Studying Extended Session Histories
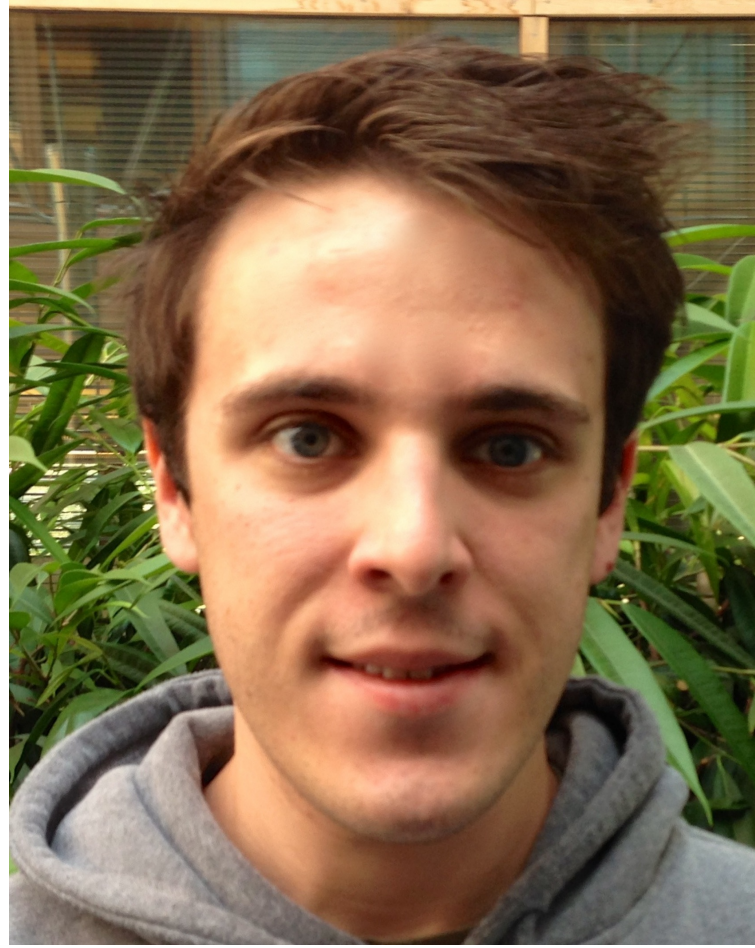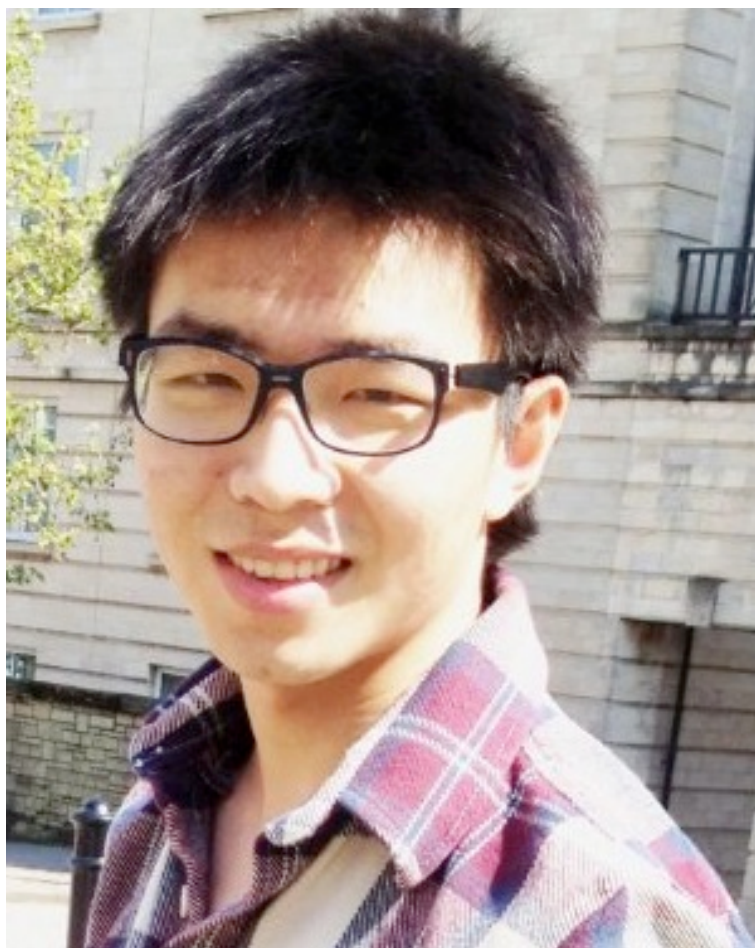