

| Project Acronym   | SoBigData  |  |  |  |
|-------------------|--|--|--|--|
| Project Title     | SoBigData Research Infrastructure                                      |  |  |  |
| Project Title     | Social Mining & Big Data Ecosystem                                     |  |  |  |
| Project Number    | 654024   |  |  |  |
| Deliverable Title | Periodic dissemination and impact report and plan for following year 2 |  |  |  |
| Deliverable No.   | D3.5   |  |  |  |
| Delivery Date     | October 2018   |  |  |  |
| Authors           | Beatrice Rapisarda (CNR), Vittorio Romano (CNR)                        |  |  |  |



# **DOCUMENT INFORMATION**

| PROJECT                              |   |  |  |  |
|--------------------------------------|---|--|--|--|
| Project Acronym                      | SoBigData   |  |  |  |
| Project Title                        | SoBigData Research Infrastructure<br>Social Mining & Big Data Ecosystem |  |  |  |
| Project Start                        | 1st September 2015  |  |  |  |
| Project Duration                     | 48 months   |  |  |  |
| Funding                              | H2020-INFRAIA-2014-2015   |  |  |  |
| Grant Agreement No.                  | 654024  |  |  |  |
|                                      | DOCUMENT  |  |  |  |
| Deliverable No.                      | D3.5  |  |  |  |
| Deliverable Title                    | Periodic dissemination and impact report and plan for following year 2  |  |  |  |
| Contractual Delivery Date            | 30 September 2018   |  |  |  |
| Actual Delivery Date                 | 05 October 2018   |  |  |  |
| Author(s)                            | Beatrice Rapisarda (CNR), Vittorio Romano (CNR)                         |  |  |  |
| Editor(s)                            | Beatrice Rapisarda (CNR)  |  |  |  |
| Reviewer(s)                          | Kalina Bontcheva (USFD), Roberto Trasarti (CNR)                         |  |  |  |
| Contributor(s)                       | Kalina Bontcheva (USFD)   |  |  |  |
| Work Package No.                     | WP3   |  |  |  |
| Work Package Title                   | NA2_Dissemination, Impact, and Sustainability                           |  |  |  |
| Work Package Leader                  | USFD  |  |  |  |
| Work Package Participants            | CNR, USFD, UNIPI, FRH, IMT, LUH, KCL, SNS, LUH, AALTO, ETHZ, TUDelft    |  |  |  |
| Dissemination                        | PU  |  |  |  |
| Nature                               | Report  |  |  |  |
| Version / Revision                   | V1.2  |  |  |  |
| Draft / Final                        | Final   |  |  |  |
| Total No. Pages<br>(including cover) | 66  |  |  |  |
| Keywords                             | Dissemination, scientific publications, impact activities               |  |  |  |

### **DISCLAIMER**

SoBigData (654024) is a Research and Innovation Action (RIA) funded by the European Commission under the Horizon 2020 research and innovation programme.

SoBigData proposes to create the Social Mining & Big Data Ecosystem: a research infrastructure (RI) providing an integrated ecosystem for ethic-sensitive scientific discoveries and advanced applications of social data mining on the various dimensions of social life, as recorded by "big data". Building on several established national infrastructures, SoBigData will open up new research avenues in multiple research fields, including mathematics, ICT, and human, social and economic sciences, by enabling easy comparison, re-use and integration of state-of-the-art big social data, methods, and services, into new research.

This document contains information on SoBigData core activities, findings and outcomes and it may also contain contributions from distinguished experts who contribute as SoBigData Board members. Any reference to content in this document should clearly indicate the authors, source, organisation and publication date.

The document has been produced with the funding of the European Commission. The content of this publication is the sole responsibility of the SoBigData Consortium and its experts, and it cannot be considered to reflect the views of the European Commission. The authors of this document have taken any available measure in order for its content to be accurate, consistent and lawful. However, neither the project consortium as a whole nor the individual partners that implicitly or explicitly participated the creation and publication of this document hold any sort of responsibility that might occur as a result of using its content.

The European Union (EU) was established in accordance with the Treaty on the European Union (Maastricht). There are currently 27 member states of the European Union. It is based on the European Communities and the member states' cooperation in the fields of Common Foreign and Security Policy and Justice and Home Affairs. The five main institutions of the European Union are the European Parliament, the Council of Ministers, the European Commission, the Court of Justice, and the Court of Auditors (http://europa.eu.int/).

Copyright © The SoBigData Consortium 2015. See http://project.sobigdata.eu/ for details on the copyright holders.

For more information on the project, its partners and contributors please see http://project.sobigdata.eu/. You are permitted to copy and distribute verbatim copies of this document containing this copyright notice, but modifying this document is not allowed. You are permitted to copy this document in whole or in part into other documents if you attach the following reference to the copied elements: "Copyright © The SoBigData Consortium 2015."

The information contained in this document represents the views of the SoBigData Consortium as of the date they are published. The SoBigData Consortium does not guarantee that any information contained herein is error-free, or up to date. THE SoBigData CONSORTIUM MAKES NO WARRANTIES, EXPRESS, IMPLIED, OR STATUTORY, BY PUBLISHING THIS DOCUMENT.

## **GLOSSARY**

| ABBREVIATION | DEFINITION                   |
|--------------|------------------------------|
| VRE          | Virtual Research Environment |
| SME          | Small and Medium Enterprise  |
| NDA          | Non Disclosure Agreement     |

## **TABLE OF CONTENT**

| DOCUMEN    | IT INFORMATION   | 2  |
|------------|--|----|
| DISCLAIME  | R  | 3  |
| GLOSSARY   |  | 4  |
| TABLE OF   | CONTENT  | 5  |
| DELIVERA   | BLE SUMMARY  | 6  |
| EXECUTIVE  | SUMMARY  | 7  |
| 1 Releva   | nce to SoBigData                                       | 8  |
| 1.1 Pur    | pose of this document                                  | 8  |
| 1.2 Rel    | evance to project objectives                           | 9  |
| 1.3 Rel    | ation to other workpackages                            | 9  |
| 2 Dissem   | ination plan   | 10 |
|            | semination plan specification                          |    |
|            | semination communication channels (social, press, web) |    |
| 2.2.1      | Newsletter   | 11 |
| 2.2.2      | Project web site's restyling                           | 11 |
| 2.2.3      | SoBigData Gateway restyling                            | 12 |
| 2.3 Dis    | semination material                                    | 13 |
| 2.4 Dis    | semination activities and indicators                   | 13 |
| 2.4.1      | Presence in conferences                                | 13 |
| 2.4.2      | Planning SoBigData events for third period (Year 4)    | 15 |
| 2.4.3      | Activities carried out                                 | 15 |
| 2.4.4      | Press coverage   | 48 |
| 2.4.5      | Tuscan Big Data Challenge                              | 52 |
| 2.4.6      | Master in Big Data Analytics & Social Mining           |    |
| 2.4.7      | Data Science Ph.D.                                     | 52 |
| 3 Dissem   | ination impact   | 54 |
|            | ject dissemination indicators                          | 54 |
| 3.1.1      | Dissemination indicators: results                      | 55 |
| 3.2 Soc    | ial channels indicators                                | 55 |
| 3.2.1      | Social channels: results                               | 56 |
| 4 Conclu   | sions  | 58 |
| Appendix A | A. Flyer, Leaflet Poster and Newsletter                | 59 |
| Appendix   | B. Tuscan Big Data Challenge                           | 64 |

### **DELIVERABLE SUMMARY**

This deliverable reports the description of dissemination, impact activities undertaken and scientific papers published. Furthermore, it shows all the dissemination material. In particular:

- Section 2: reports the dissemination activities set-up inside SoBigData project.
- Section 3: shows the results obtained in terms of number of publications, number of users and so on.
- Finally, the appendixes provide to the reader a useful overview about the material and the dissemination experience inside SoBigData Research Infrastructure.

## **EXECUTIVE SUMMARY**

This second periodic report includes the description of dissemination and impact activities undertaken and scientific papers published, as well as the planning for the next period. Furthermore, It describes the efforts to be made to reach as wide an audience as possible, and the multiple strategies employed by the consortium. This deliverable covers a time period starting from March 2017 (M19) to August 2018 (M36).

#### 1 RELEVANCE TO SOBIGDATA

One of the aims of the SoBigData project is to ensure the widest possible dissemination and use of the project results, as well as establishing collaborations with other relevant projects and initiatives and establishing and widening the SoBigData community. This makes dissemination and impact activities of vital importance to overall project success.

#### 1.1 PURPOSE OF THIS DOCUMENT

The purpose of this document is to provide the consortium with an overview of the dissemination and impact plan up to M36. The objectives can be summarized as follows:

- Communication of project results to the general public, scientific communities, and potential adopters through various dissemination channels.
- Dissemination of the project results to the partners' research and business associates, clients and public through media and existing and future contacts.
- Identification of user communities for potential academic and commercial impact.
- Establishment of the appropriate metrics and indicators in order to assess the success of the dissemination and impact of the project results.

This deliverable contains the dissemination plan, the dissemination and communication channels, the communication material, the dissemination activities and indicators and the impact planning.

These comprise the restyling of the website for promoting and communicating the project and relevant activities and achievements, the restyling of the graphic layout of the Gateway, the main activities, among which the Tuscan Big Data Challenge, the Master in Big Data Analytics & Social Mining and the Data Science Ph.D.

The document is categorised into four different sections:

- Section 1 gives a brief introduction, outlines the major purpose of the document and explains the relevance to SoBigData.
- Section 2 of the document addresses the dissemination plan of the SoBigData project. It gives an
  overview of dissemination details, the dissemination channels and the dissemination materials and
  provides insight into completed and future dissemination activities. The last part of section 2
  addresses project indicators, which are used to measure the progress of the dissemination
  activities.
- Section 3 outlines the impact plan.
- Section 4 concludes with consolidated findings so far.
- Finally, Appendix A contains images of dissemination materials (flyer, leaflet, newsletter);

#### 1.2 RELEVANCE TO PROJECT OBJECTIVES

Dissemination of the project results and impact generation are key activities to reach the project objectives. The focus of SoBigData is on development of a research infrastructure (RI) providing an integrated ecosystem for ethic-sensitive scientific discoveries and advanced applications of social data mining on the various dimensions of social life, as recorded by "big data". The research methods are of especial relevance to academia, but also open interesting impact opportunities aimed at diverse stakeholders. Therefore, a careful planning of the actions to be taken both for dissemination and impact generation is of the highest importance.

#### 1.3 RELATION TO OTHER WORKPACKAGES

Dissemination and impact generation activities are horizontal activities that last for the entire duration of the project. Therefore, there is a clear interaction with all work packages.

It is worth mentioning that the relation of dissemination and impact generation with other work packages is planned as a two-way interaction. On the one hand, all work packages provide feedback, both for dissemination (partners from the networking and joint research activities work packages will provide ideas, presentations, papers, news, etc.) and impact on stakeholders (potential results of each JRA work package, licensing approaches, etc.).

On the other hand, WP3 aims to provide feedback to the rest of the work packages in order to influence their work at multiple levels: watching what is going on in the scientific and commercial spheres, to drive work in the right and timely direction, suggesting changes on the licensing of different components to ensure the complementarity of the results, offering ideas on how small enhancements could be better perceived by the stakeholders, etc.

#### 2 DISSEMINATION PLAN

#### 2.1 DISSEMINATION PLAN SPECIFICATION

SoBigData has adopted a multi-channel, multi-target dissemination approach. Since SoBigData is a research infrastructure, the main dissemination targets are social data scientists, which currently span multiple research communities (data mining and pattern discovery, text and social media mining, mobility analytics, social network analysis, visual analytics, etc.). Furthermore, SoBigData is also complement these channels with innovation actions and events aimed at companies in our target verticals (especially SMEs), government organisations, and policy makers. Since the project will produce a new research infrastructure, as well as new open-source tools and services, training and cross-disciplinary community building is also a target.

The SoBigData website has been redesigned in collaboration with WP7 and WP10 and it is constantly updated. For further details see Section 2.2.2. Furthermore, SoBigData actively promotes the research infrastructure and its services to the large big data research community through his social media channels.

In this context, we recall that within the limitations imposed by appropriate protection of intellectual property, all scientific results of this project will be made available to the research community. In addition, a number of big social data analytics tools and resources from SoBigData will be made available as open-source to facilitate take-up.

#### 2.2 DISSEMINATION COMMUNICATION CHANNELS (SOCIAL, PRESS, WEB)

The project has a strong social media presence based on:

- a Twitter account: Twitter.com/SoBigData
- a Facebook page: www.facebook.com/SoBiqData
- a LinkedIn profile: https://www.linkedin.com/groups/5093052/profile.
- A YouTube channel: https://www.youtube.com/channel/UCRMtvc9ovcISG4EymRuczhQ

All the partners ensure that the project has active social media engagement.

The LinkedIn profile is used mainly to promote calls, job opportunities and other types of collaborations within the project.

The Blog page, located on the web site, is constantly updated with new articles on the most relevant news of the project, such as events, talks, new publications, software releases, press releases. The same news are published in a suitable way on the social media channels. The blog page as well as the social media channels are also used to actively promote new TNA calls and local calls like the Italian Tuscan Big Data Challenge.

The Event page, located on the web site, is constantly updated with upcoming events relevant to the project. In particular, there are events organized by SoBigData, like, for instance, summers school, datathons, etc; events were SoBigData participate with a talk, a tutorial, etc.; finally, events of interest to the SoBigData community, thus promoted in the web site, even if they do not see a direct involvement of the SoBigData scientists.

SoBigData is promoted also through strong press coverage with articles and interviews talking about our research infrastructure in online newspaper as well as video and radio. The press coverage helps also to promote events organized by or related to the project. See Table 5 for a detailed list of press coverage.

#### 2.2.1 NEWSLETTER

The project has now designed and published a traditional newsletter, to reach the vast community of SoBigData.

The newsletter is designed and built with a desktop publishing software and published on the social media channels and website of the project as a pdf format. The newsletter is also disseminated through specific mailing lists. A page on the project website has been dedicated to subscribe/unsubscribe to the newsletter, to make registration management faster and more effective (see <a href="http://www.sobigdata.eu/newsletter">http://www.sobigdata.eu/newsletter</a>).

The WP created an Editorial Board composed by Fosca Giannotti, Kalina Bontcheva, Roberto Trasarti, Beatrice Rapisarda and an Editorial Secretariat composed by Beatrice Rapisarda and Vittorio Romano to manage the contents and the publication of the newsletter. The newsletter is published every 6 months and contains a summary of the latest news about the project, as well as the latest and most interesting publications of project partners.

The SoBigData Newsletter mailing list has been subscribed by 53 people/institutions and the first issue of the newsletter has been downloaded 81 times. Printed versions of the first issue have been distributed in several events.

For details see APPENDIX A FLYER, LEAFLET & NEWSLETTER.

#### 2.2.2 PROJECT WEB SITE'S RESTYLING

The official SoBigData web site (http://www.sobigdata.eu) has been totally redesigned since the last release presented in deliverable D3.4 — "Periodic dissemination and impact report and plan for following year 2", after an internal evaluation report that highlighted several usability issues and led to substantial improvements in the user interface of the SoBigData website as well as in the SoBigData gateway. Figure 1 shows the new home page of the site.



Figure 1. www.sobigdata.eu home page.

With respect to the old version, the user experience in the project portal has been improved and the layout is now very clear and effective. The new version of the homepage shows an overview of the website's content, thus the user can immediately see the topic of the project and what he can find on the website as well as in the research infrastructure. It is now possible to choose between three paths: explore, discover, participate. Going through the first path, the user explores the Exploratories. Every Exploratory has a full description and a link to go to the resources in the Catalogue. It is now clear how to arrive to the e-infra and the Catalogue, by clicking on the path "Discover". A new section, the third path "Participate", allows users to become Associate Members of the SoBigData Research Infrastructure.

The page "associate members" is designed to enlarge the project community giving a great opportunity to public governments, companies, international organizations, academic institutions, and the official statistics and data communities. The associate members of SoBigData will be involved more closely and officially to the SoBigData activities.

Further content on the home page is the "blog and news" section, with an overview of latest news and the "events and calls" section with an overview of the latest events and calls.

The bottom part of the page gives the user an overview of the SoBigData consortium, with a map of Europe with the distribution of the partners and the logo of each partner.

The main menu has been also redesigned and simplified in order to be more effective. More details about the review process and the innovations is reported in the deliverable D7.2

#### 2.2.3 SOBIGDATA GATEWAY RESTYLING

As well as the Website, also the SoBigData gateway has been totally redesigned in order to improve the user experience. The "news feed" section, that before was the first thing encountered by the user, is now been moved to a secondary page. The organization of the page allows now to have an immediate vision of the research environment and its contents. Now methods and datasets and in general the content of the e-

infrastructure are accessible immediately, by visualizing the complete list or by searching for a specific keyword. A filter has been added to shows which resources are available online or on-site. Indications on how to integrate a method or a dataset have been added. Furthermore, a common project's terminology has been adopted in order to enable more uniformity among the project's requirements and technologies. Figure 2 shows the new gateway home page (see D.7.2 for more details).

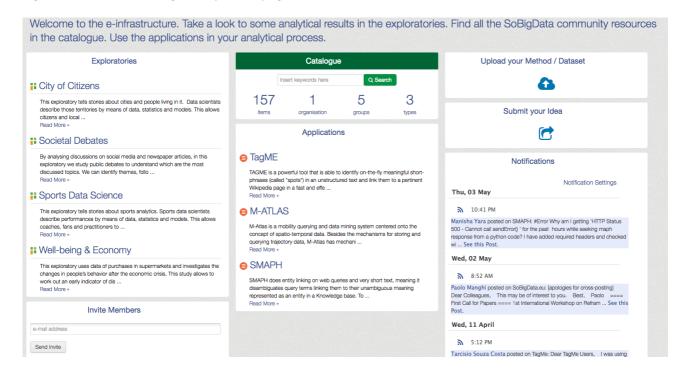


Figure 2. Gateway home page.

#### 2.3 DISSEMINATION MATERIAL

A restyling of the corporate material has been done in the last year, in order to have the printable material always up to date and at the same time to make it more interesting with a touch of novelty.

The project flyer has been restyled and updated as well as the leaflet and the poster.

