

The Second International Workshop on Contents Creation Activity Support with Pervasive Computing (PerCAS: <http://www.mediaexprimo.jp/PerCAS/>)

Takuichi Nishimura¹, Sri Kurniwan², Miwa Fukino³, Satoshi Kurihara⁴,
and Takeshi Sunaga⁵

¹ 1-18-13, Sotokanda, Chiyoda-ku, Tokyo 101-0021, Japan

¹ taku@ni.aist.go.jp, ² srikur@soe.ucsc.edu, ³ fukino.miwa@jp.panasonic.com,

⁴ kurihara@ist.osaka-u.ac.jp, and ⁵ sunaga@tamabi.ac.jp

1 Introduction

Pervasive computing will enhance and enrich the content creation activities of people by capturing and expressing their daily activities by means of sensors or various forms of displays embedded in the environment, through user interfaces or by Web applications. We expect attendees from backgrounds in not only pervasive computing but also information design, social science, workshop facilitators and creators. In order for participants to interact actively by experiencing content creation activities supported by pervasive computing, the whole workshop is designed as a content creation “workshop” which begins with “ice breaking” and includes creative discussion led by facilitators. Demonstrations as well as support systems deployed for the workshop are highly welcome.

2 Background and Motivation

This is the second workshop following the first workshop of content creation activity support by networked sensing (CCASNS08)¹. This workshop will be held in conjunction with pervasive2009³ and will invite researchers and practitioners working in the areas of networked sensing and pervasive computing. We will discuss recent state-of-the-art work on cyberspace content creation and the implementations of psychological theories of content creation in the pervasive computing field. The detailed background and motivation is given below.

¹ National Institute of Advanced Industrial Science and Technology (AIST) and CREST, JST, Japan.

² University of California Santa Cruz, USA

³ Panasonic Corporation, Japan

⁴ Osaka University and CREST, JST, Japan

⁵ Tama Art University and CREST, JST, Japan

Humans have been involved in creative activities for eons: drawing pictures on walls in caves and creating pots decorated with various patterns. Various creative tools have been developed: paintbrushes, chisels, canvas, and so on. Human creations have been distributed worldwide, and creative techniques and tools have both evolved. Various new creations have arisen from worldwide interactions. Recently, digital creative tools and created content supported by the use of computers and the Internet have been becoming popular. Not only due to the potential of creative tools but also the speed and scope of the distribution of creations have increased dramatically.

With the evolution of these technologies, User Generated Content (UGC) has received much attention worldwide. Simply put, UGC refers to content that is created by ordinary people, not by, for instance, professional artists or journalists. At Wikipedia, Q&A sites, and social bookmarking sites, huge masses of useful content are being created collectively through the efforts of many people. Such a process is often called 'collective intelligence' or the 'wisdom of crowds'. Numerous visual works are being uploaded to YouTube or Flickr. And new content is being stimulated by other creations. Fischer has designated such creativity as 'social creativity', which is caused by interactions among people.

Pervasive computing with networked sensing and mobile/ubiquitous interaction is expected to help us create various kinds of content based on our daily life activities. Networked sensing encompasses not only real-world sensing technologies such as those found in tangible/mobile interfaces or ubiquitous computing, but also cyberspace mining technologies such as those used for webspaces or social networking services. And people are empowered to express themselves and their feelings in various forms by mobile/ubiquitous interaction: text (e.g., journals and poetry), images (e.g., drawings, computer graphics and photographs), sounds (e.g., clapping, singing, playing musical instruments), videos (e.g., video-blogs of daily life) or combinations of these media with various annotations.

3 Workshop Objectives

Sensor data mining and pattern recognition are important technologies for recognizing user activities or conditions, such as their interests and social networks, and the subsequent adding of annotations to such content. The design of online spaces for creating communities will also influence users' motivations and incentives. Combining virtual spaces and real-world workshops will accelerate content-creation activities by supporting users as they learn various expression methodologies. Users will be stimulated by the content of others and will create content collaboratively. Cultural programs, which shape user activities from the perspective of a media society, will actively support sustainable content creation.

In this workshop attendees will share their backgrounds and discuss how content-creation activities will be supported by pervasive computing including networked

sensing, cyberspace, real-world workshops and cultural programs. Demonstrations as well as support systems deployed for the workshop itself are highly welcome.

Topics of interest include, but are not limited to, the following:

- Networked Sensing for user activity sensing
 - Various sensor types
 - Sensor networking and databases
 - Sensor data integration, mapping or visualization
- Sensor data mining
 - Mining, aggregation and integration of spatial and temporal data
 - Stream data processing and mining
- Web mining
 - Text mining, language processing, extraction of information from the Web
- Support systems for creative activities
 - Support for music, image, or video creation
 - Location-based services and geographic information systems
 - Experiments and case studies of deployment or sensor networks
- Design of cyber or real-world activities
 - Cultural programs and workshop programs
- User Study and analysis for better system design
 - Cultural probes
 - Participatory design
 - Ethnography and video-based analysis

4 Format

All attendees are required to submit research interests and expectations for this meeting to the workshop's cyberspace and interact among participants beforehand. After an ice-breaking introduction, we will have interactive activities with discussions and exercises on specific topics that the participants vote for. The participants will be encouraged to set up their online or onsite systems for the workshop.

Preliminary schedule

- 10:00- 10:10 Opening Remarks
- 10:10- 11:30 Round table introduction of each participants' work ("ice breaking")
 - Content Creation
 - User devices and data mining
 - Web applications
- 11:30-11:45 Coffee break
- 11:45-12:30 Interactive exercises I – General introduction -
Chief Facilitator: Takeshi Sunaga
Manager: Yuta Tsuruga

Floor Facilitators: Tom Hope, and Organizers
12:30-14:00 Lunch break and networking
14:00-15:45 Interactive exercises II – First trial -
15:45-16:00 Coffee break
16:00-17:40 Interactive exercises III – Second trial and reflection -
17:40-18:00 Closing discussion
18:30-onward Dinner and further networking opportunities

5 Workshop committee

Workshop organizing committee:

- Miwa Fukino, Panasonic Corporation, Japan
- Sri Kurniwan, University of California Santa Cruz, USA
- Takeshi Sunaga, Tama Art University and CREST, JST, Japan
- Satoshi Kurihara, Osaka University and CREST, JST, Japan
- Takuichi Nishimura, AIST and CREST, JST, Japan

Workshop program committee:

- Koichi Hori, The University of Tokyo and JST, CREST, Japan
- Yuta Tsuruga, Tama Art University and JST, CREST, Hachioji, Tokyo, Japan
- Kosuke Numa, The University of Tokyo and JST, CREST, Japan
- Kouichirou Eto, AIST and JST, CREST, Japan
- Masahiro Hamasaki, AIST and JST, CREST, Japan
- Shin Mizukoshi, The University of Tokyo and JST, CREST, Japan
- Tom Hope, AIST and JST, CREST, Japan
- Yasuyuki Sumi, Kyoto University, Japan
- Yoshiyuki Nakamura, AIST and JST, CREST, Japan

References

1. CCASNS: <http://www.mediaexprimo.jp/CCASNS/>
2. Media Exprimo: <http://www.mediaexprimo.jp/>
3. Pervasive2009: <http://www.pervasive2009.org/>
4. INSS2008: <http://www.inss-conf.org/>
5. Gerhard Fischer. Distances and diversity: Sources for social creativity. In Proceedings of the Creativity & Cognition conference (CC2005), 2005.
6. A. H. Maslow: A Theory of Human Motivation, *Psychological Review*, 50, 370-396(1943).