Understanding User Interactions with Podcast Recommendations Delivered Via Voice

Longqi Yang Michael Sobolev Christina Tsangouri Deborah Estrin

CORNELL TECH

Cornell CIS Computer Science

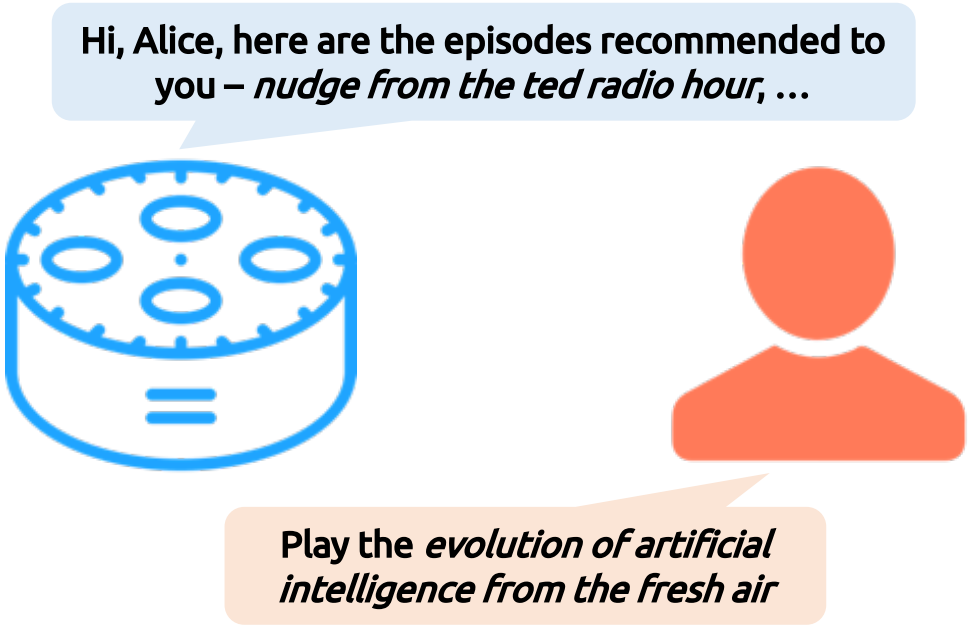
Funders: NSF Oath: A Verizon company

Emerging Voice Interfaces for Content Consumption

Diverse Content Delivered Through Voice Interfaces

Visual Interface

Voice Interface



What we may expect

- Users may spend longer time considering each recommendation.
- Users may explore recommendation lists less.
- Users may less likely choose items ranked lower in recommendation lists.

How much worse it is? Does it matter?