Furthermore a promotional video of the project has been designed and realized by Beatrice Rapisarda and Viola Bachini who interviewed some of the most representative people of the project. The video is available in the Youtube channel at the address https://youtu.be/Z1wbERvlQa4

The new flyer, leaflet and poster are available in Appendix A. FLYER, LEAFLET POSTER & NEWSLETTER

#### 2.4 DISSEMINATION ACTIVITIES AND INDICATORS

#### 2.4.1 PRESENCE IN CONFERENCES

SoBigData is actively planning dissemination activities such as presence in conferences, workshops, and contacts with other projects, contacts with potential customers, etc. To that extent partners regularly communicate the dissemination opportunities and report on the different activities carried out using the tables (available for the project partners in Google Drive) reproduced below including the next upcoming

dissemination opportunities related to the project. Upcoming conferences/events related to the SoBigData project.

| Date                | Event   | Place                       | Description  |
|---------------------|---|-----------------------------|--|
| 10-<br>14/09/2018   | ECML - PKDD 2018  | Dublin,<br>Ireland          | European Conference on KDD and Machine learning. It is now in its 20th edition and it is aimed at merging the two communities. In this edition is organized the 2nd International workshop on Personal Analytics and Privacy (Riccardo Guidotti). Are presented two papers at PAP (Michela Natilli and Roberto Pellungrini). Anna Monreale is invited speaker at PAP. Riccardo Guidotti is presenting a paper at the ADS.  |
| 23-<br>28/09/2018   | CCS18   | Thessaloniki,<br>Greece     | This Conference is in line with the series of meetings previously held in Cancun, Mexico(2017), Amsterdam, Netherlands(2016), Tempe, Arizona, USA(2015), Lucca, Italy(2014), and more meetings in previous years. All these past meetings have delivered the highest quality of presentations, the most up-to-date findings, have been attended by the pioneers in the field of Complex Systems, as well by young aspiring students, numbering an attendance of close to one thousand. |
| 25-<br>28/09/2018   | Social Informatics<br>2018  | St<br>Petersburg,<br>Russia | Conference on the interplay between socially-centric platforms and social phenomena.   |
| 21-<br>26/10/2018   | IEEE VIS 2018   | Berlin, DE                  | IEEE VIS   |
| 01-<br>04/10/2018   | IEEE DSAA 2018 The 5th IEEE International Conference on Data Science and Advanced Analytics | Turin                       | (DSAA) started in 2014 aiming to be a flagship in the data science and analytics field. Fosca Giannotti is the general chair. It has been proposed and accepted a special session on Societal Debate   |
| 31/10-<br>4/11/2018 | EMNLP 2018  | Brussels                    | Conference on Empirical Methods in Natural Language Processing   |
| 17-<br>20/11/2018   | IEEE ICDM 2018  | Singapore                   | The IEEE International Conference on Data Mining series (ICDM) has established itself as the world's premier research conference in data mining.   |
| 11-<br>13/12/2018   | Complex<br>Networks 2018  | Cambridge,<br>UK            | The International Conference on Complex Networks and their Applications aims at bringing together researchers from different scientific communities working on areas related to complex networks.  |
| 2019                | RumourEval 2019   | TBA                         | As part of Semeval 2019, Sheffield, in conjunction with other partners, are organizing a shared task in rumour verification.   |
| 03-<br>07/06/2019   | EuroVis 2019  | Porto,<br>Portugal          | EuroVis is the annual Visualization Conference organized by the Eurographics Working Group on Data Visualization and supported by the IEEE Visualization and Graphics Technical Committee (IEEE VGTC)  |
| 11-<br>14/06/2019   | ICWSM 2019  | Munich,<br>Germany          | THE 13TH INTERNATIONAL AAAI CONFERENCE ON WEB AND SOCIAL MEDIA   |
| 07/2019             | Lipari Summer<br>School 2019  | Sicily, Italy               | This summer school will provide opportunities to collect experience with modern data analysis, in particular, Big Data analytics. This includes subjects to mine data on the Internet of Things. Our main and special guest speakers, who are recognized authorities in this field, will address such a scope focusing on algorithms, computational models and practical results.  |

| 03-<br>07/08/2019 | SIGKDD 2019      | Anchorage,<br>Alaska | 25TH ACM SIGKDD CONFERENCE ON KNOWLEDGE DISCOVERY AND DATA MINING  |
|-------------------|------------------|----------------------|--|
| 27-<br>30/08/2019 | ASONAM           | Vancouver,<br>Canada | The 2019 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining                      |
| 16-<br>20/09/2019 | ECML - PKDD 2019 | Würzburg,<br>Germany | The European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases        |
| 01-<br>04/10/2019 | DSAA 2018        | Turin, Italy         | 5th IEEE International Conference on Data Science and Advanced Analytics. Riccardo Guidotti is presenting a paper. |

Table 1. Upcoming conferences/events related to the SoBigData project.

#### 2.4.2 PLANNING SOBIGDATA EVENTS FOR THIRD PERIOD (YEAR 4)

For the third period the SoBigData consortium has already planned a set of events. These activities are related to dissemination events just like the ones proposed into the first and second periods. At the moment, the consortium has planned the following events for the third period in line on what expected from the ones originally scheduled in the DoW:

- Soccer data challenge October 2018
- International Workshop on Rumours and Deception in Social Media (RDSM 2018) October 2018
- RumourEval (online competition) Opens in 2019
- Master SoBigData 2019 January 2019
- Ethical Social Mining and Explainability in AI (ESME Workshop) May/June 2019
- Final conference June 2019
- GATE Summer school June 2019
- Summer School on Fake News July 2019
- High-school training event in Sheffield Jul/Aug 2019

#### 2.4.3 ACTIVITIES CARRIED OUT

The following tables include all academic papers and/or events with a SoBigData related presence and a list of events organized by SoBigData.

#### **Publications:**

| Date | Event  | Туре            | Title  | Authors  |  |  |
|------|--|-----------------|--|--|--|--|
| 2017 |  |                 |  |  |  |  |
| 2017 | JMIR Research Protocols                                | Journal Article | Data Collection for Mental<br>Health Studies Through Digital<br>Platforms: Requirements and<br>Design of a Prototype | Aledavood, T.,<br>Hoyos, A. M. T.,<br>Alakörkkö, T., Kaski,<br>K., Saramäki, J.,<br>Isometsä, E., &<br>Darst, R. K |  |  |
| 2017 | Accepted in Journal of Informetric, available in arxiv | Journal Article | Stochastic Block Model Reveals<br>the Map of Citation Patterns and<br>Their Evolution in Time                        | Hric, D., Kaski, K., &<br>Kivelä, M  |  |  |

| 2017 | 11TH INTERNATIONAL AAAI<br>CONFERENCE ON WEB AND<br>SOCIAL MEDIA                             | Conference paper | A motif-based approach for identifying controversy  | Coletto, M.,<br>Garimella, K.,<br>Gionis, A., and<br>Lucchese, C.  |
|------|--|------------------|---|--|
| 2017 | GOODTECHS 2017   | Conference paper | Privacy Preserving<br>Multidimensional Profiling  | Francesca Pratesi<br>12, Anna Monreale<br>2, Fosca Giannotti 1,<br>and Dino Pedreschi<br>2; 1 ISTI-CNR; 2<br>University of Pisa            |
| 2017 | ACM Intelligent Systems and<br>Technology, Special Issue on<br>Urban Intelligence (TIST 9:3) | Journal article  | A data mining approach to assess privacy risk in human mobility data  | Roberto Pellungrini<br>1, Luca Pappalardo<br>1, Francesca Pratesi<br>1 2, and Anna<br>Monreale 1 2; 1<br>University of Pisa; 2<br>ISTI-CNR |
| 2017 | Journal of Geovisualization and<br>Spatial Analysis  | Journal article  | An Interactive Approach for Exploration of Flows through Direction-Based Filtering  | Katerina Vrotsou,<br>Georg Fuchs,<br>Natalia Andrienko,<br>and Gennady<br>Andrienko  |
| 2017 | International Workshop on<br>Complex Networks and their<br>Applications 2017                 | Conference       | Modeling Peer and External Influence in Online Social Networks: Case of 2013 Referendum in Croatia                            | M Piškorec, N<br>Antulov-Fantulin, I<br>Miholić, T Šmuc, M<br>Šikić  |
| 2017 | Online Social Networks and<br>Media  | Journal article  | Online Social Networks and information diffusion: The role of ego networks  | Valerio Arnaboldi,<br>Marco Conti,<br>Andrea Passarella,<br>Robin I. M. Dunbar   |
| 2017 | Journal of Computer-Mediated<br>Communication  | Journal article  | Structure of Ego-Alter<br>Relationships of Politicians in<br>Twitter  | V Arnaboldi, A<br>Passarella, M Conti,<br>R Dunbar   |
| 2017 | Pervasive and Mobile<br>Computing  | Journal article  | A communication efficient distributed learning framework for smart environments   | Lorenzo Valerio,<br>Andrea Passarella,<br>Marco Conti  |
| 2017 | WoWMoM 2017  | Conference paper | Optimal trade-off between accuracy and network cost of distributed learning in Mobile Edge Computing: An analytical approach. | L. Valerio, A.<br>Passarella and M.<br>Conti.  |
| 2017 | PAP@ECML PKDD 2017   | Workshop paper   | Assessing privacy risk in retail data.  | Roberto Pellungrini,<br>Francesca Pratesi,<br>and Luca<br>Pappalardo.  |
| 2017 | TELERISE @SAFECOMP 2017  | Workshop paper   | Fast estimation of privacy risk in human mobility data.   | Roberto Pellungrini,<br>Luca Pappalardo,<br>Francesca Pratesi,<br>and Anna Monreale.   |
| 2017 | International Conference on Social Informatics   | Conference paper | Stance Classification in Out-of-<br>Domain Rumours: A Case Study  | Ahmet Aker, Arkaitz<br>Zubiaga, Kalina   |

|      |  |                            | Around Mental Health Disorders   | Bontcheva, Anna<br>Kolliakou, Rob<br>Procter, Maria<br>Liakata  |
|------|--|----------------------------|--|---|
| 2017 | Web Semantics: Science,<br>Services and Agents on the<br>World Wide Web                                | Journal article            | A framework for real-time semantic social media analysis   | Diana Maynard, Ian<br>Roberts, Mark A.<br>Greenwood,<br>Dominic Rout,<br>Kalina Bontcheva                     |
| 2016 | Physics of life reviews  | Journal<br>article/comment | Cities' influence on spatial epidemics: Comment on" Pattern transitions in spatial epidemics: Mechanisms and emergent properties" by Gui-Quan Sun et al. | Boris Podobnik,<br>Tomislav Lipic, Iva<br>Bojic, Nino Antulov-<br>Fantulin                                    |
| 2017 | International ACM Web Science<br>Conference (WebScience)   | Conference article         | Factors in recommending contrarian content on social media   | Kiran Garimella,<br>Gianmarco De<br>Francisci Morales,<br>Aristides Gionis,<br>Michael<br>Mathioudakis        |
| 2017 | International ACM Web Science<br>Conference (WebScience)   | Conference article         | The effect of collective attention on controversial debates on social media  | Kiran Garimella,<br>Gianmarco De<br>Francisci Morales,<br>Aristides Gionis,<br>Michael<br>Mathioudakis        |
| 2017 | International ACM Web Science<br>Conference (WebScience)   | Conference article         | Where could we go?<br>Recommendations for groups in<br>location-based social networks  | Frederick Ayala-<br>Gómez, Bálint<br>Daróczy, Michael<br>Mathioudakis,<br>András Benczúr,<br>Aristides Gionis |
| 2017 | ACM Transactions on<br>Knowledge Discovery from Data<br>(TKDD)   | Journal article            | Finding dynamic dense subgraphs  | Polina Rozenshtein,<br>Nikolaj Tatti,<br>Aristides Gionis   |
| 2017 | Data Mining and Knowledge<br>Discovery (DMKD)  | Journal article            | Lagrangian relaxations for multiple network alignment  | Eric Malmi, Sanjay<br>Chawla, Aristides<br>Gionis   |
| 2017 | Data Mining and Knowledge<br>Discovery (DMKD)  | Journal article            | Discovering recurring activity in temporal networks  | Orestis Kostakis,<br>Nikolaj Tatti,<br>Aristides Gionis   |
| 2017 | IEEE/ACM International<br>Conference on Advances in<br>Social Networks Analysis and<br>Mining (ASONAM) | Conference article         | Finding topical experts in Twitter via query-dependent personalized PageRank   | Preethi Lahoti,<br>Gianmarco De<br>Francisci Morales,<br>Aristides Gionis                                     |
| 2017 | ACM Conference on Knowledge<br>Discovery and Data Mining<br>(KDD)                                      | Conference article         | Inferring the strength of social ties: a community-driven approach   | Polina Rozenshtein,<br>Nikolaj Tatti,<br>Aristides Gionis   |
| 2017 | European Conference on Machine Learning and  | Conference article         | The network-untangling problem: From interactions to   | Polina Rozenshtein,<br>Nikolaj Tatti,   |

|      | Principles and Practice of<br>Knowledge Discovery (ECML<br>PKDD)  |                    | activity timelines   | Aristides Gionis  |
|------|---|--------------------|--|---|
| 2017 | ACM International Conference on Information and Knowledge Management (CIKM)   | Conference article | Fully dynamic algorithm for top-k densest subgraphs                                | Anis Nasir, Aristides<br>Gionis, Gianmarco<br>De Francisci<br>Morales, Sarunas<br>Girdzijauskas |
| 2017 | ACM International Conference on Information and Knowledge Management (CIKM)   | Conference article | Active network alignment: A matching-based approach                                | Eric Malmi, Aristides<br>Gionis, Evimaria<br>Terzi  |
| 2017 | 31st Annual Conference on<br>Neural Information Processing<br>Systems (NIPS)  | Conference article | Balancing information exposure in social networks                                  | Kiran Garimella,<br>Aristides Gionis,<br>Nikos Parotsidis,<br>Nikolaj Tatti                     |
| 2017 | Cornell University  | Journal article    | Human Perception of<br>Performance   | L. Pappalardo, P.<br>Cintia, D. Pedreschi,<br>F. Giannotti, AL.<br>Barabasi                     |
| 2017 | Advances in Complex Systems   | Journal article    | Quantifying the relation between performance and success in soccer                 | L. Pappalardo, P.<br>Cintia   |
| 2017 | Proceedings of the Machine<br>Learning and Data Mining for<br>Sports Analytics workshop<br>(MLSA'17) ECML/PKDD 2017,<br>Skopje, Macedonia | Workshop paper     | Who is going to get hurt? Predicting injuries in professional soccer               | A. Rossi, L. Pappalardo, P. Cintia, J. Fernandez, M. F. Iaia, D. Medina                         |
| 2017 | Pervasive and Mobile<br>Computing   | Journal Article    | The Internet of People (IoP): A new wave in pervasive mobile computing             | Marco Conti,<br>Andrea Passarella,<br>Sajal K. Das  |
| 2017 | First International Workshop,<br>PAP 2017, Series Volume<br>10708, 2017, Springer.  | Conference paper   | Personal Analytics and Privacy.<br>An Individual and Collective<br>Perspective     | R. Guidotti, A.<br>Monreale, D.<br>Pedreschi, S.<br>Abiteboul                                   |
| 2017 | Proceedings of the IEEE<br>International Conference on<br>Data Mining (ICDM)  | Conference paper   | Market Basket Prediction using User-Centric Temporal Annotated Recurring Sequences | R. Guidotti, G.<br>Rossetti, L.<br>Pappalardo, D.<br>Pedreschi, F.<br>Giannotti                 |
| 2017 | GOODTECHS 2017  | Conference paper   | On the Equivalence Between Community Discovery and Clustering                      | R. Guidotti, M.<br>Coscia   |
| 2017 | GOODTECHS 2017  | Conference paper   | Recognizing Residents and<br>Tourists with Retail Data Using<br>Shopping Profiles  | R. Guidotti, L.<br>Gabrielli  |
| 2017 | GOODTECHS 2018  | Conference paper   | The Fractal Dimension of Music:<br>Geography, Popularity and<br>Sentiment Analysis | L. Pollacci, R.<br>Guidotti, G.<br>Rossetti, D.<br>Pedreschi, F.<br>Giannotti                   |
| 2017 | Proceedings of 2017 IEEE  | Conference paper   | There's A Path For Everyone: A   | R. Guidotti, R.   |

|      | International Conference on<br>Data Science and Advanced<br>Analytics (DSAA)                       |                           | Data-Driven Personal Model<br>Reproducing Mobility Agendas  | Trasarti, M. Nanni,<br>D. Pedreschi, F.<br>Giannotti  |
|------|--|---------------------------|---|---|
| 2017 | Proceedings of the 23rd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining | Conference paper          | Clustering Individual<br>Transactional Data for Masses of<br>Users  | R. Guidotti, A.<br>Monreale, M.<br>Nanni, D. Pedreschi,<br>F. Giannotti   |
| 2017 | Eleventh International AAAI<br>Conference on Web and Social<br>Media                               | Workshop paper            | News Media Coverage of<br>Refugees in 2016: A GDELT Case<br>Study   | E. Boudemagh, I.<br>Moise   |
| 2017 | IEEE Computer Society Signature Conference on Computers, Software and Applications (COMPSAC)       | Workshop paper            | Early Signals of Trending Rumor<br>Event in Streaming Social Media  | S. Wang, I. Moise,<br>D. Helbing and T.<br>Terano   |
| 2017 | 31st IEEE International<br>Conference on Advanced<br>Information Networking and<br>Application     | Conference article        | Sensing and Mining Urban<br>Qualities in Smart Cities   | D. Griego, V. Buff, E.<br>Hayoz, I. Moise, E.<br>Pournaras  |
| 2017 | Complex networks 2017  | Conference paper          | Modeling Peer and External<br>Influence in Online Social<br>Networks: Case of 2013<br>Referendum in Croatia | Piškorec, M.,<br>Antulov-Fantulin,<br>N., Miholić, I., Šikić,<br>M.   |
| 2017 | Springer   | Book chapter              | The principle of purpose limitation and big data  | Nikolaus Forgó,<br>Stefanie Hänold,<br>Benjamin Schütze   |
| 2017 | Recsys 2017  | Conference paper (poster) | Recommender Systems for<br>Banking and Financial Services   | Andrea Gigli and<br>Fabrizio Lillo and<br>Daniele Regoli  |
| 2017 | https://papers.ssrn.com/sol3/p<br>apers.cfm?abstract_id=307501<br>9                                | Journal Article           | Corporate payments networks and credit risk rating  | Elisa Letizia and<br>Fabrizio Lillo   |
| 2017 | PhD thesis. Department of<br>Computer Science, University of<br>Pisa                               | PHD Thesis                | Segregation aware data mining   | A. Baroni   |
| 2017 | International Workshop on<br>Machine Learning,<br>Optimization, and Big Data,<br>Springer          | Conference paper          | Data-driven job dispatching in<br>HPC systems   | Cristian Galleguillos,<br>Alina Sîrbu, Zeynep<br>Kiziltan, Ozalp<br>Babaoglu, Andrea<br>Borghesi, and<br>Thomas Bridi |
| 2017 | ACM CIKM   | Conference Paper          | Two-stage framework for computing entity relatedness in Wikipedia   | Marco Ponza, Paolo<br>Ferragina, Soumen<br>Chakrabharti   |
| 2017 | NLDB   | Conference Paper          | 22nd International Conference on Natural Language & Information Systems                                     | Marco Ponza, Paolo<br>Ferragina,<br>Francesco Piccinno  |
| 2017 | Il Mulino  | Book                      | Il Pensiero Computazionale: dagli<br>Algoritmi al Coding  | Paolo Ferragina,<br>Fabrizio Luccio   |
| 2017 | Springer   | Book                      | Personal Analytics and Privacy.<br>An Individual and Collective<br>Perspective                              | Riccardo Guidotti,<br>Anna<br>Monreale,Dino   |