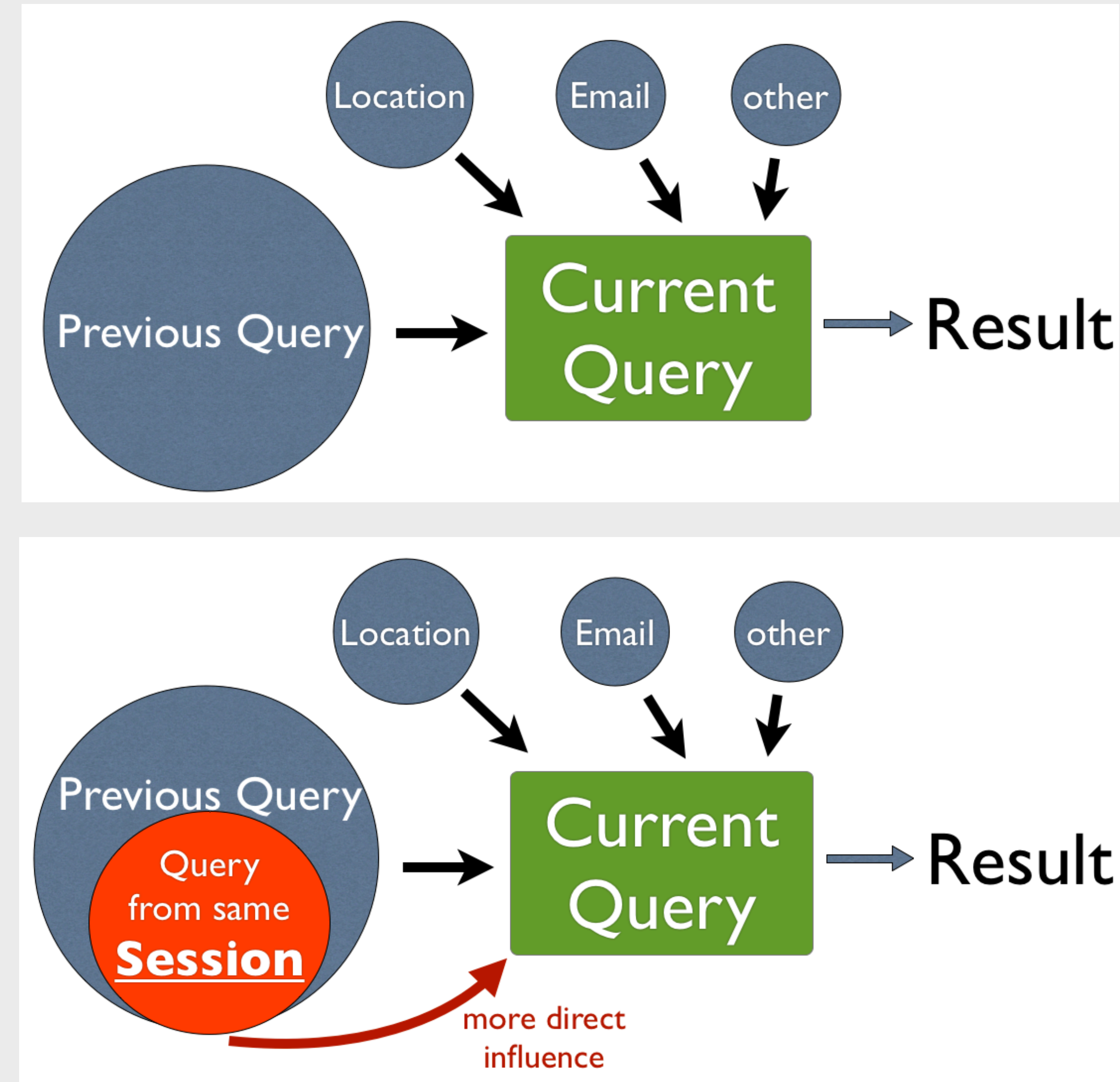
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Motivation

