

# MapStory User Research

## Benchmark Testing for Composer

January 30, 2017 by Glynnis Ritchie

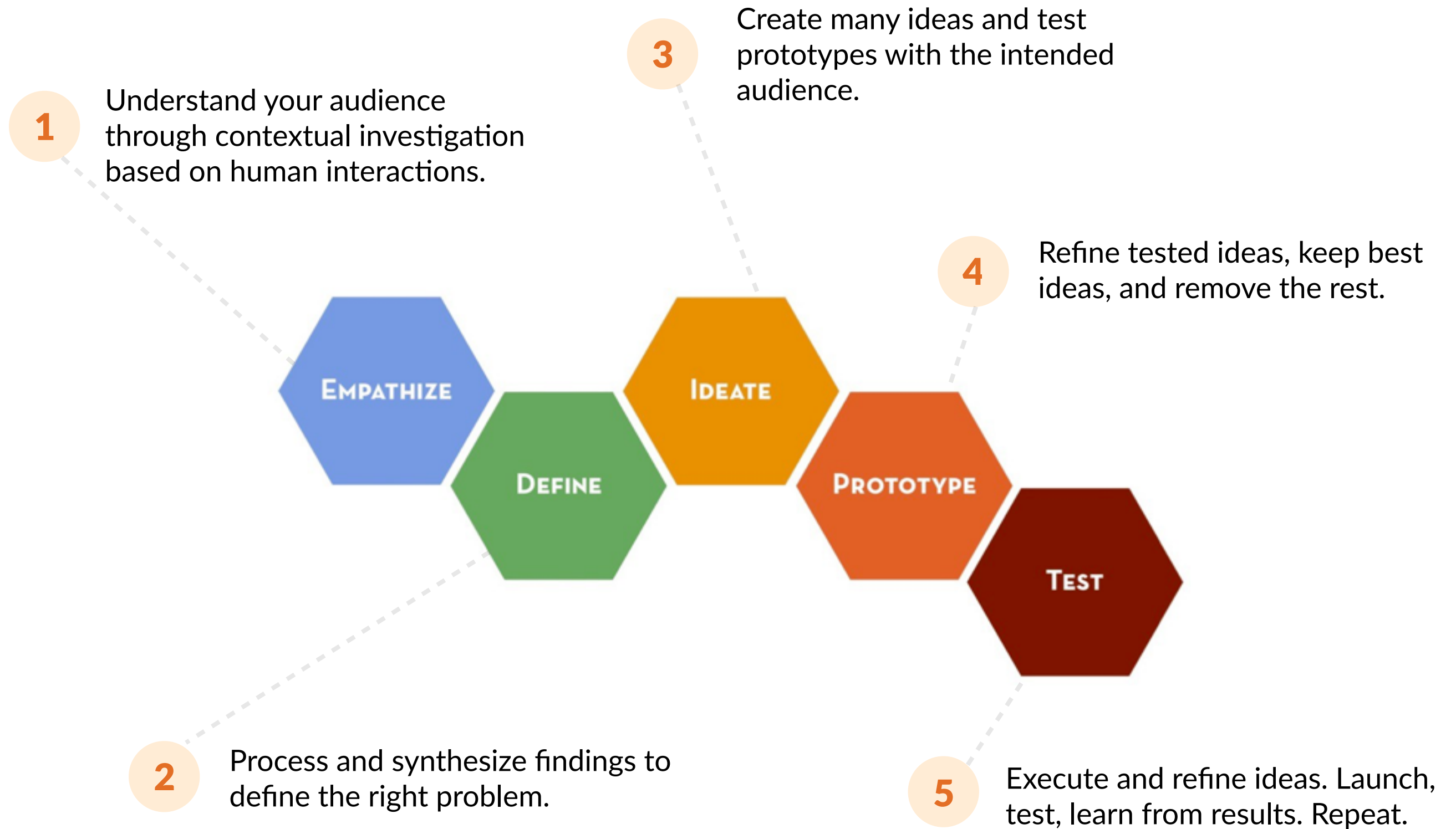
# What is User Research?

**User research** focuses on understanding user behaviors, needs, and motivations through observation techniques, task analysis, and other feedback methodologies. It is the process of understanding the impact of design on an audience. **The main goal is to inform the design process from the perspective of the end user.**



**My goal** is to help the team see MapStory with fresh eyes and empathize with users. We are all familiar with the quirks and difficulties of the UI, and it's easy to forget what a new user's experience is like.

Research can help confirm or refute the team's assumptions with real data about what's important to users.



# Methodology

- 1 hour call with five different users (more on them later).
- I asked each user to complete a series of tasks in Composer and timed each task.
  - After each task, I asked them to give a confidence rating.
  - I noted whether they *actually* completed the task successfully.
  - I asked them to explain whether the workflow met their expectations, or if they found anything confusing.
- I avoided asking leading questions, and did not direct users on where to click or how to accomplish something.
- I recorded each call and took notes and transcribed key quotes and findings.

Benchmark Testing - Qualitative findings - User 4

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## Composer: Questions about Composer

1. What steps do you take before you come to MapStory to compose a
  - a. The bigger picture: what I want to tell a story about, and how my map? Gather up all the data and put it in a format I can use MapStory (a spreadsheet and a shapefile that I didn't create data if it's not already on MapStory. I also look at layers that MapStory to see what's there that I can use. Then I start the Layer I add and then go from there.

My dream, which I haven't been able to do, like change that into something more interesting like stars or something. And StoryBoxes or StoryPins in there just to make it look good. Si able to go through the whole process I haven't been able to summaries and all that. But I'd probably prepare that in Word you spend on making a MapStory in C so it's not like I've ever been able to

ple chapters, I would think at least ur. It depends on how much other s Pins, etc. It could take a while. tting, or multiple sessions? ons. Maybe a single chapter story I e something that you usually do first

https://mapstory.org/maps/new?tour

MapStory @userTesting

Save Publish Properties Help

Islamic Conquest

Index > Chapter 2

Back

Chapter Info StoryLayers

StoryBoxes StoryPins

Delete chapter

Benchmark Testing - Composer Tasks

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|    | A  | B          | C         | D         | E         | F  |
|----|--|------------|-----------|-----------|-----------|--|
| 1  | Scale of 1 to 5  |            |           |           |           |  |
| 2  | 5 - Extremely confident  |            |           |           |           |  |
| 3  | 4 - when she said "I'm pretty confident"   |            |           |           |           |  |
| 4  | 3  |            |           |           |           |  |
| 5  | 2  |            |           |           |           |  |
| 6  | 1 - Not at all confident   |            |           |           |           |  |
| 7  |  |            |           |           |           |  |
| 8  |  |            |           |           |           |  |
| 9  | Task   | Time Start | Time Stop | Using the | Completed | Did this meet your expectations?             |
| 22 | Do you see the legend in the top right? Let's change the legend say "Euro              | 28:35      | 29:10     | 4 yes     |           | "I wasn't sure it was gonna work, but it d   |
| 23 | What do you think StoryPins are or might be used to accomplish?                        |            |           |           |           |  |
| 24 | Now let's add some StoryPins to Chapter 2. Make a StoryPin called "The c               | 30:22      | 32:34     | 4 yes     |           | "I'm confident I created it, but I'm not cor |
| 25 | Use the flickr embed code "<a data-flickr-embed="true" href="https://www               | "          | "         | "         | "         |  |
| 26 | Set the location for the pin anywhere in Africa with the start time "Jan 11, "         | "          | "         | "         | "         |  |
| 27 | What do you think StoryBoxes are or might be used to accomplish?                       |            |           |           |           | "It lets you zoom in to a certain place an   |
| 28 | Let's create a StoryBox for Chapter 2 called "Location of Pyramids" to focu            | 33:07      | 35:24     | 4 yes     |           |  |
| 29 | Give your StoryBox the time frame of Jan 1, 1121 to Jan 1, 1600                        | "          | "         | "         | "         |  |
| 30 | Now let's give your story a summary, category, and some tags, then save it as a draft. |            |           |           |           |  |
| 31 | Give your story the summary: "The Scramble for Africa was the period fro               | 35:55      | 38:10     | 5 yes     |           | "I'm not really sure how to go about putti   |

# Tasks I Asked Users to Complete

1. Log in.
2. Create a MapStory and call it "Scramble for Africa".
3. Add an existing StoryLayer to Chapter 1.
4. Give Chapter 1 a title, summary, and base map.
5. Set the default zoom for chapter 1 on the upper part of Africa.
6. Create Chapter 2 and give it a title, summary, and base map.
7. Add an existing StoryLayer to chapter 2.
8. Add custom styles to a StoryLayer: a choropleth palette with a purple fill color.
9. Create a StoryPin and give it a title, description, with a start and end date.
10. Create a StoryBox with a title, start, and end date.
11. Give the story a summary, category, and tags, and save it as a draft.
12. Go back to [MapStory.org](https://MapStory.org) and locate your draft. Publish it.
13. Delete the story.



# Confidence Scale

I used a Likert scale and asked users to rate how confident they felt that they had successfully completed a task.

