

Liquid Software 2017:

2nd International Workshop on Liquid Multi-Device Software

Rome, Italy, June 5th 2017

<http://liquidsoftware.org>

The era of standalone computing devices is coming to an end. Device shipment trends indicate that the number of Web-enabled devices other than PCs and smartphones will grow rapidly. In the future, people become surrounded by and will commonly use various types of internet-connected devices in their daily lives. Unlike today, no single device will dominate the user's life.

From technical perspective, this means that the world of computing is rapidly evolving from traditional client-server architectures to multi-device architectures in which people use various types of Web-enabled client devices, and data is stored simultaneously in numerous devices and cloud-based services. This new era will dramatically raise the expectations for device interoperability and interactions between them, implying significant changes for software architecture as well. Most importantly, a multi-device software architecture should minimize the burden that the users currently have in keeping devices in sync. Ideally, when the user moves from one device to another, the users should be able to seamlessly continue doing what they were doing previously, e.g., continue playing the same game, watching the same movie or listening to the same song on the other device, without having to worry about device management.

Liquid Software refers to an approach in which applications and data can flow seamlessly from one device or screen to another, allowing the users to roam freely across all the computing devices that they have. The users of Liquid Software do not need to worry about device data copying, manual synchronization of device settings, application installation, or other traditional device management tasks. Rather, things *should just work* with minimal hassles.

Companies such as Apple and Google are already paving the way towards liquid multi-device software architectures for their *native* software platforms. For instance, device synchronization across devices and computers within the Apple ecosystem is already quite straightforward. Likewise, Google and Microsoft ecosystems have similar capabilities, but only within those ecosystems.

We envision that HTML5 and Web technologies will be used as the basis for a broader, industry-wide multi-device software architecture, enabling seamless usage of applications not only with devices from a certain manufacturer or native ecosystem, but more broadly across the entire industry. HTML5 and Web technologies could serve as the common denominator and technology enabler that would bridge the gaps between currently separate device and computing ecosystems.

In this workshop, we will discuss approaches and technologies for Liquid Software. We are especially seeking contributions that describe Liquid Software solutions and technologies in the context of the Web and the Web of Things, supporting industry-wide usage of liquid applications independently of the currently prevalent native software ecosystems.

Topics of interest to the workshop include (but are not limited to):

- Use cases and example applications for liquid software and services (especially leveraging HTML5 and Web technologies)
- Software architectures for multi-device applications, including aspects of partitioning applications between the client and the server
- Liquid Web of Things: Liquid Software for headless or constrained devices
- Software frameworks that enable multi-device and liquid applications and services within the context of the Web, the Web of Things, and the Internet of Things
- Programming models for multi-device and liquid applications
- Novel application concepts building on multiple device ownership and usage
- Novel UI paradigms supporting multiple device ownership and liquid applications

Submissions

The workshop will have two sessions: **paper sessions** and **demo session** (full day together).

For the former session, we invite full research papers (**max 16 pages**).

Demo session is intended for demonstrations of Liquid Software systems; demos should be accompanied with short papers (**max 6 pages**) that summarize demonstration.

It is also possible to propose a demo related to full paper.

Accepted and presented papers will be included in the **Proceedings of ICWE'16 Workshop Reader, to be published by Springer**. In addition, best papers will be invited as candidates for a special issue in a journal to be defined later. Last year workshop's proceedings are **DBLP** index.

Submissions via EasyChair: <https://easychair.org/conferences/?conf=liquidsoftware2017>

Visit web site for instructions: <http://liquidsoftware.org>

Important Dates

Submission deadline: March 31, 2017

Notification: April 28, 2017

Camera Ready: May 12, 2017

Workshop date: June 5, 2017

Camera Ready (post proceedings): June 24, 2017

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