

# Do the number of creators and their conversations affect reevaluation of a familiar place in making a tourist map?

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### Short resume of the presenter

- O Name: Yoko Nishihara
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## Topics of research interest of our group

- Human-Computer Interaction: <u>https://tinyurl.com/2mnxhbmw</u> (demo)
- Natural Language Processing: <u>https://tinyurl.com/2yspn5k8</u> (slides)
- Comic Computing
- O Edutainmeint
- O Entertainment: <u>https://tinyurl.com/r49366sb</u> (demo)
- Multimedia on Cooking and Eating Activities: <u>https://tinyurl.com/8vend223</u> (slides)





### Research background (1/2)

• People often refer to a tourist map that shows tourist attractions to see when they got sightseeing.

• A tourist map is indispensable for sightseeing.

• A well-known tourist place often has many tourist attractions or a few tourist attractions that cannot be missed.

O On the other hand, a place where newly promotes itself as a tourist place must begin with discovering tourist attractions to be included in a tourist map.



### Research background (2/2)

• Even if a place is not currently a sightseeing place, the place may have valuable spots known only by people familiar with the place.

#### • We call such a spot an unrevealed tourist attraction.

- To discover unrevealed tourist attractions, the help of people who are familiar with the place is necessary.
- However, it may be difficult for them to spontaneously list spots that would be tourist attractions for others because ther are familiar with the place.

#### Two assumptions and a research objective

O (1) Each individual is influenced by his/her partner and can reevaluate a place to list spots as tourist attractions if two people look for spots together instead of him/herself.

- O (2) The re-evaluation will be conducted efficiently if they have conversations when looking for such places.
- The authors analyze the effects of the number of people and their conversations on the re-evaluation of a place in creating a tourist map.

O It means the authors try to study about collaborative decision making when mapping new places.

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### Hypotheses of this paper

O [H1a]: The number of tourist attractions will be larger if two people create a tourist map without any conversations than if a single person creates it.

- [H1b]: The number of tourist attractions will be larger if two people create a tourist map with conversations than if without coversations.
- O [H2a]: The proportion of unrevealed tourist attractions increases if two people create a tourist map without any conversations, rather than a single person creates it.

 [H2b]: The proportion of unrevealed tourist attractions increases if two people create a tourist map with conversation than when without any conversations.

# Hypotheses testing experiments

- Experimental procedures
  - 1. The experimenter instructs participants on how to make a touirst map.
  - 2. The participants walk around a place for 45 minutes and take photos of what they consider to be tourist attractions.
  - O 3. The participants upload the photos to Google map, write the title and description of the photos, and complete to make the tourist map.
- O Experiment location : Biwako-Kusatsu campus of Ritsumeikan University.
- Participants: 35 students who belonged to the campus for more than one year.
- O Experiment groups
  - Group A: 7 participants. Each of them makes a tourist map alone.
  - Group B: 7 pairs, 14 participants. Each of pairs makes a tourist map without conversations.
  - O Group C: 7 pairs, 14 participants. With conversations.

#### How to judge whether a place is unrevealed

• (1) If a spot is a facility described on a campus map published by the university, the spot should be regarded as a famous tourist attraction that everyone knows well.

O (2) Even a spot is that mentioned in (1), if there is a description of personal memories or impressions, a new perspective of enjoying the spot will be added. It should be regarded as an unrevealed tourist attraction is found in creating a map.

• (3) If a spot is not described on the campus map, the spot should be regarded as an unrevealed tourist attraction.

#### Referred map of Biwako-Kusatsu campus



# Experimental results: Examples of created tourist maps by Group A through C.







Group A

Group B

# Experimental reuslts: Examples of tourist attractions obtained by Group C participants



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#### Experimental results: Number of tourist attractions, timu duration, and the proportion of unrevealed

	Group A (single person)	Group B (two without conversations)	Group C (with conversations)
# of tourist attractions	17.6	18.1	10.3

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	Group A	Group B	Group C
	(single person)	(two without conversations)	(with conversations)
time duration for creating a map	32.1 minutes	28.6 minutes	22.1 minutes

	Group A	Group B	Group C
	(single person)	(two without conversations)	(with conversations)
proportion of unrevealed tourist attractions	68.3%	73.7%	86.1%

# Testing of [H1a] and [H1b]

	Group A (single person)	Group B (two without conversations)	Group C (with conversations)
# of tourist attractions	17.6	18.1	10.3

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#### • [H1a] and [H1b] were not valid.

• This is because that it took time to think about unrevealed tourist attractions, which reduced the number of tourist attractions on the maps.

# Testing of [H2a] and [H2b]

	Group A (single person)	Group B (two without conversations)	Group C (with conversations)
proportion of unrevealed tourist attractions	68.3%	73.7%	86.1%

#### • [H2a] and [H2b] should be valid.

• A significant difference was not obtained by statisitical testing.

• It is necessary to increase the number of experiments in the future to conduct statistical analysis.

#### Conclusions

• We analyzed the effects of the number of creators and their conversations on re-evaluating the familiar place in making a tourist map as a collaborative decision making study.

• We found that whe two participants made a tourist map with conversations, the tourist map has more unrevealed tourist attractions than that made by a single person.

• As a future work, we would conduct interviews to deepen the findings.