more direct influence

Previous Session Research

- Cutoff Time (He and Goker, 2000; Catledge and Pitkow, 1995, Google)
- Query Context (Jansen et al. 2007)
- User Identification: IP and Cookie (Jansen et al. 2007)
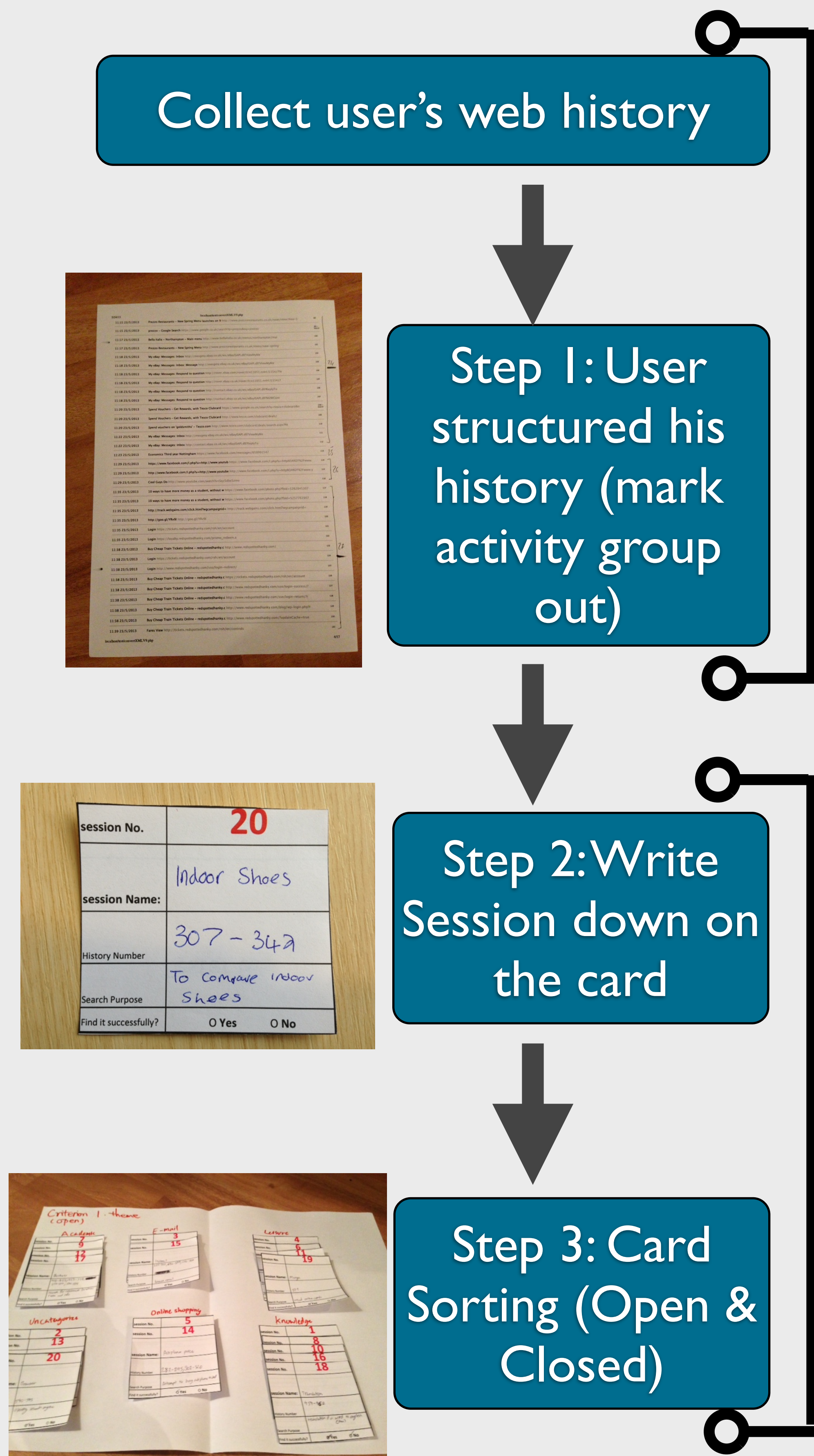- One Interaction as a Session (Spink et al. 2006)

Objective

This paper investigates the web histories to explore extended sessions and provide better support to "search".

Reference

- L. D. Catledge and J. E. Pitkow. Characterizing browsing strategies in the World-Wide web. Computer Networks and ISDN Systems, 27(6): 1065–1073, 1995.

- D. He and A. Göker. Detecting session boundaries from Web user logs. Methodology, pages 57–66, 2000.

- B. J. Jansen, A. Spink, C. Blakely, and S. Koshman. Defining a session on Web search engines. JASIST, 58(6):862–871, 2007.

