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DISCLAIMER

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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.

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GLOSSARY

ABBREVIATION	DEFINITION
TNA	Trans-National Access
STSM	Short Term Scientific Missions

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DELIVERABLE SUMMARY

This report details the calls initiated in the reporting period including the user selection process and outcomes, TNA visit reports and self-evaluation. This deliverable also includes the planning for future call.

1 RELEVANCE TO SOBIGDATA

1.1 PURPOSE OF THIS DOCUMENT

This document describes the Trans-National Access activities carried out in the second 18 months of SoBigData. More specifically, the preparation of the second and third calls for TNA access is detailed, followed by applicant statistics, review process description, and outcomes.

We further developed the framework agreement and ethical approval processes, to ensure data protection, ethical, and legal aspects are adhered to.

1.2 RELEVANCE TO PROJECT OBJECTIVES

As detailed below, TNA is core to the SoBigData objectives, specifically addressing community widening and adoption.

1.3 SOBIGDATA PROJECT DESCRIPTION

SoBigData serves the wide cross-disciplinary community of data scientists, i.e., researchers studying all aspects of societal complexity from a data- and model-driven perspective, including data and text miners, visual analytics researchers, socio-economic scientists, network scientists, political scientists, humanities researchers, and more.

The SoBigData RI defines two ways for accessing its services:

- The Virtual Access (VA) On-line access is realized thanks to the e-Infrastructure which offers a web front-end comprising of a catalogue of SoBigData resources (both data and services) and a set of SoBigData Virtual Research Environments (VREs) dynamically created to address the requirements of specific research Experiment
 - O Virtual Research Environments (VREs) are web-based working environments equipped with a number of applications, enabling scientists to have access to the set of data, services, models and algorithms needed to perform their investigation in a collaborative way. More details are described in D7.2
- Trans-National Access (TNA) On-site access that offers world-leading research expertise from multiple disciplines, as well as big data computing platforms, big social data resources, and cuttingedge computational methods. Transnational access is granted by seven national infrastructures.
 The access will be granted through project calls in one of the following forms:
 - O Exploratory projects are research experiments bound to multi-disciplinary themes specified in the calls and are expected to target data scientists from multiple disciplines, and address the definition of needed infrastructure resources and knowledge offered by specific hosting nodes.
 - O Open call, blue-sky projects are targeted at researchers wishing to explore the infrastructure for their own research topics.

The way these services are provided depends on the needs of the Final User. In Section 2.4. Actors and Use Cases for Virtual and Transnational Access, we report a set of use cases; starting from the simplest one, where the user can download data and/or software, to a complex one when both software and data are copied from a node to another of the infrastructure. It is important to highlight, that the envisaged data processing steps will be compliant with ethical and legal requirements.

Currently, in our catalogue we have heterogeneous 63 datasets, and more than 70% contains personal data. We can find trajectory data, mobile call data, twitter data, or retail data. In all these cases, the data sets contain personal data. Additional details and statistics can be found in deliverable D7.2.

1.4 RELATION TO OTHER WORKPACKAGES

Transnational access draws on all technical SoBigData WPs, as they are developing the infrastructure and integrating the tools needed for the completion of the transnational access visits.

1.5 STRUCTURE OF THE DOCUMENT

Section 2 details the transnational access calls in the second 18 months of SoBigData (M19 to M36). Next Section 3 details plans for subsequent and in progress calls. Appendix A details the call text itself. Appendix B shows the application form template. Appendix C is the proposal evaluation template, showing the selection and review criteria. Appendix D is the agreement template, which needs to be filled in and signed by each approved candidate.

2 TRANSNATIONAL ACCESS CALLS DURING THE REPORTING PERIOD

We have launched two calls during this reporting period. The second call for the applications of Trans-National Access (TNA) Funding was released on 16 October 2017 with a closing date of 10 December 2017. The third call closed on 20 April 2018.

Both of these calls were requesting applications for Short Term Scientific Missions (STSMs) to carry forward big data analysis projects of relevance to SoBigData.

We welcomed applications from individuals with a scientific interest, professionals, start-ups and innovators that may benefit from training in data science and social media analytics.

Funding for a short-term scientific mission (2 weeks to 2 months) was made available. SoBigData offered up to €2,500 per participant (to cover the cost of daily subsistence, accommodation, and European flights) in call 2 and up to €3,500 in call 3. STSM bursaries were awarded on a competitive basis, according to the procedure described in section 2.1, and based upon the quality of the applicant, the scientific merit of the proposed project, and their personal statement. In details, SoBigData founded 10 bursaries in the second call and 15 in third call.

