

# SindiceSIOC: Widgets and APIs for interconnected online communities

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## Abstract

*SindiceSIOC is a project to provide a set of APIs and embeddable web application widgets that semantically interconnect online communities. The goal is to enable very intuitive and automatic information aggregation which ultimately makes online collaboration systems more useful for real users.*

## 1. Introduction

Online communities (blogs, wikies, forums, mailing lists) have become a fundamental backbone of personal and professional communications. Online communities, however, are often very disconnected from each other and it becomes difficult to locate and interlink the data they contain.

For this reason DERI is proposing a novel methodology based on the use of standards such as RDF to *semantically interlink* online communities. SIOC (Semantically-Interlinked Online Communities) [1] is a schema for representing community generated data such as comments, posts, topics and users. Thanks to this standard, it is possible to aggregate information coming from different sources and provide an unified search on it. But how should these functionalities be intuitively provided to the end user?

Three elements are needed for this to happen:

- SIOC information must be produced by the online system
- Data must be aggregated
- Data must provide extra functionalities which enhance the existing software.

In the context of the Sindice project, we have built a backend API which can retrieve information about SIOC documents stored on the web.

## 2. Exporting SIOC

The first task to create standard compliant SIOC data is performed by a plugin of the online system. This is done transparently starting from the data which is contained in the underlying database. A list of SIOC data producers for popular social software applications is available at the SIOC ontology information page [2].

## 3. SindiceSioc API

SIOC data produced in step 1 is aggregated by a backend API. The Sindice project [3] is an infrastructure which crawls and indexes tentatively all the structured data which is made available on the Web. Within this project we have built a specific SIOC API [4] which crawls and provides services specific to online communities.

Example functionalities of the SIOC API are:

- check if a user has any activity in any SIOC enabled site (the SIOC-o-Sphere)
- fetch information about posts and comments that were made by a particular user
- check if a given URL has any mentions on the SIOC-o-Sphere
- fetch information about posts and comments that mention a particular link

## 4. SindiceSioc Widgets

The third task provided by the blog plugin [5] is to enhance the user experience based on the functionalities of the backend SindiceSIOC API.

At user interface level, the plug-in will embed icons into the posts and comments which can be clicked to provide links to semantically interconnected content:

- Author based linking: find posts by the same authors on different online communities.
- Find posts and comments on the same topics
- From a URL contained in a post, find other posts which also link to it.

Accessing these functionalities is as simple as clicking on the author “bubbles” as shown in the picture below:



Figure 1. A popup box shows user activity

SindiceSIOC can be tried live on the official Sindice blog [6] and downloaded from [5].

## 5. Acknowledgments

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## 6. References

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- [6] Sindice blog: <http://blog.sindice.com>