|      |  |                            |  | Pedreschi, Serge<br>Abiteboul  |
|------|--|----------------------------|--|--|
| 2017 | IEEE International Conference<br>on DSAA, 2017, Tokyo, Japan                                       | Conference paper           | NDlib: Studying Network<br>Diffusion Dynamics  | G. Rossetti, L. Milli,<br>S. Rinzivillo, A.<br>Sirbu, D. Pedreschi,<br>F. Giannotti  |
| 2017 | Conference of the Italian<br>Association for Artificial<br>Intelligence                            | Conference paper           | Sentiment Spreading: An<br>Epidemic Model for Lexicon-<br>Based Sentiment Analysis on<br>Twitter     | Laura Pollacci, Alina<br>Sîrbu, Fosca<br>Giannotti, Dino<br>Pedreschi, Claudio<br>Lucchese, and<br>Cristina Ioana<br>Muntean             |
| 2017 | IEEE Transactions on<br>Dependable and Secure<br>Computing   | Journal Article            | Authenticated Outlier Mining for Outsourced Databases  | Boxiang Dong, Hui<br>Wendy Wang, Anna<br>Monreale, Dino<br>Pedreschi, Fosca<br>Giannotti, Wenge<br>Guo                                   |
| 2017 | Plos One   |                            | Forecasting Success via Early<br>Adoptions Analysis: A Data-<br>Driven Study                         | G. Rossetti, L. Milli,<br>D. Pedreschi, F.<br>Giannotti  |
| 2017 | Journal of Online Social<br>Networks and Media   |                            | Node-Centric Community Discovery: from Static to Dynamic Social Network Analysis                     | G. Rossetti, D.<br>Pedreschi, F.<br>Giannotti  |
| 2017 | Journal of Complex Networks  |                            | RDYN: Graph Benchmark handling Community Dynamics  | G. Rossetti  |
| 2017 | Conundrum International Conference on Complex Networks and Their Applications, 2017. Lyon, France. |                            | Information Diffusion in Complex<br>Networks: the Active/Passive                                     | L. Milli, G. Rossetti,<br>F. Giannotti, D.<br>Pedreschi  |
| 2017 | ACM SIGIR 2017   | Conference paper<br>(Demo) | RankEval: An Evaluation and<br>Analysis Framework for Learning-<br>to-Rank Solutions                 | Claudio Lucchese,<br>Cristina Ioana<br>Muntean, Franco<br>Maria Nardini,<br>Raffaele Perego,<br>and Salvatore Trani                      |
| 2017 | ACM SIGIR 2017   | Conference paper<br>(Demo) | Social Media Image Recognition for Food Trend Analysis   | Giuseppe Amato,<br>Paolo Bolettieri,<br>Vinicius Monteiro<br>de Lira, Cristina<br>Ioana Muntean,<br>Raffaele Perego,<br>and Chiara Renso |
| 2017 | Online Social Networks and<br>Media (OSNEM)  | Journal Article            | Perception of social phenomena<br>through the multidimensional<br>analysis of online social networks | Mauro Coletto, Andrea Esuli, Claudio Lucchese, Cristina Ioana Muntean, Franco Maria Nardini, Raffaele Perego,                            |

|      |  |                    |  | Chiara Renso   |
|------|--|--------------------|--|--|
| 2017 | International Conference on<br>Computer Safety, Reliability,<br>and Security | Conference paper   | Fast Estimation of Privacy Risk in<br>Human Mobility Data  | Roberto Pellungrini,<br>Luca Pappalardo,<br>Francesca Pratesi,<br>Anna Monreale                        |
|      |  | 2018               |  |  |
| 2018 | Submitted to in Advances in Physics: X, available in arxiv                   | Journal Article    | Social Physics: Uncovering<br>Human Behaviour from<br>Communication  | Bhattacharya, K.<br>and Kaski, K.  |
| 2018 | Submitted to Journal of the Royal Society Interface, available in arxiv      | Journal Article    | Role of risk and information in a group formation experiment on a small-world network                                | Bhattacharya, K.,<br>Takko, T.,<br>Monsivais, D., &<br>Kaski, K.                                       |
| 2018 | Submitted to Scientometrics  | Journal Article    | Going below the shoulders of giants: tracking the cumulative knowledge spreading in a comprehensive citation network | della Briotta, P.,<br>Kujala, R., Kaski, K.,<br>and Kivela, M.   |
| 2018 | ACM International Conference<br>on Web Search and Data<br>Mining (WSDM)      | Conference article | Joint non-negative matrix factorization for learning ideological leaning on twitter                                  | Preethi Lahoti, Kiran<br>Garimella, Aristides<br>Gionis  |
| 2018 | SIAM International Conference<br>on Data Mining (SDM) 2018                   | Conference article | Reconstructing a cascade from temporal observations  | Han Xiao, Polina<br>Rozenshtein, Nikolaj<br>Tatti, Aristides<br>Gionis                                 |
| 2018 | The Web Conference (WWW)   | Conference article | Political discourse on social media: Echo chambers, gatekeepers, and the price of bipartisanship                     | Kiran Garimella,<br>Gianmarco De<br>Francisci Morales,<br>Aristides Gionis,<br>Michael<br>Mathioudakis |
| 2018 | The Web Conference (WWW)   | Conference article | Computationally inferred genealogical networks uncover long-term trends in assortative mating                        | Eric Malmi, Aristides<br>Gionis, Arno Solin  |
| 2018 | PhD dissertation, Department of Computer Science, Aalto University           | PhD dissertation   | Collective entity resolution methods for network inference   | Eric Malmi   |
| 2018 | PhD dissertation, Department of Computer Science, Aalto University           | PhD dissertation   | Polarization on Social Media   | Kiran Garimella  |
| 2018 | ICDM   | Conference Paper   | Tell me something my friends do not know: Diversity maximization in social networks                                  | Antonis Matakos,<br>Aristides Gionis   |
| 2018 | ICDM   | Conference Paper   | Maximizing the diversity of exposure in a social network   | Cigdem Aslay,<br>Antonis Matakos,<br>Esther Galbrun, and<br>Aristides Gionis                           |
| 2018 | ICDM   | Conference Paper   | Robust cascade reconstruction by Steiner-tree sampling   | Hax Xiao, Cigdem<br>Aslay, Aristides<br>Gionis   |

| 2018 | ICDM   | Conference Paper | Finding events in temporal networks: Segmentation meets densest-subgraph discovery                                   | Polina Rozenshtein,<br>Francesco Bonchi,<br>Aristides Gionis,<br>Mauro Sozio, and<br>Nikolaj Tatti  |
|------|--|------------------|--|---|
| 2018 | ICDM   | Conference Paper | Explainable time series tweaking via irreversible and reversible temporal transformations                            | Isak Karlsson,<br>Jonathan Rebane,<br>Panagiotis<br>Papapetrou, and<br>Aristides Gionis   |
| 2018 | PhD dissertation, Department of Computer Science, Aalto University   | PhD dissertation | Human behavioural patterns: A reality mining study   | Daniel Monsivais<br>(Aalto University)  |
| 2018 | arXiv:1808.10166.  | Journal Article  | Uncovering intimate and casual relationships from mobile phone communication.  | Kunal Bhattacharya,<br>Daniel Monsivais<br>and Kimmo Kaski<br>(Aalto University),<br>Mikaela Fudolig and<br>Hang Hyun Jo (Asia<br>Pacific Center for<br>Theoretical Physics)  |
| 2018 | Journal of Informetrics  | Journal Article  | Stochastic block model reveals maps of citation patterns and their evolution in time                                 | Darko Hric, Kimmo<br>Kaski and Mikko<br>Kivelä (Aalto<br>University)  |
| 2018 | JMIR Research Protocols  | Journal Article  | Data Collection for Mental<br>Health Studies Through Digital<br>Platforms: Requirements and<br>Design of a Prototype | Talayeh Aledavood,<br>Ana Maria Triana<br>Hoyos, Tuomas<br>Alakörkkö, Kimmo<br>Kaski, Jari Saramäki<br>and Richard K Darst<br>(Aalto University),<br>Erkki Isometsä<br>(University of<br>Helsinki)  |
| 2018 | Population, Space and Place  | Journal Article  | Migration patterns of parents, children and siblings: Evidence for patrilocality in contemporary Finland             | Asim Ghosh, Kunal<br>Bhattacharya,<br>Daniel Monsivais,<br>Kimmo Kaski(Aalto<br>University), Janos<br>Kertesz (Central<br>European<br>University), Venla<br>Berg and Anna<br>Rotkirch(Population<br>Research Institute,<br>Väestöliitto-Finnish<br>Family Federation) |
| 2018 | First International Workshop on<br>Online Social Networks and<br>Media: Network Properties and<br>Dynamics | Workshop paper   | Twitter and the Press: an Ego-<br>Centred Analysis.  | C. Boldrini, M.<br>Toprak, M. Conti, A.<br>Passarella.  |

| _    |   |                    | Gravity and scaling laws of city to  |  |
|------|---|--------------------|--|--|
| 2018 | Plos One  | Journal Article    | city migration   |  |
| 2018 | PhD dissertation, Department of Information Engineering, University of Pisa | PhD dissertation   | Harnessing the Social Sensing revolution: Challenges and Opportunities                                   | Stefano Cresci   |
| 2018 | ICWSM   | Conference article | Real-World Witness Detection in<br>Social Media via Hybrid<br>Crowdsensing                               | Stefano Cresci,<br>Andrea Cimino,<br>Marco Avvenuti,<br>Maurizio Tesconi,<br>Felice Dell'Orletta                                   |
| 2018 | ACM TIST  | Journal Article    | X-CLEAVER: Learning Ranking<br>Ensembles by Growing and<br>Pruning Trees                                 | Claudio Lucchese,<br>Franco Maria<br>Nardini, Salvatore<br>Orlando, Raffaele<br>Perego, Fabrizio<br>Silvestri, Salvatore<br>Trani  |
| 2018 | ACM SIGIR   | Conference article | Selective Gradient Boosting for<br>Effective Learning to Rank  | Claudio Lucchese,<br>Franco Maria<br>Nardini, Salvatore<br>Orlando, Raffaele<br>Perego, Salvatore<br>Trani                         |
| 2018 | IEEE TPDS   | Journal Article    | Parallel Traversal of Large<br>Ensembles of Decision Trees   | Francesco Lettich,<br>Claudio Lucchese,<br>Franco Maria<br>Nardini, Salvatore<br>Orlando, Raffaele<br>Perego, Rossano<br>Venturini |
| 2018 | ICWSM   | Conference article | \$FAKE: Evidence of spam and bot activity in stock microblogs on Twitter                                 | Stefano Cresci,<br>Fabrizio Lillo,<br>Daniele Regoli,<br>Serena Tardelli,<br>Maurizio Tesconi                                      |
| 2018 | Cornell University  | Journal article    | Multi-dimensional and role-<br>aware rating of soccer player<br>performance                              | L. Pappalardo, P.<br>Cintia, P. Ferragina,<br>E. Massucco, D.<br>Pedreschi, F.<br>Giannotti  |
| 2018 | Springer  | Journal Article    | Data science at SoBigData: the European research infrastructure for social mining and big data analytics | Valerio Grossi,<br>Beatrice Rapisarda,<br>Fosca Giannotti,<br>Dino Pedreschi   |
| 2018 | PLOS One  | Article            | Effective injury forecasting in soccer with GPS training data and machine learning                       | Alessio Rossi, Luca<br>Pappalardo, Paolo<br>Cintia, F. Marcello<br>Iaia, Javier<br>Fernàndez, Daniel<br>Medina                     |
| 2018 | EPJ Data Science  | Journal article    | Discovering Temporal<br>Regularities in Retail Customers'  | R. Guidotti, L.<br>Gabrielli, A.   |

|      |   |                    | Shopping Behavior   | Monreale, D.<br>Pedreschi, F.<br>Giannotti   |
|------|---|--------------------|---|--|
| 2018 | Complexity  | Journal article    | Underestimated cost of targeted attacks on complex networks   | XL Ren, N Gleinig, D<br>Tolic, N Antulov-<br>Fantulin  |
| 2018 | ICDM 2018   | Conference article | Predicting short-term bitcoin price fluctuations from buy and sell ordersBitcoin Volatility Forecasting with a Glimpse into Buy and Sell Orders         | Tian Guo, Albert<br>Bifet, and Nino<br>Antulov-Fantulin  |
| 2018 | Pattern Recognition   | Journal article    | A nonlinear orthogonal non-<br>negative matrix factorization<br>approach to subspace clustering   | Dijana Tolic, Nino<br>Antulov-Fantulin,<br>Ivica Kopriva   |
| 2018 | 6th International Conference on Learning Representations (ICLR) | Workshop paper     | An interpretable LSTM neural network for autoregressive exogenous model   | Tian Guo, Tao Lin,<br>Yao Lu   |
| 2018 | Computer Graphics Forum   | Journal article    | Viewing Visual Analytics as<br>Model Building   | Natalia Andrienko,<br>Tim Lammarsch,<br>Gennady<br>Andrienko, Georg<br>Fuchs, Daniel Keim,<br>Silvia Miksch, and<br>Alexander Rind |
| 2018 | EuroVA (best paper award)                                       | Conference paper   | Visual Exploration of Spatial and<br>Temporal Variations of Tweet<br>Topic Popularity   | Jie Li, Siming Chen,<br>Gennady<br>Andrienko, Natalia<br>Andrienko   |
| 2018 | AGILE (best poster award)                                       | Conference paper   | TopicWave: Interactive Visual<br>Analytics of Spatiotemporal<br>Topics Distribution of People"s<br>Reactions to Events from Geo-<br>tagged Social Media | Siming Chen, Jie Li,<br>Gennady<br>Andrienko, Nathalia<br>Andrienko  |
| 2018 | IEEE TVCG   | Journal Article    | COPE: Interactive Exploration of<br>Co-occurrence Patterns in Spatial<br>Time Series  | Jie Li, Siming Chen,<br>Kang Zhang,<br>Gennady<br>Andrienko, and<br>Natalia Andrienko  |
| 2018 | Information Visualization                                       | Journal Article    | State Transition Graphs for<br>Semantic Analysis of Movement<br>Behaviours  | Natalia Andrienko<br>and Gennady<br>Andrienko  |
| 2018 | Computer Graphics Forum   | Journal Article    | Data Abstraction for Visualizing<br>Large Time Series   | Georgiy<br>Shurkhovetskyy,<br>Natalia Andrienko,<br>Gennady<br>Andrienko, and<br>Georg Fuchs                                       |
| 2018 | Journal of Urban technology                                     | Journal Article    | The Electric City as a Solution to Sustainable Urban Development  | lain D. Stewart,<br>Chris A. Kennedy,<br>Angelo Facchini &<br>Renata Mele  |

| 2018 | Scientific Reports                  | Journal Article    | A Complex Network Approach<br>for the Estimation of the Energy<br>Demand of Electric Mobility                     | Mario Mureddu,<br>Angelo Facchini,<br>Antonio Scala,<br>Guido Caldarelli,<br>Alfonso Damiano1                      |
|------|-------------------------------------|--------------------|---|--|
| 2018 | J. of statistical Physics           | Journal article    | From Ecology to Finance (and Back?): A Review on Entropy-Based Null Models for the Analysis of Bipartite Networks | Mika J. Straka,<br>Guido Caldarelli,<br>Tiziano Squartini,<br>Fabio Saracco  |
| 2018 | Applied Network Science             | Journal Article    | Entropy-based approach to missing-links prediction  | F. Parisi, G.<br>Caldarelli, Squartini<br>T.   |
| 2018 | arXiv:1805.06005v1                  | Journal Article    | Reconstructing mesoscale network structures   | Jeroen van Lidth de<br>Jeude, Riccardo Di<br>Clemente, Guido<br>Caldarelli, Fabio<br>Saracco, Tiziano<br>Squartini |
| 2018 | arXiv:1806.06941v1                  | Journal Article    | Reconstruction methods for networks: the case of economic and financial systems                                   | Tiziano Squartini,<br>Guido Caldarelli,<br>Giulio Cimini,<br>Andrea Gabrielli,<br>Diego Garlaschelli               |
| 2018 | arXiv:1809.03222v1                  | Journal Article    | Colombian export capabilities:<br>building the firms-products<br>network  | Matteo Bruno,<br>Fabio Saracco,<br>Tiziano Squartini,<br>Marco Duenas  |
| 2018 | SIGIR '18                           | Conference Paper   | Selective Gradient Boosting for<br>Effective Learning to Rank   | Claudio Lucchese,<br>Franco Maria<br>Nardini, Raffaele<br>Perego, Salvatore<br>Orlando, and<br>Salvatore Trani     |
| 2018 | The Web Conference (WWW)            | Conference article | User Fairness in Recommender<br>Systems   | Jurek Leonhardt,<br>Megha Khosla,<br>Avishek Anand   |
| 2018 | Computational Management<br>Science | Journal Article    | The organization of the interbank network and how ECB unconventional measures affected the e-MID overnight market | Paolo Barucca,<br>Fabrizio Lillo   |
| 2018 | PloS One                            | Journal Article    | Resolution of ranking hierarchies in directed networks  | Elisa Letizia, Paolo<br>Barucca, Fabrizio<br>Lillo   |
| 2018 | Quantitative Finance                | Journal Article    | Collective synchronization and high frequency systemic instabilities in financial markets                         | Lucio Maria<br>Calcagnile, Giacomo<br>Bormetti, Michele<br>Treccani, Stefano<br>Marmi, and Fabrizio<br>Lillo,      |
| 2018 | Journal of Economic Dynamics        | Journal Article    | Assessing Systemic Risk Due to  | Domenico Di Gangi,   |

|      | and Control  |                    | Fire Sales Spillover Through Maximum Entropy Network Reconstruction   | Fabrizio Lillo,<br>Davide Pirino   |
|------|--|--------------------|---|--|
| 2018 | Journal of Financial Stability                                       | Journal Article    | Measuring the propagation of financial distress with Granger-causality tail risk networks                                     | Fulvio Corsi,<br>Fabrizio Lillo, and<br>Davide Pirino, Luca<br>Trapin  |
| 2018 | https://arxiv.org/abs/1801.001<br>85                                 | Journal Article    | A dynamic network model with persistent links and node-specific latent variables, with an application to the interbank market | Piero Mazzarisi,<br>Paolo Barucca,<br>Fabrizio Lillo,<br>Daniele Tantari   |
| 2018 | https://arxiv.org/abs/1804.044<br>06                                 | Journal Article    | Cashtag piggybacking:<br>uncovering spam and bot activity<br>in stock microblogs on Twitter                                   | Stefano Cresci,<br>Fabrizio Lillo,<br>Daniele Regoli,<br>Serena Tardelli,<br>Maurizio Tesconi  |
| 2018 | Concurrency and Computation:<br>Practice and Experience, 2018        | Journal article    | A data-driven approach to modeling power consumption for a hybrid supercomputer   | Sîrbu, Alina, and<br>Ozalp Babaoglu  |
| 2018 | IEEE International Conference<br>on Distributed Computing<br>Systems | Conference article | Cognified Distributed Computing   | O. Babaoglu<br>(University of<br>Bologna), Alina<br>Sirbu (University of<br>Pisa)  |
| 2018 | ISC High Performance 2018:<br>High Performance Computing             | Conference article | Heterogeneity-Aware Resource<br>Allocation in HPC Systems   | Alessio Netti (University of Bologna), Cristian Galleguillos(Universi ty of Bologna), Zeynep Kiziltan(University of Bologna), Alina Sîrbu(University of Pisa), Ozalp Babaoglu(University of Bologna) |
| 2018 | Europar 2018 Resilience<br>Workshop                                  | Conference Paper   | FINJ: A Fault Injection Tool for<br>HPC Systems   | Alessio Netti (University of Bologna), Cristian Galleguillos(Universi ty of Bologna), Zeynep Kiziltan(University of Bologna), Alina Sîrbu(University of Pisa), Ozalp Babaoglu(University of Bologna) |
| 2018 | Springer   | Book               | Computational Thinking: first algorithms, then code   | Paolo Ferragina,<br>Fabrizio Luccio  |
| 2018 | Journal of Data Science and  | Journal article    | NDlib: a Python Library to Model  | G. Rossetti, L. Milli,   |

