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Interim Dissemination Plan

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Contents

1	Introduction	2
1.1	History of the Document	2
1.2	Purpose and Scope of the Document	2
2	Scientific Dissemination	3
2.1	Scientific Publications	3
2.2	Events	5
2.3	Collaborations	6
2.4	Teaching	6
2.5	Software Releases	6
2.6	Advertisement	7
2.7	Showcase	7

List of Tables

Executive Summary

This deliverable summarizes the actions already taken and those in planning in order to make the results of SPEEDD available both to the scientific community and the general public.

Introduction

1.1 History of the Document

Version	Date	Author(s)	Change Description
0.1	10/12/2015	Elias Alevizos (NCSR)	Updated D2.2
0.2	5/1/2016	George Giannakopoulos (NCSR)	Content added for SciFY
0.3	7/1/2016	Elias Alevizos (NCSR)	Content adjusted - internal review
1.0	20/1/2016	Elias Alevizos (NCSR)	Finalized for submission

1.2 Purpose and Scope of the Document

The purpose of this document is to describe the major dissemination objectives, define common guidelines to be used by all partners and provide an updated set of dissemination actions and material.

Scientific Dissemination

The SPEEDD dissemination targets of the academic partners are mainly **excellence building, knowledge transfer, education** and later **research** in SPEEDD-related areas. In the following, the suggested activities are discussed.

2.1 Scientific Publications

In the course of the SPEEDD project, the academic partners will publish innovations that will result from the project. These publications will mainly be of scientific nature and will target renowned scientific publication outlets (i.e., international peer-reviewed conferences and journals). The SPEEDD publications will contribute to demonstrating the advancement of the expertise and excellence of the research group involved in the project. Until now, the SPEEDD consortium has released a total of 18 scientific papers at various highly esteemed conferences and journals¹. One paper received a **best conference paper award** and another one a **best research paper award**. In the near future, we will organize a special issue proposal in a top journal of the field. Our intention for this issue is to focus on Online Forecasting and Proactive Analytics using Big Data, inviting both theoretical contributions as well as papers describing interesting applications. By these means, we aim to facilitate a sustainable development of the research group. In addition to scientific publications, we also aim to release informal publications, including *LinkedIn* entries and the project's web dissemination channels. Also, several public deliverables will be released, including a roadmap report, which will propose ways to advance event-driven decision making and QA beyond the end of the project. Furthermore, we will release teaching material, which will be used during summer schools as well as presentations and videos on platforms such as *SlideShare*², *SlideWiki*³ and *Videolectures*⁴.

SPEEDD targets specific scientific and industrial conferences and journal, like the ones presented in the two following tables:

¹For a complete list of publications, see the project's website <http://speedd-project.eu/content/publications>

²<http://www.slideshare.net>

³<http://slidewiki.org/>

⁴<http://videolectures.net/>

Area	Conference Name
Artificial Intelligence and machine learning	Conference of the association of the advancement of artificial intelligence - AAAI
Artificial Intelligence and machine learning	European Conference on Artificial Intelligence
Artificial Intelligence and machine learning	European Conference on Knowledge Management (ECKM)
Artificial Intelligence and machine learning	European Conference on Machine Learning
Artificial Intelligence and machine learning	Intelligence International Conference on Machine Learning
Artificial Intelligence and machine learning	International Conference on Uncertainty in Artificial Intelligence
Artificial Intelligence and machine learning	International Joint Conference on Artificial Intelligence
Cognitive science and Human computer interaction	ACM Computer Human Interaction (HCI)
Cognitive science and Human computer interaction	Annual Meeting of the Cognitive Science Society
Cognitive science and Human computer interaction	Human Factors and Ergonomics Society
Cognitive science and Human computer interaction	IFIP Interact
Decision and control theory	American Control Conference (ACC)
Decision and control theory	European Control Conference (ECC)
Decision and control theory	IEEE Conference on Decision and Control (CDC)
Decision and control theory	IFAC World Congress
Decision and control theory	Mathematical Theory of Networks and Systems (MTNS)
Decision and control theory	Winter simulation conference
Event and data Management	ACM Distributed Event-based Systems (DEBS)
Event and data Management	ACM SIGMOD
Event and data Management	IEEE International Conference on Data Engineering (ICDE)
Event and data Management	Very Large Databases (VLDB)
ICT conferences - general	BLED eConference
ICT conferences - general	International Conference on Information Technology Interfaces
ICT conferences - general	Software, Knowledge, Information, Industrial Management and Applications (SKIMA)
Intelligent transportation systems International	IEEE Conference on Intelligent Transportation Systems (ITSC)

