ANALYZING READABILITY ISSUES IN AN INFOGRAPHIC WEBPAGE

(TEAM E)

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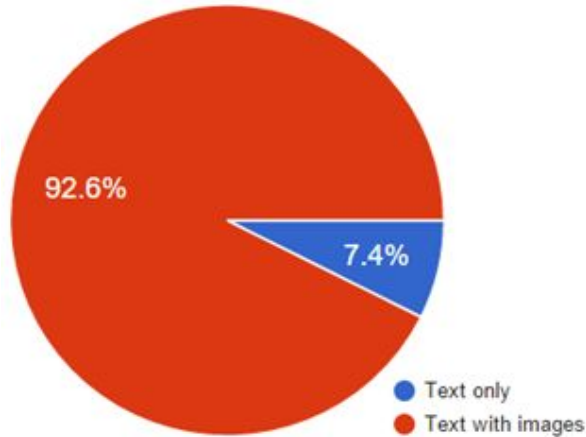
Rupaj Soni

INTRODUCTION

- Analyze the problems faced by users while reading an infographic web page

- Articles over the internet are replete with image references and tabular data.

- In this project we try to explore reading issues, especially with "out of sync" image references on the webpage.
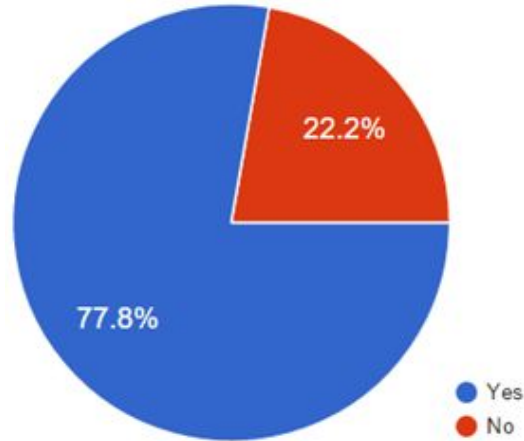
PROBLEM STATEMENT

- Web page contains images and references to these images are made at multiple places across the page

- Reader has to scroll back and forth through the web page every time he has to refer to an image

- **Problems**:
  - Loss of comprehension, continuity, context
  - Stress on user's vision
  - Consumes considerable amount of time

- **Goal**: Extract the source web pages and enhance them to increase visual comprehension
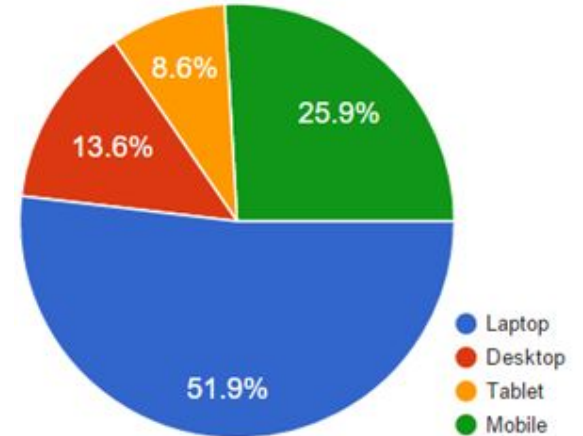
SURVEYS AND RESULTS

Which kind of articles do you prefer to read?
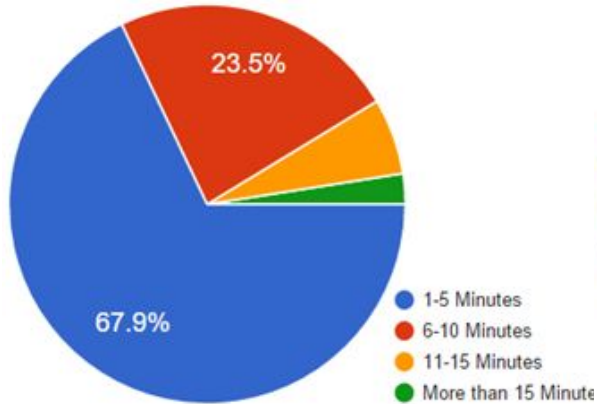
Do you lose context while navigating?

Which device do you use to read web articles?

