

# Second Interaction and Engagement on Information Research and Learning with Lifelogging Devices

A Proposal for Sessions for Interaction and Engagement at iConference 2017

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## Abstract

iSchools have their roots in the collection, storage, analysis, and dissemination of archived materials of human activities. We foresee that sensing data via lifelogging devices (or Internet of Things at large) will eventually shape its significant part in the coming years. The Information Research and Learning with Lifelogging Devices (IRLLD) session aims to offer a unique opportunity to experience various lifelogging devices such as wearable video recorders, wearable cameras, GPS sensors, and audio recorders. Following the successful 1st IRLLD<sup>1</sup> at iConference 2016 SIE (Joho et al., 2016), this proposal offers the 2nd edition of IRLLD at iConference 2017 with extended lifelogging devices such as biometric and informational sensors. The 2nd IRLLD also demonstrates how to access a large lifelog dataset called NTCIR-12 Lifelog Test Collection, created by the authors of this proposal. The intended audience includes information behavioural researchers (both qualitative and quantitative), multimedia and/or UI developers, students who want to improve their work/life experience, and educators who wish to explore ways of developing reflective learning programs using lifelogging data. The proposed program will include a round-table session to identify some of the core research directions regarding the development and use of lifelog devices and datasets in Information Research and Learning, in addition to presentations by the organisers and participants.

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## 1 Title

Second Interaction and Engagement on Information Research and Learning with Lifelogging Devices (IRLLD 2017)

## 2 Organizers

The proposed SIE will be internationally organized by the following team.

- Hideo Joho, Faculty of Library, Information and Media Science (iSchool member), University of Tsukuba, Japan. <http://www.slis.tsukuba.ac.jp/hideo/>
- Cathal Gurrin, School of Computing, Dublin City University, Ireland. <http://www.computing.dcu.ie/cgurrin/>
- Frank Hopfgartner, Humanities Advanced Technology and Information Institute (iSchool member), University of Glasgow, UK. <http://www.gla.ac.uk/schools/humanities/staff/frankhopfgartner/>

Joho and Hopfgartner are from iSchool member institutions. Joho, Gurrin, and Hopfgartner have recently organised a panel session at JCDL 2015, and will have a methodological panel at ASIS&T 2016. Both

<sup>1</sup><http://irllld2016.computing.dcu.ie/>



Figure 1: IRLLD at iConference 2016 (Left) and lifelogging devices to be demonstrated at iConference 2017 (Right).

panels motivated us to propose a technical SIE as a hands-on session with lifelogging devices at iConference 2017. The proposal team is also co-organisers of NTCIR Lifelog Task (Gurrin, Joho, Hopfgartner, Zhou, & Albatal, 2016) which provides a large-scale reusable dataset for researchers and developers to develop and evaluate innovative lifelog systems (See <http://ntcir-lifelog.computing.dcu.ie/> for detail). All organizing members have been actively chairing a number of evaluation forums, conferences, and workshops on related areas over the years.

### 3 Key participants

The purpose of the proposed SIE is to set the various wearable devices as a central piece of the event, and to facilitate interactions between different sectors of people such as researchers, developers, learners, and educators. Due to the nature of our purpose, the organisers will act as the main contributors of the event. In addition, we will have an open call for contributions to present works on research, development, teaching, learning, and practicing of lifelogging devices at the proposed SIE. The relevance of submitted contributions will be assessed by the organisers.

## 4 Description

### 4.1 Purpose and Intended Audience

Wearable devices and mobile devices have become commodity, and collecting a massive amount of digitised personal lifelog data has become much easier than before. This creates many opportunities for iSchool researchers, developers, learners, and educators. Some of the recent topics studied in this domain includes (but not limited to):

- How to conduct a mixed method study using conventional methods (e.g., questionnaires and interviews) and lifelogging devices
- How to develop a learning program that incorporates lifelogging as the core component
- How to synthesise data from lifelogging devices to enhance learning analytics (e.g., MOOCs)
- How to retrieve relevant objects from diverse personal multimedia collections
- How to visualise lifelog data to support recollecting, reminiscing, retrieving, reflecting, and remembering (Sellen & Whittaker, 2010)
- How to aggregate lifelog data for institutional lifelogging

Table 1: Tentative Schedule. Time is only illustrative.

Session	Time	Duration	Event
1	10:30-12:00	15 min	Introduction: What is lifelogging?
		60 min	Hands-on Ssession: Lifelogging devices
		15 min	Tutorial: How to access a large lifelog data
2	13:30-15:00	30 min	Presentations 1: Teaching and learning with lifelogging devices
		30 min	Presentations 2: Processing and analysing lifelog data
		10 min	Q&A
		20 min	Round table: Challenges and future directions

- How to overcome privacy issues for various lifelogging applications

However, there are still many gaps to bridge among researchers, developers, learners, and educators, to fully leverage the power of lifelogging devices and their data.

This session for interaction and engagement (SIE) is to create a living lab environment where participants can experience various lifelogging devices such as wearable video recorders, wearable cameras, GPS sensors, audio recorders, or biometric sensors. Participants can play with the wearable devices to see what kind of data can be collected, analysed, and visualized. The intended audience includes information behavioural researchers (both qualitative and quantitative), multimedia and/or UI developers, students who want to improve their work/life experience, and educators who explores the ways to develop reflective learning programs using lifelogging data.

## 4.2 Agenda

A proposed program consists of two sessions as shown in Table 1. The first session is designed to first set the scene for all participants by providing an introductory presentation on lifelogging. Then, a hands-on session will provide an opportunity for participants to play with various lifelogging devices. The organisers will provide additional information about the capability and limitation of the devices. Audiences are encouraged to share their experience on lifelogging devices too. We plan to create a closed space where participants can safely enjoy the lifelogging experience with our SIE participants, while minimizing recording of other conference participants. Such a living lab experience will be our central piece of instalment.

In the second session, we plan to have a set of interactive presentations where participants will show a demo system, early research outcomes, or crazy ideas about how to use lifelog data. The presentation will be much more informal than usual presentations, where other participants are encouraged to express their ideas and opinions. Finally, we will have a round-table session to identify some of the core research directions regarding the development and use of lifelog devices in Information Research and Learning.

Prior to the conference, contributing participants are asked to submit a two-page position paper that describes their system, study showcase, or interesting ideas about lifelogging devices or lifelog data. The submitted contributions will be made available from our website.

## 4.3 Relevance to the Conference/Significance to the Field

iSchools have its roots in the collection, storage, analysis, and dissemination of the recorded material of human activities. It used to be books and libraries for a couple of thousand years. Web contents on The Internet took over many parts of the place in the last two decades. Sensing data via lifelogging devices (or Internet of Things at large) will shape the significant part of human archiving in the near future. Our SIE proposal will facilitate the iSchool community to look into such core issues of Information Research, by offering an opportunity to familiase various lifelogging devices and obtained data.

## 5 Duration

The proposed SIE will be best organised by TWO 90-minute sessions.

## 6 Special Requirements

Projector and screen. Other equipments will be provided by the organisers.

## References

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