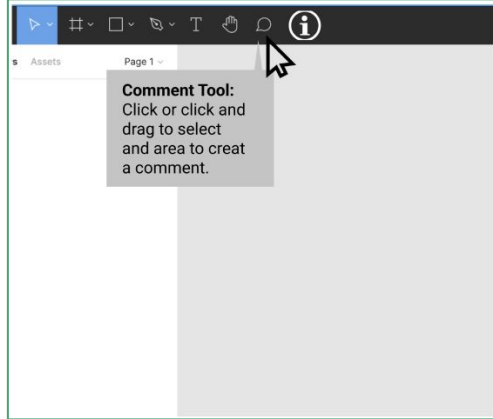


Creating - Mid-fi Prototypes

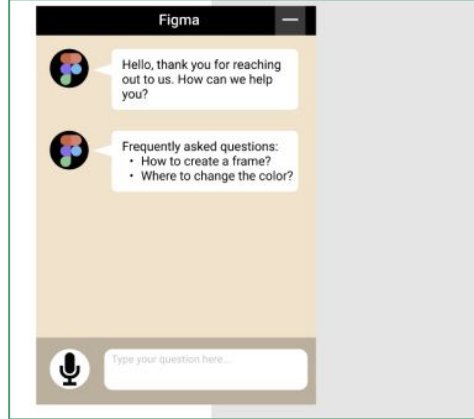
We narrowed down the changes to make and refined the prototypes with color and more accurate interface details.

FEATURES ADDED:

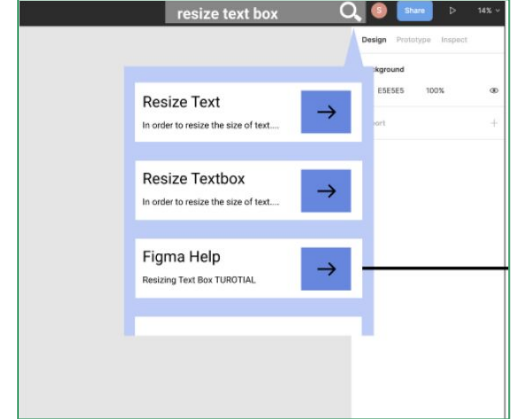
- ❖ Option to turn hovering tool descriptions on/off