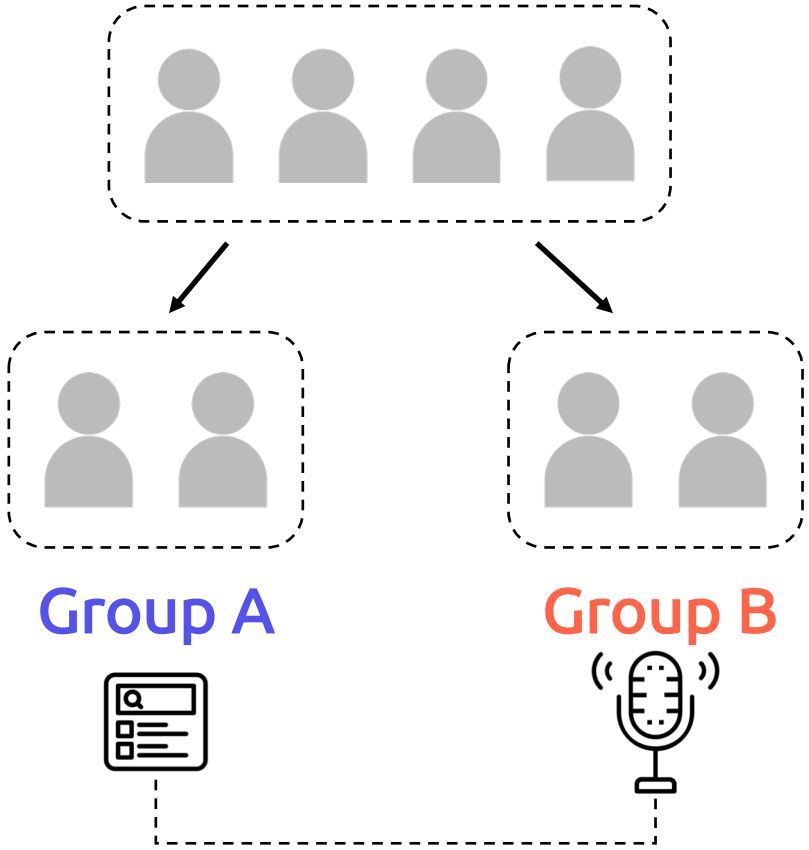
This Work

A between-subject randomized control study comparing Voice and Visual interfaces

Efficiency Exploration Choice

Study Design

Independent variable (Factor): **Interface**

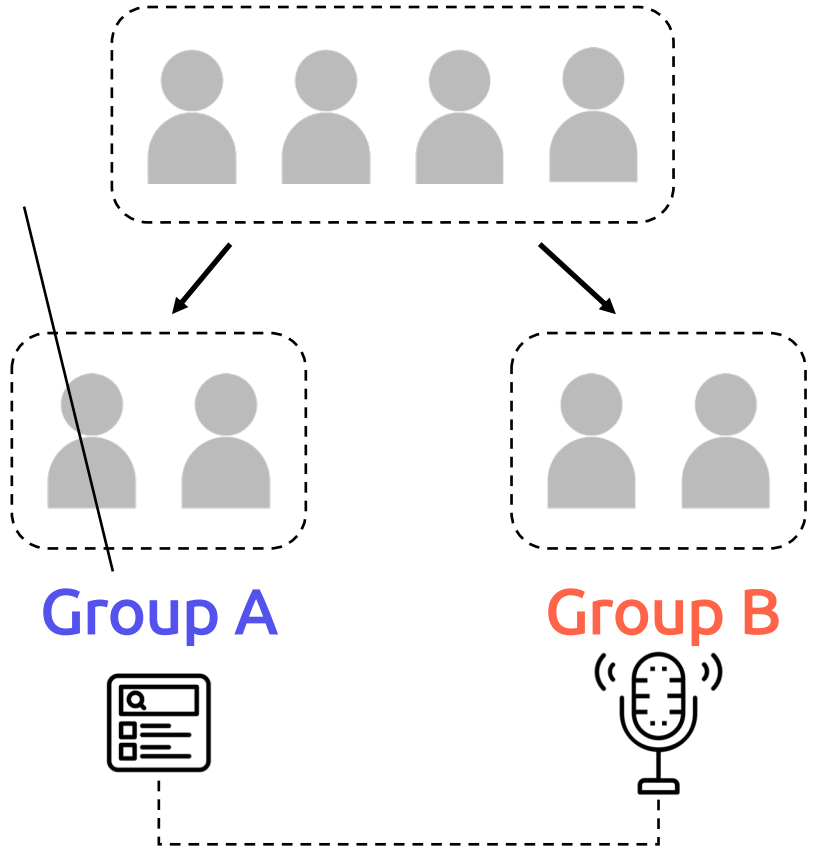


Same list of podcast recommendations

Study Design

Independent variable (Factor): **Interface**

Step 1:
- **Browse** a long list of episodes (1-N).
- **Making a committed choice:** typing in the index number & listen to the episode for at least 5 minutes