Area	Journal Name
Artificial Intelligence and machine learning	Artificial Intelligence
Artificial Intelligence and machine learning	IEEE Intelligent Systems
Artificial Intelligence and machine learning	Journal of AI Research
Artificial Intelligence and machine learning	Journal of Intelligent Information Systems
Artificial Intelligence and machine learning	Journal of Machine Learning Research
Artificial Intelligence and machine learning	Machine Learning
Cognitive science and Human computer interaction	Cognitive Science
Cognitive science and Human computer interaction	Ergonomics
Cognitive science and Human computer interaction	Human Factors
Cognitive science and Human computer interaction	IEEE Systems, Man & Cybernetics
Cognitive science and Human computer interaction	International Journal of Human-Computer Studies
Decision and control theory	Automatica
Decision and control theory	IEEE Transactions on Automatic Control
Decision and control theory	IEEE Transactions on Control Systems Technology
Decision and control theory	Industrial Management and Data Systems
Decision and control theory	Mathematical Programming
Decision and control theory	Mathematics of Operations Control
Decision and control theory	Research Decision Support Systems
Decision and control theory	Systems and Control Letters
Event and data Management	ACM Transaction on Database Systems
Event and data Management	IEEE Transaction on Knowledge and Data Engineering
Event and data Management	VLDB Journal
ICT conferences - general	European Journal of Information Systems
ICT conferences - general	Government Information Quarterly
ICT conferences - general	Journal of Computing and Information Technology
Intelligent transportation systems	IEEE Transactions on Intelligent Transportation Systems
Intelligent transportation systems	IEEE Vehicular Technology Magazine

2.2 Events

In 2014, we organized a workshop, under the title *Event Processing, Forecasting and Decision-Making in the Big Data Era*, as part of the EDBT/ICDT 2015 Joint Conference⁵. This workshop presented some of the results from the work done in the SPEEDD project and was organized with the collaboration of the FERARI and the PROASENSE⁶ projects.

In addition to organizing the SPEEDD workshop, the academic partners plan to participate in a great variety of events with presentations and invited talks. In November 2015, NCSR “D” was invited to present a talk about its event recognition methods at the *Stream Reasoning Workshop 2015*⁷, that was held in Vienna. This workshop aimed at advancing Stream Reasoning as research theme by bringing together different views and goals, such as those of Knowledge Representation & Reasoning, Semantic Web, Databases, Stream Processing and Complex Event Processing.

⁵<http://edbticdt2015.be/index.php/workshops>

⁶<http://www.proasense.eu/>

⁷<http://www.vcla.at/sr2015/>

2.3 Collaborations

During the three years of the project, the relations among the partners of the project will be strengthened and can lead to further collaborations in future projects. Also, the organization of the workshop as well as the participation to the events mentioned in the previous section, will give the opportunity to meet researchers and companies of the domain and to lay the foundations for possible future collaborations. We are also considering a possible collaboration with the *Cosmos* project⁸.

2.4 Teaching

An important aspect of disseminating expertise and knowledge gained within the project is through the curricula of students studying at the academic institutions participating in the project (ETH, the University of Birmingham and the Technion). Although these activities are not directly part of the project, they are important for disseminating best-practices and knowledge, as well as for preparing students to work with innovative relevant technologies. Theses, both at undergraduate and postgraduate level related to the project, will also be assigned to students. Also, the topics of the project will influence some of the lectures, seminars and practical work which are held at the academic partners' institutions.