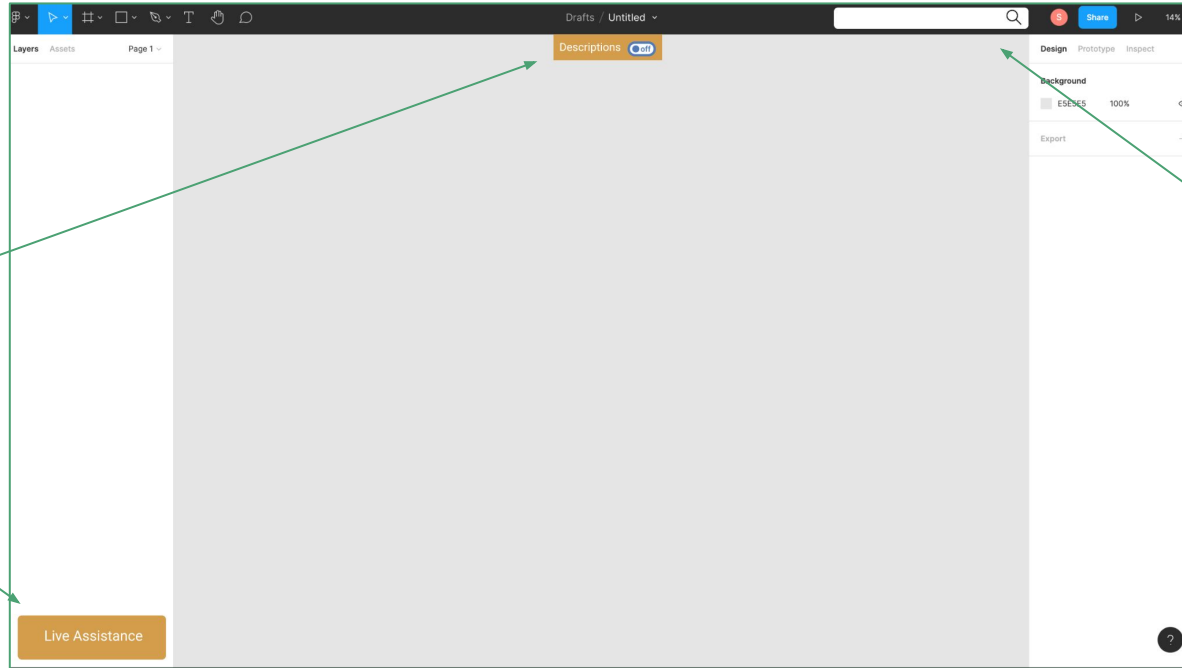
- ❖ Chatbot with immediate feedback



- ❖ Search bar



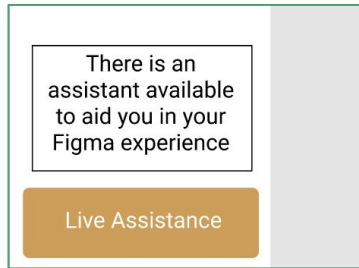
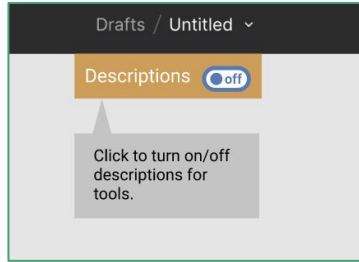
Creating - Hi-fi Prototypes



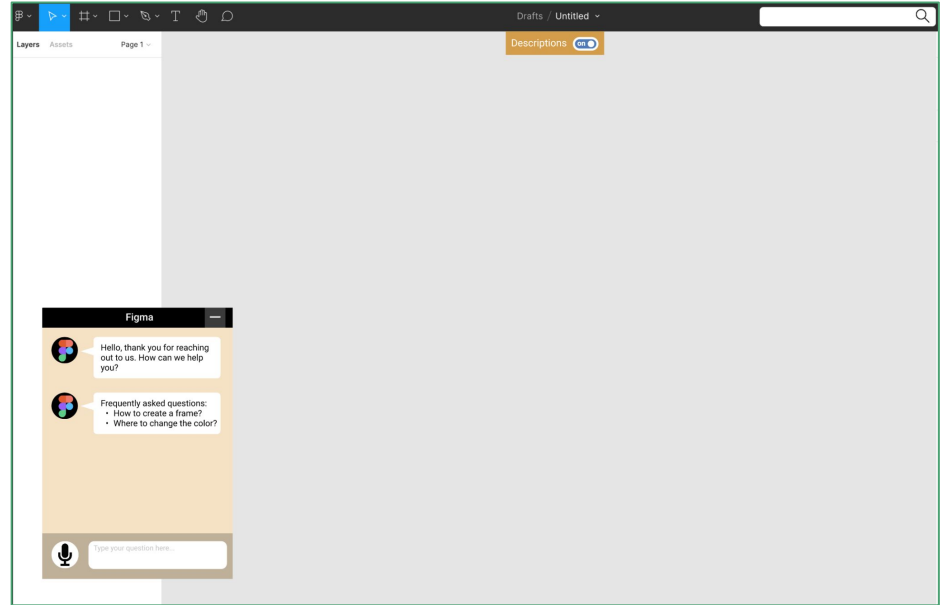
Use of colors helps the interactive buttons stand out and adds emphasis to important features

User can use the added search bar to search for location of tools or search their questions and get suggestions and tips for related problems

Creating - Hi-fi Prototypes



Pop ups providing info on the purposes of the buttons appear when hovering over them