- A. Spink, M. Park, B. J. Jansen, and J. Pedersen. Multitasking during Web search sessions. IP&M, 42(1):264–275, 2006.

Experiment Design

Collect user's web history

Step 1: User structured his history (mark activity group out)

session No. 20
session Name: Indoor Shoes
History Number: 307 - 347
Search Purpose: To compare indoor shoes
Find it successfully? O Yes O No

Step 2: Write Session down on the card

Step 3: Card Sorting (Open & Closed)

Findings

- Session Delimiters
- Most participants judged "long sessions" as being longer than 5 mins,
- Participants had inaccurate recollections of the length
- Long sessions were typically a mix of casual and serious leisure that often involved information gathering and browsing behaviour
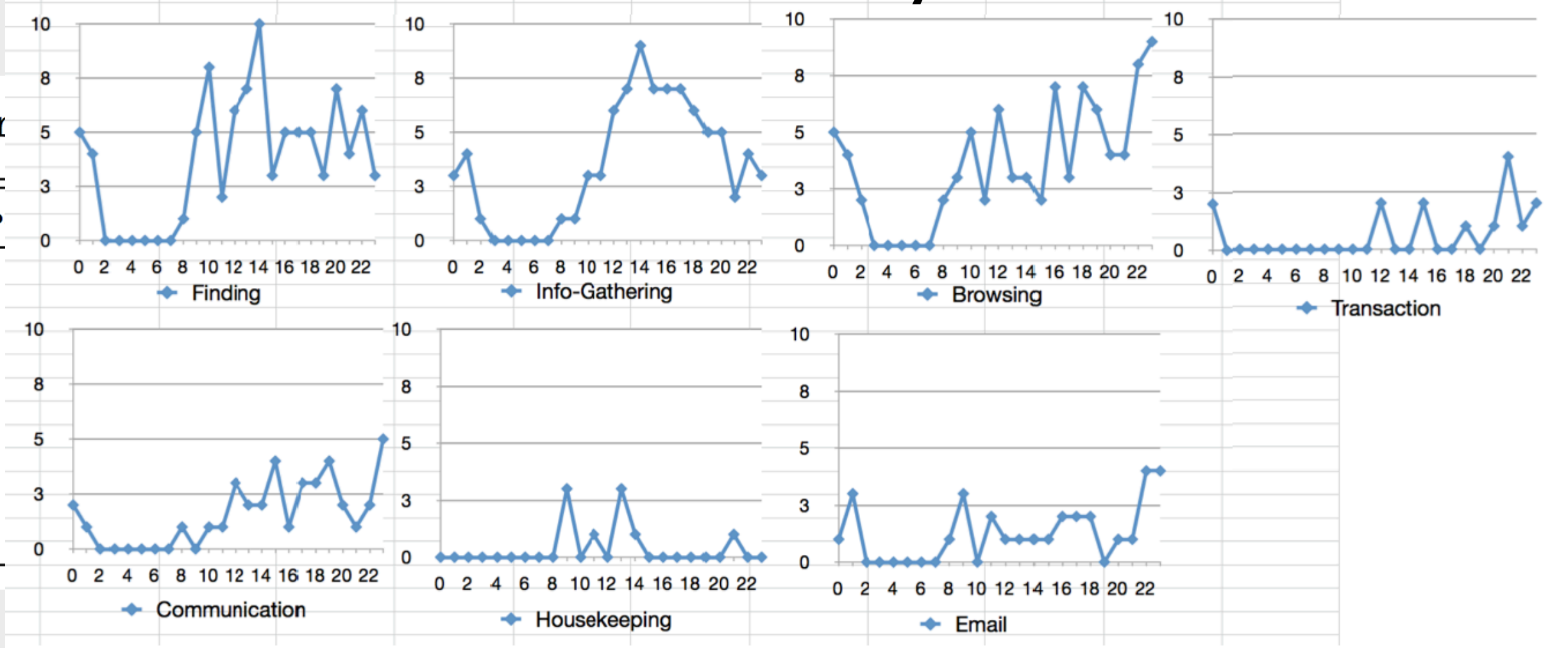- Some activities are related to certain times of the day.