|      | Analytics   |                                | and Analyze Diffusion Processes<br>Over Complex Networks  | S. Rinzivillo, A.<br>Sirbu, D. Pedreschi,<br>F. Giannotti   |
|------|---|--------------------------------|---|---|
| 2018 | KDD2018   | Conference paper, submitted    | Prediction of next career moves from scientific profiles  | Charlotte James,<br>Luca Pappalardo,<br>Alina Sirbu, and<br>Filippo Simini  |
| 2018 | ACM CIKM  | Conference paper,<br>submitted | Meaningful Explanations of Black<br>Box Decisions   | Riccardo Guidotti,<br>Anna Monreale,<br>Salvatore Ruggieri,<br>Dino Pedreschi,<br>Franco Turini, Fosca<br>Giannotti |
| 2018 | ACM Computing Surveys   | Journal Article,<br>submitted  | A Survey Of Methods For<br>Explaining Black Box Models  | Riccardo Guidotti,<br>Anna Monreale,<br>Franco Turini, Dino<br>Pedreschi, Fosca<br>Giannotti                        |
| 2018 | ACM Computing Surveys (CSUR)  | Journal article                | Detection and Resolution of<br>Rumours in Social Media: A<br>Survey                                 | Arkaitz Zubiaga,<br>Ahmet Aker, Kalina<br>Bontcheva, Maria<br>Liakata, Rob Procter                                  |
| 2018 | Journal of Technological Forecasting & Social Change.   | Journal Article                | What matters most to people around the world? Retrieving Better Life Index priorities on Twitter.   | Giuliano Resce,<br>Diana Maynard  |
| 2018 | ICWSM   | Conference article             | Twits, Twats and Twaddle:<br>Trends in Online Abuse toward<br>UK Politicians                        | Gorrell, G.,<br>Greenwood, M. A.,<br>Roberts, I.,<br>Maynard, D. and<br>Bontcheva, K.                               |
| 2018 | Social Informatics 2018   | Conference article             | Quantifying Media Influence and<br>Partisan Attention on Twitter<br>during the UK EU Referendum     | Gorrell, G., Roberts,<br>I., Greenwood, M.<br>A., Bakir, M. E.,<br>Iavarone, B. and<br>Bontcheva, K.                |
| 2018 | International workshop on<br>Mining Attributed Networks   | Workshop paper                 | Investigating Similarity of Nodes'<br>Attributes in Topological Based<br>Communities                | Rajesh Sharma,<br>Danilo Montessi   |
| 2018 | MSNDS 2018: THE 9TH INTERNATIONAL WORKSHOP ON MINING AND ANALYZING SOCIAL NETWORKS FOR DECISION SUPPORT | Workshop paper                 | Individual-level Social Capital in<br>Weighted and Attributed Social<br>Networks                    | Rajesh Sharma,<br>Kevin McAreavey,<br>Jun Hong and Faisal<br>Ghaffar  |
| 2018 | ICDM 2018 SAREC'18<br>workshop  | Conference paper               | Is Simple Better? Revisiting Non-<br>linear Matrix Factorization for<br>Learning Incomplete Ratings | Vaibhav Krishna,<br>Tian Guo, and Nino<br>Antulov-Fantulin  |
| 2018 | Scientific Reports  | Journal Article                | Simulating SIR processes on networks using weighted shortest paths                                  | Dijana Tolic, Kaj-<br>Kolja Kleineberg,<br>Nino Antulov-<br>Fantulin  |

| 2018 | arxiv preprint   | Journal Article    | Generalized Network Dismantling   | Xiao-Long Ren, Niels<br>Gleinig, Dirk<br>Helbing, Nino<br>Antulov-Fantulin   |
|------|--|--------------------|---|--|
| 2018 | 9th Conference on Complex<br>Networks, CompleNet 2018.<br>Boston, US             | Conference article | Diffusive Phenomena in Dynamic<br>Networks: a data-driven study                           | L. Milli, G. Rossetti,<br>D. Pedreschi F.<br>Giannotti   |
| 2018 | WWW '18 Companion: The 2018 Web Conference Companion, Demo paper. Forthcoming    | Conference article | NDlib: a python library to model and analyze diffusion processes over complex networks    | G. Rossetti, L. Milli,<br>S. Rinzivillo  |
| 2018 | Computing Surveys  |                    | Community Discovery in Dynamic<br>Networks: a Survey                                      | G. Rossetti, R.<br>Cazabet   |
| 2018 | 9th Conference on Complex<br>Networks, CompleNet 2018.<br>Boston, US             |                    | Discovering Mobility Functional<br>Areas: A Mobility Data Analysis<br>Approach            | L. Gabrielli, D.<br>Fadda, G. Rossetti,<br>M. Nanni, L. Piccini,<br>P. Lattarulo, F.<br>Giannotti, D.<br>Pedreschi     |
| 2018 | Transactions on Data Privacy   | Journal Article    | PRUDEnce: a System for<br>Assessing Privacy Risk vs Utility in<br>Data Sharing Ecosystems | Francesca Pratesi,<br>Anna Monreale,<br>Roberto Trasarti,<br>Fosca Giannotti,<br>Dino Pedreschi,<br>Tadashi Yanagihara |
| 2018 | ACM Transactions on Intelligent<br>Systems and Technology (TIST)                 | Journal Article    | A Data Mining Approach to<br>Assess Privacy Risk in Human<br>Mobility Data                | Roberto Pellungrini,<br>Luca Pappalardo,<br>Francesca Pratesi,<br>Anna Monreale  |
| 2018 | International Conference on<br>Smart Objects and<br>Technologies for Social Good | Conference Paper   | Privacy Preserving<br>Multidimensional Profiling  | Francesca Pratesi,<br>Anna Monreale,<br>Fosca Giannotti  |

Table 2. Scientific publications.

In the following list there are all the events oranized or co-organized by SoBigData. Training events (\*) listed here are included and described in D4.2.

| Date                  | Event Title | Туре                    | Description  | Web                                    | Stakeholder |
|-----------------------|-------------|-------------------------|--|--|-------------|
|                       |             |                         | 2017   |  |             |
| 19/04 -<br>25/05/2017 | *phd+ 2017  | interactive<br>lectures | The PhD+ programme, designed and fully developed by the University of Pisa, aims at fostering innovation and entrepreneurial mind-set in Master degree students, PhD students, PhDs and academics. | https://www.unipi.it/ind<br>ex.php/phd | Industry    |

| 15-<br>16/06/2017 | *Computational<br>Fake News<br>Analysis: A<br>Practical<br>Workshop   | workshop  | The aim of this workshop is, firstly, to set out the state-of-the-art and challenges in fake news analysis, followed by hands-on practical sessions on relevant computational tools, including hyperlink crawling, network analysis, and rumour analysis. | http://www.sobigdata.e<br>u/computational-fake-<br>news-analysis-practical-<br>workshop                        | Research |
|-------------------|---|---|---|--|----------|
| 26-<br>30/06/2017 | *10th GATE<br>Training Course:<br>Mining social<br>media content<br>with GATE<br>(Sheffield<br>Summer<br>School)                      | summer<br>school  | The focus this year will be on mining social media content with GATE. The hands-on exercises will be focused on analysing tweets, blogs, and other social media content.  | https://gate.ac.uk/conferences/fig/fig10.html  | Research |
| 16-<br>22/07/2017 | *Lipari Summer<br>School on<br>Computational<br>Complex and<br>Social Systems   | summer<br>school  | This summer school will provide opportunities to collect experience with modern data analysis, in particular, Big Data analytics. This includes subjects to mine data on the Internet of Things.  | http://www.sobigdata.e<br>u/events/lipari-summer-<br>school-computational-<br>complex-and-social-<br>systems-0 | Research |
| 19/07/2017        | *Second International SoBigData workshop: City of Citizens workshop at the Lipari International Summer School for Scientific Research | workshop  | The Workshop has the aim in presenting some emergent studies in mobility data analysis and complex systems in order to raise the interests in the field.  | http://www.sobigdata.e<br>u/city-citizens-workshop   | Research |
| 08/09/2017        | SoBigData<br>conference:<br>Data Science for<br>Society   | conference  |   | http://www.festivalinter<br>nazionaledellarobotica.it<br>/it/session/data-science-<br>for-society/             | Industry |
| 18/9/2017         | PAP @ECML<br>PKDD 2017<br>PERSONAL<br>ANALYTICS AND<br>PRIVACY  | PAP 2017 – 1st International Workshop of Personal Analytics and Privacy | 18/9/2017   | http://ecmlpkdd2017.ijs.<br>si/  | Research |
| 18/9/2017         | DyNo 2017<br>@ECML- 3rd<br>International<br>Workshop on<br>Dynamics in  |   |   | http://ecmlpkdd2017.ijs.<br>si/  | Research |

|                   | 1   |            |   |  |          |
|-------------------|---|------------|---|--|----------|
|                   | and of<br>Networks  |            |   |  |          |
| 18/9/2017         | MIDAS @ECML – 2nd Workshop on MIning DAta for financial applicationS                                      |            |   | http://ecmlpkdd2017.ijs.<br>si/  | Research |
| 18/9/2017         | KnowMe @ECML – 1st International Workshop on Knowledge Discovery from Mobility and Transportation Systems |            |   | http://ecmlpkdd2017.ijs.<br>si/  | Research |
| 29/09/2017        | SoBigData<br>workshop:<br>Nowcasting<br>Well Being in<br>Societies  | workshop   | The aim of the day is, therefore, to provide a careful look at new studies related to well-being and societal debates, encouraging an exchange of ideas and promoting a creative drive towards new lines of research.   | http://www.sobigdata.e<br>u/nowcasting-well-<br>being-societies                    | Research |
| 19/10/2017        | Data Science in<br>Societal<br>Debates (DSSD<br>2017)   | workshop   | This special session focuses on data science approaches to study, model, characterize, and propose solutions to these, and other similar, challenges related to all aspects of polarized, political, and controversial societal debates.  | http://www.sobigdata.e<br>u/events/data-science-<br>societal-debates-dssd-<br>2017 | Research |
| 10/11/2017        | *Social Impact<br>Data Hack 2017  | hackathon  | This 48-hour datathon brings together people from different fields and experiences to work on the same challenges. It is an event where political science students can work side by side with programmers, journalists can work with economists, lawyers can work with designers and so on. | http://sidh2017.ut.ee/   | Research |
| 15-<br>17/11/2017 | SoBigData @<br>GARR<br>Conference,<br>Venice  | conference | The talk presents the SoBigData Vision, Goal, Organization and opportunities for researchers to be users and  | https://www.eventi.garr<br>.it/it/conf17   | Research |

|                            |  |                         | partners of this initiative. |  |                          |
|----------------------------|--|-------------------------|------------------------------|--|--------------------------|
| 18/11/2017                 | DAPS2017 Data<br>mining for the<br>analysis of<br>performance<br>and success   |                         |                              | http://kdd.isti.cnr.it/dap<br>s2017  | Research                 |
| 27/11/2017 -<br>30/05/2018 | Data Science<br>Colloquia<br>2017/2018   |                         |                              | http://datasciencephd.e<br>u/events/data-science-<br>colloquia                                     | Research                 |
| 29-<br>30/11/2017          | DAPS2017 Data<br>mining for the<br>analysis of<br>performance<br>and success   |                         |                              | http://archive.goodtech<br>s.eu/2017/show/DASMI<br>S-2017  | Research                 |
| 30/11/2017                 | SoBigData – @ JRC Workshop: Big Data and alternative data sources on migration: from case studies to policy support. | workshop                |                              | https://ec.europa.eu/jrc<br>/sites/jrcsh/files/agenda<br>_migration_data.pdf                       | Policy and Law<br>Makers |
| 13/12/2017                 | Big Data e<br>Industria 4.0:<br>un'opportunità<br>di sviluppo per<br>la piccola e<br>media impresa                   |                         |                              | Evento dorganizzato<br>all'IMT Lucca per la<br>presentazione della<br>Tuscan Big Data<br>Challenge | Industry                 |
|                            |  |                         | 2018                         |  |                          |
| 06/02 -<br>08/03/2018      | *phd+ 2018   | interactive<br>lectures |                              | https://www.unipi.it/ind<br>ex.php/phd   | Industry                 |

|                      |  |  | developed by the University of Pisa, aims at fostering innovation and entrepreneurial mind-set in Master degree students, PhD students, PhDs and academics.   |   |          |
|----------------------|--|--|---|---|----------|
| 15/02/2018           | *Master In Big<br>Data Analytics<br>& Social Mining<br>2018                |  |   | https://masterbigdata.it/en   |          |
| 20/02/2018           | SoBigData<br>Winter Meeting  |  |   | http://www.sobigdata.e<br>u/events/sobigdata-<br>winter-meeting                                     | Research |
| 24/04/2018           | SoBigData @<br>The www 2018<br>- the Web<br>Conference                     | conference   | Presentation of the project   | https://www2018.thewe<br>bconf.org/program/inter<br>national-projects/                              | Research |
| 24/04/2018           | OSNED 2018<br>(co-located with<br>The www 2018<br>- the Web<br>Conference) | Online Social<br>Networks and<br>Media:<br>Network<br>Properties<br>and Dynamics | science) techniques and   | https://osned.netsons.o<br>rg/  | Research |
| 07-<br>11/05/2018    | *Datathon IMT<br>Complex<br>System:<br>Complexity 72h                      | datathon   | An interdisciplinary event whose aim is to bring together young researchers from different fields of complex systems. Inspired by the 72h Hours of Science, participants form working groups aimed at carrying out a project in a three-day time. | https://complexity72h.w<br>eebly.com/   | Research |
| 30-<br>31/05/20108   | SoBigData @ La<br>Sapienza, Roma   |  |   | https://docs.google.com/document/d/1c77wdUS 3uor9RgiVahAxdZjSGwZL XQf0QMurCl2KM1E/edit ?usp=sharing | Research |
| 04/06-<br>09/06/2018 | *ETH<br>CryptoDatathon<br>2018   |  |   | https://www.cryptodata<br>thon.com/   | Research |

| 11-<br>15/06/2018          | *11th GATE<br>Training Course:<br>Large Scale Text<br>and Social<br>Media Analytics<br>with GATE                          |   |  | https://gate.ac.uk/conferences/fig/fig11.html   | Research |
|----------------------------|---|---|--|---|----------|
| 15/06/2018                 | SoBigData @<br>PSE Workshop<br>on "Big Data<br>and Migration"<br>Paris School of<br>Economics                             |   |  | https://www.parisschool<br>ofeconomics.eu/en/rese<br>arch/seminars/migration<br>-seminar/ | Research |
| 2-5/07/2018                | Advanced<br>School on Data<br>Science for Big<br>Data EAIA2018<br>Porto   |   |  | http://eaia2018.dcc.fc.u<br>p.pt/   | Research |
| 19-25/07/<br>2018          | *Lipari Summer<br>School: From<br>swarm<br>intelligence to<br>digital<br>democracy:<br>new tools for a<br>complex society | workshop                                  | This summer school provides opportunities to collect experience with modern data analysis, in particular Big Data analytics. This includes subjects to mine data in the Internet of Things. Focus on algorithms, computational models and practical results.   | https://complex.liparisc<br>hool.it/  | Research |
| 22/07/2018                 | *3th SoBigData<br>workshop<br>"Well-being &<br>Economy<br>workshop @<br>Lipari Summer<br>School"                          | Workshop                                  | A Workshop on Wellbeing thematics for the summer school students   | http://www.sobigdata.e<br>u/well-being-economy-<br>workshop                               | Research |
| 30/07/2018 -<br>04/08/2018 | *WWSSS'18 -<br>WSTNET Web<br>Science<br>Summer School<br>2018   | Summer<br>School                          | The WWSSS'18 addresses the inter-disciplinary field of Web Science by focusing on lectures which tackle the aforementioned challenges in topics such as data science and data mining, big data processing, information retrieval, Web governance as well as the sociology and psychology of online interactions. | http://wwsss18.webscience.org/  | Research |
| 28/08/2018                 | SAO 2018 (co-<br>located with<br>ASONAM 2018)   | Social<br>Network<br>Analysis<br>Workshop | SAO aims to provide an interdisciplinary reference forum focusing on the use of OSNEM as a "BigData microscope" to investigate the human social behavior. SAO aims at engaging   | http://cnd.iit.cnr.it/sao2<br>018/committees.html   | Research |

|            |  |   | researchers working (i) on efficient methods, tools and techniques to search for, collect and analyze large-scale datasets from OSNEM, as well as (ii) on analyzing and characterizing human social behaviors through OSNEM.    |                          |          |
|------------|--|---|---|--------------------------|----------|
| 28/08/2018 | Dyno 2018 (co-<br>located with<br>ASONAM 2018) | Social<br>Network<br>Analysis<br>Workshop | The aim of the DYNO workshop is to bring together researchers interested by these questions to share their latest results and discuss on the future directions to explore. Both theoretical and applicative works are welcomed. | http://dyno.sci-web.net/ | Research |

Table 3. Events organized or co-organized by SoBigData.