92.6%

7.4%

● Text only
● Text with images

22.2%

77.8%

● Yes
● No

8.6%

13.6%

25.9%

51.9%
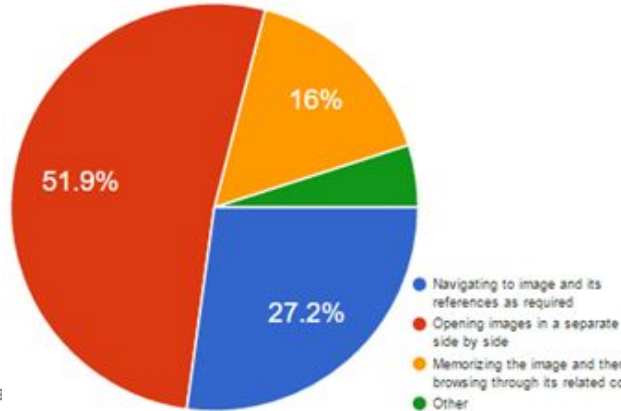
● Laptop
● Desktop
● Tablet
● Mobile

SURVEYS AND RESULTS
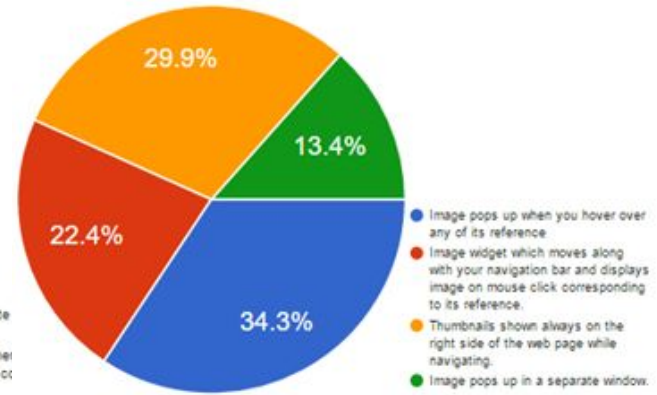
Approximately how much time is wasted in scrolling?

How do you deal with scrolling problem?

Which of the proposed methods do you prefer?

23.5%

67.9%

- 1-5 Minutes
- 6-10 Minutes
- 11-15 Minutes
- More than 15 Minutes

51.9%

16%

27.2%

- Navigating to image and its references as required
- Opening images in a separate side by side
- Memorizing the image and then browsing through its related co...
- Other

29.9%

13.4%

22.4%

34.3%

- Image pops up when you hover over any of its reference
- Image widget which moves along with your navigation bar and displays image on mouse click corresponding to its reference.
- Thumbnails shown always on the right side of the web page while navigating.
- Image pops up in a separate window.

Proposed Solutions

- Open image in a new tab

- Image popup on hover

- An image SideBar
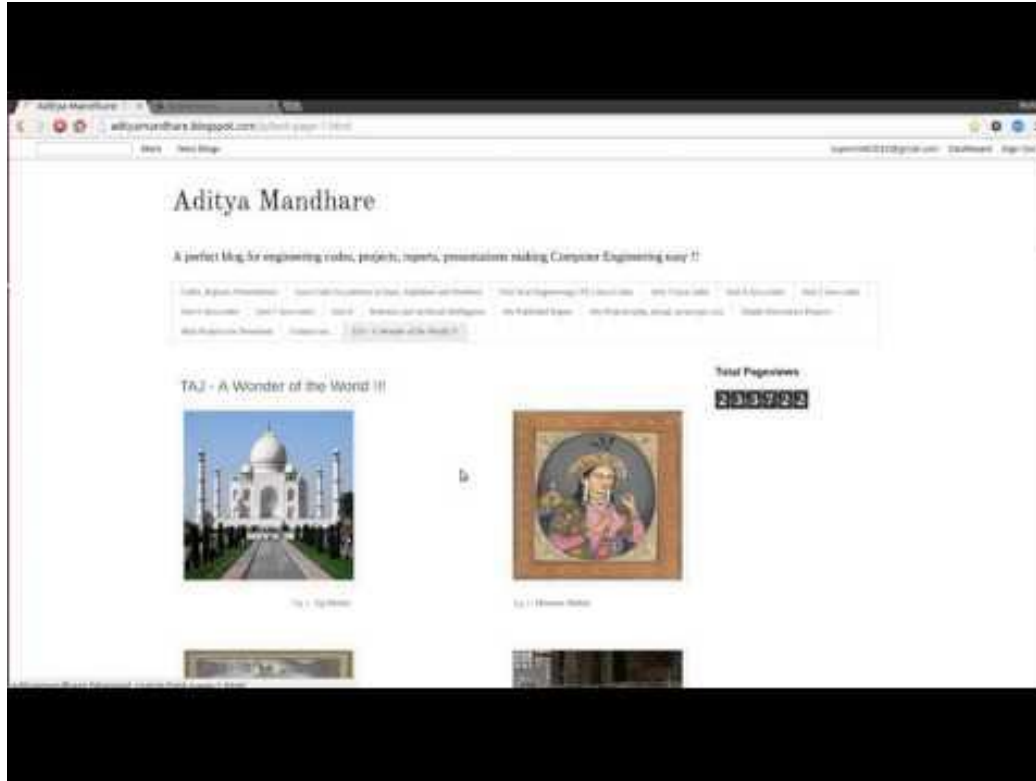
Solution 3: Open image in a new tab

