



Captioning for Contextual Suggestion (position paper)

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“Entertain Me”

What’s the answer?

Suggest a book, park, video, concert, museum, or restaurant? Invite friends? Now or later? Here or elsewhere?

Of course, it depends on context.

Location, weather, time of day, date, friends, interests, past activities, etc.

Is this an entirely new area?

vs. traditional recommender systems

- completely open domain
- system can suggest (almost) anything

vs. traditional search or QA systems

- information need very poorly specified
- system must lean on context for clarification

vs. traditional social networking

- play with yourself as well as others
- see Azzopardi, 2011 for more information

Is this workshop really the 1st ACM SIGEMe Conference?

How about “contextual suggestion”?

- other ideas for a name are welcome

Issues:

- don't overwhelm or underwhelm the user
- balance novelty and interest
- focus on mobile devices
 - simple interaction to retain or reject suggestions
 - interpret explicit and implicit feedback
 - clear and concise captioning

One issue: How to caption suggestions?

- Describe a suggestion with a clear and concise caption (i.e. summary) that contrasts it against similar suggestions and reflects its appeal to the user.
- What makes this suggestion unique
- Why is this suggestion appealing to the user?

...captioning must be lightweight and fast

What ideas are related?

- Google Places, Yelp, etc., now provide excerpts from reviews in their captions.
- Captioning for Web Search
 - Clarke et al. (SIGIR 2007)
- Many personalization papers
- Many implicit feedback papers
- Contrastive summarization
 - Wang et al. (CIKM 2009)
 - Paul et al. (ENMLP 2010)

How to entertain me?

Context:

- Beijing
- Early evening
- A small crowd of computer scientists

...we need dinner.

Which restaurant?

Applying contrastive summarization:

- Heavily reviewed restaurants on local sites.
- Simple but fast contrastive summarization.
- From the Luhn family of summarizers extended to incorporate contrast.

...but no personalization ☹️

Which restaurant?

English examples (in paper):

- from localnoodles.com
- Saddle Cantina, Tube Station Pizza, Bookworm, Ganges Indian, Blue Frog, The Tree

Chinese examples (not in paper):

- from dianping.com

姚记炒肝店

点了卤煮火烧、炒肝、包子、炸灌肠和炸咯吱

I ordered salt boiled wheat cake, fried liver, steamed stuffed bun, and Fried GeZhi.

传统的北京小吃啊，要想吃炒肝，鼓楼一拐弯

This place has very traditional Beijing snacks. If you want to eat fried liver...

排队挺长的，小碗的炒肝才2元，大碗的卤煮是8元

The line-up is pretty long. A little bowl of fried liver is only 2 RMB. A Big bowl of salt boiled wheat cake is only 8 RMB.

港丽餐厅(大悦城店)

蜂蜜厚多士, 芝士焗野菌, 冰火菠萝油

Honey toast, cheese with mushroom, ice fire pineapple oil

推荐: 蜂蜜厚多士(基本是每桌必点), 芝士焗野菌

I recommend honey toast (must have for every table), cheese with mushrooms

点了蜂蜜厚多士, 金不换三杯鸡, 芝士焗野菌

I ordered honey toast, JinBuHuan chicken, cheese with mushroom

Captioning for Contextual Suggestion

- Potentially a rich vein of research (and commercial services).
- Context, contrast and novelty are key.
- Requires clear communication of suggestions and rapid interaction.

...questions?