### Events with a SoBigData related presence:

| Date              | Event   | Туре         | Title   | Authors                          | Web  | Stakeholder              |  |  |
|-------------------|---|--------------|---|----------------------------------|--|--------------------------|--|--|
|                   | 2017  |              |   |                                  |  |                          |  |  |
| 13-<br>17/03/2017 | NTTS (New<br>Techniques<br>and<br>Technologies<br>for Statistics)<br>2017 -<br>EUROSTAT,<br>Bruxelles       | Invited talk | Exploring Human<br>Mobility and<br>Migration with Big<br>Data, Research at<br>Sobigdata.eu                        | Dino Pedreschi                   | https://ec.europa.e<br>u/eurostat/cros/ntt<br>s2017programme/  | Public<br>Administration |  |  |
| 31/03/2017        | Industria 4.0:<br>la proposta di<br>Competence<br>Center della<br>Scuola<br>Superiore<br>Sant'Anna,<br>Pisa | Talk         | Big data, algoritmi<br>e strumenti di<br>analisi dei dati per<br>ottimizzare<br>prodotti e processi<br>produttivi | Paolo Ferragina                  | https://www.santa<br>nnapisa.it/sites/def<br>ault/files/incontro<br>i4.0_31marzo2017<br>programma.pdf              | Industry                 |  |  |
| 26/04/2017        | Lezioni Lincee<br>per le Scienze<br>Informatiche  | Invited Talk | I motori di ricerca:<br>dalle parole ai<br>concetti   | Paolo Ferragina                  | http://www.unipa.i<br>t/Lezioni-Lincee-in-<br>Scienze-<br>Informatiche-dal-<br>Corso-di-Laurea-in-<br>Informatica/ | High Schools             |  |  |
| 15/05/2017        | International<br>Conference   | Tutorial     | Polarization on Social Media  | Kiran Garimella,<br>Aris Gionis, | http://icwsm.org/2<br>017/program/tutor  | Research                 |  |  |

|                   | on Web and<br>Social Media<br>(ICWSM) 2017   |   |  | Gianmarco De<br>Francisci<br>Morales,<br>Michael<br>Mathioudakis | ial/  |                          |
|-------------------|--|---|--|--|---|--------------------------|
| 16/05/2017        | CSH Seminar<br>Talk  | Invited talk                            | Social Physics –<br>Data-Driven<br>Discovery of<br>Human<br>Connectome                                   | Kimmo Kaski  | https://www.csh.ac<br>.at/event/csh-<br>lunch-talk-kimmo-<br>kaski-social-<br>physics-data-<br>driven-discovery-<br>human-<br>connectome/ | Research                 |
| 14-<br>19/05/2017 | International Joint Conference on Neural Networks  | workshop                                | Workshop on<br>Machine Learning<br>for Large-Scale<br>Networks   | Izabela Moise,<br>Nino Antulov-<br>Fantulin                      | http://mlln-<br>2017.inn.ac/  | Research                 |
| 18/05/2017        | EDPS Workshop On Data Driven Life @ European Parliament  | workshop                                | Ethical smart cities   | Dino Pedreschi   | https://edps.europ<br>a.eu/press-<br>publications/press-<br>news/blog/data-<br>driven-life-<br>%E2%80%93-edps-<br>workshop-<br>ethics_en  | Public<br>Administration |
| 18-<br>19/05/2017 | CLARIN-PLUS<br>workshop<br>"Creation and<br>Use of Social<br>Media<br>Resources"                         | Invited talk                            | "An Open Source<br>GATE Toolkit for<br>Social Media<br>Analysis"   | Diana Maynard  | https://www.clarin.<br>eu/event/2017/clar<br>in-plus-workshop-<br>creation-and-use-<br>social-media-<br>resources                         | Research                 |
| 19/05/2017        | International Joint Conference on Neural Networks  Workshop on Machine Learning for Large-Scale Networks | Invited talk                            | Quantifying<br>Controversy in<br>Social Media  | Michael<br>Mathioudakis  | http://mlln-<br>2017.inn.ac/  | Research                 |
| 19/05/2017        | IBA Financial<br>Law<br>Conference   | Invited Talk<br>and Panel<br>Discussion | Invited Talk and<br>Panel Discussion:<br>What is Big Data<br>and AI and how it is<br>changing our lives? | Marlon Dumas   | https://www.int-<br>bar.org/Conference<br>s/conf773/binary/T<br>allinn,%20Financial<br>%202017%20progr<br>amme.pdf                        | Industry                 |
| 15-<br>16/06/2017 | Computationa<br>I Fake News<br>Analysis: A<br>Practical<br>Workshop                                      | workshop                                | Computational<br>Fake News<br>Analysis: A Practical<br>Workshop  | Kalina<br>Bontcheva  | http://www.sobigd<br>ata.eu/computatio<br>nal-fake-news-<br>analysis-practical-<br>workshop   | Research                 |

| 30/5-3/6<br>2016  | NetSci2016   | talk                  | Inferring the<br>Dynamics in<br>Complex Networks<br>with Percolations                    | Nino Antulov-<br>Fantulin                                      | http://netsci2016.n<br>et/index.php  | Research      |
|-------------------|--|-----------------------|--|--|--|---------------|
| 19-23.6.2017      | NetSci2017   | talk                  | Signatures of<br>dynamical regimes<br>in the temporal<br>Bitcoin transaction<br>networks | Nino Antulov-<br>Fantulin                                      | http://netsci2017.n<br>et  | Research      |
| 17-<br>22/9/2017  | CSS2017  | talk                  | Time augmented bond percolation for statistical inference in complex networks            | Nino Antulov-<br>Fantulin                                      | http://ccs17.unam.<br>mx   | Research      |
| 11-<br>15/6/2018  | NetSci2018   | talk                  | Generalized<br>Network<br>Dismantling  | Nino Antulov-<br>Fantulin                                      | https://www.netsci<br>2018.com   | Research      |
| 19/06/2017        | NetSci2017   | Workshop              | 2nd Workshop on<br>Statistical Physics<br>for Financial and<br>Economic<br>Networks      | Guido<br>Caldarelli,<br>Tiziano<br>Squartini, Giulio<br>Cimini | https://2ndworksh<br>opstatphysicfinanci<br>aleconomicnetwor<br>ks.wordpress.com/  | Research      |
| 21/06/2017        | 22nd International Conference on Natural Language & Information Systems                | talk at<br>Conference | Document<br>aboutness via<br>sophisticated<br>syntactic and<br>semantic features         | Marco Ponza  | http://nldb2017.co<br>nferences.hec.ulg.a<br>c.be/   | Research      |
| 26-<br>30/06/2017 | 10th GATE<br>Training<br>Course  | Tutorial              | Tutorial   | Kalina<br>Bontcheva,<br>Genevieve<br>Gorrell                   | https://gate.ac.uk/<br>conferences/fig/fig<br>10.html  | Research      |
| 27/06/2017        | Second Latin-<br>American<br>Conference<br>on Business<br>Proces<br>Management         | Lecture<br>series     | Business Process<br>Mining   | Marlon Dumas   | https://ii-las-<br>bpm.uniandes.edu.<br>co/iilasbpm/   | Data Analysts |
| 05/07/2017        | Roundtable<br>KI, Deutsche<br>Medien<br>Agentur,<br>Berlin                             | Invited talk          | Invited talk   | Thorsten May   | http://www.deutsc<br>he-<br>medienagentur.de/  | Data Analysts |
| 06/07/2017        | Data Science -<br>8th Workshop<br>Computer<br>Science<br>Research<br>meets<br>Business | workshop              | City of Citizens:<br>research<br>infrastructure and<br>big data challenge                | Roberto Trasarti   | https://www.unibz.<br>it/en/events/12447<br>2-data-science-8th-<br>workshop-<br>computer-science-<br>research-meets-<br>business |               |
| 10/07/2017        | SigmaPhi-  | invited               | Statistical Physics  | Guido Caldarelli   | http://www.sigmap  | Data Analysts |

|                      | Statistical<br>Physics 2017  | speaker   | for the Digital<br>Economy   |  | hi.polito.it/index.p<br>hp?option=com_co<br>ntent&view=article<br>&id=105&catid=21<br>&Itemid=232   |                          |
|----------------------|--|-----------|--|--|---|--------------------------|
| 13-<br>14/07/2017    | Headstart<br>Summer<br>School 2017   | Tutorial  | Controlling Lego<br>robots with GATE<br>Cloud and tweets   | Adam Funk  | https://gate4ugc.bl<br>ogspot.co.uk/2018/<br>02/students-use-<br>gate-and-twitter-<br>to-drive.html   | Teaching<br>Institutions |
| 19/07/2017           | SoBigData<br>Workshop @<br>Lipari Summer<br>School   | Workshop  | SoBigData City of<br>Citizens workshop<br>@ Lipari Summer<br>School                                | Roberto<br>Trasarti, Fosca<br>Giannotti, Mark<br>Cotè, Angelo<br>Facchini, Mirco<br>Nanni, Dino<br>Pedreschi   | http://www.sobigd<br>ata.eu/events/2nd-<br>sobigdata-<br>workshop-city-<br>citizens-lipari-<br>summer-school  |                          |
| 24/07-<br>04/08/2017 | Essex<br>University<br>Summer<br>School on Big<br>Data and<br>Analytics  | Tutorials | Practical text<br>analytics and<br>sentiment analysis<br>from social media,<br>Introduction to NLP | Diana Maynard  | https://www.essex.<br>ac.uk/research/inst<br>itutes-and-<br>centres/institute-<br>for-analytics-and-<br>data-science/big-<br>data-and-analytics-<br>summer-school |                          |
| 08/09/2017           | SoBigData<br>Workshop @<br>Festival<br>Internazionale<br>della Robotica  | Workshop  | SoBigData<br>Workshop: DATA<br>SCIENCE FOR<br>SOCIETY  | Paolo Ferragina,<br>Fosca Giannotti,<br>Dino Pedreschi,<br>Kalina<br>Bontcheva,<br>Mirco Nanni,<br>Christina<br>Muntean,<br>Fabrizio Lillo,<br>Stefano Cresci,<br>Rossano<br>Venturini, Paolo<br>Cintia, Raffaele<br>Perego, Daniele<br>Regoli, Marco<br>Cornolti, Anna<br>Monreale, | http://www.festiva<br>linternazionaledella<br>robotica.it/it/sessio<br>n/data-science-for-<br>society/  |                          |
| 12/9/2017            | TELERISE @SAFECOMP 2017 3rd International Workshop on TEchnical and LEgal aspects of data pRIvacy and SEcurity | Workshop  | Fast estimation of privacy risk in human mobility data   | Roberto Pellungrini, Luca Pappalardo, Francesca Pratesi and Anna Monreale  | http://www.iit.cnr.i<br>t/telerise2017/#pr<br>ogram   | Research                 |
| 18/9/2017            | PAP @ECML  | talk in   | Assessing Privacy  | Roberto  | http://kdd.isti.cnr.i   | Research                 |

|            | PKDD 2017<br>PERSONAL<br>ANALYTICS<br>AND PRIVACY   | Workshop           | Risk in Retail Data   | Pellungrini   | t/pap2017/                                      |          |
|------------|---|--------------------|---|---|---|----------|
| 18/9/2017  | PAP @ECML<br>PKDD 2017<br>PERSONAL<br>ANALYTICS<br>AND PRIVACY  | Workshop           | PAP 2017 – 1st<br>International<br>Workshop of<br>Personal Analytics<br>and Privacy                 | Riccardo<br>Guidotti, Anna<br>Monreale, Dino<br>Pedreschi | http://ecmlpkdd20<br>17.ijs.si/program.ht<br>ml | Research |
| 18/9/2017  | ECML PKDD<br>2017   | workshop           | DyNo 2017 – 3rd<br>International<br>Workshop on<br>Dynamics in and of<br>Networks                   | Giulio Rossetti,<br>Letizia Milli                         | http://ecmlpkdd20<br>17.ijs.si/program.ht<br>ml | Research |
| 18/9/2017  | ECML PKDD<br>2017   | workshop           | MIDAS – 2nd<br>Workshop on<br>MIning DAta for<br>financial<br>applicationS                          | Guido<br>Caldarelli,<br>Tiziano<br>Squartini              | http://ecmlpkdd20<br>17.ijs.si/program.ht<br>ml | Research |
| 18/9/2017  | ECML PKDD<br>2017   | workshop           | KnowMe – 1st International Workshop on Knowledge Discovery from Mobility and Transportation Systems | Roberto Trasarti  | http://ecmlpkdd20<br>17.ijs.si/program.ht<br>ml | Research |
| 18/9/2017  | KNOWMe: 1st<br>International<br>Workshop on<br>Knowledge<br>Discovery<br>from Mobility<br>and<br>Transportatio<br>n Systems | invited<br>keynote | The SobigData<br>Research<br>Infrastructure   | Fosca Giannotti   | http://kdd.isti.cnr.i<br>t/knowme.eu/           |          |
| 18/9/2017  | KNOWMe: 1st<br>International<br>Workshop on<br>Knowledge<br>Discovery<br>from Mobility<br>and<br>Transportatio<br>n Systems | invited<br>keynote | Big Data For City<br>Science: The Power<br>Of Networks  | Fosca Giannotti   | http://kdd.isti.cnr.i<br>t/knowme.eu/           |          |
| 22/09/2017 | KNOWMe: 1st<br>International<br>Workshop on<br>Knowledge<br>Discovery<br>from Mobility<br>and<br>Transportatio              | Workshop           | Workshop<br>presentation: Car<br>sharing through the<br>data analysis lens                          | Chiara Boldrini   | http://kdd.isti.cnr.i<br>t/knowme.eu/           | Research |

|             | n Systems   |                                     |   |  |  |                       |
|-------------|---|-------------------------------------|---|--|--|-----------------------|
| 25/09/2017  | Présentation<br>du Diplôme et<br>Journée<br>thématique «<br>Big Data »                          | invited talk                        | Big Data stories<br>from a European<br>perspective                                | Raffaele Perego  | https://depinfo.u-<br>cergy.fr/actualites/<br>55-journee-<br>thematique-big-<br>data                   | Research,<br>Industry |
| 29/09/2017  | SoBigData<br>workshop   | Workshop                            | Nowcasting Well<br>Being in Societies   | Fosca Giannotti  | http://www.sobigd<br>ata.eu/nowcasting-<br>well-being-societies  |                       |
| 29/09/2017  | SoBigData<br>workshop:<br>Nowcasting<br>Well Being in<br>Societies                              | Workshop                            | SoBigdata: Synthsis<br>from well-being-<br>economy<br>exploratory                 | Luca<br>Pappalardo   | http://www.sobigda<br>ta.eu/nowcasting-<br>well-being-societies  |                       |
| 06/10/2017  | OPA Europe,<br>Pisa   | Invited talk                        | SoBigData<br>Research<br>Infrastructure   |  |  | Research              |
| 7-9/10/2017 | International Conference on Computationa I Approaches to Diversity in Interaction and Meaning   | Invited Talk                        | Invited Talk"Adapting NLP tools to diverse data: challenges and solutions"        | Diana Maynard  | https://www.essen<br>ce-<br>network.com/esse<br>nce-final-<br>conference/                              | Research              |
| 17/10/2017  | European<br>Institute<br>University   | Seminar                             | Sobigdata: Verso<br>Un Cern Per La<br>Data Science                                | Fosca Giannotti  |  |                       |
| 18/10/2017  | Helsinki digital<br>humanities<br>summit<br>(HELDIG) 2017                                       | Invited talk                        | Network mining:<br>Historic data<br>analysis and online<br>social debates         | Aristides Gionis   | https://www.helsinki.fi/en/helsinki-centre-for-digital-humanities/heldigdigital-humanities-summit-2017 | Research              |
| 19/10/2017  | DSAA2017 -<br>Data Science<br>and Advanced<br>Analytics   | special<br>session in<br>conference | Special Session on<br>Data Science in<br>Societal Debates<br>(DSSD)               | Stefano Cresci,<br>Maurizio<br>Tesconi, Kalina<br>Bontcheva,<br>Aristides Gionis | http://www.dslab.i<br>t.aoyama.ac.jp/dsa<br>a2017/specialsessi<br>ons/                                 |                       |
| 23/10/2017  | ASPEN<br>Institute,<br>Bologna, Italy   | invited talk                        | Data Science And<br>Big Data: A Game-<br>Changer For<br>Science And<br>Innovation | Fosca Giannotti  |  |                       |
| 09/11/2017  | CIKM 2017<br>International<br>Conference<br>on<br>Information<br>and<br>Knowledge<br>Management | talk at<br>Conference               | Two-stage<br>framework for<br>computing entity<br>relatedness in<br>Wikipedia     | Marco Ponza  | http://www.cikmco<br>nference.org/CIKM<br>2017/index.html  | Research              |

| 10/11/2017 | Pisa Book<br>festival  | Book<br>presentation | Il pensiero<br>computazionale<br>dagli algoritmi al<br>coding             | Paolo Ferragina      |   | General Public           |
|------------|--|----------------------|---|----------------------|---|--------------------------|
| 16/11/2017 | CONFERENZA<br>GARR 2017:<br>the data way<br>to science   | invited talk         | SoBigData: Social<br>Mining and Big<br>Data Ecosystem                     | Fosca Giannotti      | https://www.eventi.<br>garr.it/it/conf17/pro<br>gramma  |                          |
| 23/11/2017 | University of<br>Ghent Data<br>Science<br>Seminar  | Invited talk         | Active network alignment  | Aristides Gionis     | https://www.meet<br>up.com/UgentDSS/<br>events/244172728/   | Research                 |
| 27/11/2017 | Data Science<br>Colloquia<br>(PhD Program<br>in Data<br>Science),<br>Univ. of Pisa   | Seminar              | Data Science for pattern discovery and machine learning transparency      | Dino Pedreschi       | https://datascience<br>phd.eu/events/dat<br>a-science-pattern-<br>discovery-and-<br>machine-learning-<br>transparency                         |                          |
| 28/11/2017 | Search<br>Solutions<br>2017  | tutorial             | Text Analysis with GATE   | Diana Maynard        | http://irsg.bcs.org/<br>SearchSolutions/20<br>17/ss2017tutorials.<br>php  | Research                 |
| 29/11/2017 | GOODTECHS<br>2017, 3rd EAI<br>International<br>Conference<br>on Smart<br>Objects and<br>Technologies<br>for Social<br>Good | talk                 | Privacy Preserving<br>Multidimensional<br>Profiling                       | Francesca<br>Pratesi | http://goodtechs.e<br>u/2017/show/prog<br>ram-final   | Research                 |
| 30/11/2017 | European Commission Workshop: Big Data and alternative data sources on migration: from case studies to policy support.     | workshop             | Data Science for<br>Migration Studies:<br>the SoBigData.eu<br>Exploratory | Dino Pedreschi       | https://bluehub.jrc.<br>ec.europa.eu/bigda<br>ta4migration/progr<br>amme-<br>presentations  | Policy and Law<br>Makers |
| 05/12/2017 | Agcom e<br>Garante<br>Privacy, Italy   | invited talk         | Audizione: Big Data<br>Analytics, Agcom e<br>Garante Privacy              | Fosca Giannotti      |   |                          |
| 05/12/2017 | Seminario<br>Faraday: Dagli<br>algoritmi<br>all'intelligenza<br>artificiale alla<br>robotica                               | Invited talk         | Dagli algoritmi<br>all'intelligenza<br>artificiale alla<br>robotica       | Paolo Ferragina      | https://www.unipi.<br>it/index.php/unipie<br>venti/event/3500-<br>dagli-algoritmi-all-<br>intelligenza-<br>artificiale-alla-<br>robotica-due- | General Public           |

|            |   |                   |   |                     | visioni-a-confronto-<br>sul-rapporto-tra-<br>persone-e-<br>macchine   |                          |
|------------|---|-------------------|---|---------------------|---|--------------------------|
| 9/12/2017  | NIPS<br>Workshop on<br>Prioritising<br>Online<br>Content  | Invited talk      | Political echo<br>chambers in social<br>media   | Aristides Gionis    | http://www.k4all.o<br>rg/event/prioritisin<br>g/  | Research                 |
| 12/12/2017 | Huawei, Paris   | Invited Talk      | The evolution of (string) search  | Paolo Ferragina     |   | Industry                 |
| 13/12/2017 | Data Science<br>Colloquia<br>(PhD Program<br>in Data<br>Science),<br>Univ. of Pisa  | Seminar           | From ego-networks<br>to online social<br>networks   | Marco Conti         | http://datascience<br>phd.eu/events/dat<br>a-science-colloquia  | Teaching<br>Institutions |
| 19/12/2017 | House of<br>Commons, UK<br>Parliament   | talk              | Digital, Culture,<br>Media and Sport<br>Committee, Oral<br>evidence: Fake<br>News presented at<br>UK parliament | Kalina<br>Bontcheva | http://data.parliam<br>ent.uk/writtenevid<br>ence/committeeevi<br>dence.svc/evidence<br>document/digital-<br>culture-media-and-<br>sport-<br>committee/fake-<br>news/oral/74926.h<br>tml                                  | Policy and Law<br>Makers |
|            |   |                   | 2018  |                     |   |                          |
| 15/01/2018 | Data to<br>Change -<br>Human Digital<br>Transformatio<br>n  | talk              | Big data,<br>Intelligenza<br>Artificiale, Etica   |                     | https://www.wired.i<br>t/attualita/media/2<br>018/01/12/data-to-<br>change-data-etica-<br>convegno/<br>https://www.eventb<br>rite.it/e/biglietti-<br>data-to-change-<br>human-digital-<br>transformation-<br>40981917017# |                          |
|            | 10  |                   |   |                     |   |                          |
| 25/01/2018 | 18 eme Conference Internationale Sur L'extraction Et La Gestion Des Connaissance ", Maison Des Science De L'homme De Paris Nord | Invited<br>speech | Big Data For<br>Understanding<br>Human Dynamics:<br>The Power Of<br>Networks                                    | Fosca Giannotti     |   |                          |