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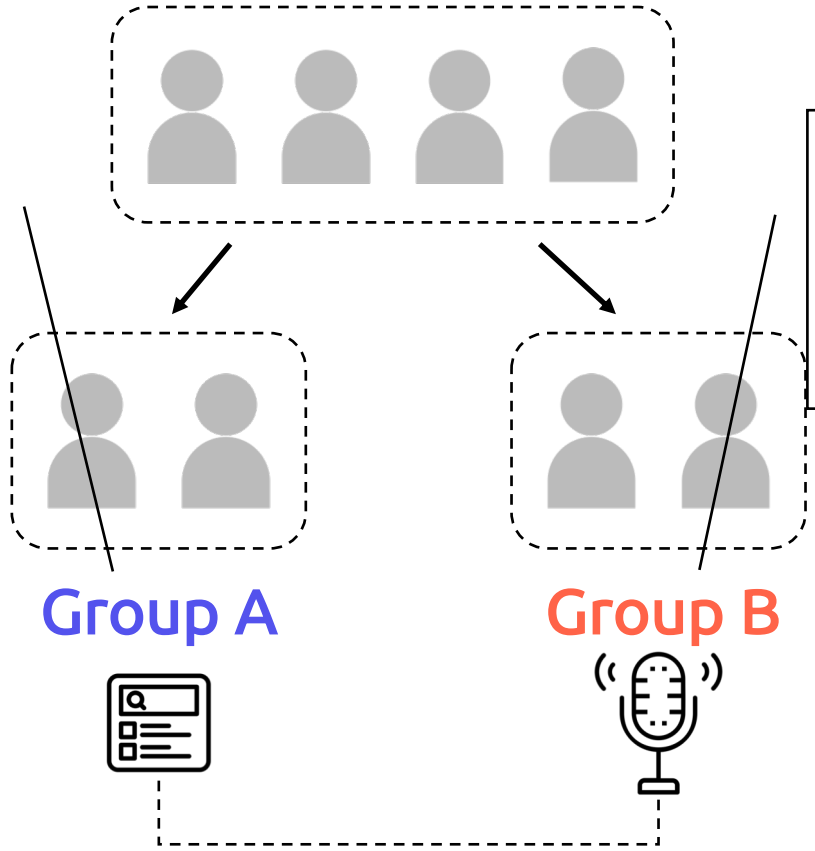

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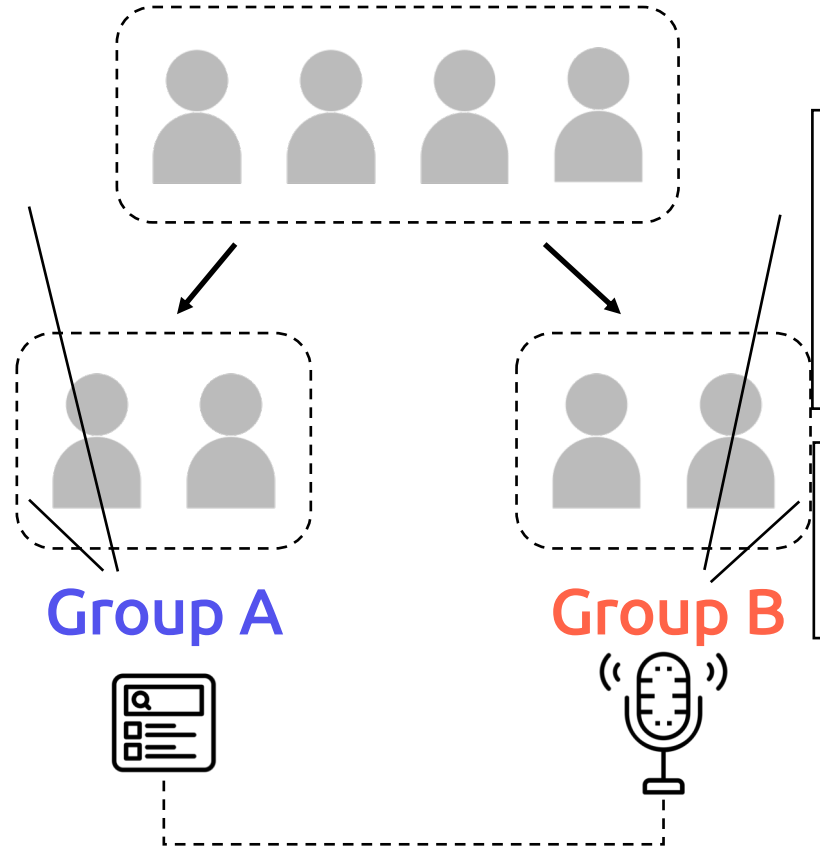