Data Analysis

Session Delimiters

Table 3: Session Delimiters Summary

Parti-cipant	Topic	Type of Source	Differ time-> Differ Session	Emotio
1	+	-	+	
2	+	-	+	
3	+	-	-	
4	+	-	-	
5	+	-	-	
6	+	-	+	
7	+	-	-	
8	+	-	+	+
9	+	-	-	
10	+	-	-	
11	+	-	-	

Time of Day

Card Sorting Dimensions

Table 4: Unique Dimensions

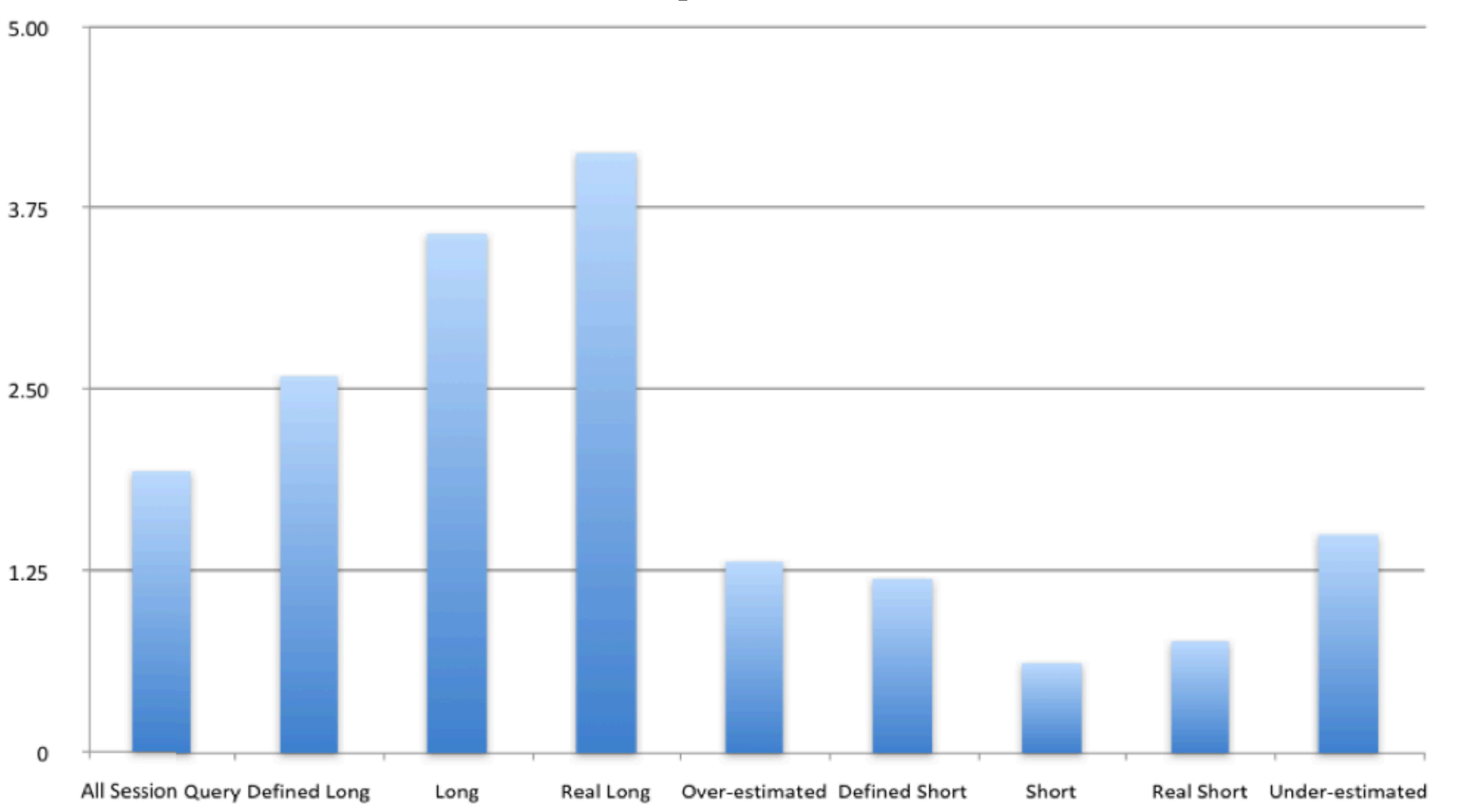| Unique Dimensions	
Google it or Go to Website directly	Content contributor
National	Certain topic or not
University related or not	Based on old knowledge or brand new
Amusement	Preference
Result Satisfaction	Eyes Ears Needed
Security	

Pre-defined Dimensions

No.	Dimension
1	Purpose, Objective, Theme
2	For Who
3	With Who
4	Location
5	Duration
6	Difficulty
7	Importance
8	Frequency
9	Priority