What it does?

- Identifies occurrences of image reference
- Matches pattern to convert to hyperlink
- Image opens in a new tab on click
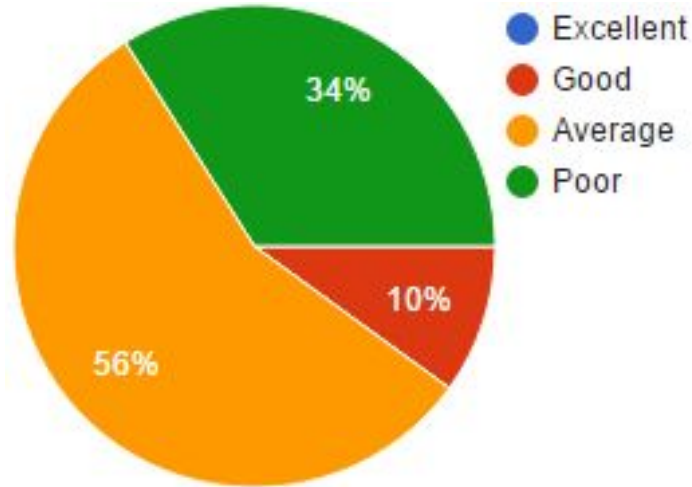
Usability Testing: Observations

- Pattern matching
- Image opening in a new window

Solution 3: Open image in a new tab

Solution 3: Open image in a new tab

User Rating After Improvements

Why use this?

- Webpage remains intact
- Original sized image
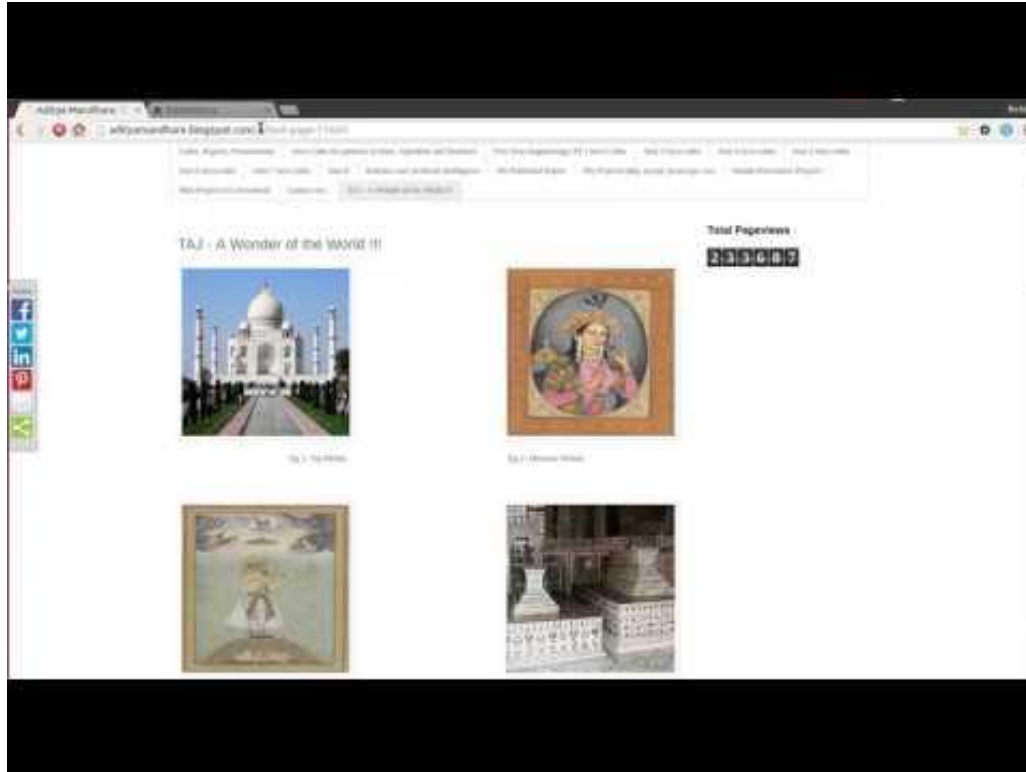
Solution 2: Image popup on hover