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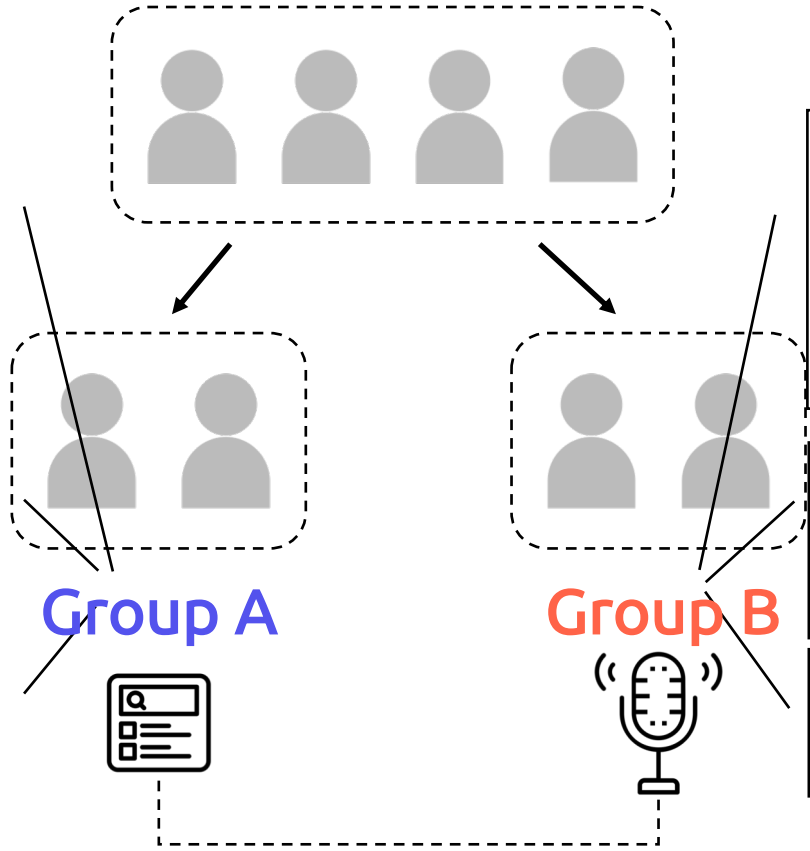
Step 3:
- A user satisfaction survey



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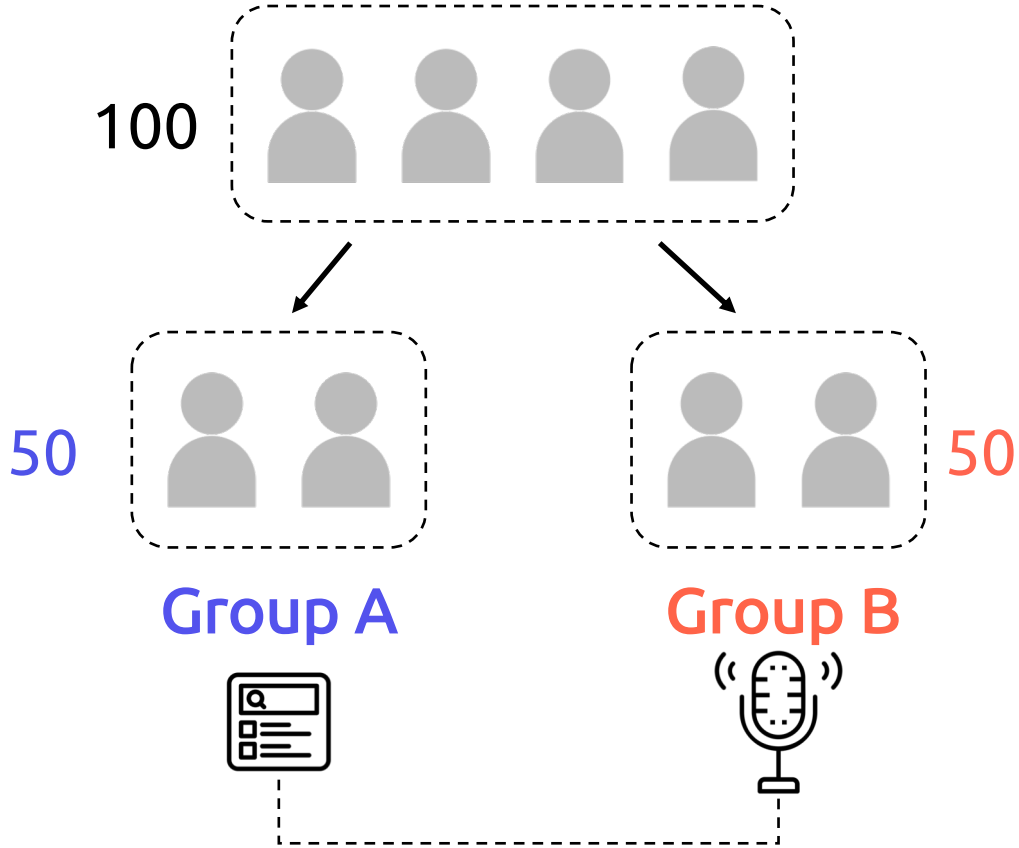
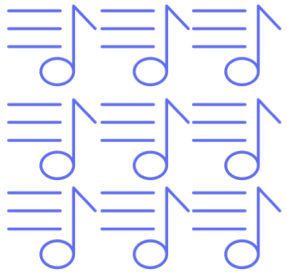


