ZoomMaps Using Zoom to Capture Areas of Interest on Images

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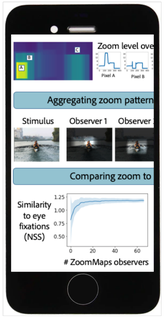
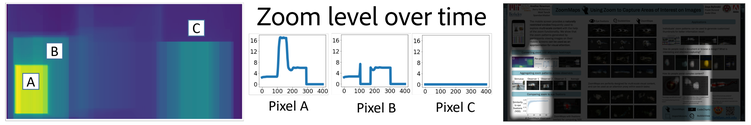


The mobile screen provides a **naturally restricted window** frequently used to explore **multi-scale content** with the help of the zoom functionality. We show that the zoom patterns generated by participants viewing images on their mobile screens **can be used as an approximation for visual attention**.

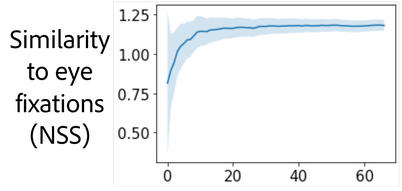
Converting zoom into attention heatmaps



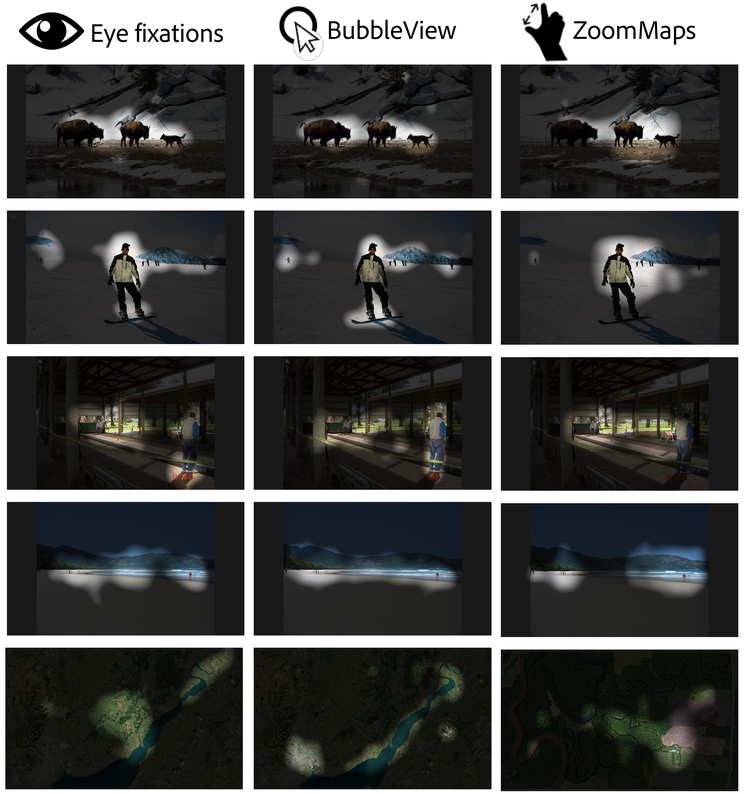
Zoom level over time

Aggregating zoom patterns across observers

Comparing zoom to eye fixations



ZoomMaps with fixations overlaid for computing NSS

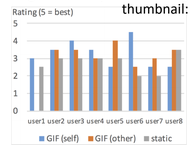


How do people read a document or browse a design?
What is interesting and attention-capturing?

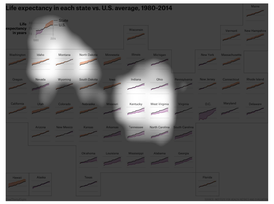
Case Study 1: ZoomMaps for academic posters

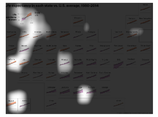
Individuals' zoom patterns can be used to generate customized thumbnails for better information recall.

Rating of memory after viewing thumbnail:

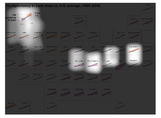


Case Study 2: ZoomMaps for data visualizations

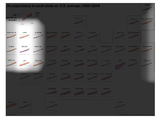




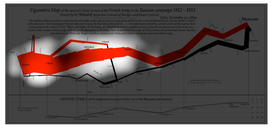
"I like that it was like a map of the United States it made it easier to find the state I was looking for"

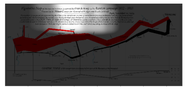


"It was OK. I don't think the style is the best for viewing."

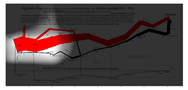


"It is clear without zooming in which areas of the country are above/below the average.

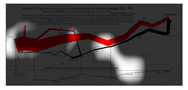




"Easy to follow and very detailed"



"This one was completely confusing"



"It could be layed out better than it is"

"I'm not sure why they opted to show every county, as I think some data reduction procedure could do wonders"

"It has a good color chart indicating if they say soda, pop or coke"

"It is a very easy to understand design. It is also attractive to look at"

ZoomMaps
F37 CodeCharts
ImportAnnots
BubbleView

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