1 - Extremely confident

2 - Very confident

3 - Neutral

2 - Not very confident

1 - Not at all confident

# Users I Tested With

- 3 out of 5 users were familiar with MapStory (from the Content Group)
- 2 out of 5 users had not used MapStory before
- 3 out of 5 users had never used Composer before

# Users' Backgrounds

- 2 out of 5 users are professionally/academically trained geographers
- 2 out of 5 users with a professional background in GIS analysis
- 2 out of 5 users with professional software development (with GIS focus) experience
- 3 out of 5 users were experienced with desktop GIS software vs. 2 out of 5 with primarily web mapping experience
- Mapping experience among users ranged from 4-35 years

# Top Findings

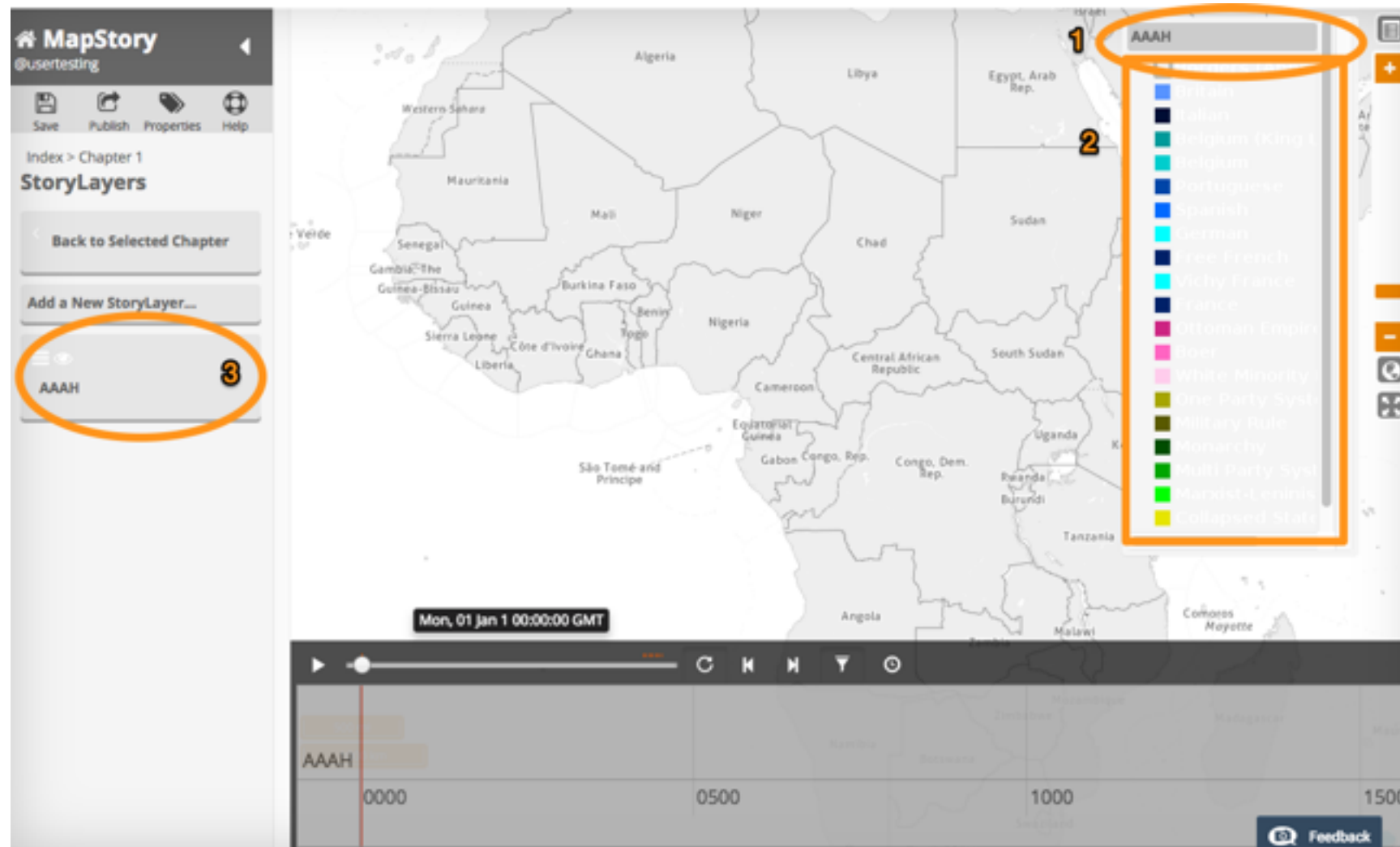
- Users expected the legend to be interactive, and clicked it when trying to change the layer display name or apply custom styles.
- Users struggled to find how to apply custom styles. Most were uncertain whether they'd successfully applied styles, and expected changes to styles to be immediately visible on the map.
- All users commented on how they found the nested navigation and back buttons in sidebar confusing. This affected wayfinding for almost all tasks, and was more severe for some users than others.
- Many interactive elements (input fields, links, loading messages, buttons, etc.) were not recognized or noticed by users, and contributed to uncertainty and confusion in completing tasks.
- Users don't expect to click a save button after each task. Many users felt very confident they'd successfully completed something, when in reality they had not saved their progress.



# Top Findings

- All users commented on how long load times were, especially for adding layers.
- When searching for layers, users expected to see results filter as they typed and to see results match on partial strings. Every user struggled with this interaction and commented on how it didn't meet their expectations.
- Users wanted to see their story without leaving Composer, or didn't understand how to preview. Others were afraid to publish due to copy in the UI.
- Most users didn't expect to go to profile to find their own work, and instead expected "Profile" to indicate settings, contact info, avatar, etc.—not mapping content.
- Many users lacked trust in MapStory, and had a history of expecting things not to work.

# Findings: Legend



- **4 out of 5 users** could not find how to change the layer name displayed in the legend.
- **4 out of 5 users** tried to click the layer name (1) in the legend itself to edit it.
- Only **1 out of 5 users** knew to click the layer name to edit the legend (3). This user was very familiar with MapStory.
- **5 out of 5 users** commented on how the legend was unreadable (2), and some didn't realize at first that there was text in the legend at all.

# User Quotes: Legend

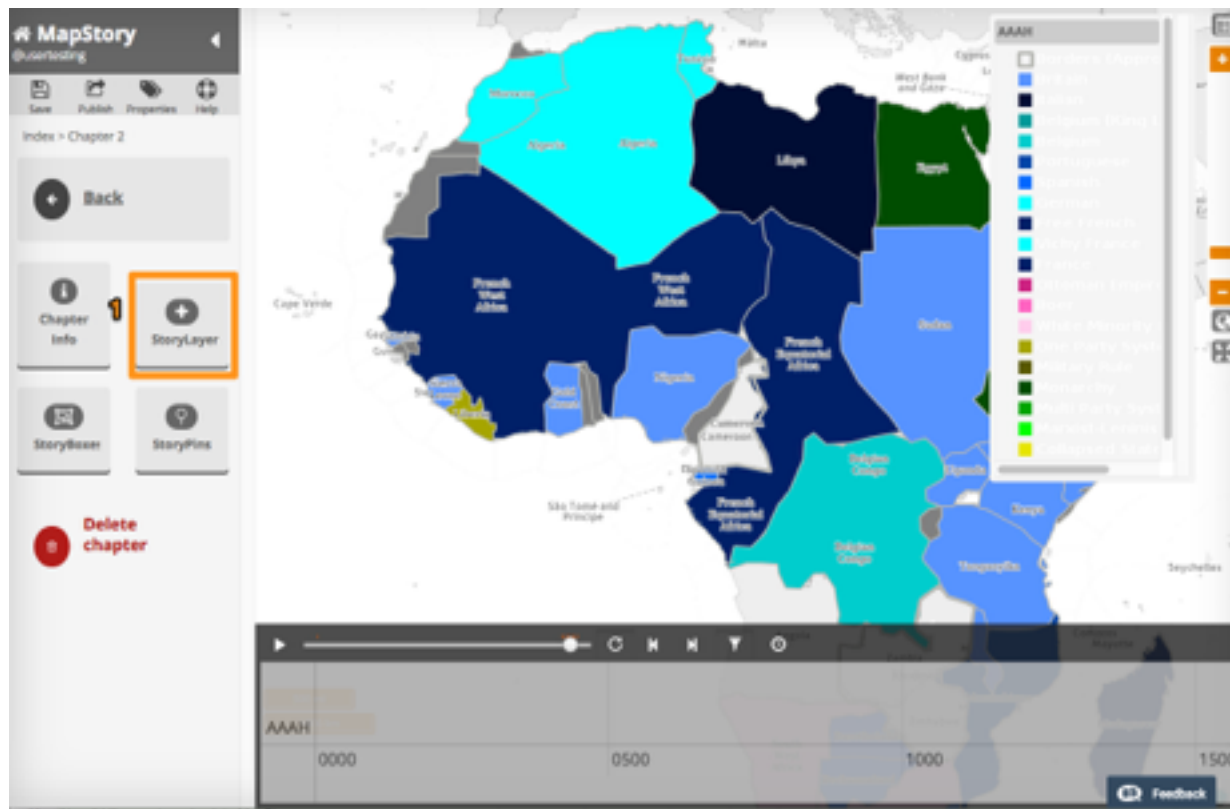
*“I don't know what this is [referring to the legend].”  
After realizing the legend contained text: “White on white isn't good!”*