Efficiency

The number of recommendations considered per minute

Visual



54

Voice

6

Exploration

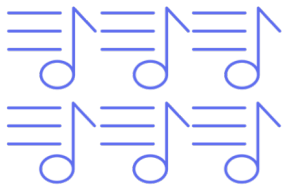
The maximum index number of the recommendations considered

Visual	Voice
47.8*	15.3

Choice: Lower-ranked Items

The index number of the chosen episode

Visual



47.8

Voice

7.3

Choice: Lower-ranked Items

preferred item
(choice)

stop

Main Implications

1/9 efficiency

1/3 exploration

1/6 chosen episode rank

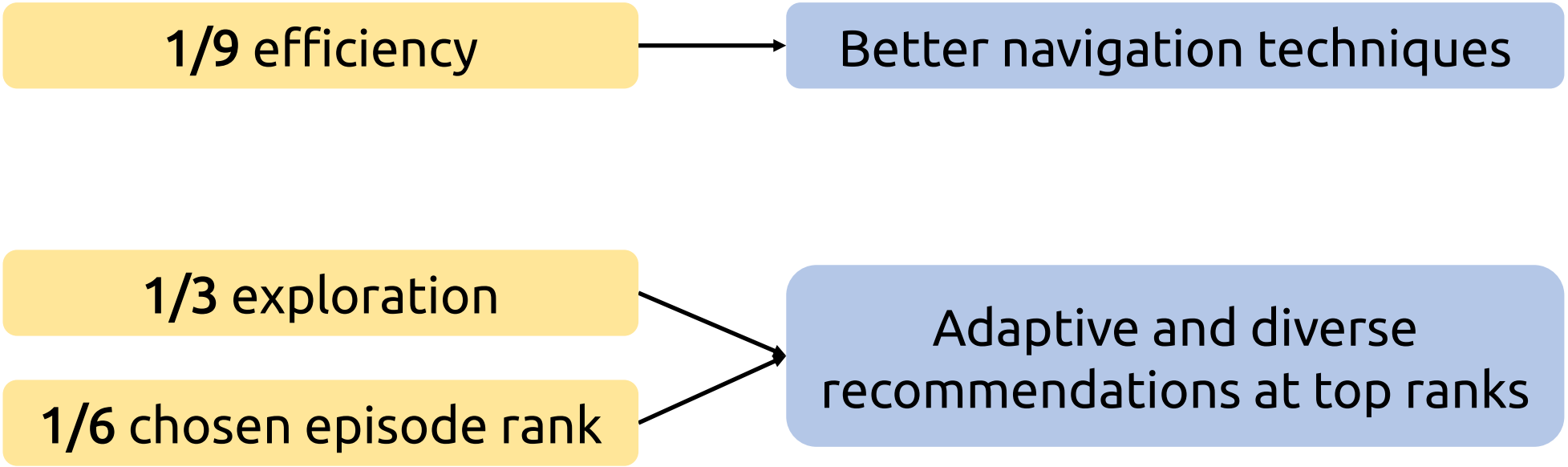
Main Implications

1/9 efficiency → Better navigation techniques

1/3 exploration

1/6 chosen episode rank

Main Implications



Please refer to our paper for more experimental details and results!

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Small Data Lab http://smalldata.io/

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