| 12/03/2018                 | Machine<br>Learning and<br>Data Analytics<br>Symposium                | Invited talk                                   | Computational problems in mining urban data  | Aristides Gionis                     | http://www.mldas.<br>org/   | Research,<br>Industry    |
|----------------------------|---|--|--|--------------------------------------|---|--------------------------|
| 06/03/2018                 | indagine<br>conoscitiva sui<br>Big Data                               | Indagine<br>conoscitiva                        | indagine conoscitiva sui Big Data avviata dalle tre agenzie: L'Autorità Antitrust, l'Autorità per le Garanzie e nelle Comunicazioni e l'Autorità Garante per la protezione dei dati personali. | Dino Pedreschi,<br>Fosca Giannotti   | http://www.agcm.i<br>t/stampa/comunica<br>ti/8781-ic53-<br>avviata-indagine-<br>conoscitiva-sui-big-<br>data.html |                          |
| 05/03/2018                 | Exploring<br>Media<br>Ecosystems<br>2018 - MIT<br>Media Lab           | invited talk                                   | Detecting Malicious<br>Social Media<br>Accounts  | Stefano Cresci                       | https://mediacloud<br>.org/conference/20<br>18/   | Research,<br>Industry    |
| 02/03/2018                 | WDA 2018,<br>Department<br>of Computer<br>Science, Italy<br>Pisa      | Invited talk                                   | SoBigData.eu<br>project  | Roberto Trasarti                     | http://pages.di.uni<br>pi.it/datamod/wda-<br>2018/  | Research                 |
| 01/03/2018                 | State of<br>Sheffield<br>module,<br>Sheffield<br>University           | Teaching<br>module                             | Tweets, Twits and<br>Twaddle: Trends in<br>Online Abuse<br>towards UK<br>Politicians   | Genevieve<br>Gorrell                 | http://www.dcs.sh<br>ef.ac.uk/~geneviev<br>e/sos-online-<br>abuse-politicians-<br>v2.mp4                          | Teaching<br>Institutions |
| 01/03/2018                 | Workshop<br>RDA, CNR<br>Italy, Pisa                                   | Invited talk                                   | SoBigData.eu e-<br>infrastructure  | Roberto Trasarti                     |   | Research                 |
| 27/02/2017                 | King's College<br>London  | Tutorial                                       | Search engines from terms to concepts  | Paolo Ferragina                      |   | research                 |
| 22/02/2018                 | New dimensions of social capital: from big data to field experiments" | Invited talk                                   | New dimensions of<br>social capital: from<br>big data to field<br>experiments"   | Andrea<br>Passarella                 | http://corsi.unibo.i<br>t/redazione/Shared<br>Documents/Shared<br>/Workshop_REBEL<br>_Bologna.pdf                 | Research                 |
| 01/02/2018 -<br>31/03/2019 | Alan Turing<br>Institute  | Fellowship<br>from<br>Rutherford<br>foundation | Alan Turing<br>Institute (ATI)<br>Visiting Fellow  | Kimmo Kaski<br>(Aalto<br>University) | https://www.turing<br>.ac.uk/people/rese<br>archers/kimmo-<br>kaski   | research                 |
|                            | Colloquia<br>(PhD Program<br>in Data<br>Science),<br>Univ. of Pisa    |  |  |                                      | phd.eu/events/fina<br>ncial-networks  |                          |

|            | (MLDAS) 2018   |                    |  |                      |  |              |
|------------|--|--------------------|--|----------------------|--|--------------|
| 14/03/2018 | PI-day 2018 -<br>Matematica e<br>Coding  | Invited Talk       | I motori di ricerca  | Paolo Ferragina      | http://www.liceosi<br>ciliani.it/index.php/<br>bacheca/news/102<br>0-pi-day-2018   | High Schools |
| 19/03/2018 | PerCrowd<br>Workshop   | Keynote talk       | The Internet of People (IoP): A New Wave in Pervasive Mobile Computing   | Andrea<br>Passarella | http://percrowd.bl<br>ogspot.it/p/progra<br>m.html   | Research     |
| 22/03/2018 | Ceremony for<br>the<br>Conferment<br>as an<br>Honorary<br>Memeber of<br>the Mexican<br>Acedemy of<br>Sciences  | Honorary<br>talk   | From Solid State to<br>Statistical to Social<br>Physics -<br>Comnputational<br>Discoveries of<br>Matter and<br>Mankind | Kimmo Kaski          | https://www.faceb<br>ook.com/amciencia<br>s/posts/el-doctor-<br>kimmo-kaski-es-<br>reconocido-<br>mundialmente-por-<br>sus-trabajos-de-<br>investigaci/166051<br>5924033574/ | research     |
| 24/03/2018 | First International Workshop on Online Social Networks and Media: Network Properties and Dynamics (OSNED) 2018 | talk               | Mining temporal networks   | Aristides Gionis     | https://osned.nets<br>ons.org/   | Research     |
| 28/03/2018 | Data Science<br>Colloquium,<br>PhD Data<br>Science, Univ.<br>of Pisa   | Seminar            | Data Science For<br>Nowcasting &<br>Forecasting  | Fosca Giannotti      | https://datascience<br>phd.eu/events/dat<br>a-science-<br>nowcasting-<br>forecasting   |              |
| 04/04/2018 | Data Science<br>Colloquium,<br>PhD Data<br>Science, Univ.<br>of Pisa   | Seminar            | Answering complex queries in near-real time: challenges and applications   | Raffaele Perego      | https://datascience<br>phd.eu/events/ans<br>wering-complex-<br>queries-near-real-<br>time-challenges-<br>and-applications  |              |
| 05/04/2018 | AISB conference workshop on Emotion Modeling and Detection in Social Media and Online Interaction              | Invited<br>Keynote | Twits, Twats and<br>Twaddle. Analysis<br>of hate speech<br>towards politicians<br>in the GATE social<br>media toolkit. | Diana Maynard        | http://collab.di.uni<br>ba.it/aisbemotions   | Research     |
| 13/04/2018 | Pianeta<br>Galileo: Primo<br>incontro con  | Invited talk       | Il pensiero<br>computazionale<br>dagli algoritmi al  | Paolo Ferragina      | http://www.consigl<br>io.regione.toscana.i<br>t/pianeta-   | High Schools |

|            | la scienza   |                     | coding  |   | galileo/default.aspx<br>?idc=65&nome=inc<br>ontri_2018_autori   |                       |
|------------|--|---------------------|---|---|---|-----------------------|
| 23/04/2018 | Web<br>Conference<br>2017  | Poster presentation | User Fairness in<br>Recommender<br>Systems  | Avishek Anand   | https://www2018.t<br>hewebconf.org/pro<br>ceedings/   | Research              |
| 23/04/2018 | Web<br>Conference<br>2018  | Tutorial            | Polarization on social media  | Kiran Garimella,<br>Gianmarco De<br>Francisci<br>Morales,<br>Aristides Gionis,<br>Michael<br>Mathioudakis | http://gvrkiran.gith<br>ub.io/polarization/   | Research,<br>Industry |
| 24/04/2018 | SoBigData @<br>The www<br>2018 - the<br>Web<br>Conference            | talks               | SoBigData: Social<br>Mining & Big Data<br>Ecosystem   | Roberto Trasarti  | https://www2018.t<br>hewebconf.org/pro<br>gram/international<br>-projects/  | Research              |
| 02/05/2018 | Data Science<br>Colloquium,<br>PhD Data<br>Science, Univ.<br>of Pisa | Seminar             | Validating,<br>reconstructing,<br>predicting: a broad<br>overview of<br>network<br>techniques | Tiziano<br>Squartini  | https://datascience<br>phd.eu/events/vali<br>dating-<br>reconstructing-<br>predicting-broad-<br>overview-network-<br>techniques |                       |
| 03/05/2018 | Freewheeling<br>on Big Data,<br>Platforms and<br>Data Analysis       | talk in<br>workshop | SoBigData   | Fosca Giannotti   | http://embeds.sant<br>annapisa.it/event/f<br>reewheeling-big-<br>data-platforms-<br>and-data-analysis                           |                       |
| 03/05/2018 | Freewheeling<br>on Big Data,<br>Platforms and<br>Data Analysis       | talk in<br>workshop | QuantFinance  | Fabrizio Lillo  | http://embeds.sant<br>annapisa.it/event/f<br>reewheeling-big-<br>data-platforms-<br>and-data-analysis                           |                       |
| 03/05/2018 | Freewheeling<br>on Big Data,<br>Platforms and<br>Data Analysis       | talk in<br>workshop | Wellbeing & Economics applications  | Dino Pedreschi  | http://embeds.sant<br>annapisa.it/event/f<br>reewheeling-big-<br>data-platforms-<br>and-data-analysis                           |                       |
| 14/05/2018 | Scuola<br>Sant'Anna,<br>Pisa   | invited talk        | The Sobigdata.it<br>Ecosystem   | Fosca Giannotti   |   |                       |
| 16/05/2018 | Data Science<br>Colloquium,<br>PhD Data<br>Science, Univ.<br>of Pisa | Seminar             | Financial Data<br>Science   | Fabrizio Lillo  | https://datascience<br>phd.eu/events/fina<br>ncial-data-science   |                       |
| 15/05/2018 | Univ<br>Constance  | invited talk        | visual analytics  | Natalia and<br>Gennady<br>Andrienko   | -   | Research              |

| 17/05/2018        | KU Leuven  | tutorial     | Temporal Web Indexing  | Avishek Anand                                |   | Research                 |
|-------------------|--|--------------|--|--|---|--------------------------|
| 23/05/2018        | Roundtable<br>on the Digital<br>Economy  | Roundtable   | Roundtable on the Digital Economy  | Fosca Giannotti                              | https://www.uniur<br>b.it/comunicati/22<br>450  | Policy and Law<br>Makers |
| 24/05/2018        | Public<br>conference at<br>the CSH<br>Vienna   | Invited talk | Complexity Science – en route from Data-driven Discoveries to Data-driven Societies                                  | Kimmo Kaski                                  | https://www.csh.ac<br>.at/event/csh-<br>conference-<br>complexity-where-<br>do-we-go-from-<br>here/   | Research                 |
| 27-<br>29/05/2018 | Dortmund conference:D as nächste Level der Mobilität: Automatisieru ng, multimodale Services und die Rolle von Daten     | Invited talk | Data privacy @ SoBigData.eu: privacy-by-design, risk assessment, personal data analytics & new deal on personal data | Fosca Giannotti                              | https://cps-hub-<br>nrw.de/termine/20<br>18-03-28-<br>mobilitaet-zeiten-<br>der-digitalisierung-<br>voraussetzungen-<br>fuer-autonomes-<br>fahren-und | Research                 |
| 30/05/2018        | 9th Italian<br>Information<br>Retrieval<br>Workshop<br>(IIR) 2018  | Talk         | Combating polarization in social media   | Aristides Gionis                             | http://www.diag.u<br>niroma1.it/~iir2018<br>/   | Research                 |
| 30/05/2018        | University of<br>Sapienza<br>Department<br>of Computer<br>Science  | Seminar      | The Sobigdata<br>Research<br>Infrastructure  | Fosca Giannotti                              |   |                          |
| 04/06/2018        | EuroVA 2018  | keynote talk | visual analytics of football   | Natalia and<br>Gennady<br>Andrienko          | http://www.eurova<br>.org/eurova-<br>2018/keynote-2018  | Research                 |
| 08/06/2018        | Univ Brno  | invited talk | Visual football analytics  | Gennady and<br>Natalia<br>Andrienko          |   | research                 |
| 11/06/2018        | Workshop on<br>Quantifying<br>success,<br>International<br>School and<br>Conference<br>on Network<br>Science<br>(NETSCI) | Invited Talk | Data-driven<br>algorithms for<br>performance<br>evaluation of<br>soccer players                                      | Paolo Ferragina                              | https://www.netsci<br>2018.com/   | Research                 |
| 11-<br>15/06/2018 | 11th GATE<br>Training<br>Course  | Tutorial     | Large Scale Text<br>and Social Media<br>Analytics with<br>GATE   | Kalina<br>Bontcheva,<br>Genevieve<br>Gorrell | https://gate.ac.uk/<br>conferences/fig/fig<br>11.html   | Research                 |
| 14-15 /06/        | THATCamp   | Invited      | Introduction to  | Diana Maynard                                | http://ugainvalenc  | Research                 |

| 2018              | (The<br>Humanities<br>and<br>Technology<br>Camp)  | Tutorial                                     | GATE for text<br>analysis  |   | e2018.thatcamp.or<br>g/2018/05/30/intro<br>duction-to-gate-<br>for-text-analysis/  |                          |
|-------------------|---|--|--|---|--|--------------------------|
| 14-<br>15/06/2018 | Workers and firms in the platform economy   | Talk   |  | Roberto Trasarti  | http://www.storep.<br>org/wp/en/confere<br>nza-il-lavoro-e-<br>limpresa-<br>nelleconomia-<br>delle-piattaforme-<br>roma-14-15-<br>giugno-2018/ | Policy and Law<br>Makers |
| 15/06/2018        | PSE Workshop<br>on "Big Data<br>and<br>Migration"<br>June 15, Paris<br>School of<br>Economics | Workshop                                     | PSE Workshop on<br>"Big Data and<br>Migration" June 15,<br>Paris School of<br>Economics  | Fosca Giannotti,<br>Dino Pedreschi,<br>Luca<br>Pappalardo,<br>Alina Sirbu | https://www.pariss<br>choolofeconomics.<br>eu/en/research/se<br>minars/migration-<br>seminar/  | Research                 |
| 18/06/2018        | Siemens,<br>Munich  | Seminar                                      | Data Ethics In<br>Sobigdata  | Fosca Giannotti   |  |                          |
| 19/06/2018        | IEEE<br>SmartComp<br>2018   | Keynote talk                                 | From people-<br>centric computing<br>and networking to<br>Internet of People             | Marco Conti   | https://easychair.o<br>rg/cfp/SMARTCOM<br>P2018  | Research                 |
| 25/06/2018        | DataMod<br>Workshop,<br>Toulouse<br>(France)  | Workshop                                     | Analyzing Privacy<br>Risk in Human<br>Mobility Data                                      | Francesca<br>Pratesi  | http://pages.di.uni<br>pi.it/datamod/editi<br>on-2018/   | Research                 |
| 25/06/2018        | JRC<br>Resonances<br>Summer<br>School on Big<br>Data @ ISPRA                                  | Workshop                                     | Big Data,<br>Opportunities,<br>Perils &<br>Countermeasures.<br>Resonance_Art_Sci<br>ence | Fosca Giannotti   | https://ec.europa.e<br>u/jrc/en/event/oth<br>er-<br>event/resonances-<br>summer-school-<br>big-data  | Research                 |
| 28/06/2018        | Generali Italia<br> TAM TAM<br>TALKS  | Talk   | Human artificial intelligence: open the black box  | Dino Pedreschi  | https://www.youtu<br>be.com/watch?tim<br>e_continue=176&v<br>=4qPkgASIWaM  |                          |
| 03/07/2018        | Google  | Invited Talk                                 | Performance<br>evaluation in<br>soccer from data to<br>algorithms                        | Paolo Ferragina   | https://plus.google.<br>com/+GoogleSwitz<br>erland   | Research                 |
| 03-<br>04/07/2018 | Univ Vilnius<br>and GIS-<br>Centras   | invited talks                                | visual analytics   | Natalia and<br>Gennady<br>Andrienko                                       | http://www.gis-<br>centras.lt/gisweb/i<br>ndex.php?pageid=8  | Research,<br>Industry    |
| 05/07/2018        | UCREL<br>Summer<br>School in<br>Corpus-Based<br>Natural                                       | Summer<br>school<br>lecture/Invit<br>ed talk | Large-scale Social<br>media analysis   | Kalina<br>Bontcheva   | http://ucrel.lancs.a<br>c.uk/summerschool<br>/nlp.php  | Research                 |

|                     | Language<br>Processing  |                                    |   |   |   |             |
|---------------------|---|------------------------------------|---|---|---|-------------|
| 07/07/2018          | Working class<br>hero -<br>Grosseto-  | workshop                           | Data journalism<br>and Big Data   | Giulio Rossetti   |   | Journalists |
| 18/07/2018          | IJCAI 2018  | invited talk                       | Reducing<br>controversy by<br>connecting<br>opposing views  | Kiran Garimella   | http://static.ijcai.or<br>g/2018-<br>Program.html   | Research    |
| 23-<br>30/07/2018   | Essex<br>University<br>Summer<br>School on Big<br>Data and<br>Analytics   | Tutorial                           | Tutorials on "Practical Sentiment Analysis" and "Introduction to NLP"   | Diana Maynard   | https://www.essex.<br>ac.uk/research/inst<br>itutes-and-<br>centres/institute-<br>for-analytics-and-<br>data-science/big-<br>data-and-analytics-<br>summer-school | Research    |
| 19-<br>25/07/2018   | Lipari Summer<br>School: From<br>swarm<br>intelligence to<br>digital<br>democracy:<br>new tools for<br>a complex<br>society | Talk                               | Compression and Indexing of Big Data: what's new?   | Paolo Ferragina   | https://complex.lip<br>arischool.it/paolo-<br>ferragina-abstract  | research    |
| 25/07/2018          | Cambridge<br>IBSEN<br>International<br>Conference<br>on Large scale<br>Experiments  | Invited talk                       | Network<br>coordination:<br>experiment and<br>modelling   | Kunal<br>Bhattacharya,<br>Kimmo Kaski,<br>Daniel<br>Monsivais | https://www.inet.e<br>con.cam.ac.uk/our-<br>events/cambridge-<br>ibsen-international-<br>conference-on-<br>large-scale-<br>experiments-july-<br>2018              | research    |
| 26/07/2018          | University of Edinburgh   | invited talk                       | Visual Analytics  | Natalia and<br>Gennady<br>Andrienko                           | -   | Research    |
| 27/07/2018          | GESIS<br>Research<br>Institute,<br>Cologne  | Invited talk                       | Using language to<br>save the world:<br>information<br>extraction tools for<br>social media and<br>medical data<br>analysis | Diana Maynard   | https://www.gesis.<br>org/angebot/veran<br>staltungen/gesis-<br>vortragsreihen/vort<br>rags-<br>archiv/2018/ko-<br>20180727/                                      | Research    |
| 30/07-<br>4/08/2018 | WSTNet Web<br>Science<br>Summer<br>School   | Invited<br>Keynote and<br>Tutorial | Social media analysis with GATE   | Diana Maynard   | http://wwsss18.we<br>bscience.org/  | Research    |
| 31/07/2018          | WSTNET<br>Summer<br>School  | tutorial                           | Temporal<br>Information<br>Retrieval  | Avishek Anand   | http://wwsss18.we<br>bscience.org/index.<br>php/schedule/   | Research    |
| 02/08/2018          | City Univ   | invited talk                       | Visual football   | Gennady and   | http://www.eurova   | research    |

|            | London  |              | analytics  | Natalia<br>Andrienko  | .org/eurova-<br>2018/keynote-2022                         |                       |
|------------|---|--------------|--|---|---|-----------------------|
| 12/08/2017 | Big Data tech                                     | Invited Talk | Intelligent Application of Big Data: Big Opportunitiesand Big Risks    | Anna Monreale   |   | Research,<br>Industry |
| 20/08/2018 | SIGKDD 2018                                       | Tutorial     | Polarization on social media   | Kiran Garimella,<br>Gianmarco De<br>Francisci<br>Morales,<br>Aristides Gionis,<br>Michael<br>Mathioudakis | http://gvrkiran.gith<br>ub.io/polarization/               | Research,<br>Industry |
| 20/08/2018 | KDD 2018  | Workshop     | Opinions, Conflict,<br>and Abuse in a<br>Networked Society<br>(OCeANS) | Aristides Gionis,<br>Antonis<br>Matakos,<br>Panayiotis<br>Tsaparas, Tijl De<br>Bie, Xi Chen               | https://sites.google<br>.com/view/oceans-<br>kdd2018/home | research              |
| 21/08/2018 | Digital Methods in Humanities and Social Sciences | Workshop     | Workshop on social network analysis                                    | Rajesh Sharma   | https://digitalmeth<br>ods.ut.ee/                         | Research              |

Table 4. Workshop Organisation/Tutorials/Invited Talks.

