

RESEARCH & DESIGN:

In-page navigation

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Project Overview

Background

Currently as a reader on mobile-web there is (often) a lot of scrolling required to move between sections. For example: if I am scrolled halfway into a long section, and I want to get into a different section, I have to scroll back up to the top of the section I'm in, collapse it (because the desired section might be below it), and then locate the desired section.

The goal of this project is to help readers navigate through different sections of pages as quickly as possible, so that they can target the content they are most interested in. This could be achieved either by providing an easily accessible table of contents, or some other UI component that enables readers to easily move between sections.

Previously we [investigated collapsing sections](#) and came to the conclusion that collapsed sections are the optimal experience for mobile-web readers.

Background

Related research:

- [Which parts of an article do readers read](#)
- [Collapsed vs uncollapsed section view on mobile web](#)

Audience

The primary audience of this feature is readers on mobile web.

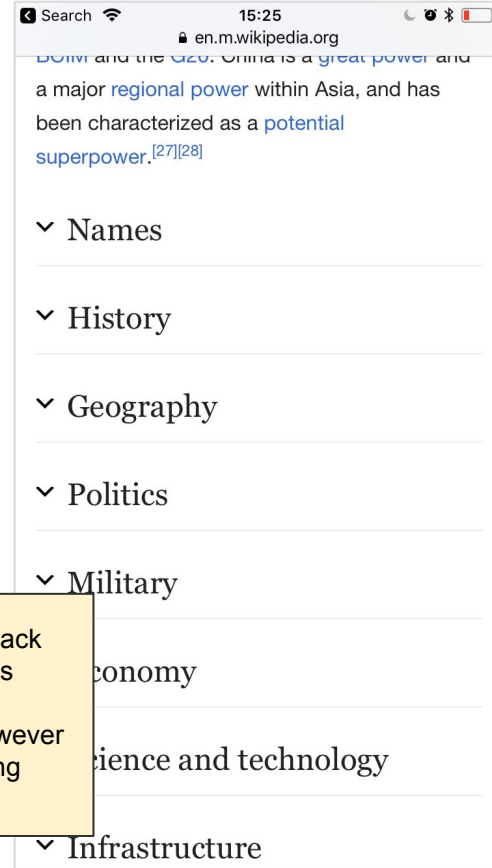
Editors are a secondary audience given their heavy use of Talk pages on mobile web, which tend to have a lot of sections and therefore require a lot of scrolling. There are likely solutions more closely tailored to this use case that we're not exploring here.

Current state



1. Imagine you are scrolled deep into the *Geography* section on the *China* page (which is roughly 14-screen-lengths long), and you realize the information you're looking for is likely in a different section

2. You ideally want to get back to this view, with all sections collapsed, so that you can evaluate your options... however that requires a lot of scrolling



Current state

There is currently a beta feature available on Android, which adds a “jump to top” button to all pages. The button appears once the user has scrolled down a bit, and when tapped jumps the user back to the top of the page.

We don't currently have information about how often the button is tapped, or what users are doing after tapping the button.



Project goal & success criteria

Goal: Enable readers to navigate through different sections of pages more quickly so that they can find the content they want, in less time and with less scrolling.

Success criteria (suggestions):

Readers spend more time on page because content is easier to explore

Readers spend less time on page because it's easier to find what they need

Readers spend less scrolling because it's no longer needed as much to move around the page

Readers are using the navigational aid (e.g. sticky headers or toc) to navigate around the page

Concepts

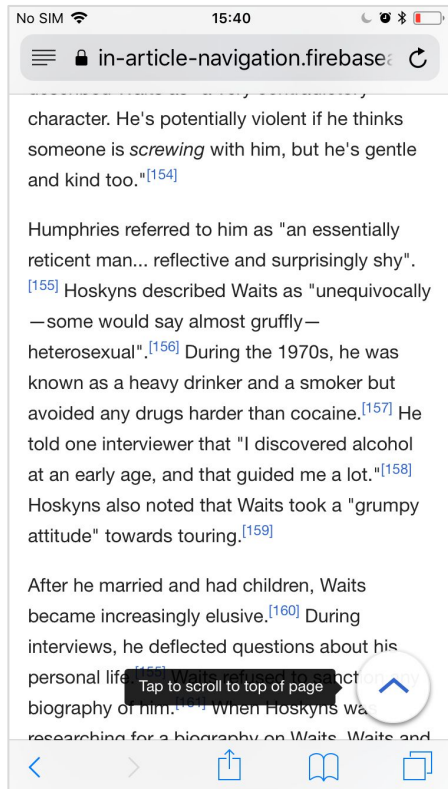
You can check out the prototypes [here](#)

