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# Confer: A Conference Recommendation and Meetup Tool

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## Abstract

One of the primary goals of academic conferences is to promote scientific exchange of advances among people who may otherwise not have the opportunity to hear from one another. We present *Confer*, a tool designed to help conference attendees find interesting papers and talks, discover and meet people with shared interests, and manage their time using a personalized schedule for the conference. So far, we have deployed Confer to 17 academic conferences including several years of CHI and CSCW. Confer is also the primary program tool for CSCW 2016. Log analysis and survey results have shown that the tool helps conference attendees find interesting papers and manage their schedule. Furthermore the recommendation data generated from the tool has been used by conference organizers to help plan conference schedules as well as to organize social gatherings. Finally, the meetup feature seeks to help conference attendees reach out to other attendees with similar interests.

## Author Keywords

conference planning; collaborative filtering; recommendation; match-making.

## ACM Classification Keywords

H.5.3. [Group and Organization Interfaces]: Web-based interaction; Computer-supported cooperative work

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## Introduction

A primary role of academic conferences is to bring together people with shared interests to exchange ideas and knowledge. Conference attendees go to academic conferences with two major goals – a) see papers and talks relevant to their interests, and b) meet and exchange ideas with other people who share similar interests. Conference organizers do their best to facilitate these needs. They try to create thematically relevant sessions to help attendees find papers and talks relevant to their interests. They schedule these sessions in a way that will minimize conflicts for attendees, so papers an attendee wants to see are not scheduled at the same time in parallel. They also plan various events and activities to bring people with shared interests together to meet and exchange ideas. For logistic and pragmatic reasons, it typically becomes a responsibility of a few dedicated organizers [1]. Organizers often struggle to gather all the information necessary to do the proper planning, and despite their best effort they often fail to accommodate unforeseen issues and unvoiced opinions [3].

In addition, while conference attendees would like to be introduced to new people that have similar interests, there are not many opportunities to do so both asynchronously and in person at the conference. Established members of the conference community have many familiar colleagues to make plans with but no structured way of being introduced to new members doing relevant work or with similar interests. Likewise, newer members of the community, such as graduate students, have few opportunities to informally share their work to interested strangers, make connections to more established members, and potentially meet future collaborators. While most graduate students would jump at the chance to meet senior researchers and many senior researchers are interested in meeting new graduate students, these meetings happen infrequently.

Tag papers you want to see and get social recommendations of other papers you may like. The recommendations update automatically as you tag new papers. Just click "Show More" to see more!

▼ Papers you want to see (3)

**A Pool of Dreams : Facebook, Politics and the Emergence of a Social Movement** - Paper  
Clara Crivellaro Rob Comber John Bowers Peter C Wright Patrick Olivier

★ In this paper we present insights from an empirical analysis of data from an emergent social movement primarily located on a Facebook page to contribute understanding of the conduct of everyday politics in social media and through this open up research agendas for HCI. The analysis focuses on how interactions and contributions facilitated the emerg...  
Social media, discourse, activism, collectives, politics

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mobile, photo, Instagram, faces, face detection, engagement, age, demographics, gender, content, image, social media, image sharing community

**Visually Impaired Users on an Online Social Network** - Paper  
Shaomei Wu Lada A Adamic

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In this paper we present the first large-scale empirical study of how visually impaired people use online social networks, specifically Facebook. We identify a sample of 50k visually impaired users, and study the activities they perform, the content they produce, and the friendship networks they build on Facebook. We find that visually impaired use...  
visually impaired users, vision disability, social media, social networking sites, Facebook,

**Figure 1:** Attendees are presented with a set of recommendations based on their current selection to help them discover relevant papers.

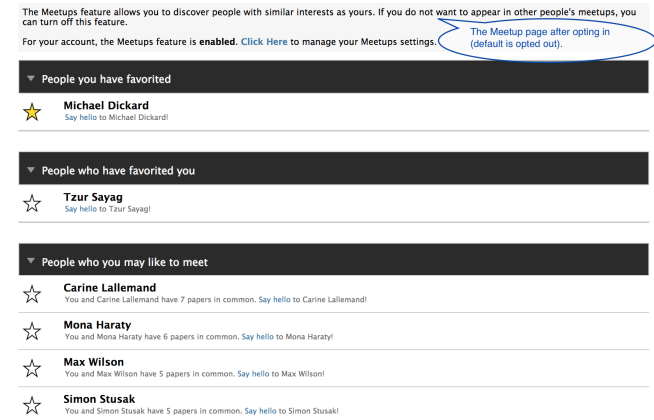
We present *Confer*, a tool designed to help attendees find relevant papers and talks, meet people with shared interests, and manage their time efficiently using a personalized schedule for their conference. We launched the tool in April 2013 for CHI 2013, and since then have hosted 17 academic conferences including CHI, CSCW, KDD, ACM MM, SIGMOD, SIGIR, and WSDM. Over the last 18 months, the tool has been used by more than 18,000 attendees. 6,600 attendees have registered accounts on Confer. At many conferences, including CSCW 2016, it has been used as the primary program designated by organizers for attendees to use.