*“Oh wow, and now that I'm looking at it I see that there's text! But I can barely see it. It's white against gray and I can't even read it.”*

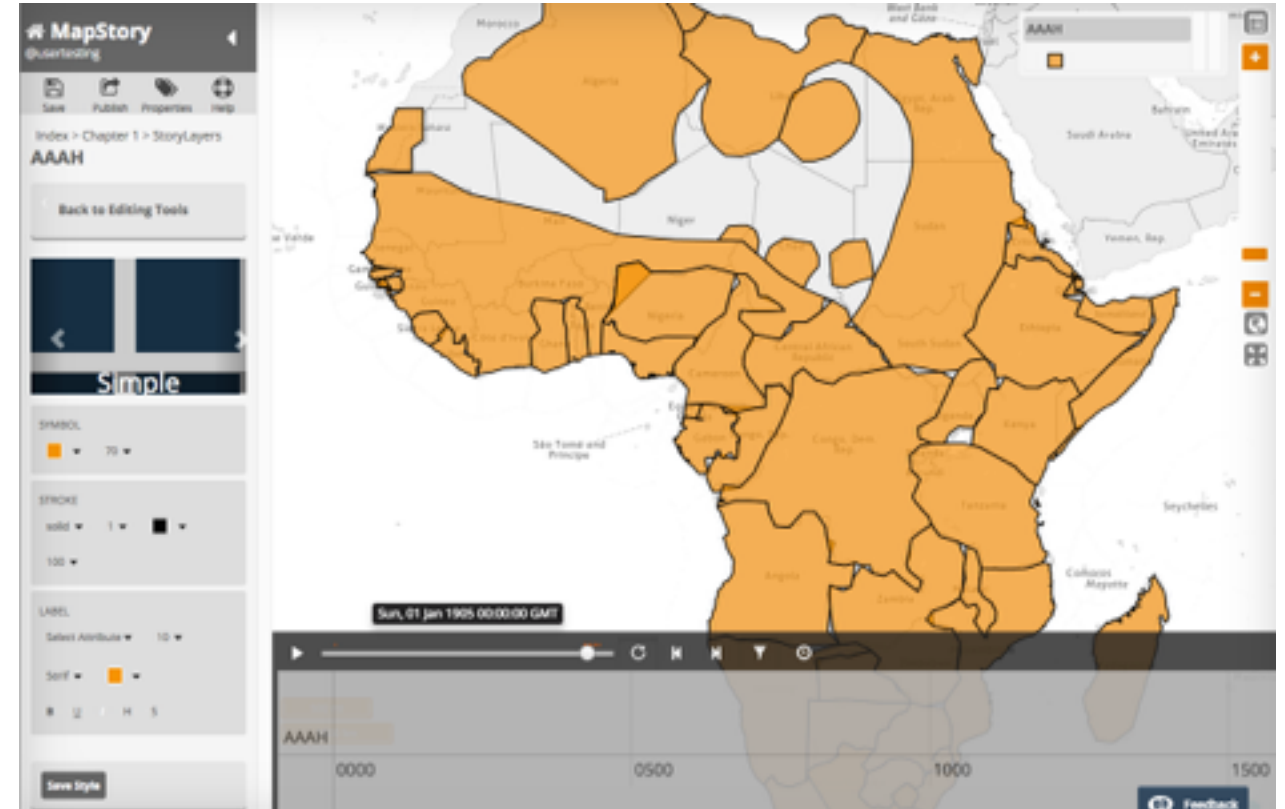
*“I'd expect to be able to change the [layer display name] by clicking on the legend or for it to have an editable box.”*

*“Now that I'm looking at the legend, I'm thinking maybe that's where I edit the style? Because I see these little colored boxes.”*

# Findings: Applying Custom Styles



- The highest confidence rating given for successfully applying custom styles was a 3 out of 5. Every other user gave a “0” or “1” on the Likert scale.
- **3 out of 5 users** struggled to find the styling panel. They thought clicking on the “StoryLayers” section would add a new StoryLayer due to the “+” sign icon (1). The users who did go to the StoryLayer section without hesitation were very familiar with MapStory.



- All users expressed surprise that they didn’t see their styles reflected immediately. **3 out of 5 users** failed to save their styling changes, and didn’t realize they had to save to see styles reflected.
- **3 out of 5 users** expressed surprise and frustration that coming to the styling panel immediately overwrote a layer’s existing styles, even before they had made any changes (right).



# User Quotes: Applying Custom Styles

*“When I came into styles, before I changed any settings, it automatically changed the layer style even though I didn't change anything. That's not what I would expect it to do...I'd feel more confident that I did it correctly if I saw the purple as soon as I selected it. And saving the styles didn't apply the purple either, so I don't know.”*

*“Well, I'm adding a style to a layer that I don't see up here. I don't know where it is. I'm guessing it should be visible, but I don't know where it is, so I'm not confident that I styled it. It wasn't obvious where to change styles.”*

*“It wasn't obvious where to change styles. I also thought I would click in the legend to choose ‘edit style’.”*

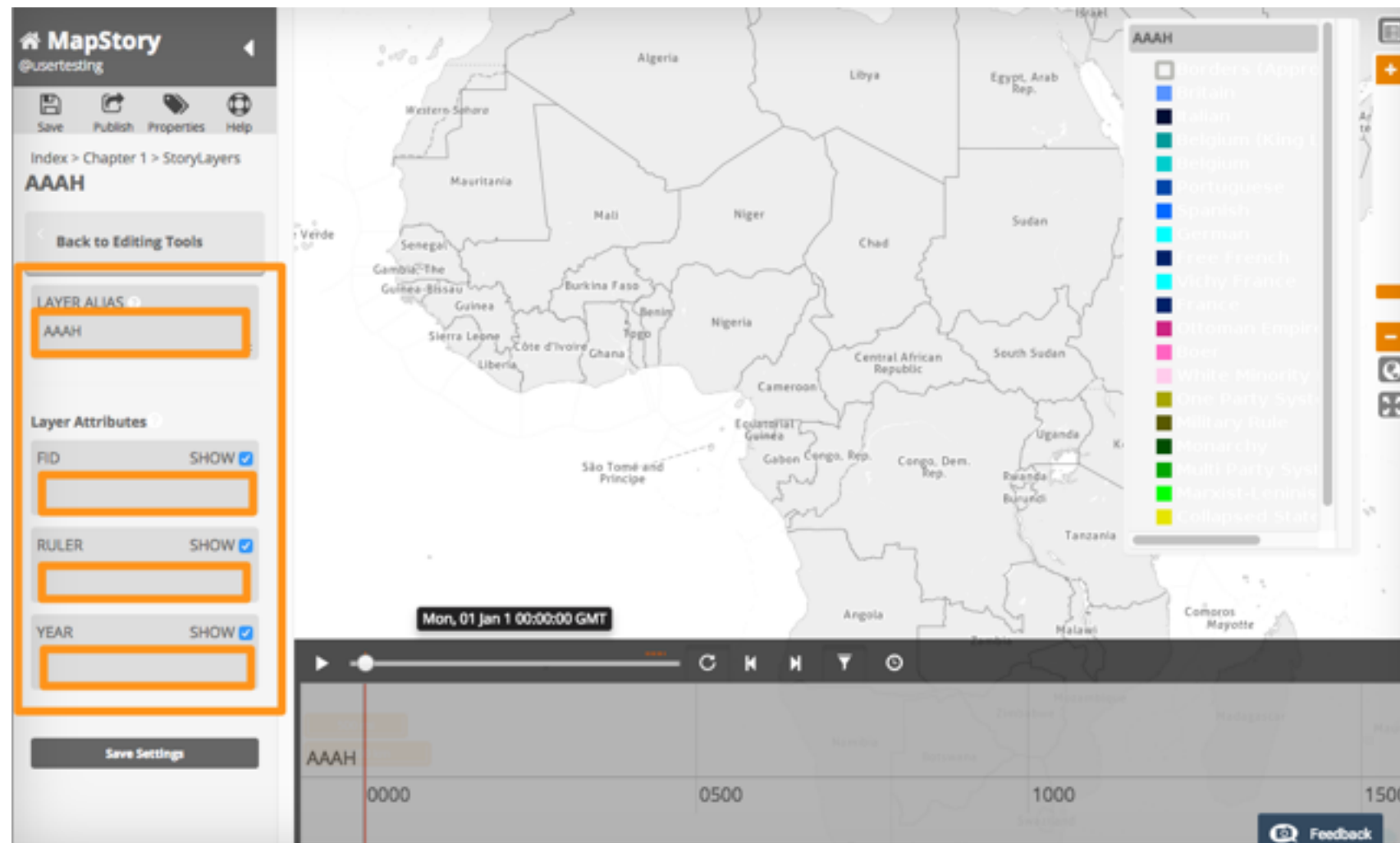
# User Quotes: Applying Custom Styles

*“I think [making styles accessible] in the legend would be useful—like a little link that said ‘edit this.’”*