Concept 1: Jump to top

Re-created the existing Android beta feature in order to be comprehensive. Slight differences:

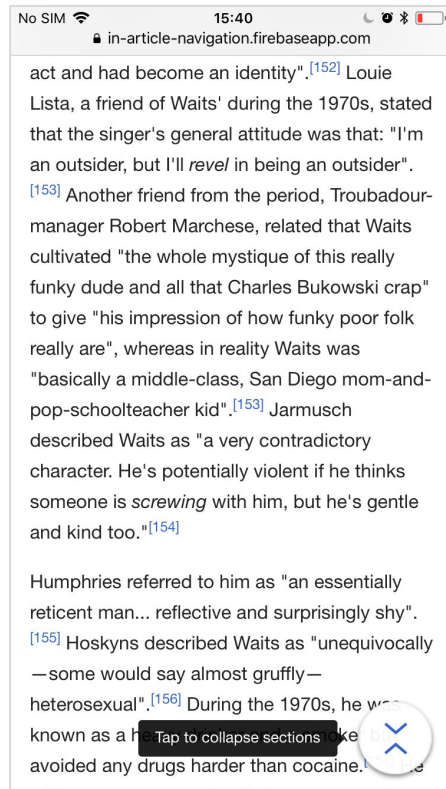
- button only appears when user starts scrolling up (so it's less distracting)

- helper text appears next to button to communicate the purpose to the user



Concept 2: Collapse all sections

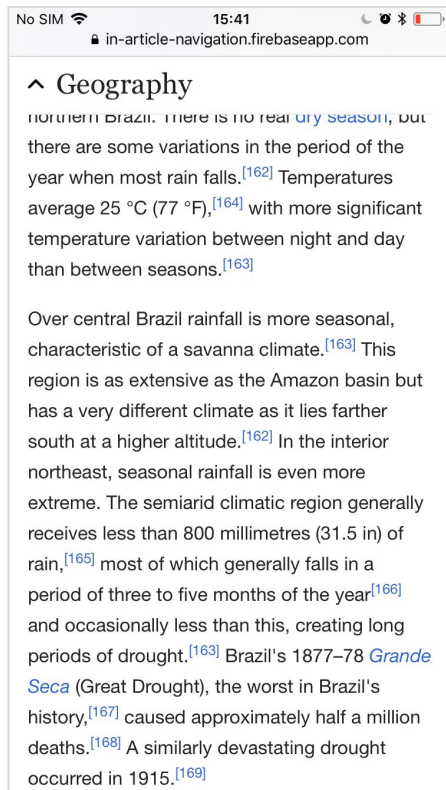
When a user expands any section a floating button appears. When tapped it collapses all expanded sections, and scrolls the page to the top of all sections



Concepts

Concept 3: Sticky headers

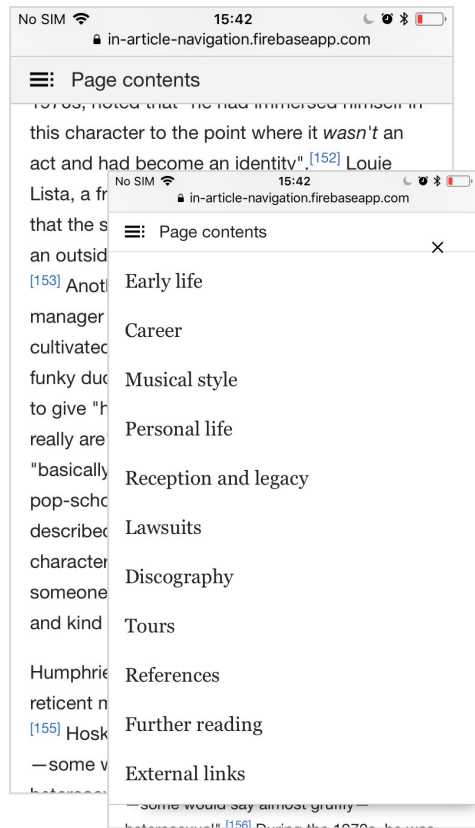
The section headers of open sections are sticky, so that whenever you are inside of a section you can easily collapse it.



You can check out the prototypes [here](#)

Concept 4: Toc

When a user scrolls past the top paragraph a “Page contents” button appears across the top of the screen. When tapped a table of contents appears over the content.