# 2.4.4 PRESS COVERAGE

| Date       | Persons involved                      | Publication Title  | Source  |  |  |  |  |
|------------|---------------------------------------|--|---|--|--|--|--|
|            | 2017                                  |  |   |  |  |  |  |
| 09/07/2017 | Luca Pappalardo<br>and Dino Pedreschi | Big data applicati al<br>calciomercato: la rete sociale dei<br>trasferimenti dagli anni '50 ad<br>oggi           | http://www.calcioefinanza.it/2017/07/<br>09/big-data-applicati-al-calciomercato-<br>network-analysis/                   |  |  |  |  |
| 09/07/2017 | Luca Pappalardo<br>and Dino Pedreschi | Il calciomercato fa rete   | http://nova.ilsole24ore.com/nova24-<br>tech/il-calciomercato-fa-<br>rete/?refresh_ce=1                                  |  |  |  |  |
| 23/07/2017 | Kalina Bontcheva                      | Twitter Has Suspended Another<br>45 Suspected Propaganda<br>Accounts After They Were<br>Flagged By BuzzFeed News | https://www.buzzfeed.com/tomphillips/twitter-abuse-of-mps-during-the-election-doubled-after-the                         |  |  |  |  |
| 31/08/2017 | Luca Pappalardo<br>and Paolo Cintia   | Lo dice la scienza   | https://lucapappalardo.files.wordpress<br>.com/2015/07/tuttosport-31-agosto-<br>2017-wallabies.pdf                      |  |  |  |  |
| 16/10/2017 | Luca Pappalardo<br>and Paolo Cintia   | L'algoritmo del gol: così la scienza<br>ha innovato il calcio  | https://www.ilfoglio.it/sport/2017/10/<br>16/news/l-algoritmo-del-gol-cosi-la-<br>scienza-ha-innovato-il-calcio-157935/ |  |  |  |  |
| 24/11/2017 | Kalina Bontcheva                      | This Is What The Twitter Abuse<br>Of Politicians During The Election   | https://www.buzzfeed.com/tomphillip<br>s/we-found-45-suspected-bot-   |  |  |  |  |

|            |  | Really Looked Like   | accounts-sharing-pro-trump-pro  |
|------------|--|--|---|
| 6/12/2017  | Kiran Garimella,<br>Gianmarco De<br>Francisci Morales,<br>Aristides Gionis,<br>Michael<br>Mathioudakis | Social media algorithm pops filter bubbles by presenting ideas you disagree with                           | https://www.digitaltrends.com/cool-<br>tech/filter-bubble-algorithm-pop/  |
| 13/12/2017 | Luca Pappalardo,<br>Paolo Cintia, Fosca<br>Giannotti, Dino<br>Pedreschi                                | Data Mining Reveals the Way<br>Humans Evaluate Each Other  | https://www.technologyreview.com/s/609760/data-mining-reveals-the-way-humans-evaluate-each-other/   |
|            |  | 2018   |   |
| 03/02/2018 | Kiran Garimella,<br>Gianmarco De<br>Francisci Morales,<br>Aristides Gionis,<br>Michael<br>Mathioudakis | Kyllä, algoritmit uhkaavat<br>demokratiaa – Valta luisuu some-<br>miljardööreille                          | https://yle.fi/uutiset/3-10041316   |
| 09/02/2018 | Dino Pedreschi,<br>Andrea Passarella e<br>Raffaele Perego  | Scienza dei dati per il bene<br>comune', Big Data all'Università<br>di Pisa                                | http://www.gonews.it/2018/02/09/sci<br>enza-dei-dati-bene-comune-big-data-<br>alluniversita-pisa/   |
| 12/02/2018 | Dino Pedreschi   | Big Data: la nuova frontiera<br>dell'eccellenza pisana   | http://www.pisainformaflash.it/news/big-data-la-nuova-frontiera-delleccellenza-a-pisa/  |
| 12/02/2018 | Fosca Giannotti  | Big Data: la scienza dei dati per il<br>bene comune  | http://www.pisainformaflash.it/evento-pisa/big-data/  |
| 24/02/2018 | Luca Pappalardo<br>and Paolo Cintia  | La dura legge del gol: quando un algoritmo siede in panchina   | https://www.forbes.it/sites/it/2018/02<br>/24/la-dura-legge-del-gol-quando-un-<br>algoritmo-siede-in-<br>panchina/#7b42db674c9b                             |
| 12/03/2018 | Fosca Giannotti  | Putting people at the heart of big data  | https://horizon.scienceblog.com/184/<br>putting-people-at-the-heart-of-big-<br>data/  |
| 12/03/2018 | Fosca Giannotti  | Putting people at the heart of big data  | https://phys.org/news/2018-03-<br>people-heart-big.html   |
| 23/03/2018 | Fabrizio Lillo,<br>Maurizio Tesconi,<br>Stefano Cresci   | Così i tweet dei robot insidiano le<br>news dei listini di Borsa   | http://www.ilsole24ore.com/art/finan<br>za-e-mercati/2018-03-22/cosi-tweet-<br>robot-insidiano-news-listini-<br>220125.shtml?uuid=AEopFvLE&refresh<br>_ce=1 |
| 29/03/2018 |  | The Potential and Practice of Data Collaboratives for Migration  | https://ssir.org/articles/entry/the_pot<br>ential_and_practice_of_data_collabora<br>tives_for_migration   |
| 31/03/2018 | Fosca Giannotti  | Big data, opportunità e rischi<br>secondo Fosca Giannotti  | https://www.lettera43.it/it/articoli/cro<br>naca/2018/03/31/cambridge-<br>analytica-big-data-fosca-giannotti-<br>sobigdata/219051/                          |
| 01/04/2018 | Luca Pappalardo<br>and Paolo Cintia  | Nicola, l'allenatore che spiega il<br>calcio con i Big Data: «Tutto (o<br>quasi) è prevedibile coi numeri» | https://www.corriere.it/tecnologia/cyber-cultura/18_aprile_01/nicola-lallenatore-che-spiega-calcio-big-data-  |

|            |  |  | tutto-o-quasi-prevedibile-coi-numeri-<br>2c36494c-35ca-11e8-b2e5-<br>b255d4399dd5.shtml   |
|------------|--|--|---|
| 04/04/2018 | Kiran Garimella,<br>Gianmarco De<br>Francisci Morales,<br>Aristides Gionis,<br>Michael<br>Mathioudakis | Pop Goes the Filter Bubble?<br>Algorithms may be able to help<br>us step out of our echo<br>chambers.  | https://slate.com/technology/2018/04/personalization-algorithms-could-actually-help-pop-filter-bubbles.html?via=gdpr-consent                                    |
| 12/04/2018 | Dino Pedreschi,<br>Paolo Ferragina,<br>Fosca Giannotti,<br>Paolo Cintia, Luca<br>Pappalardo            | Macchine e algoritmi a caccia del<br>nuovo Ronaldo   | http://www.ilsole24ore.com/art/notizi<br>e/2018-04-08/macchine-e-algoritmi<br>caccia-nuovo-ronaldo-<br>150154.shtml?uuid=AEw8fVQE                               |
| 24/04/2018 | Kiran Garimella,<br>Gianmarco De<br>Francisci Morales,<br>Aristides Gionis,<br>Michael<br>Mathioudakis | Comment les réseaux sociaux accentuent l'enfermement dans ses idées  | https://mobile.lemonde.fr/pixels/article/2018/04/24/comment-les-reseaux-sociaux-accentuent-l-enfermement-dans-ses-idees_5289874_4408996.html                    |
| 29/04/2018 |  | Il lato oscuro dei listini: così gli<br>algoritmi manipolano i mercati   | http://www.ilsole24ore.com/art/finan<br>za-e-mercati/2018-04-27/il-lato-<br>oscuro-listini-cosi-algoritmi-<br>manipolano-mercati-<br>183257.shtml?uuid=AE1qK3eE |
| 01/05/2018 | Kiran Garimella,<br>Gianmarco De<br>Francisci Morales,<br>Aristides Gionis,<br>Michael<br>Mathioudakis | Social Media 'Echo Chambers'<br>Reinforce Political Partisanship   | https://www.tun.com/blog/social-<br>media-echo-chambers-reinforce-<br>political-partisanship/   |
| 01/05/2018 | Stefanie Hänold, Jan<br>Klemmer  | Free GDPR Online Course by SoBigData   | http://blog.iri.uni-<br>hannover.de/index.php/page/2/   |
| 01/05/2018 | Stefanie Hänold;<br>Avishek Anand  | Online-Kurs zur<br>Datenschutzgrundverordnung  | https://www.l3s.de/de/content/online<br>-kurs-zur-datenschutzgrundverordnung  |
| 03/05/2018 | Eric Malmi,<br>Aristides Gionis  | Tekoäly kävi läpi miljoonia<br>suomalaisia – Yllättävä havainto:<br>Yhteiskunta jämähti 150 vuodeksi<br>tiukkaan luokkajakoon  | https://www.uusisuomi.fi/kotimaa/24<br>7755-tekoaly-kavi-lapi-miljoonia-<br>suomalaisia-yllattava-havainto-<br>yhteiskunta-jamahti-150                          |
| 05/05/2018 | Kiran Garimella,<br>Gianmarco De<br>Francisci Morales,<br>Aristides Gionis,<br>Michael<br>Mathioudakis | Use Twitter regularly? You might be in an echo chamber   | http://www.digitaljournal.com/tech-<br>and-science/technology/research-<br>confirms-echo-chambers-on-twitter-<br>exist/article/521413                           |
| 09/05/2018 | Kiran Garimella,<br>Gianmarco De<br>Francisci Morales,<br>Aristides Gionis,<br>Michael<br>Mathioudakis | Molempia osapuolia ymmärtäviä<br>ihmisiä rangaistaan sosiaalisessa<br>mediassa – Aalto-yliopiston<br>analyysi miljardeista twiiteistä<br>todistaa sen minkä sisimmissäsi<br>jo tiesitkin | https://www.hs.fi/nyt/art-<br>2000005673179.html  |

| 07/05/2018 | IMT  | Complexity72h, alla scuola IMT<br>un incontro tra studiosi di vari<br>settori per tre giorni di ricerca,<br>nel segno dell'interdisciplinarietà | https://www.lagazzettadilucca.it/cultura-e-spettacolo/2018/05/complexity72h-alla-scuola-imt-un-incontro-tra-studiosi-di-vari-settori-per-tre-giorni-di-ricerca-nel-segno-dellinterdisciplinarieta/ |
|------------|--|---|--|
| 08/05/2018 | IMT  | Workshop sperimentale a Imt -<br>Denominato Complexity72h,<br>coinvolge 40 ricercatori da tutta<br>Europa                                       | http://iltirreno.gelocal.it/lucca/cronaca/2018/05/08/news/workshop-sperimentale-a-imt-1.16810334   |
| 14/05/2018 | Luca Pappalardo<br>and Paolo Cintia                | I numeri del calcio   | https://www.youtube.com/watch?v=R<br>aXT05y829w&t=3485s  |
| 06/06/2018 | Luca Pappalardo<br>and Paolo Cintia                | Sports performance evaluation   | https://www.youtube.com/watch?v=ix<br>s9XutuOSA&t=8s   |
| 25/06/2018 | Beatrice Rapisarda,<br>Stefano Cresci              | Digital DNA: How to map our online behavior   | https://ocean.sagepub.com/blog/2018/6/22/digital-dna-how-to-map-our-online-behavior  |
| 02/07/2018 | Fosca Giannotti                                    | Nasce il laboratorio nazionale sull'intelligenza artificiale  | https://www.industriaitaliana.it/nasce-<br>il-laboratorio-nazionale-sull-<br>intelligenza-artificiale/   |
| 05/07/2018 | Giulio Rossetti                                    | Data Journalism e Big Data'. La<br>rivoluzione dell'informazione<br>giornalistica nell'era di Internet e<br>delle Reti Sociali.                 | https://www.maremmanews.it/index.php/attualita/54954-data-journalism-e-big-data-la-rivoluzione-dell-informazione-giornalistica-nell-era-di-internet-e-delle-reti-sociali?jjj=1532072552278         |
| 06/07/2018 | UNIVERSITY<br>COLLEGE LONDON,<br>Luca Pappalardo   | City size plays crucial role in migration patterns  | https://eurekalert.org/pub_releases/2<br>018-07/ucl-csp070518.php  |
| 06/07/2018 | Dino Pedreschi                                     | Human Artificial Intelligence   | https://www.youtube.com/watch?v=4<br>qPkgASIWaM&t=663s   |
| 22/07/2018 | Dino Pedreschi                                     | Una chiave per la scatola nera dell'IA  | http://www.sobigdata.eu/blog/open-black-boxes-ai   |
| 23/07/2018 | Dino Pedreschi                                     | The Black Box Society: come fanno le imprese a fidarsi dei loro prodotti?   | http://www.ilsole24ore.com/art/tecno<br>logie/2018-07-23/the-black-box-<br>society-come-fanno-imprese-fidarsi-<br>loro-prodotti<br>085843.shtml?uuid=AEc7FlJF&refresh_<br>ce=1                     |
| 27/07/2018 | Alessio Rossi, Luca<br>Pappalardo, Paolo<br>Cintia | L'intelligenza artificiale aiuta i<br>calciatori a evitare gli infortuni  | https://www.wired.it/lifestyle/sport/2<br>018/07/27/intelligenza-artificiale-<br>aiuta-calciatori-evitare-infortuni/   |
| 09/08/2018 | Luca Pappalardo,<br>Paolo Cintia                   | "Your muscle is due!" Prophesied the artificial intelligence  | https://nzzas.nzz.ch/wissen/muskel-<br>ist-faellig-prophezeit-die-kuenstliche-<br>intelligenz-ld.1418042?reduced=true  |
| 24/08/2018 | Dino Pedreschi                                     | Sarzana: gli scienziati ospiti della<br>XV edizione del Festival della<br>Mente parlano di comunità   | http://www.meteoweb.eu/2018/08/sa<br>rzana-gli-scienziati-ospiti-della-xv-<br>edizione-del-festival-della-mente-<br>parlano-di-comunita/1141880/   |

| 31/08/2018 | Kalina Bontcheva,<br>Genevieve Gorrell,<br>Diana Maynard,<br>Mark Greenwood,<br>Ian Roberts | Abusive tweets to MPs 'more than double' between elections                             | https://www.bbc.co.uk/news/uk-politics-45363720   |
|------------|---|--|---|
| 31/08/2018 | Dino Pedreschi,<br>Paolo Ferragina,<br>Luca Pappalardo,<br>Paolo Cintia                     | Un algoritmo per l'azienda calcio:<br>valutare un giocatore come se<br>fosse un'azione | http://www.ilsole24ore.com/art/tecno<br>logie/2018-08-31/un-algoritmo-l-<br>azienda-calcio-valutare-giocatore-<br>come-se-fosse-un-azione-<br>104104.shtml?uuid=AEi1kzeF&fromSe<br>arch |

Table 5. Press and news articles from the Consortium.

#### 2.4.5 TUSCAN BIG DATA CHALLENGE

The Tuscan Big Data Challenge is a national initiative devoted to Tuscan SMEs interested in exploring the potential of big data in improving the production processes, their market or their interaction with customers and suppliers. This event is organized in collaboration of WP5. The SoBigData.it lab offers the support of his scientists to analyse companies' data and to produce a proof of concepts to be further developed. The analysis of such data can help the SMEs to improve efficiency, predict failures and reduce the number of defective parts brought on the market.

In Autumn 2017 started the second edition of the Tuscan Big Data Challenge. More details are available in Appendix B. TUSCAN BIG DATA CHALLENGE.

#### 2.4.6 MASTER IN BIG DATA ANALYTICS & SOCIAL MINING

The Post-Graduate Master in Big Data Analysis and Social Mining is a post-graduate master course that takes place at the University of Pisa, Italy and is organised by the University of Pisa, the Istituto di Informatica e Telematica of the Italian National Research Council and the Istituto di Scienza e Tecnologie dell' Informazione of the Italian National Research Council.

The Post-Graduate Master has a one-year duration and its attendance is worth 60 European Credit Transfer and Accumulation System points. This post-graduate master has an interdisciplinary approach, focusing on the diverse skills needed to interact with the technological, analytical, narrative and ethical aspects of Big Data. More details are available in D4.2 "Training Activities: planning, material and reports 1" and in the dedicated website <a href="https://masterbigdata.it/">https://masterbigdata.it/</a>.

#### 2.4.7 DATA SCIENCE PH.D.

The Data Science Ph.D. is a joint initiative by SoBigData and five of the most important research institutions in the Tuscan area: Scuola Normale Superiore, University of Pisa, National Research Council, Sant'Anna School of Advanced Studies and IMT Lucca.

The Ph.D. in Data Science is aimed at educating the new generation of researchers that combine their disciplinary competences with those of a "data scientist", able to exploit data and models for advancing

knowledge in their own disciplines, or across diverse disciplines. To this purpose, the Ph.D. in Data Science develops a mix of knowledge and skills on the methods and technologies for the management of large, heterogeneous and complex data, for data sensing (how to harvest data), for data analysis and mining (how to make sense of data), for data visualization and storytelling (how to narrate data), for understanding the ethical issues and the social impact of Data Science.