## Confer

The Confer interface for papers is designed to support natural exploration of papers by attendees. Confer users can search for particular papers using keywords, author names, affiliation, and more. While exploring, they add interesting papers to their preference list (Figure 1) by starring a paper. To support exploration, Confer uses collaborative filtering [4] to provide social recommendations. In the beginning, when there are not enough preferences to support collaborative filtering, the system automatically falls back to content (TF-IDF) based recommendations. This ensures that attendees always get some relevant recommendations when they interact with the system.

To help attendees manage their time at the conference, we generate a personalized schedule for them once they have starred some papers. The personalized schedule for an attendee is generated based on all the papers the attendee has marked as “interested in seeing”, and the papers recommended by our recommendation system. We provide a set of filters that allows attendees to see different views of their personalized schedule and make an informed decision about where they should spend their time.

Another important goal of Confer is to encourage attendees with shared interests to meet and exchange ideas. Since attendees mark papers they are interested in seeing, we can compute similarity between attendees by looking at their preferences. To find similarity between two attendees, we take the papers they are interested in seeing as two vectors. The similarity between the two attendees is computed as the cosine of the angle between the two vectors. For each attendee, we can then show a list of other attendees with similar interests. Because people may not be comfortable receiving an email from a stranger asking to meet, we keep this feature as an “opt-in” feature with a



**Figure 2:** Confer interface to help attendees meet other people with shared interests.

default of “opted out” (Figure 2). We do not show any attendee as a recommendation to other attendees unless the attendee has explicitly opted in to the Meetups functionality. We recommend only those attendees as recommendations who have explicitly opted in.

Even after an explicit opt in, there may be an initial barrier to starting a communication as attendees may not feel comfortable taking the initiative of sending an email to someone they do not know. To reduce this barrier, we put a “Star” icon next to each recommended person. Attendees can add a person to their “Favorite” list by clicking on the Star icon next to the person in the interface (Figure 2). Once an attendee favorites a person from the recommended list, the system sends a notification to the person favorited. From logs and A/B testing, it was determined that this method led to more meetup activity than simply having attendees email each other as the initial step.

## Usage of Confer

Analysis of usage and survey data has suggested that the tool has helped many attendees find relevant papers and talks and manage their time efficiently using their personalized schedule. The Meetups feature is used less often since it is opt-in, though several people have reported via survey that they used it to find interesting people and to initiate contact.

The data of people's interests in papers has been useful for other aspects of the conference as well. The use of attendee-sourcing [2] at CHI 2014 helped conference organizers schedule the different sessions so that papers liked by the same attendees would appear at different times. Additionally, at CSCW 2015 a social gathering was piloted called "Confer Coffee", which used attendees' paper preferences to cluster attendees into groups of similarly-interested people. Conference organizers invited attendees during a coffee break to gather at assigned areas within a room to meet others who were placed in their cluster. Each cluster area had the five papers most liked by people in the cluster to serve as a starting point for conversation. While several clusters had engaging discussions, future pilots will need to incorporate continual re-clustering as many clusters only had a few people show up.

## Demo Goals and Conclusion

Confer is already being used for CSCW 2016 as the official program and will likely continue to see a great deal of usage from people browsing and scheduling papers. However, we

are interested in the equally-important issue of helping attendees meet other attendees. The purpose of the demo then is to encourage attendees to opt-in to meetups and star other people to initiate in-person meetings. This increase in usage will lead to feedback that will also be useful as we further develop the Meetups feature.

## References

- [1] Judy Allen. 2000. *Event Planning: The Ultimate Guide To Successful Meetings, Corporate Events, Fundraising Galas, Conferences, Conventions, Incentives, And Other Special Events*. John Wiley & Sons Canada, Toronto. <http://isbnplus.org/9780471644125>
- [2] Anant Bhardwaj, Juho Kim, Steven Dow, David Karger, Sam Madden, Rob Miller, and Haoqi Zhang. 2014. Attendee-Sourcing: Exploring The Design Space of Community-Informed Conference Scheduling. In *Second AAAI Conference on Human Computation and Crowdsourcing*. AAAI.
- [3] Carl DiSalvo, Thomas Lodato, Laura Fries, Beth Schechter, and Thomas Barnwell. 2011. The collective articulation of issues as design practice. *CoDesign* 7, 3-4 (2011), 185–197. DOI: <http://dx.doi.org/10.1080/15710882.2011.630475>
- [4] Michael D Ekstrand, John T Riedl, and Joseph A Konstan. 2011. Collaborative filtering recommender systems. *Foundations and Trends in Human-Computer Interaction* 4, 2 (2011), 81–173.