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# AWARE: Workshop on Awareness Interfaces and Interactions

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**Abstract**

Awareness is a key user interface and interaction paradigm. Choosing what to make the user aware of, at what time, and how, has a critical impact on system usage and overall perception. In this workshop, we will bring together those from academia and industry to share their own work in this area, debate key topics, and brainstorm possible future collaborations or papers.

**Author Keywords**

awareness; information overload; recommender systems; visualizations; alerts.

**ACM Classification Keywords**

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

**Introduction**

Awareness is a key user interface and interaction paradigm. Choosing what to make the user aware of, at what time, and how to evoke awareness, has a critical impact on system usage and perception. Human attention is limited and information overload is a common problem facing users. As such, many different kinds of systems, such as email[6], educational interfaces[7], calendars[5], and social networks[2] have benefited from designing for awareness. Various mechanisms and types of interfaces have specifically

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## Workshop Agenda

Full-Day Workshop (6 hrs)

10 mins	Introduction
1 hr 45 min	Short presentations of accepted position papers
1 hr 30 min	Lunch nearby by participants
45 mins	Keynote: John O'Donovan
1hr 30 min	Interactive Discussion & Brainstorm Activity
20 mins	Wrap-up discussion

been designed to support and evoke user awareness, such as visualization dashboards[5, 7, 9], ambient displays[1], and alerts[8]. With the large amount of content shared on social media, interactive visualizations can also be used to support user awareness of others' content, such as bookmarks [9]. Behind such interfaces, machine learning and other algorithms can be applied to filter information to focus a user's awareness or highlight information that may go unseen[6]. Recommender systems have a history of being used to make users more aware of content, such as new neighborhoods [4], traffic [3] in cities, or known, offline colleagues on social networking sites [2].

## Workshop

Given the breadth of applicability of awareness to IUI research, the workshop will facilitate a discussion among those who have researched: Applications & Interfaces incorporating awareness mechanisms (*including educational interfaces and programming environments*), Interfaces specifically designed for a certain type of awareness or with a focus on an awareness technique or problem (*such as information overload, alerting mechanisms, visualizations and other dashboards, social or self-awareness, and challenges of non-visual awareness, such as through audio channels*), and Machine learning or other algorithms to support filtering to focus awareness or making users aware of new items (*such as in recommender systems*).

The format of the workshop is designed to be interactive. A small, diverse set of accepted position papers will be presented at the beginning of the workshop to quickly share backgrounds and viewpoints. After lunch, a keynote will be given by John O'Donovan on "User Aware Interaction Design for Recommender

Systems." This will lead into an interactive discussion on open research areas in the space, with an associated brainstorm for participants.

## Organization

### Organizers

**Casey Dugan** works at IBM Research in Cambridge, where she builds and studies large-scale social software deployments. She has incorporated awareness mechanisms into many of these, including: a site-wide user-activity widget on an internal social network, a visualization dashboard for user awareness of time spent, and a #selfiestation to increase awareness of others in the same physical space. She has published at many HCI conferences (CHI, CSCW, IUI, etc) and organized workshops at CSCW & RecSys.

**Peter Brusilovsky** is a Professor in the School of Information Sciences at the University of Pittsburgh. His research focuses on adaptive and personalized interfaces, especially for education, and user modeling. His recent research has supported user awareness in educational interfaces that show knowledge awareness and class awareness, as well as through mechanisms such as interactive visualizations of recommendations for other users' content. He has published at conferences such as IUI, UMAP, EDM, and RecSys, and organized numerous workshops (RecSys, CIKM, etc).

**Elizabeth Daly** is a research manager of the Cognitive Analytics group at IBM Research in Dublin. She enjoys understanding the user aspect in computing systems. In particular, she has applied recommender systems in areas such as social collaboration networks, seller team networks, and smarter cities. She has published at

conferences such as RecSys, WWW, IUI, ICWSM, and CHI, and organized workshops at ICWSM and SocInfo.

#### *Keynote Speaker*

**John O'Donovan** is an associate research scientist in the Computer Science department at UCSB. His research background is in AI, with a focus on recommender systems. He has a particular interest in human-computer interaction aspects of these systems - for example, learning how an interaction design impacts human trust in an algorithm over time.

#### *Program Committee*

We thank the program committee, who helped review position papers to form the workshop agenda:

- **Jill Goundar**, (CSIRO)
- **Werner Geyer** (IBM Research)
- **Di Lu** (University of Pittsburgh)
- **Tak Yeon Lee** (University of Maryland)

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