Browser Wars: Who is the User-acknowledged Winner in App Store?

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Introduction

- Browser war is fierce in desktop system, but how about in mobile system?

- Apple requires all iOS browsers to use its WebKit rendering engine primarily because of security, performance, and compatibility. Chromium or other engines is not allowed in iOS and iPadOS.

- Antitrust concerns and debates about monopolistic behavior

  - On the one hand, Safari should provide the best functions and service (Wang & Qi, 2021)

  - On the other hand, monopoly may undermine the quality of product (Cowling & Mueller, 1978; Dixit & Stiglitz, 1993; Wang & Qi, 2021)

- Our questions are:

  - Does the monopoly practice increase or decrease Safari's competence? Or, does the monopoly practice lead Safari to the leader's position?

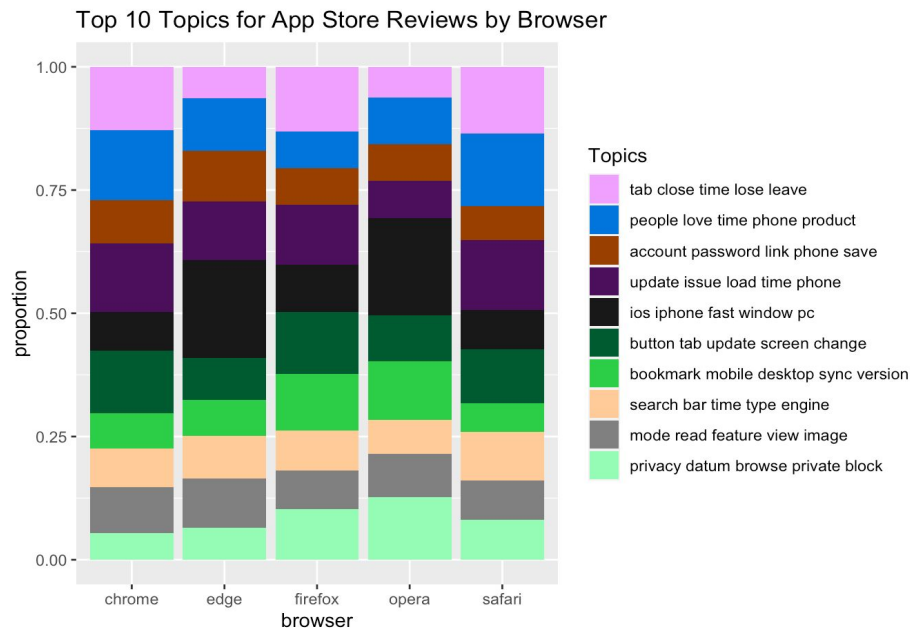 - On iOS, what are the reasons for each browser to be popular?

Data and Method

- Target browsers:
  - Safari, Microsoft Edge, Google Chrome, Mozilla Firefox, and Opera
- App Store Connect API (R Package "appler"):
  - Extract 500 "most helpful" records with content information, app ratings, and reviews
- Summary the rating to see which browser is liked most by the users
- Divide the reviews into good reviews (rating >= 3) and bad reviews (rating < 3)
- Use topic models to analyze the reviews
  - For good reviews: which function is liked most by the users?
  - For bad reviews: which function is mentioned for improvement?

Results

- Rating: Opera > Edge > Firefox > Safari > Chrome
- Top 10 Topics
  - Privacy
  - Sync
  - Multiple devices

browser	rating	n_positive	n_negative
chrome	2.784	265	235
edge	3.752	397	103
firefox	3.042	300	200
safari	2.838	256	244
opera	4.006	423	77

