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## D4.3

# Development of the analysis and evaluation plug-ins

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## Abstract

This document reports on the OpinioNet reputation module and on Research Impact Evaluation (ResEval), developed in LiquidPub. OpinioNet computes the reputation of both researchers and research work (or SKOs), while ResEval computes the research impact of researchers and SKOs using different metrics (at the moment, citation-based metrics). The integration of the two tools is described in D5.2v1 Integration of plugins.

Keyword list: **trust, reputation, credit attribution, opinion propagation, metrics, research impact**

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## **Introduction**

This document reports on the OpinioNet reputation module and on Research Impact Evaluation (ResEval) module, developed in LiquidPub. OpinioNet computes the reputation of both researchers and research work (or SKOs) based on the innovative algorithms developed in WP4 and getting input from the LiquidPub applications and repositories. ResEval is instead a web application that allows people to view a variety of reputation metrics and compare them. It also computes “traditional” reputation metrics such as citation counts and h-index. ResEval provides this information as an additional input to OpinioNet, and in the future it will be able to display the reputation results computed by OpinioNet.

The model and architecture of the individual modules are described in detail in D5.1v2 Design of the Liquid Publications Integrated Platform.

The integration of the two tools is described in details in D5.2v1 Integration of plugins.

Note that since this is a prototype deliverable, this document only contains pointers to software artifacts and documentations (e.g., API, reference manual).

# OpinioNet

## Introduction

The OpinioNet reputation module (<http://project.liquidpub.org/reputation/>) provides a set of algorithms for computing the reputation of the different resources defined in the LP Platform. In all cases, reputation is computed depending on the information source.

## Source Code

The code of the OpinioNet reputation module can be found at [http://project.liquidpub.org/reputation/docs/propagation\\_demo.zip](http://project.liquidpub.org/reputation/docs/propagation_demo.zip). In the future, as the code becomes stable, it will be available on the LiquidPub svn.

## Working tools

The OpinioNet reputation module computes the reputation of researchers and research work (or SKOs). At the moment, SKOs may represent scientific contributions and dynamic collections of contributions (such as Liquid journals). In the future, the reputation of additional roles *may* be considered as well as additional SKO types, such as reviewers and reviews.

A detailed description of the algorithm is presented in Deliverable 4.1 Credit attribution for LiquidPublications.

## Videos of demos

You can find a video of how propagation works at <http://www.youtube.com/watch?v=Ujq5rekyBEA>.

## Architecture document

The architecture document of the OpinioNet reputation module is in the deliverable D5.1v2 Design of the Liquid Publications Integrated Platform.

## API's

The API specification of the reputation module is available in Google Docs at: <http://docs.google.com/Doc?docid=0AVLiEhF9ZeIFZGhoM3FyeDIfMGpqbXd0NGho&hl=en&invite=CJH7-dYB>

# ResEval

## Introduction

The Research Impact Evaluation (ResEval) tool (<http://reseval.org/>) provides a set of metrics for evaluating the impact of SKOs, individual researchers and groups.

## Source Code

The source code of the ResEval tool is available (using lp-guest and lp-password credentials) at <https://dev.liquidpub.org/svn/liquidpub/ResEval/>.

## Current status

At the moment, only metrics of individual researchers computed on the data from Google Scholar are supported by the tool, while metrics groups can be calculated and compared using a separate tool called Group Comparison (<http://project.liquidpub.org/groupcomparison/>). The metrics on SKOs (computed by OpinioNet) will be available in the future.

The list of computed metrics is available at <http://project.liquidpub.org/reseval/metrics.html> and also in D4.1 Credit attribution for LiquidPublications.

## Other documents

You can find presentations and papers about ResEval at <http://project.liquidpub.org/research-areas/research-evaluation>.

## Architecture document

ResEval has an extensible architecture, where new metrics and data sources for computing metrics can be added. The architecture document of the ResEval reputation module is in the deliverable D5.1v2 Design of the Liquid Publications Integrated Platform.

## API's

The API specification of the ResEval RESTful service is available as a Google Doc at <http://docs.google.com/Doc?docid=0AULLw3NbesTCZGM4em54YndfMTZkZ2Q5cmdmYg&hl=en>. Guidelines on how to use the API with examples are available at <https://dev.liquidpub.org/svn/liquidpub/papers/deliverables/Accessing%20ResEval%20Restful%20API.docx>