Applications were offered to undertake STSM's at the following institutions:

- GATE (Societal Debates, Migration Studies) The University of Sheffield, Sheffield, UK
- SoBigData.it (City of Citizens, Well-being and Economy, Societal Debates, Migration Studies, Sports Analytics¹) The European Laboratory on Big Data Analytics and Social Mining, Pisa, Italy
- Fraunhofer IGD (Societal Debates, Sports Analytics¹) The Competence Center for Information Visualization and Visual Analytics, Darmstadt, Germany
- UT (Well-being and Economy) University of Tallin Estonia
- LUH: L3S Research Center / Leibniz University Hannover (Societal Debates) Hannover, Germany
- Aalto University (City of Citizens, Societal Debates) The Data Mining Group, Aalto, Finland
- ETH Zurich (Migration Studies) The Computational Social Science Group, Zurich, Switzerland

2.1 APPLICATION PROCEDURE

The visitor application sent by students or researchers, in order to enrol in the selection process, contains a short biography of the applicant including qualification and experience in social media and big data research, the requested project objectives as well as a description of the work planned, a personal statement including their expected achievements and impact as well as dissemination plans. See Appendix B.1 Application form.

¹ Call 3 only

2.2 SELECTION PROCESS

The selection panel comprises the following members:

Internal Members		External Members			
Review Member	Organisation	Review member	Organisation		
Kalina Bontcheva	USFD	Gerhard Lauer	University of Basel		
Cristina Muntean	SoBigData.it	Arkaitz Zubiaga University Warwick			
Thorsten May	Fraunhofer	Chedy Raïssi	INRIA		
Anna Leontieva	UT	Matteo Magnani	Uppsala University		
Avishek Anand	L3S	Marc Plantevit	Université Claude Bernard Lyon 1		
Aristidis Gionis	AALTO	Barbara Plank University Copenhagen			
Nino Antulov	ETZH	Celine Robardet	National Institute of Applied Science in Lyon		
			University College Dublin		
		Nikos Pelekis Pireus University			

For evaluation purposes each section of the application was ranked on a scale of 1-5 (5 being the highest). The areas comprised of: Quality of the applicant; Quality of the proposed research project; Originality of the proposed research project; Feasibility and Impact on SoBigData. We received 19 applications in our second call and agreed to host visits for 14 applicants. For the third call we also received 19 applications and agreed to host 17 applicants.

2.3 SECOND CALL: APPLICANT SUMMARY

The second call received 19 applications with 15 being EC applicants and 4 non EU applicants.

Of the 15 EU applications there were 11 successful applicants. Of the 4 non EU applications there were 3 successful applicants.

There were 15 male applications with 10 being successful (7 EU and 3 non EU). There were 4 female applicants with all of them being successful (all EU).

GATE received 6 applications and 3 were successful; SoBigData.it received 9 applications with 7 being successful; Aalto received 3 applications with 3 successful, and Fraunhofer received one application, which was successful; L3S & ETH didn't receive any applications during Call 2.

2.4 THIRD CALL: APPLICANT SUMMARY

The third call received 19 applications with 12 being EC applicants and 7 non EU applicants.

Of the 12 EU applications there were 11 successful applicants. Of the 7 non EU applications there were 6 successful applicants.

There were 12 male applications with 11 being successful (8 EU and 3 non EU). There were 7 female applicants with 6 being successful (3 EU and 3 non EU).

GATE received 3 applications and all were successful; SoBigData.it received 9 applications with 8 being successful and one being deferred until some ethical issues have been addressed; L3S received 6 applications of which 5 were successful; Aalto received 1 application which was successful; ETH and Fraunhofer didn't receive any applications during this call.

In both the second and third calls we have tried to ensure a good gender balance, in line with SoBigData policies.

2.5 CALL STATISTICS

Since the first call the average number of successful applications is 76%, of these 33% were female candidates. Although this figure appears low, the number of female applications has in total been 19, this means that the percentage of female applications that were successful is actually 79% - higher than the average number of successful applications detailed above and also the percentage of successful male applications (73%).

The highest volume of applications within Europe came from Italy (17%) and the total non-European applications accounted for 28%, the success rates of these two groups are 12% and 20% respectively. The next highest number of applications from European countries came from the UK (7) and Germany (5).

The host statistics can be found below, as you can see, the highest amount of applications have been for SoBigData.it with 27 applications in total (45%), of these 11 were non-European and 9 of those were successful. Table 3 also shows the total number of applications as well as the successful applications by country.

Host	No. of Applications	Percentage of All Applications
AALTO	6	10%
Fraunhofer	2	3%
GATE	18	30%
L3S	6	10%
SoBigData.it	27	45%
ETH	1	2%

Table 1. Total application figures by host

Host	Successful Applications	Percentage of All Successful Applications
AALTO	5	11%
Fraunhofer	1	2%
GATE	11	24%
L3S	5	11%
SoBigData.it	22	49%
ETH	1	2%

Table 2. Total successful application figures by host

Country Code	No. of Applications	No. of Successful Applications
AL	1	1
AT	1	1
BE	1	0
СН	1	1
DE	5	4
DK	1	1
ES	2	2
FI	1	1
FR	2	2
GR	2	2
HR	2	2
HU	1	0
IE	1	1
IT	10	7
LT	1	0
Non-European	17	12
NL	2	2
NO	1	1
TR	1	0
UK	7	5

Table 3.: Total Applications by Country

Country Code	No. of Female Applicants	No. of Successful Female Applicants
AL	1	1
AT	1	1
BE	0	0
СН	0	0
DE	1	0
DK	0	0
ES	0	0
FI	0	0
FR	0	0
GR	0	0
HR	1	1
HU	0	0
IE	0	0
IT	3	2
LT	1	0
Non-European	5	5
NL	1	1
NO	0	0
TR	0	0
UK	5	4

Table 4. Total Female Applications by Country

We have hosted 24 visits so far (11 from call 1 and the rest from call 2). We budgeted €200,000 for hosting the TNA visits. So far, the costs incurred for hosting the visits amounts to €22,252.98 from call 1 and €18,557.87 in call 2 (the estimated cost for call 2 in total is approx. €30,000) – 20%.