*“Now that I'm looking at the legend, I'm thinking maybe that's where I edit the style? Because I see these little colored boxes.”*

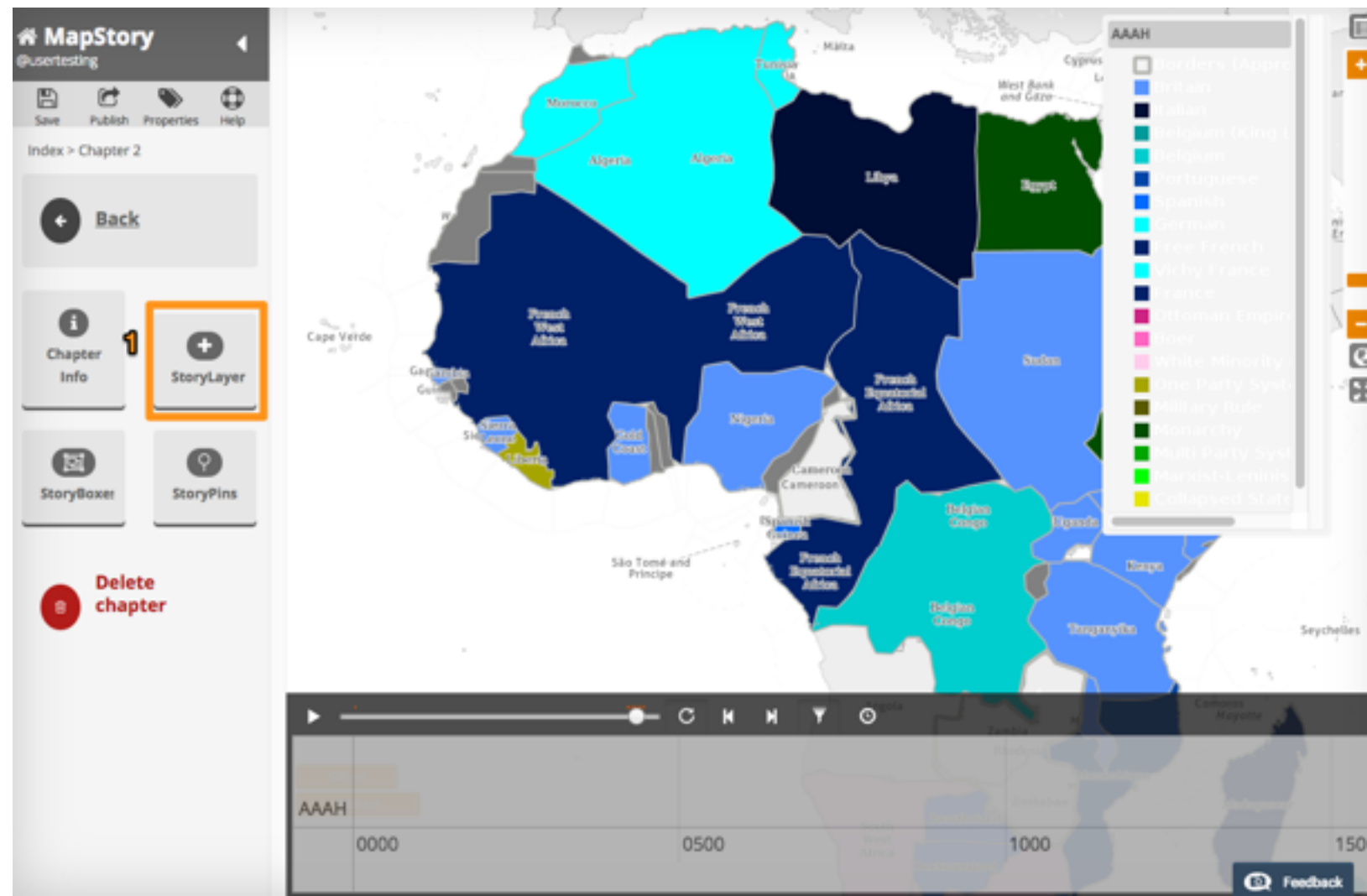
*“I'd expect to see the layer on the map change [when changing style], but maybe there's nothing for me to see yet? I hit save and everything. Maybe this layer is only visible at a certain time? I'm not sure what I'm doing here.”*

# Findings: Interactive Elements



The user who did find how to edit the layer name in the legend didn't realize at first that input boxes were present, since they have no outline and are the same color as the parent element.