Top 10 Topics for App Store Reviews by Browser

Topics
- tab close time lose leave
- people love time phone product
- account password link phone save
- update issue load time phone
- ios iphone fast window pc
- button tab update screen change
- bookmark mobile desktop sync version
- search bar time type engine
- mode read feature view image
- privacy datum browse private block
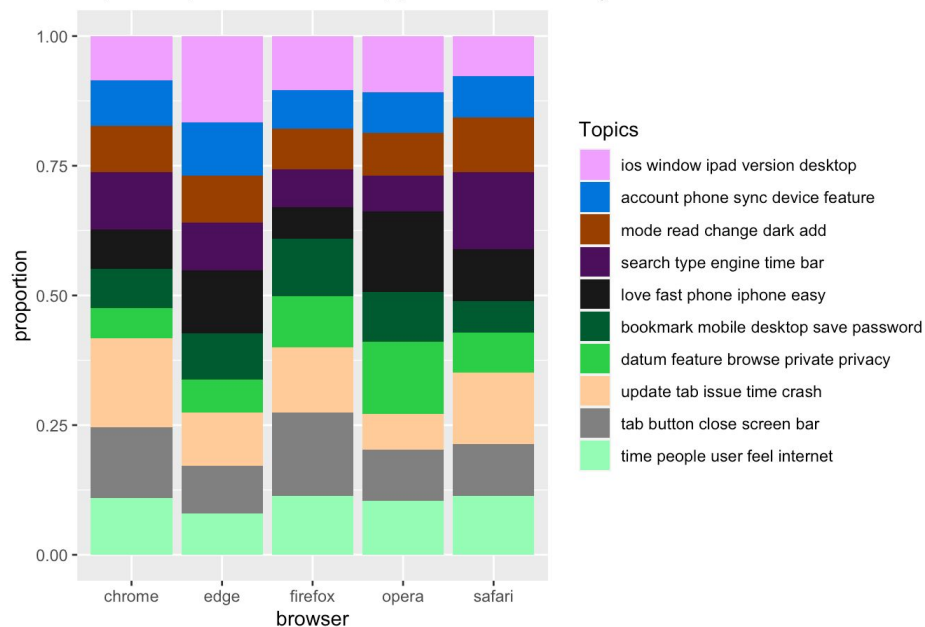
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Results

- 1) Privacy and security; 2) Fast and easy access; 3) Sync time for multiple accounts/devices

Rating >= 3

Rating < 3

Top 10 Topics for Positive App Store Reviews by Browser

Topics
- ios window ipad version desktop
- account phone sync device feature
- mode read change dark add
- search type engine time bar
- love fast phone iphone easy
- bookmark mobile desktop save password
- datum feature browse private privacy
- update tab issue time crash
- tab button close screen bar
- time people user feel internet

Top 10 Topics for Negative App Store Reviews by Browser

Topics
- update issue phone load crash
- button refresh read change user
- datum people delete bad privacy
- search time bar default result
- update time review websites download
- account time password sync device
- tab screen option button view
- bookmark link save option list
- desktop mobile version mode ipad
- tab close time crash lose

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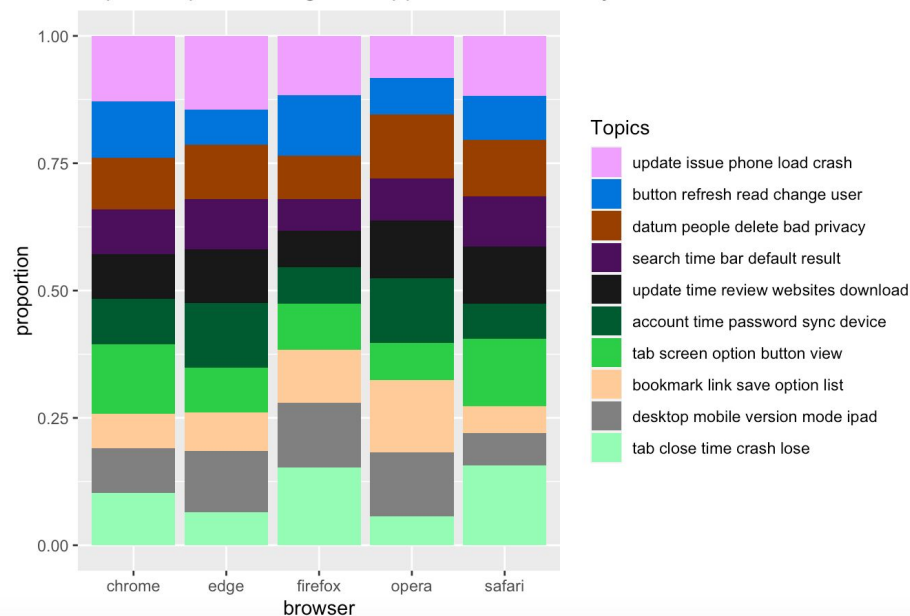
Reference

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