Towards this direction, NCSR "D" has established a joint MSc in Data Science, in collaboration with the University of Houston. Members of the SPEEDD consortium from NCSR have proposed a course, as part of the MSc program, with the title *Complex Event Recognition on Big Data*. The course's goals are to present formal methods for Complex Event Recognition, the key event recognition languages, systems that explicitly deal with uncertainty, machine learning methods for constructing and refining event patterns, and techniques for optimization and distribution allowing for real-time complex event recognition in resource-constrained environments.

2.5 Software Releases

In addition to the software releases that constitute formal project deliverables, the SPEEDD consortium will be releasing a number of software components and/or intermediate releases as open-source to the wider public. These include the SPEEDD complex event processing/recognition engines (Proton⁹, developed by IBM Research - Haifa and RTEC¹⁰ developed by NCSR). The software releases will be announced on the website as well as at mailing lists and blogs. In addition, the source code and installation archives will be available at major open-source project repositories such as *GitHub*¹¹. Moreover, some of the evaluation datasets from the traffic management use case, produced by the microsimulator of CNRS, will also be released. Due to privacy issues, datasets from the credit card fraud use case will not be publicly released.

NCSR and SciFY¹² (SciFY is subcontracted by NCSR for dissemination purposes) have been collaborating in order to create a roadmap for the dissemination of open source software tools produced and used within SPEEDD. The shared work conducted within SPEEDD has two main objectives:

- to communicate efficiently the value of the RTEC software tool.

⁸<http://www.iot-cosmos.eu/>

⁹<https://github.com/ishkin/Proton>

¹⁰<https://github.com/aartikis/RTEC>

¹¹<http://github.com>

¹²www.scify.gr

- to facilitate the communication of the project findings to relevant social media and minimize the related overhead for multi-channel communication.

To achieve the first goal we created a focus group to discuss the workflow of the tool, and run two iterations of development for the tool websites. The websites were broken down into a landing page, a demo workflow page and a contact information page. The landing page aims to communicate the basic information and overview how one can take advantage of the tool in real-life applications. The demo workflow illustrates the system analysis steps on existing data, to better acquaint potential adopters with the use of the system. The contact information page allows direct expression of interest. The tool websites followed a unified appearance (theme) and the design is meant to provide information in an efficient, friendly manner.

To achieve the second goal, we built an automated tool that read a specific news feed (in RSS form) and posts the updates to appropriate social media accounts. For the purposes of the project, the tool supported a LinkedIn and a Twitter account. The tool uses the corresponding service APIs, thus being extensible with more tools in the future.

Overall, the combination of the websites and the automated tool forms a powerful toolset allowing the dissemination of related results.

2.6 Advertisement

The dissemination of the idea will be done through several channels. Besides the project website, the opportunities offered by other web channels, such as *LinkedIn* social media platform, will also be exploited. NCSR “D” has recently published two articles on the *RTInsights* website, an independent, expert-driven web resource that is singularly focused on helping senior business and IT professionals accelerate their business with real-time insights. The first article discussed the ethics of pre-acting as it relates to real-time decision making¹³. The second one was more technical in nature and focused on outlining the benefits and limits of various Complex Event Recognition approaches¹⁴. As per D2.9, the members of the consortium will edit a special issue on the topics of SPEEDD in a high quality journal of the field. Finally, the press material that has been and will be developed throughout the project can be distributed in conferences and other events in which members of SPEEDD will participate.

2.7 Showcase

As the results from the SPEEDD project begin to mature, we aim to provide potential users with a summary of the results achieved by the project, both with respect to tool development/usage and to scientific advances. This goal will be fulfilled by creating a showcase page at the project’s website. On this webpage, we will provide a list of the most substantial and useful for potential users publications, explaining the architecture of the system and the theory behind it, possibly accompanied by a user manual. Moreover, we will create videos, presenting the tools that were developed during SPEEDD. In these videos, we will show how to use the tools and provide links to the implementations of the tools as well as to corresponding descriptions.

¹³<http://www.rtinsights.com/the-ethics-of-pre-acting-is-it-right-to-act-before-something-happens/>

¹⁴<http://www.rtinsights.com/finding-right-recipe-complex-event-recognition/>