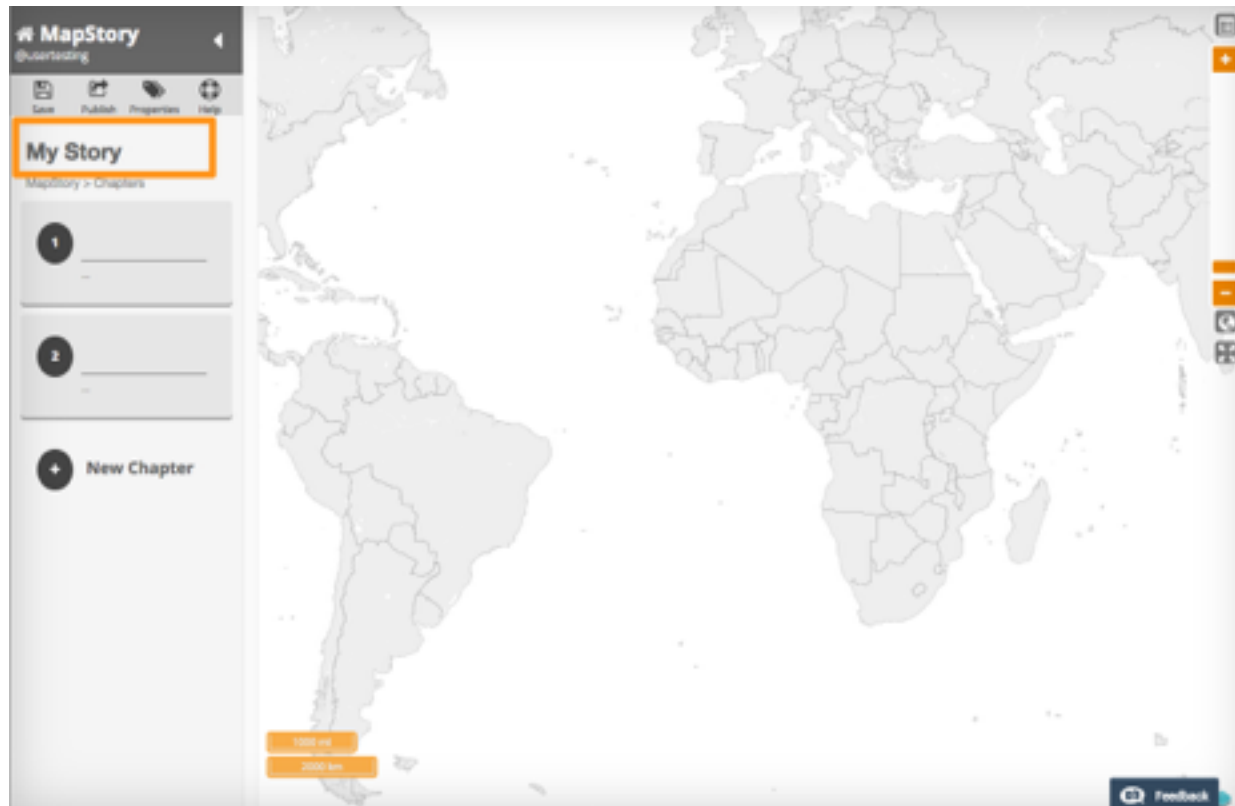
# Findings: Interactive Elements



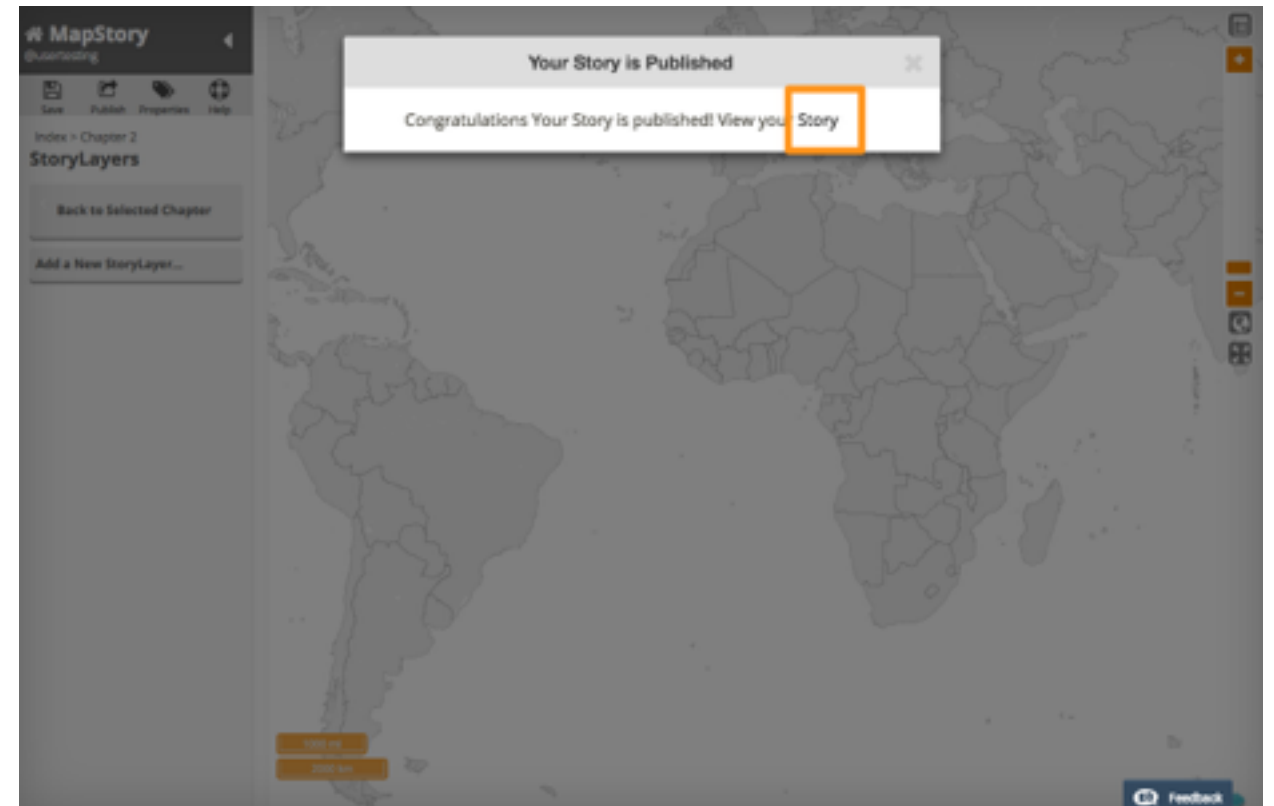
*“If you want to see StoryLayers, you have to click here (1), but I thought it meant 'add a new story layer' so I didn't want to click on it at first.”*



# Findings: Interactive Elements

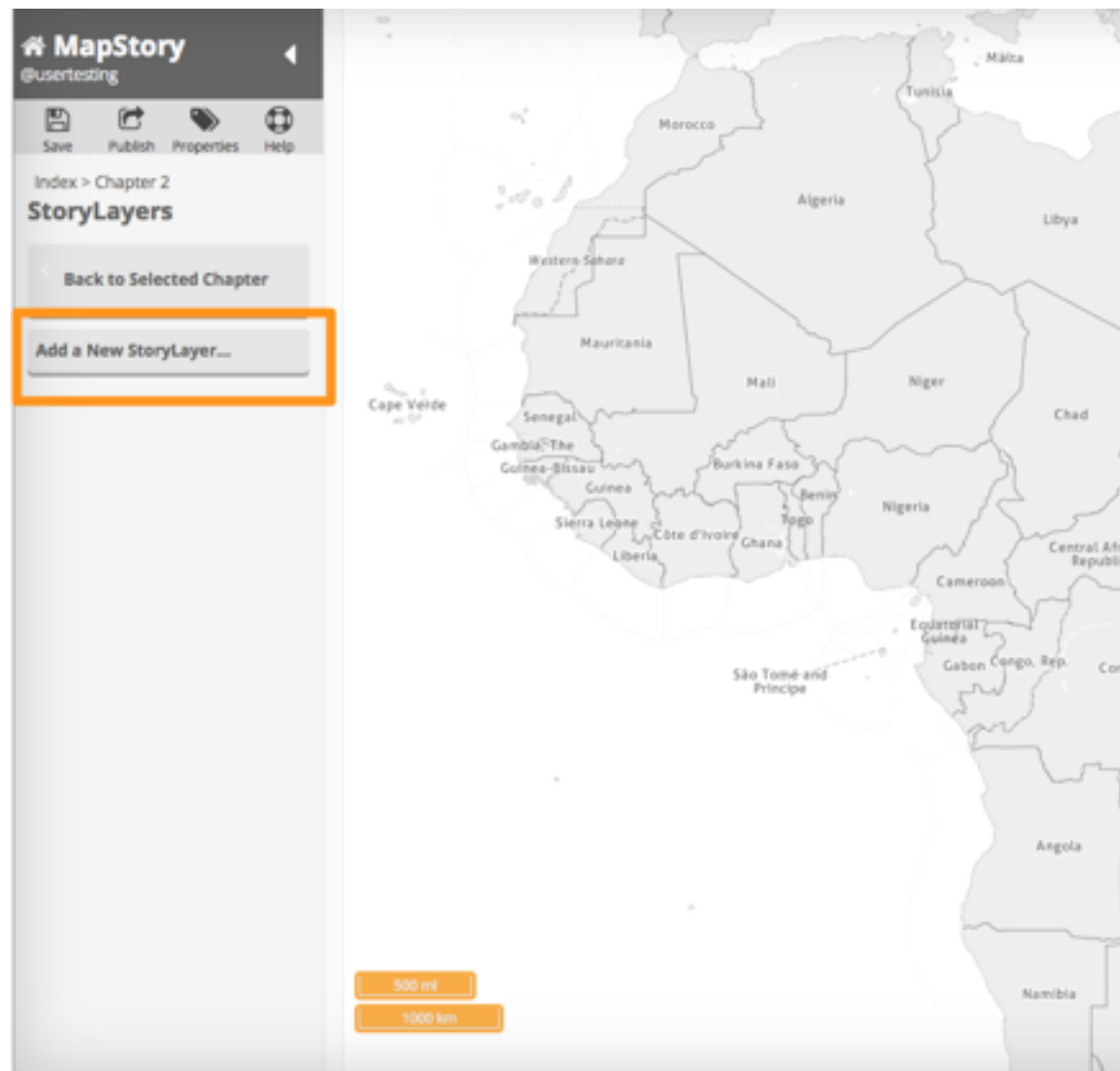


- Links don't look like links. Only **2 out of 5 users** clicked the Story Title, which links to the story detail page. Both were surprised and didn't understand what had happened.



- Several users commented on the fact that the “view your story” link after publishing should be a button or have a color different than default text.

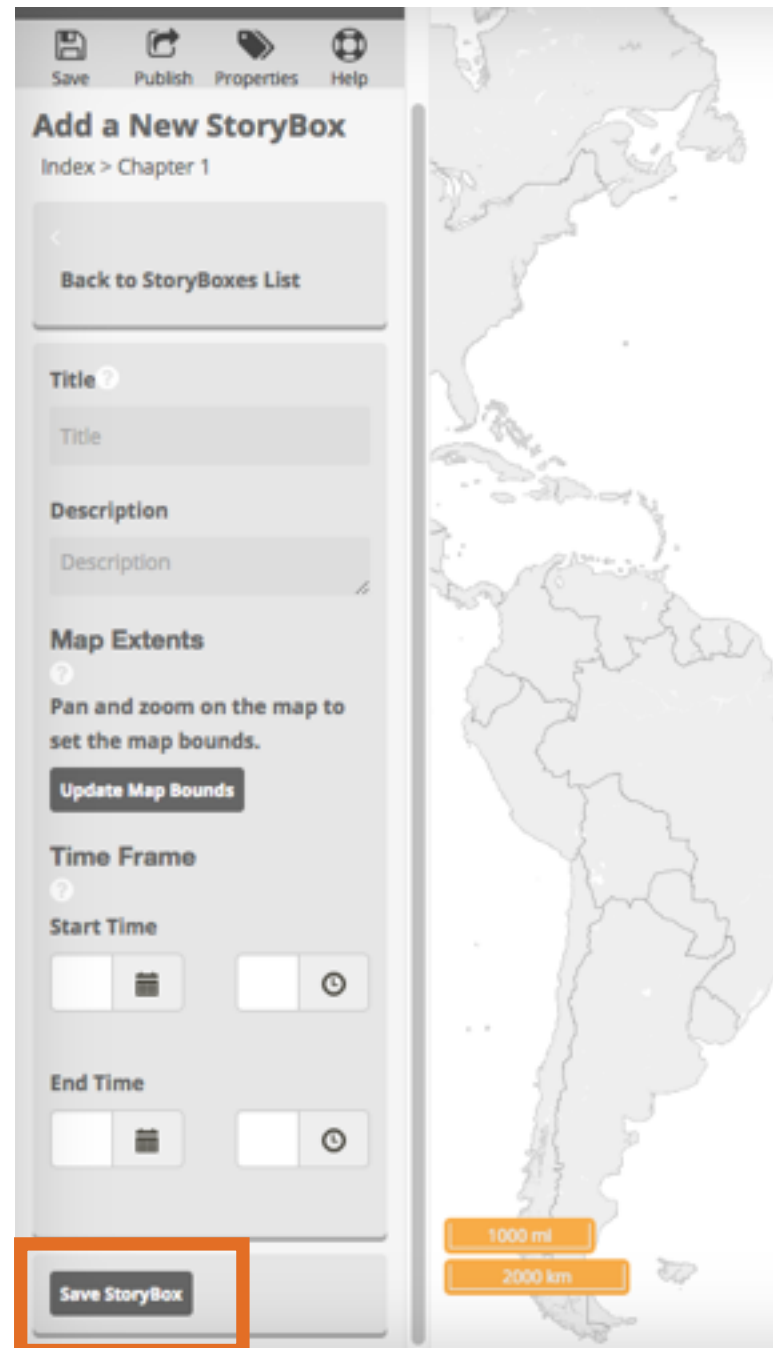
# Findings: Interactive Elements



- Several buttons don't look like buttons, and instead look the same as input fields or other text.
- In one case a user adding a layer waited a long time for the StoryLayers sidebar to load because of an ellipsis after text, not realizing it wasn't a loading message but a button.