Concepts

You can check out the prototypes [here](#)

Concept 5: Sticky headers + toc

A combination of the previous two concepts. The section headers of open sections are sticky, and when in the stuck position they become triggers for the toc element.



Concepts

A few notes that resulted from internal reviews and discussions:

- Adding a floating button is potentially problematic due to floating buttons that are part of the native browser UI
- Using existing UI elements on the page is preferable to adding additional ones
- A table of contents feels somewhat duplicative, since when all sections are collapsed (which is the default state) there is a naturally occurring table of contents
- The interaction of collapsing all sections and scrolling to the top of the section headings is somewhat jarring

Conclusion: we decided to move forward with testing on **concept 3** and **concept 5**

Research Plan

Research Questions

We will be conducting user interviews to try and develop a qualitative understanding of the following questions:

Q1 - Are the proposed navigation features (e.g. sticky headers) discoverable (without any kind of guidance or onboarding feature)?

Q2 - Once discovered, are the proposed navigation features intuitive and easy to learn? (i.e. are they usable without confusion?)

Q3 - Are the proposed navigation features useful? Once learned, do readers use the features in order to navigate around the page?

Additional research questions

Do readers use any other workflows to find information on the page (e.g. the “find in page” feature available through the browser)?

Are there any ways in which the new features negatively impact the reading experience?

How do readers feel about the fact that the section header is pinned to the top of the section?

Research format

- Remote, unmoderated user tests conducted through [usertesting.com](#)
- Users will be looking at an HTML/JS prototype
- Users are non-experts
- [Full script here](#)

Group 1 (concept 3)	Group 2 (concept 5)
6 users	6 users
US (2), India, Australia, UK, Canada	US (3), India, UK, Canada
Female & male	Female & male
Ages 23–57	Ages 24–44

Research Results

Q1 – Are the proposed navigation features (e.g. sticky headers) discoverable (without any kind of guidance or onboarding feature)?

Group 1 (concept 3)	Group 2 (concept 5)
<p data-bbox="104 347 212 382">✓ Yes</p> <p data-bbox="104 452 821 749">4 of 6 testers discovered the feature within the first few tasks of the test. While this is not statistically significant, I find it pretty convincing how quickly users found the feature, and wonder, given a longer test, if the others would've discovered it as well.</p>	<p data-bbox="871 347 1014 382">~ Sort've</p> <p data-bbox="871 452 1566 701">2 of 6 testers discovered the feature, with one of them discovering it on the second task. I think it's fair to say that the feature is discoverable, however perhaps not at a level that we might consider satisfactory.</p>

**Q2 – Once discovered, are the proposed navigation features intuitive and easy to learn?
(i.e. are they usable without confusion?)**

Group 1 (concept 3)	Group 2 (concept 5)
<p>✓ Yes</p> <p>All users were intuitively able to use the feature.</p>	<p>✓ Yes</p> <p>All users were intuitively able to use the feature.</p>

Q3 – Are the proposed navigation features useful? Once learned, do readers use the features in order to navigate around the page? Are there any ways in which they negatively impact user experience?

Group 1 (concept 3)	Group 2 (concept 5)
<p data-bbox="104 419 214 452">✓ Yes</p> <p data-bbox="104 525 761 718">This grade is based on the fact that all users continued to use the feature after discovering it, combined with positive sentiment comments they made.</p>	<p data-bbox="871 419 981 452">✓ Yes</p> <p data-bbox="871 525 1528 718">This grade is based on the fact that all users continued to use the feature after discovering it, combined with positive sentiment comments they made.</p>

Some responses to testers being asked how they felt about the feature...