What it does?
- Identifies plaintext references in the page
- Converts references to hyperlinks
- Image pops up on hover over hyperlink
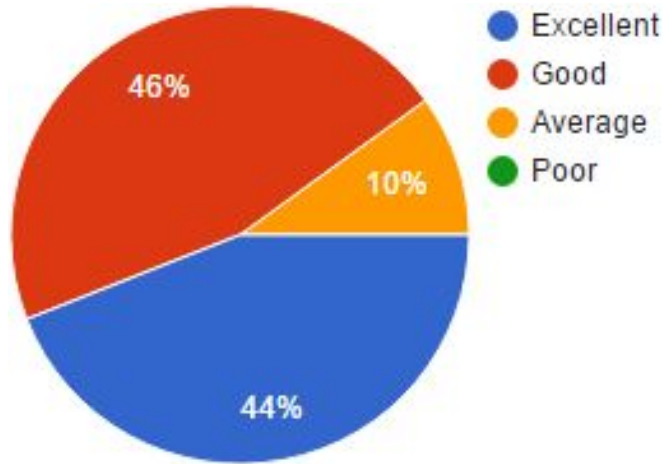
Usability Testing: Observations
- Inline image replacement Vs Image popup
- Text disorientation
- Pattern matching
- Image flickering

Solution 2: Image popup on hover

Solution 2: Image popup on hover

User Rating After Improvements

- Excellent
- Good
- Average
- Poor

46%

10%

44%

Why use this?