*"It didn't occur to me that I actually had to set [the default zoom]. I expected it to just [save] when I moved the map."*

# Findings: Interactive Elements



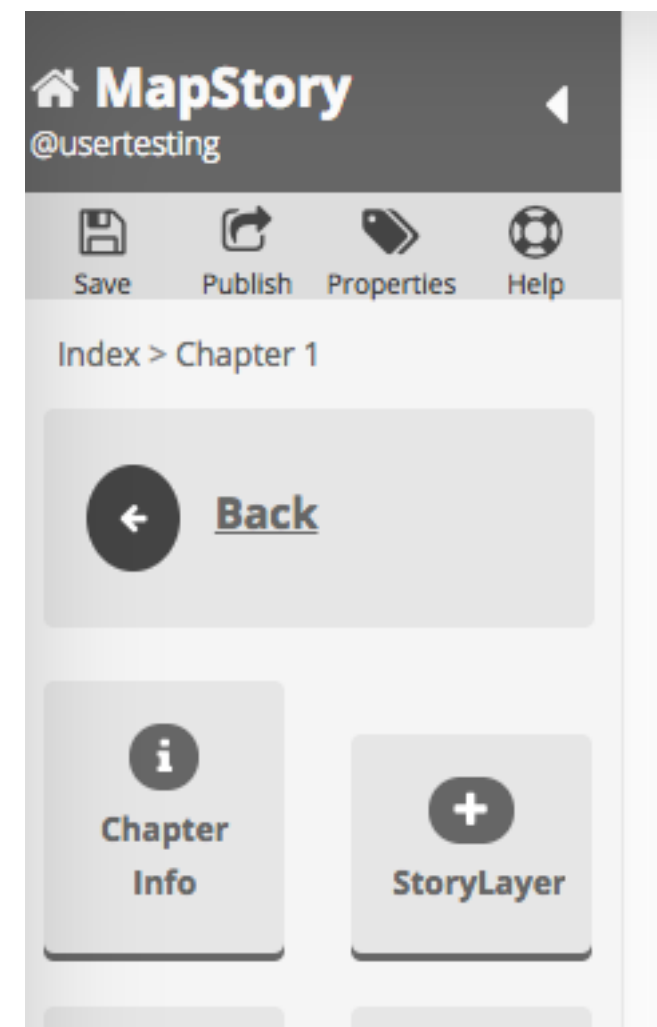
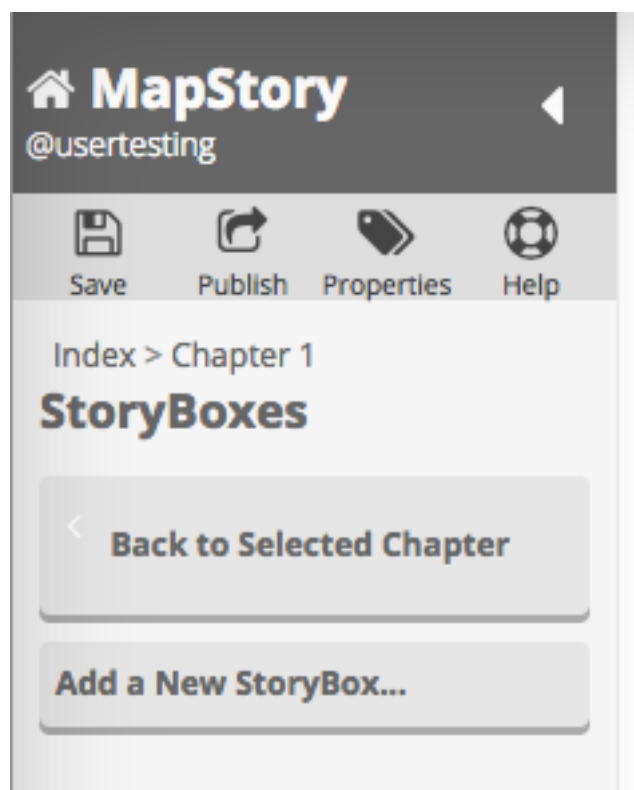
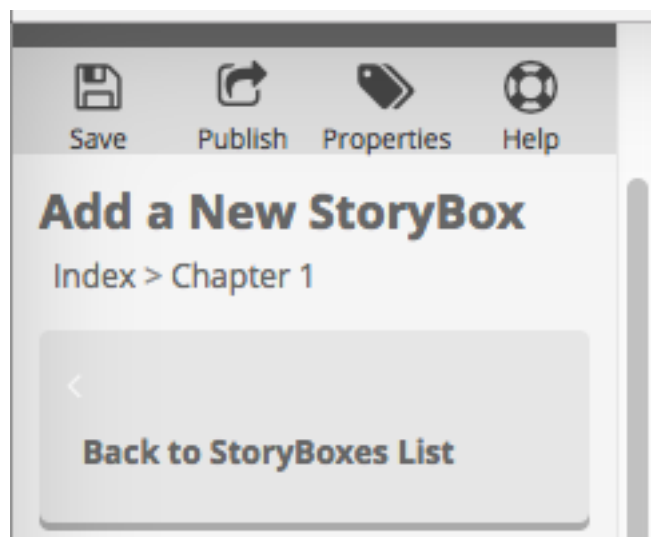
- Users often didn't see save buttons, or didn't click them after completing a task.
- Many users gave a 5 (extremely confident) that they had completed a task, when in reality they had yet to save any of their progress.

*"There's no save button. Oh wait, there it is. Save button should have more a call to action to draw attention to it."*

*"It didn't occur to me that I actually had to set [the default zoom]. I expected it to just [save] when I moved the map."*

# Findings: Navigation & Wayfinding

Users struggled to locate screens to complete tasks. **5 out of 5 users** commented on how the “back” method of nested navigation was confusing.



*“The layout seems like there’s a lot of stuff that’s nested into it almost like a file system, rather than the common actions being available right away.”*



# User Quotes: Navigation & Wayfinding

*“Having to go back so much was confusing. It’d be nice to be able to select any aspect of the story without having to select the back button all the time. That would be easier, I think, especially if stories are really complex.”*

*“I had to ask you if I needed to click ‘back’. The ‘back’ button is not intuitive as a method of navigation.”*

*“Going backward seems a little odd to me. First, we’re loading a StoryLayer, and then we’re going back to the chapter. For me that’s a little counterintuitive. The idea of going back seems weird because we haven’t really done anything yet...It’s like ‘going back? back to what?’”*

*“Having some of the controls more visible so you don’t have to press back so much [would be useful]. It seems like Chapter Info/StoryLayers/StoryBoxes/StoryPins, etc. are things that I want to keep coming back to.”*