I've really liked this throughout the test already.
–*simmondslee (group 1)*

I like the feature...I've been using it throughout the test.
–*tosh53 (group 1)*

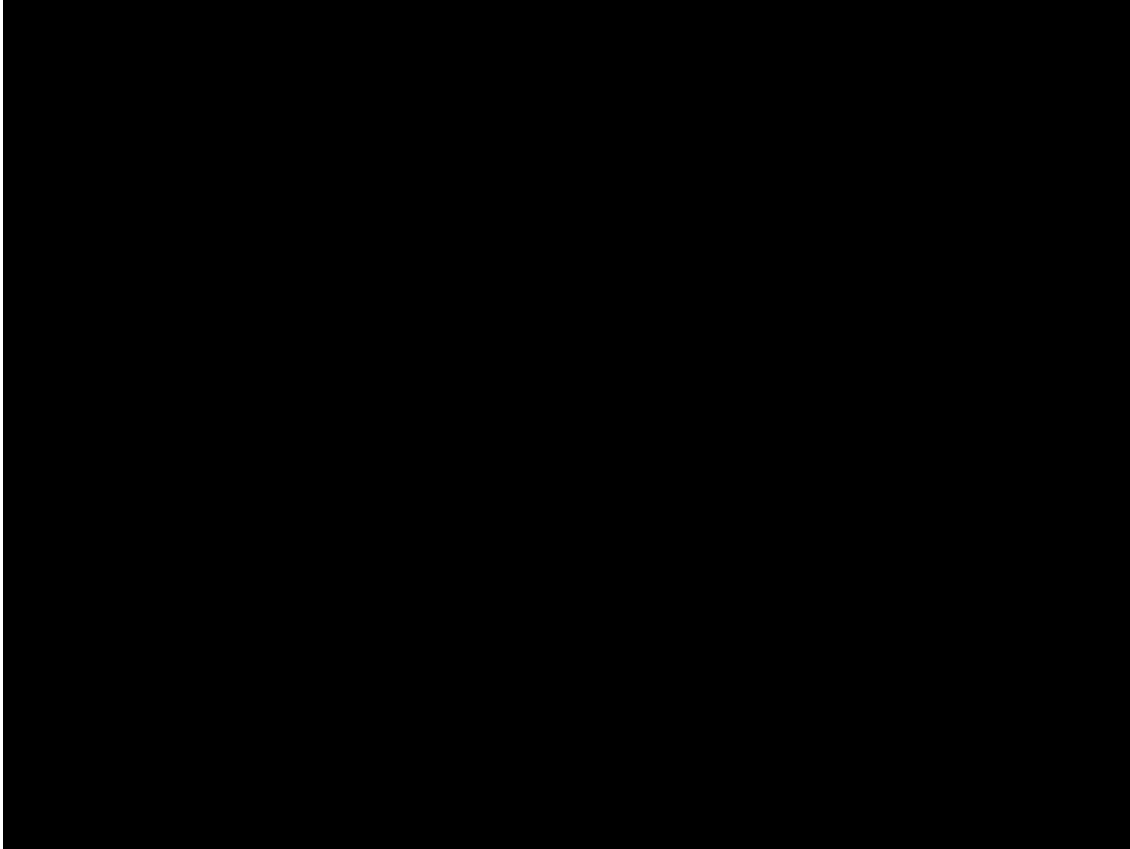
I like that when I'm reading about Personal Life the title is at the top reminding me that I'm reading about his Personal Life"
–*VanessaC876(group 1)*

I like the feature, this is a great feature in order to conserve time
–*Ayush Mohit (group 2)*

This thing is great, yea...I like it...this helps a lot, this thing helps a lot
–*fiori94 (group 2)*

Oh I love this!
–*candycrush10 (group 2)*

Video edit of testers using the prototypes



This was a bit of a trial-run. I don't think this study/user translates particularly well into a highlight reel, however going forward I want to make more of a habit of making videos, so I figured I'd start here.

It requires a voice over.

[\(link to video\)](#)

Additional questions

Do readers use any other workflows to find information on the page (e.g. the “find in page” feature available through the browser)?

- 4 out of the 12 testers used the “find in page” feature in their mobile browser

Are there any ways in which the new features negatively impact the reading experience?

- No drawbacks surfaced in this round of testing

How do readers feel about the fact that the section header is pinned to the top of the section?

- Several users commented positively about having the section header always visible, as it provides them with extra context while they are reading

Next Steps



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Recommendation

Implement sticky section headers (concept 3), as they are easily discoverable, positively reviewed by testers, and easier to implement (than concept 5) from an eng perspective.

As a follow-up we should continue to explore giving readers access to a table of contents, whether it is triggered through the sticky section headers or some other mechanism. One option might be to just add a tooltip (or similar onboarding component) to concept 5, do a bit more testing, and move forward with that.

Open questions & next steps

- Are sticky section headers awkward on pages with short sections?
 - Some examples here:
 - [MTV-Braunschweig](#) (page with several short sections)
 - [Queen Hogu](#) (page with two short sections)
 - [Howzat \(Song\)](#) (page with several short sections, one long section)
- Is there any way to gracefully deal with the situation where the the last section on the page is open, the user is scrolled to the bottom of it, and then when they collapse it it jumps up?
- How do we want to instrument/measure the effects of this change?
 - Meet with Tilman
- Eng costing, thinking about fallbacks, etc.
 - How is this affected by the mobile frontend refactoring?
 - Instrumentation adds a lot of cost here
- Can we swap out the beta feature on Android with sticky headers?

Thanks



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