Duration Categories

Table 5: Duration Categories

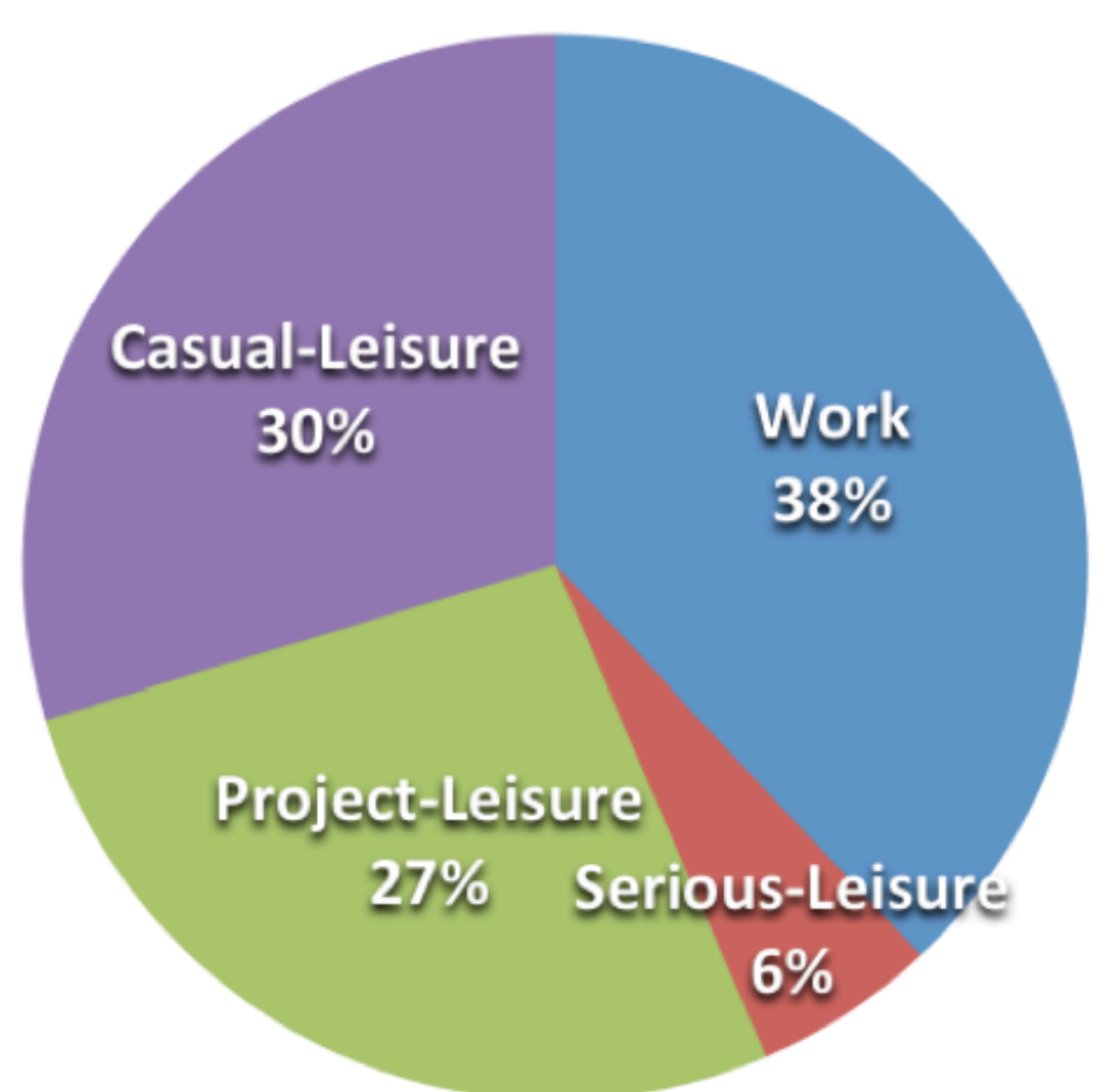| Group	Detail
Defined Long	Sessions defined as Long by Participant
Long	Session whose actual duration is >= 5 mins
Actual Long	Session defined as Long and its actual duration is >= 5 mins
Over-estimated	Session defined as Long but its actual duration is less than 5 m
Defined Short	Session defined as Short by participant
Short	Session whose actual duration is less than 5 mins
Actual Short	Session defined as short and its actual duration is less than 5 m
Under-estimated	Session defined as Short but it actual duration is >= 5 mins

Query Number

Activity Category

(a) Acitivty Goal   (b) Activity Context