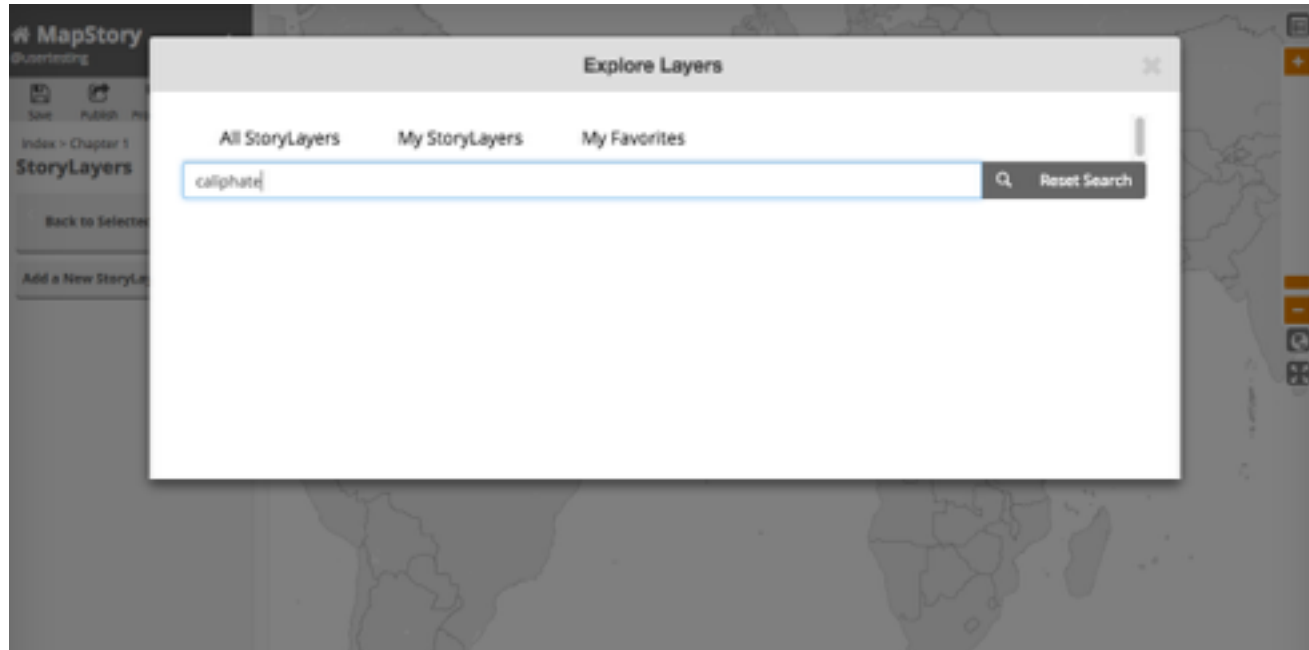
# Findings: Load Times

**5 out of 5 users** commented on the significant load time. Though most of these comments came when adding layers, others were directed at loading the story details page, or loading the Composer itself.

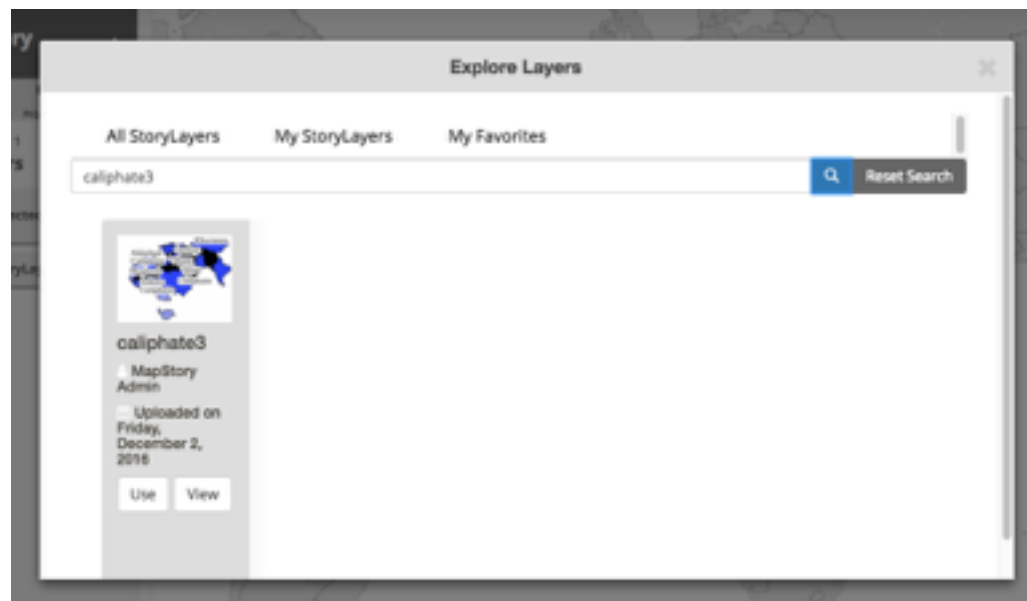
*“Everything takes a long time, and I don't know if it's my system.”*

*“The page load is really bad. [The tiles in my story are] blurry and it hasn't loaded, and I'm not sure why. [Is there] something wrong with the tiles because of the StoryBox I set?” (On the story details page)*

# Findings: Search



- **4 out of 5 users** commented on how they expected to see results after typing in only a few letters. The only user who didn't comment typed the whole layer name correctly the first time.
- **3 out of 5 users** commented on how close together the search and "reset search" buttons were. One user repeatedly clicked the "reset search" button and deleted their search entry before realizing what they'd done.



- Some users pressed enter or pressed the search button, and waited for several seconds before realizing that their results weren't loading, but that in fact no results matched their search terms.

# User Quotes: Search

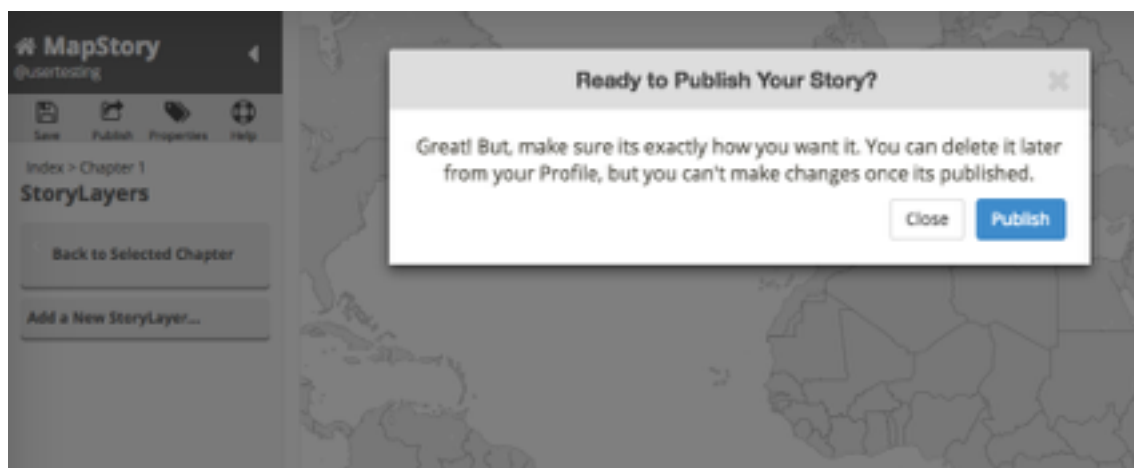
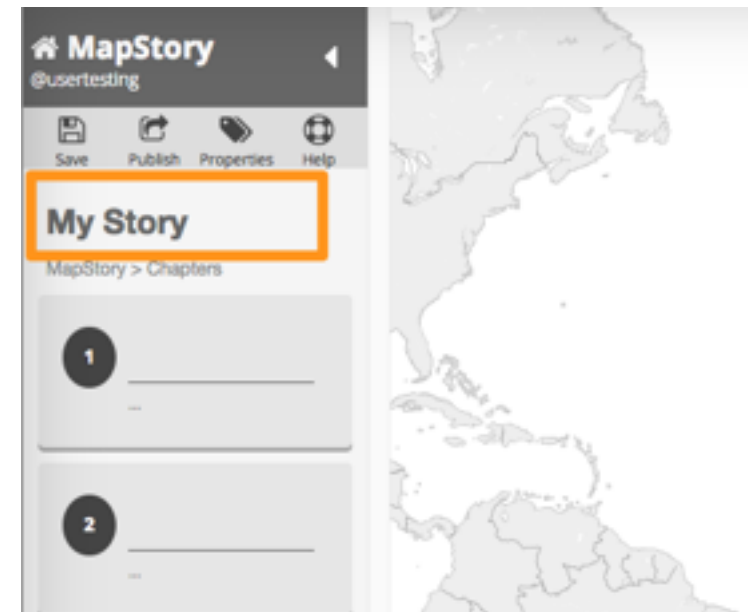
*“Oh, I hit reset search. These are too close together. I don't know if it loaded or not.”*

*“That's annoying. It seems like it should bring up anything that has 'caliphate' in it. What if you only know part of the layer name? It'd be nice if you could just put in part of it and have it find everything with those letters. That's what I'm used to.”*

*“I expected it to type the beginning of the word and have it show me everything that matches. For example, if I typed 'cal', I'd expect to see 'California' etc., not to have to know the full layer name. It also didn't tell me if it was still searching or didn't find anything or any of that.”*

# Findings: Preview

- **None of the 5 users** realized that they could click within Composer to go to the story details page. **2 out of 5 users** did click on this by accident, and didn't understand what had happened.
- **3 out of 5 users** expressed a desire to see their story and play through it as viewers would see it prior to publishing.



- **4 out of 5 users** expressed surprise and concern about the fact that they wouldn't be able to make changes once their story was published. **1 out of 5 users** knew this wasn't true.