- Simple, intuitive and clean

- Webpage remains intact

- User doesn't lose context

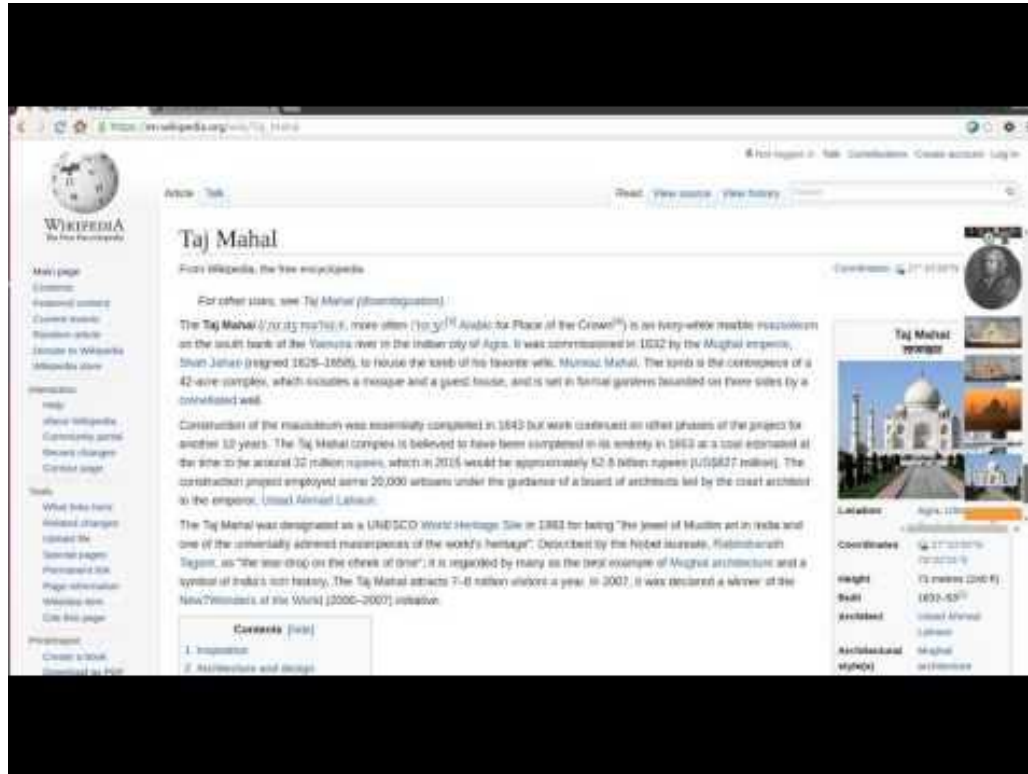# Solution 1: An image SideBar

What it does?
- Identifies all the images in the webpage
- Group them together in a sidebar
- Hover over → Move to image position
- Hover away → Back to original position
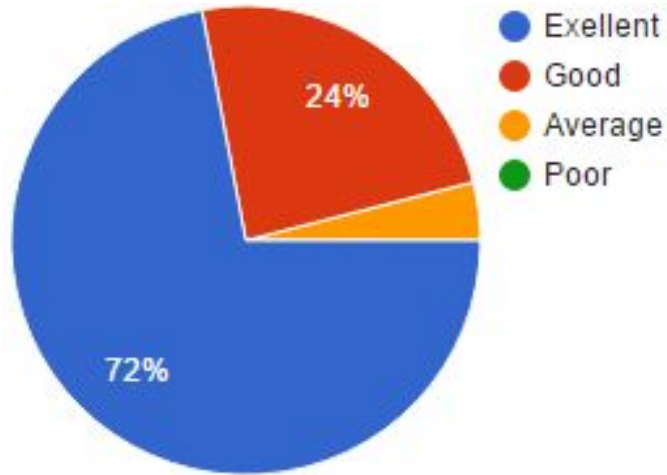
Usability Testing: Observations
- Sidebar positioning and Preview Image Size
- Navigation method
- Valid image extraction
- Dismiss feature

Solution 1: An image SideBar

Solution 1: An image SideBar

User Rating After Improvements

Legend:
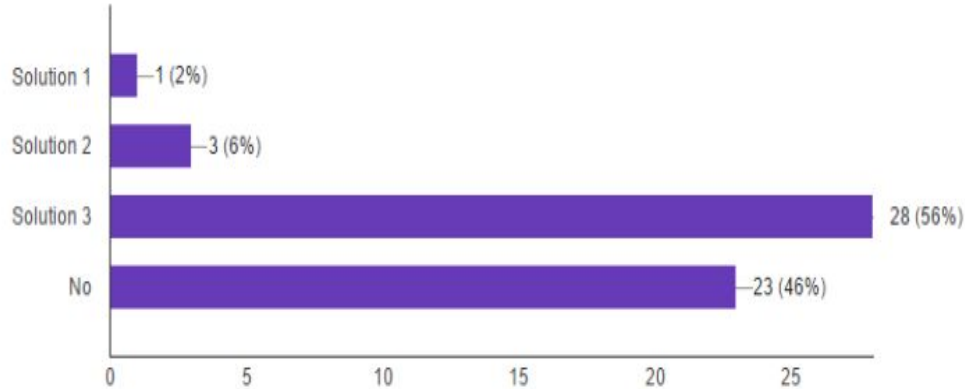- Exellent
- Good
- Average
- Poor

24%

72%

Why use this?

- Independent of web page structure
- Consolidated view of all images
- Reading continuity is maintained

And the winner is...

Best Solution: An image SideBar

Whether users lost context?

Solution 1 — 1 (2%)
Solution 2 — 3 (6%)
Solution 3 — 28 (56%)
No — 23 (46%)

- Usability testing and Acceptance testing result in favor of Sidebar

- Concise view of all images in a sidebar

- Image can be referred from the original position without losing context