The duration of the Data Science Ph.D. program is three years and is open to students from all disciplines that want to study the Data Science tools for applications in different fields of research. More details are available in D4.2 "Training Activities: planning, material and reports 1" <a href="https://www.unipi.it/index.php/english">https://www.unipi.it/index.php/english</a>.

#### 3 DISSEMINATION IMPACT

In Deliverable 3.3 - "Initial Dissemination and Impact Plan" we have defined a set of indicators in order to monitor the success of the communication activities. In more detail, the success indicators, detailed in the next sections are assessed continuously and reported annually.

#### 3.1 PROJECT DISSEMINATION INDICATORS

Table 6 reports the indicators defined in Deliverable 3.3. The following indicators represent some metrics in order to evaluate the dissemination activities. Several components have been defined such as the "number of publications", "the number of interviews", or "the size of the community".

| Component                          | Metrics  | Target Y1  | Target Y2 | Target Y3 | Target Y4 |
|------------------------------------|--|--|-----------|-----------|-----------|
| Publications                       | Number of published /<br>submitted (i.e. peer-<br>reviewed) publications in<br>journals or conferences | 15   | 15        | 15        | 15        |
| Reported presentations             | Number of presentations  | 5  | 10        | 10        | 15        |
| Press releases                     | Number of press releases   | 5 (General<br>press<br>release in<br>English.<br>Individual<br>releases in<br>several<br>project<br>languages) | 5         | 5         | 5         |
| Interview /<br>Meeting request     | Number of interviews<br>and/or requests for<br>establishing contact to<br>SoBigData                    | 4 (1 with<br>academic<br>background<br>and 3<br>industrial<br>background)                                      | 5         | 10        | 15        |
| Size of the end-<br>user community | Number of individuals/organisations in the SoBigData community   | 100  | 150       | 200       | 250       |

Table 6. Project dissemination indicators.

#### 3.1.1 DISSEMINATION INDICATORS: RESULTS

This section reports the results considering the dissemination indicators introduced above. In particular, we compute the aggregates from M19 to M36. So the target result for the second period has to be considered as half of the second year plus the one of the third year. For example the target for the number of presentations is 5 for Y2 and 10 for Y3.

Table 7 reports that all the indicators have been addressed during M19 to M36 of the project.

| Component                      | Metrics  | Target (M36) | Result |
|--------------------------------|--|--------------|--------|
| Publications                   | Number of published / submitted (i.e. peer-reviewed) publications in journals or conferences | 22           | 99     |
| Reported presentations         | Number of presentations  | 15           | 91     |
| Press releases                 | Number of press releases   | 7            | 36     |
| Interview / Meeting request    | Number of interviews and/or requests for establishing contact to SoBigData                   | 12           | 42     |
| Size of the end-user community | Number of individuals/organisations in the SoBigData community                               | 200          | 2333   |

**Table 7. Project dissemination indicators results.** 

#### 3.2 SOCIAL CHANNELS INDICATORS

Since SoBigData has a pervasive presence on social media, such as Facebook, Twitter, LinkedIn, Table 8 reports all the indicators related to social media activities expected in this reporting period.

|                     | Indicators   |                                |               |               |               |
|---------------------|--|--------------------------------|---------------|---------------|---------------|
| Channel             | Objective  | Y1                             | Y2            | Y3            | Y4            |
| News/blog<br>posts  | News/blog entries<br>on the project web<br>site              | 10 Posts                       | 12            | 12            | 12            |
| Twitter             | Short project updates  | 20 tweets,<br>100<br>followers | 40/200        | 40/300        | 50/350        |
| Facebook<br>page    | Informal project<br>updates and links to<br>the RSS Web site | To be<br>created               | 30/100        | 30/100        | 30/100        |
| Project<br>Web site | Number of visits Page views Pages/Visit                      | 100<br>200<br>1.5              | 20%<br>growth | 20%<br>growth | 20%<br>growth |

**Table 8. Social channels indicators.** 

#### 3.2.1 SOCIAL CHANNELS: RESULTS

Table 9 reports all the results obtained considering the period from M19 to M36 of the project. The indicators show the success of the project and the activities related to SoBigData. In this context, we have to highlight that the Twitter and Facebook channels do not consider only the project activities but all the activities along the project related to dissemination, e.g. presentation to conference or release of paper.

| Channel          | Objective  | Target (M36)               | Result                                  |
|------------------|--|----------------------------|---|
| News/blog posts  | News/blog entries on the project web site              | 18                         | 44                                      |
| Twitter          | Short project updates                                  | 60 Tweets<br>400 Followers | 562 Tweets<br>1013<br>Followers         |
| Facebook page    | Informal project updates and links to the RSS Web site | 45 Posts<br>150 Followers  | 593 Posts<br>382 Followers<br>125 Likes |
| Project Web site | Number of visits                                       | 204                        | 20931                                   |

| Page views  | 408  | 52723 |
|-------------|------|-------|
| Pages/Visit | 2.16 | 2.51  |

Table 9. Social channels indicators results.

For additional information, we show in Fig.3 the complete statistics and the visits timeline.

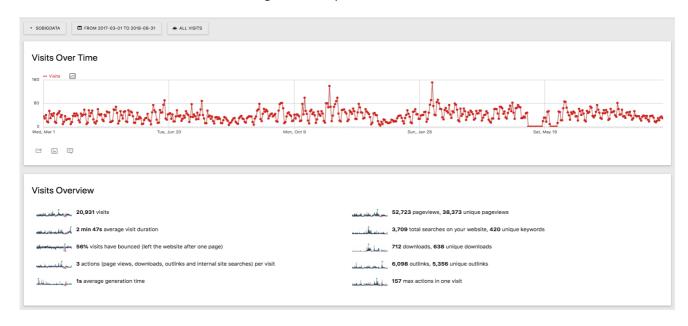


Figure 3. Project Web Site Statistics.

# 4 CONCLUSIONS

This deliverable shown all the dissemination channels and tools set-up from M19 to M36 of the project. It represents an integration of deliverable "D3.4 - Periodic dissemination and impact report and plan for following year 1" about dissemination and impact plan of SoBigData.

# APPENDIX A. FLYER, LEAFLET POSTER AND NEWSLETTER

#### A.1 Flyer

The flyer produced by SoBigData is freely available at the following link: https://goo.gl/CRNS9x

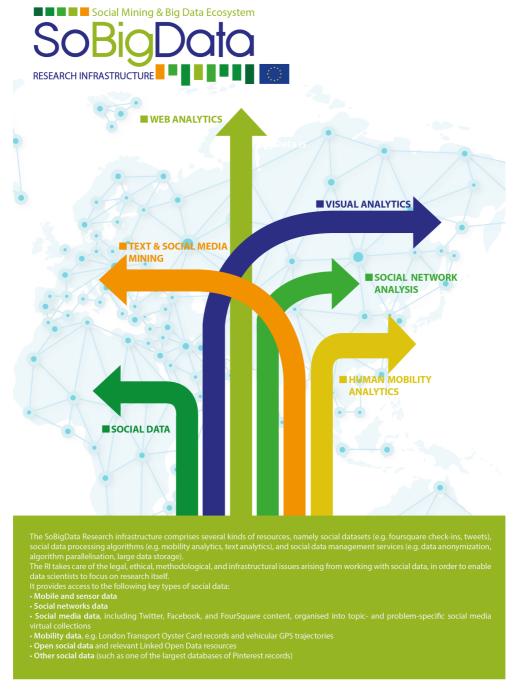


Figure A 1. Front overview of the SoBigData flyer.

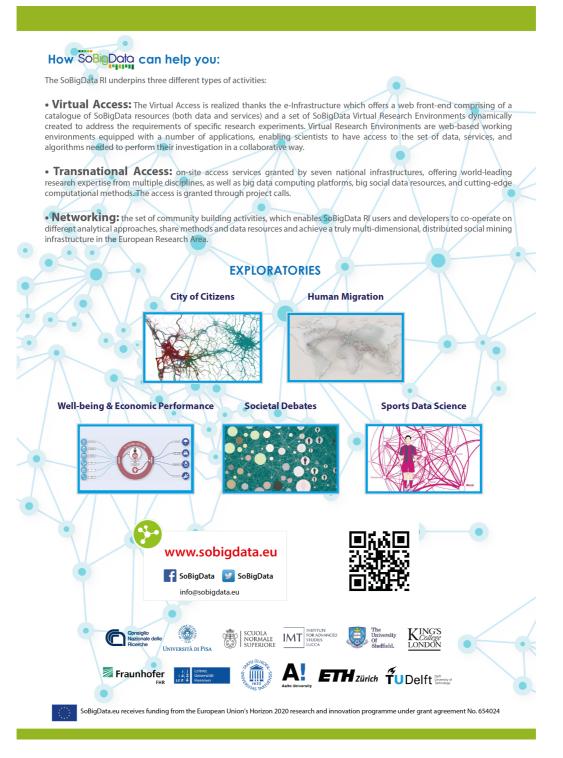
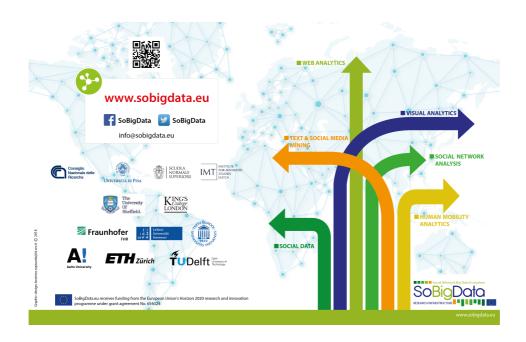


Figure A 2. Back overview of the SoBigData flyer.

#### A.2 Leaflet

The leaflet produced by SoBigData is freely available at the following link: <a href="https://goo.gl/JQa3UL">https://goo.gl/JQa3UL</a>



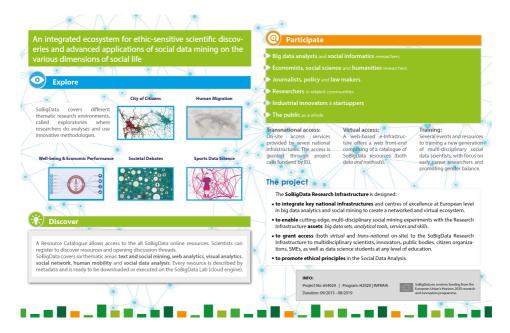


Figure A 3. Overview of the SoBigData leaflet.

# A.3 Poster

The poster produced by SoBigData is freely available at the following link: <a href="https://goo.gl/liauGD">https://goo.gl/liauGD</a>

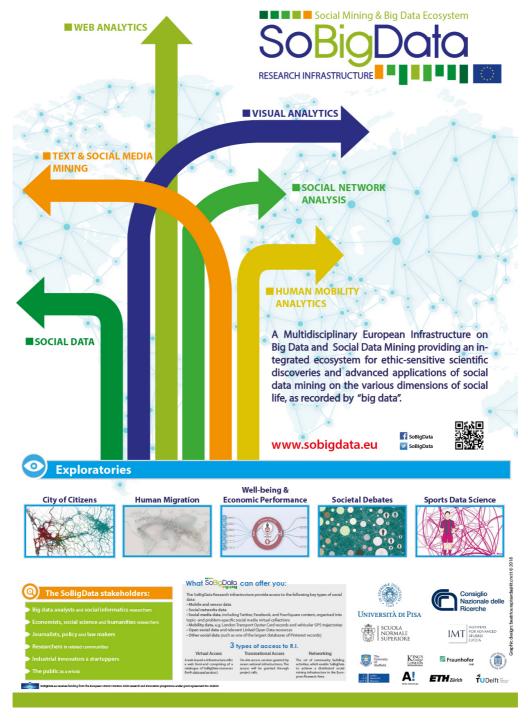


Figure A 4. Project poster.

#### **A.4 Newsletter**

The newsletter produced by SoBigData is freely available at the following link: https://goo.gl/zEqDi5

Issue 1 / May 2018

#### SOBIGDATA RESEARCH INFRASTRUCTURE



# **Editorial**

One of the most pressing and fascinating challenges scientists face today is understanding the complexity of our globally interconnected society.

The big data arising from the digital breadcrumbs of human activities have the potential of providing a powerful social microscope, which can help us understand many complex and hidden socio-economic phenomena. Such



challenge requires high-level analytics, modelling and reasoning across all the social dimensions above. There is a need to harness these opportunities for scientific advancement and for the social good,

compared to the currently prevalent exploitation of big data for commercial purposes or, worse, social control and surveillance. The main obstacle to this accomplishment, besides the scarcity of data scientists, is the lack of a large-scale open ecosystem where big data and social mining research can be carried out.

[Continues on pag. 3]

# Inside this issue

- 03 THE SOBIGDATA RESEARCH INFRASTRUCTURE
  - Fosca Giannotti, KDD Lab, Italy
- 05 HOW TO DO SOCIAL SCIENCE ETHICS IN THE 21TH CENTURY
  - David van Putten, TUDelft, Netherlands
- 606 FAIR FIRST AID TO RESPONSIBLE DATA SCIENTIST
  - Francesca Pratesi, KDD Lab, Italy
- TRAINING ACTIVITIES IN THE SOBIGDATA PROJECT
  - Marco Braghieri, King's College London, UK
- THE CALLS FOR TRANSNATIONAL ACCESS
  The editorial board
- 09 EXPERIENCES FROM THE FIRST CALL ON TRANSNATIONAL ACCESS
  - Multiple authors
- THE TUSCAN BIG DATA CHALLENGE
  The editorial board
- 18 RESEARCH HIGHLIGHTS
  Multiple authors

Copyright 2018 SoBigData | project n° project N° 654024 | Programm: H2020 | INFRAIA

www.sobigdata.eu

Figure A 5. Cover of the SoBigData newsletter.

# APPENDIX B. TUSCAN BIG DATA CHALLENGE

# **B.1 Description of the Challenge**

The Tuscan Big Data Challenge is an initiative devoted to Tuscan SMEs interested in exploring the potential of big data for improving the production processes, their market or their interaction with customers and suppliers.

The Tuscan Data Challenge gives the opportunity to Tuscan SMEs, which usually do not use their data, to enter into the world of Big Data and exploit its potential. The challenge consists in the free involvement of SoBigData.it laboratory, formed by researchers of Tuscan universities and research centres such as CNR in Pisa, the IMT Studies Lucca, the Scuola Normale Superiore, and the University of Pisa.

In November 2017 started the second edition of the challenge.

The challenge was launched by means of the web sites SoBigData.eu, SoBigData.it as well as a dedicated Facebook page (www.facebook.com/tuscanchallenge). Presentation events have been organized in Pisa, Siena and Lucca involving the network of the innovation hubs. SMEs taking part in the challenge had to describe their project and the data they wish to analyse with the support of SoBigData.it Infrastructure, possibly adding to it all with a solution for developing an idea.

### **B.1.1 Tuscan Big Data Challenge: promotion and dissemination**

The challenge has been promoted by using of the following means:

- 1) News on web sites related to SoBigData.it
- 2) News on web sites related to SoBigData.eu
- 3) Posts on twitter and Facebook (https://www.facebook.com/tuscanchallenge)
- 4) Mailing list available at the innovation hubs present in Tuscany
- 5) Press (local newspapers)
- 6) A road show where people from SoBigData.it meet the SMEs and presented the challenge.

| Location   | Date       | People Involved   | Number of<br>Participants |
|--|------------|---|---------------------------|
| Research to Business –<br>Regione Toscana (Pisa) | 18/12/2017 | Viola Bachini, Beatrice<br>Rapisarda, Salvatore<br>Rinzivillo | 40 (all from companies)   |
| SpazioSiena (Siena)                              | 06/12/2017 | Angelo Facchini, Viola<br>Bachini, Beatrice Rapisarda         | 30 (all from companies)   |

| IMT School for Advanced<br>Studies Lucca | 13/12/2017 | Angelo Facchini, Viola<br>Bachini, Beatrice Rapisarda | 10 from companies;  |
|--|------------|---|---------------------|
|  |            |   | 5 from institutions |

Figure B 1. Dissemination Events.

#### **B.1.2 Tuscan Big Data Challenge: activities**

The call has been launched in November 15th, 2017. In **January 2018** researchers of SoBigData.it selected 4 (out of 13) of the most interesting projects and started supporting for free the selected companies in the creation of a Proof of Concept. The selected companies operate in different sectors: energy, manufacturing, bank and finance, software and system engineering, e-commerce.

From **January 2018** the winning companies started working together with researchers from the SoBigData.it and started using the methodologies and software tools in the big-data analysis platform in the laboratory itself.

Each selected project has a total duration of two months (for a total of 1P/M), during which one o more researchers join a team providing the knowledge and the required ICT support to develop the activities. In line with the legal and ethical aspects related to data and algorithms use, and in accordance to the aims of the SoBigData Research Infrastructure, the researchers and the companies involved in the challenge signed of a confidentiality agreement (NDA) to protect information and data that the companies share with researchers.

#### **B.1.2.1** Time schedule of the activities

- 15 November 2017 publication of the call
- 15 November / 31 December 2017: Submission of project proposals
- 2 January / 15 January 2018: stage of evaluation of proposals and selection of the winning projects
- February 2018 / September 2018: Development of the winning projects in collaboration with researchers from the SoBigData.it
- Winter 2018/2019: presentation of the results

#### **B.1.2.2 Tuscan Big Data Challenge selection criteria**

The scientific committee, composed by members of SoBigData.it Lab defined the following guidelines for the selection of the submitted projects:

- 1) Feasibility in the time span of 1 P/M
- 2) Coherence with SoBigData main topics
- 3) Scientific impact
- 4) Sector innovation
- 5) Relevance for the development of the applicant enterprise
- 6) Potential impact on Media
- 7) Sustainability of the project in the medium term

A score of 0-5 points has been assigned to each criterion, while the final ranking has been obtained by summing-up all the points assigned by the members of the committee.

# **B.1.3 Tuscan Big Data Challenge impact figures**

During the dissemination period of the Challenge more than 200 SMEs have been contacted through mailing list and Facebook page, while about 30 SMEs have been directly involved in the road show during the three event organized.

#### **B.1.3.1 Tuscan Big Data Challenge results**

Participants: 13 Tuscan SMEs

Selected: 4

#### Type:

Public administrations

- Life science
- · Banking and financial services
- ICT
- Coworking services

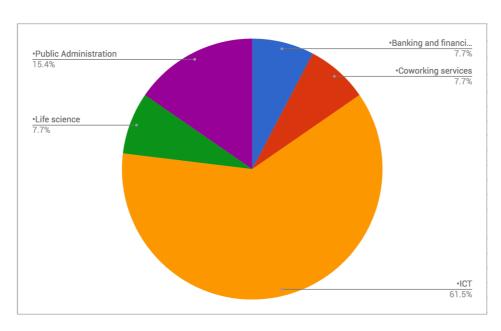


Figure B 2. Results of the second edition of the Tuscan Big Data Challenge.

# **B.1.3.2 Tuscan Big Data Challenge: person involved**

The whole organization of the Tuscan Big Data Challenge has been undertaken by Beatrice Rapisarda (CNR) Viola Bachini (UNIPI) Angelo Facchini (IMT), with the supervision of Fosca Giannotti, (CNR) and Paolo Ferragina (UNIPI).