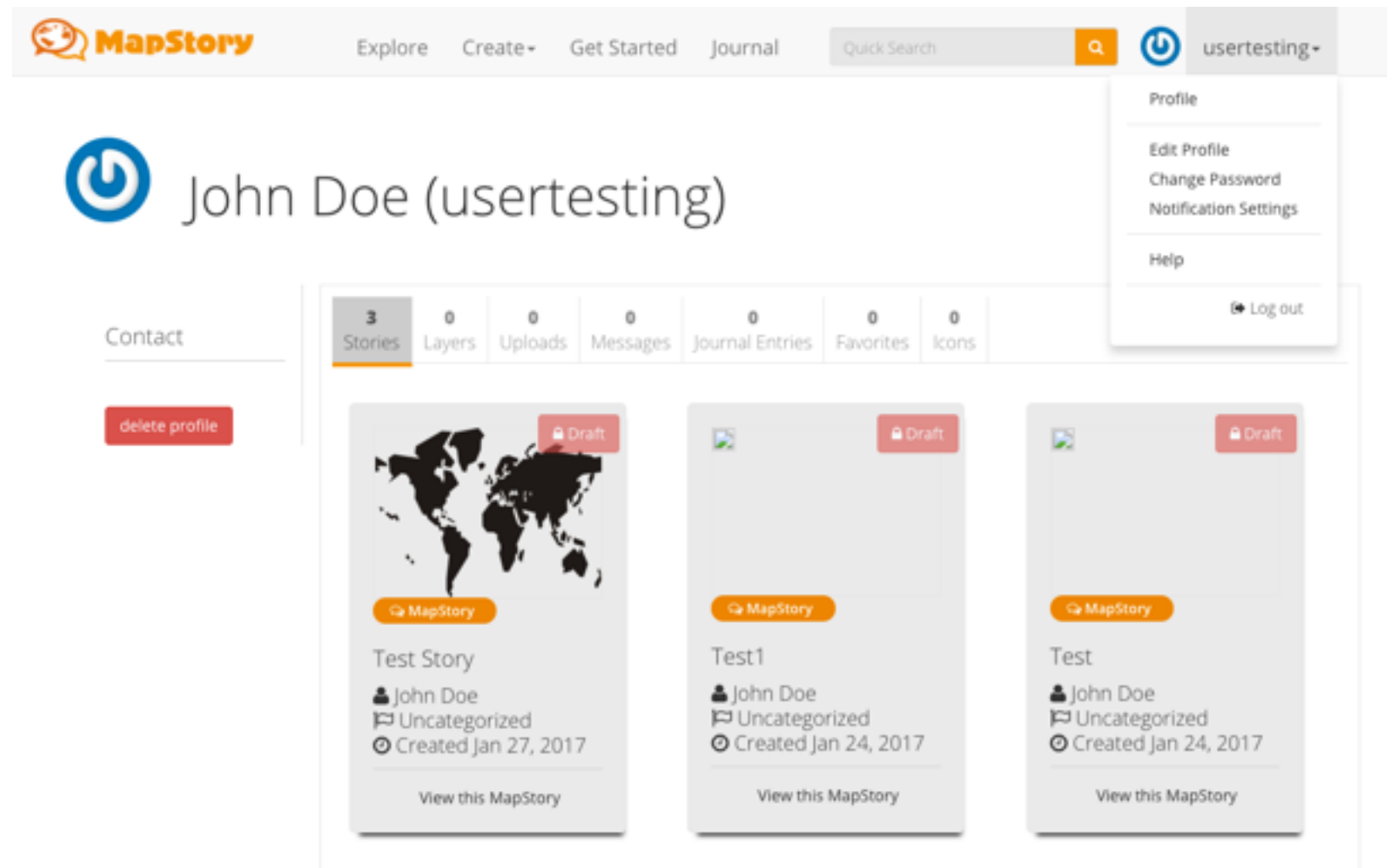
# User Quotes: Preview

*“I was assuming that in composer that when you put something up and press play that it’s going to play like it would for someone outside of Composer. That’s been a problem for me. I think they told me that there’s a preview button somewhere, but I want to be able to look at it and see how it’s going to look when it’s played.”*

*“I would expect...to be able to view [my story] before I publish it so I can see the playback. Before I hit the publish button I want to be able to see it in the viewer.”*



# Findings: Profile



**3 out of 5 users** mentioned that, despite finding drafts and their layers and stories in the Profile area, this is not where they expected to see it. Most users expected bio, avatar, and user settings to be in the profile, not the content they had created.

# Other Findings

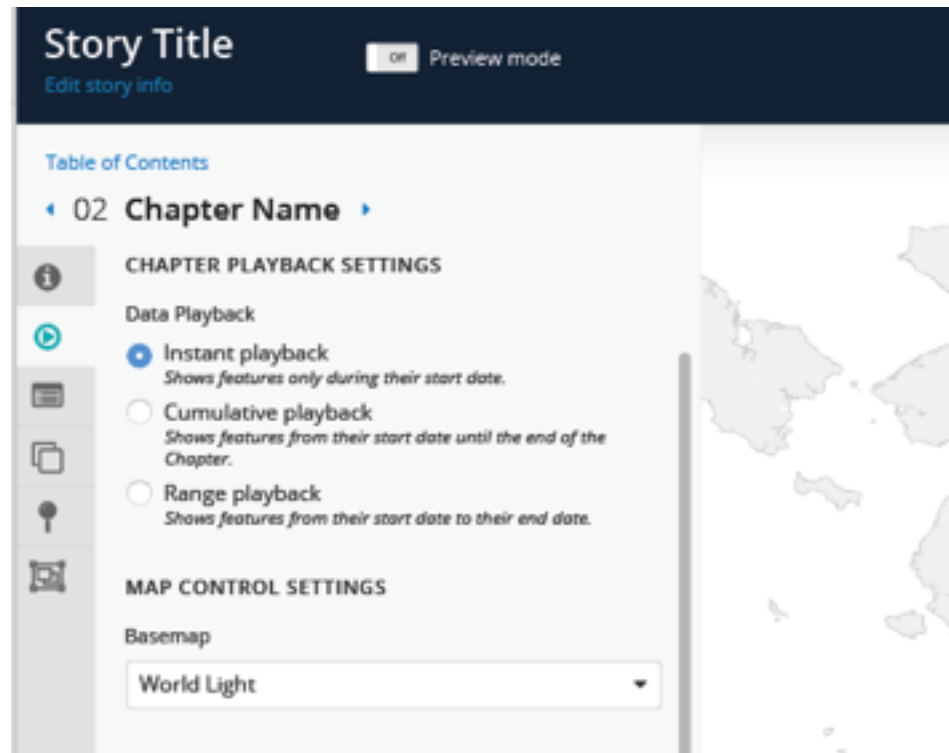
*Every time I see a map I think, 'Oh my god, how can I get this into MapStory? What story is this telling and can we get it into MapStory?'"*

*"I can't really move forward until the data works. If I can't get my stuff to play there's not much I can do on MapStory."*

*"I think there's a lot of functionality here that is useful, I'm just hoping that the execution can make it a little better. This is a useful tool to be able to use maps to tell a story with them."*

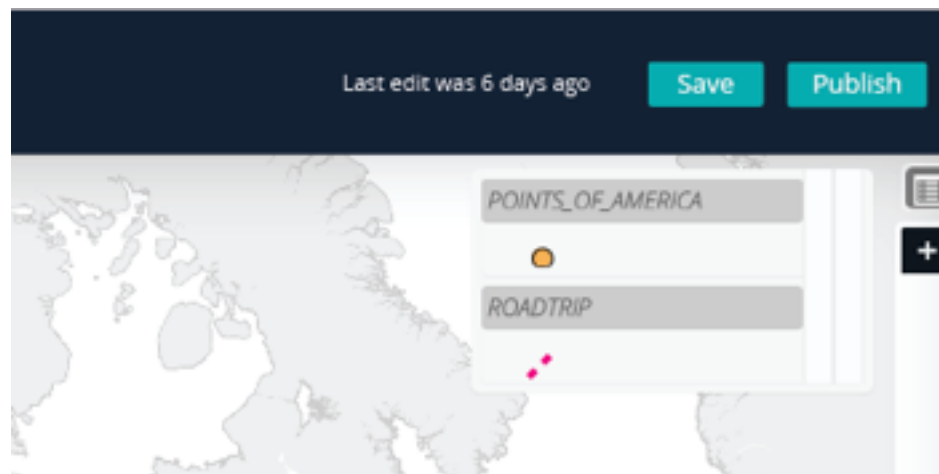
*"It doesn't feel polished. It doesn't feel like it's all the way together. It seems like the interface needs more polish. It feels like...the workflow [could be] smoother...If I was gonna recommend it to someone I want to be able to say, 'Oh yeah, this is awesome! It's intuitive. It's easy,' and I don't feel like that right now."*

# Next Steps?



**Already addressed by the mockups tweaking Composer design:**

- Wayfinding and navigation is improved with a new sidebar and the elimination of the back button.
- Improved appearance and usability of interactive elements (links, buttons, etc.)
- Autosave removes repetitive and overlooked save buttons, ensuring the user won't lose or fail to complete their work.



# Next Steps?

## Still needed in mock-ups:

- Interactive legend
- Intuitive way to add custom styles
- Preview mode

# Next Steps?

## Non-design tasks:

- Load time in Composer
- Fuzzy search and partial matching when searching for layers

## Outside Composer

- Move content out of Profile