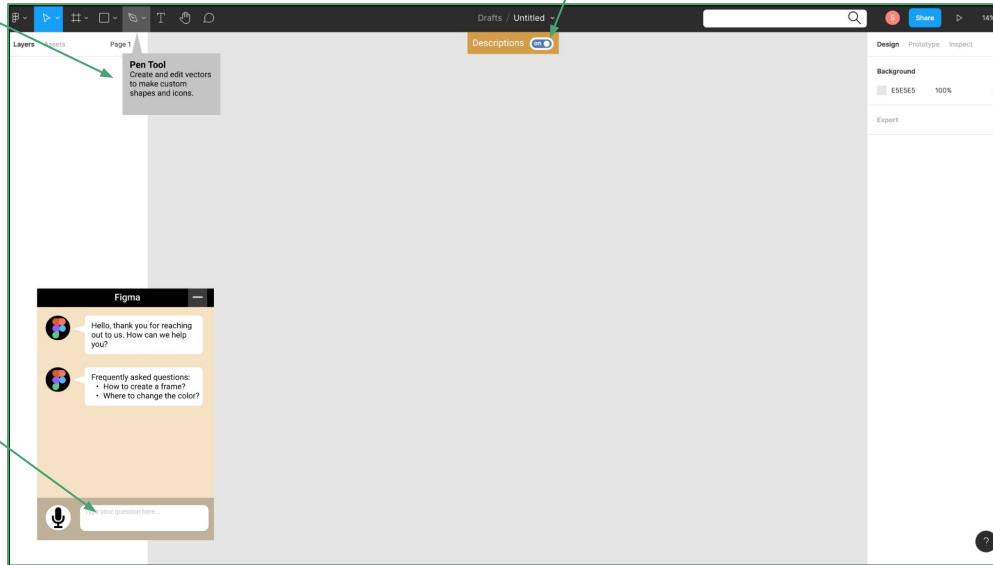


Clicking on the button turns on the descriptions option and opens the chatbot

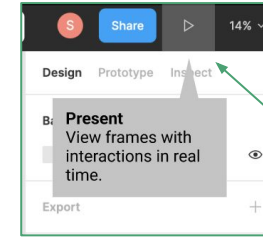
Creating - Hi-fi Prototypes

Brief tool descriptions when hovering over them

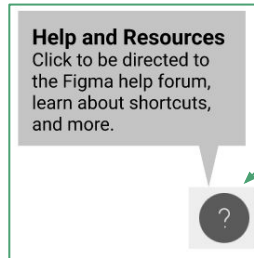
Description option can be toggled off when users are more experienced



Users can ask questions in the chatbot and receive AI generated answers



Hovering descriptions help make features and their uses more intuitive and clear



[LINK TO PROTOTYPE](#)

Usability Testing Protocol and Observations

TASK: Use the prototype to make a poster.

- ❖ If you were to make a poster with squares and text on it, how would you do that? Can you verbally describe that process?
- ❖ As you are making this poster, you encounter a problem where you aren't sure what to do to fix it. What would you do in this situation?

- ❖ Users clicked around, turned on descriptions, hovered over the tools
- ❖ Mentions the correct tools that would be needed
- ❖ Two users also tried using the chatbot to better understand the exact usage of a tool

- ❖ All users mentioned possibly eventually just using Google to find solutions
- ❖ Two users tried using the chatbot and expressed interest in using that

Usability Testing Findings

WHAT WORKED FOR USERS:

- ❖ Users gravitated towards the chatbot, tried typing into it
- ❖ Users appreciated the option to turn descriptions on

CONCERNS FROM USERS:

- ❖ Chatbot name seemed a little formal for smaller questions
- ❖ Unsure about how complicated the chatbot responses would be
- ❖ Users might still resort to Googling a problem, as it may also be faster

Reflections - Emilie

The most important thing I learned from this unit was how to narrow down brainstormed ideas to identify features that would be the most impactful in achieving the desired outcomes for target users. I found the synthesis stage really helpful in learning more about users' past experiences and what factors contribute to a usable and accessible platform. Afterwards, I found the brainstorming stage of using scenarios, storyboards, and wireframing useful in helping refine the ideas from the synthesis stage as we focused on identifying how specific users would interact with the changes we wanted to introduce to Figma. One thing that could go wrong with the system is that the added features may actually make users feel more overwhelmed if they don't understand what features are there to help them with their problems. For instance, if a user doesn't hover over the interactive buttons, perhaps because the buttons don't look that engaging and welcoming, they might not know what the buttons do and feel that the buttons are just additional features contributing to the cluttered and confusing interface.