The cost by partner so far are:

CALL 1 EXPENSES BY PARTNER					
GATE SoBigData.it AALTO Fraunhofer Total					
€ 7,845.28	€ 11,973.43	€ 2,434.27	€ -	€ 22,252.98	

CALL 2 EXPENSES BY PARTNER ²					
GATE SoBigData.it AALTO Fraunhofer Total					
€ 3,350.15	€ 6,971.80	€ 6,008.75	€ 2,227.16	€ 18,557.87	

 $^{^{2}}$ Call 2 visitors' figures are for the ten visitors only we have settled expenses for as far as 30.08.2018.

The average number of days that our applicants have visited a host for both call 1&2 is 25, this amounts to 96 weeks of hosting in total.

We estimated that the number of weeks TNA for all host partner's would be 122 in total, at present between call's 1 & 2 we have achieved 79% of that figure so far and anticipate this will be exceeded.

Project Name	Reviewer	Decision	score	Applicant Quality	Quality		Feasibility
Dimensionality reduction for explaining social dynamics	Matteo Magnani	Successful	9	10	8	9	10
Balancing information exposure in social networks	Matteo Magnani	Successful	9	10	10	8	9
Social Events: Temporal Mobility Patterns	Celine Robardet	Successful	10	10	10	9	9
Visualisation of NLP Approaches to Rhetoric and Resonance in EU Referendum Tweets	Arkaitz Zubiaga	Successful	9	9	9	9	9
Characterizing scholarly Twitter users and their interactions across countries	Gerhard Lauer	Successful	10	10	10	10	10
Multitask learning for sentiment analysis	Barbara Plank	Successful	7	10	5	7	9
Active Pacifism or Risk Aversion? Why Japanese Public Opinion Is So Much against Militarization	Barbara Plank	Successful	8	10	6	9	6
Applying big data, cutting-edge computational platforms, and natural language processing to develop a new name generator method for use in longitudinal social network analysis: Improving decision support tools to visualize and improve our understanding of polycentric social-ecological water governance systems	Barbara Plank	Unsuccessful	2	4	2	3	2
Twitter Trending Topic Classification	Arkaitz Zubiaga	Unsuccessful	3.5	5	3	3	4
Societal Debates – Analysis of Cryptocurrency Debates of Social Media	Arkaitz Zubiaga	Unsuccessful	2	2	2	2	2
Supporting the Adaptation of Cyber-Physical Social Systems with City Mobility Analysis	Celine Robardet	Successful	9	9	9	8	10
Analytical Modeling of Multiple Aspect Trajectories	Celine Robardet	Successful	8	8	8	7	8
Innovative Computing for Better Healthcare & Well-being	Giorgina Ifrim	Successful	9	10	9	8	8
Societal Debates - A Data Analysis approach with NGGCM & SOTA ML Techniques	Giorgina Ifrim	Successful	8	7	7	6	7
Future Perfect? The Social and Political Views of the New Tech Elite	Marc Plantevit	Successful	9	10	9	9	9
Story Disambiguation: Tracking Evolving News Stories across News and Social Streams	Marc Plantevit	Successful	10	10	10	10	10
Using Machine Learning (Topic Modeling) to Define Product & Georgraphic Markets	Chedy Raïssi	Defer to Call 3	3	4	5	3	3
The Social and Economics influence on medication non- adherence: Social Network Analysis and Agent Based Modeling to discover hidden information for healthcare services	n/a	Application country same as destination	0	0	0	0	0
Academic research and workshops on SoBigData project (focus on Well-being and Economics)	Marc Plantevit	Successful	6	7	5	7	5

 Table 5. List of project applications for Call 2 and their outcomes.

Project Name	Reviewer	Decision	Overall score	Applicant Quality	Research Quality	Originality	Feasibility
Detection of correlated events in dynamic networks	Nikos Pelekis	Successful	9	9	9	8	9
Examining the Web over Time through Dynamic Graph Embeddings	Marc Plantevit	Successful	8	8	9	9	7
Cognitive Bias in Crowdsourcing	Celine Robartdet	Successful	9	10	9	10	10
Scalable network embeddings	Marc Plantevit	Successful	10	9.5	10	10	10
Interpretability of Learning to Rank Models	Georgina Ifrim	Successful	8	8	8	8	7
Mining large-scale text archives for cold- start problem in link prediction and social network personalization.	Chedy Raïssi	Successful	8	8	8	7	8
Training on Tempas - Tag-based Archive Exploration; HistDiv - Historical Search	Arkaitz Zubiaga	Unsuccessful	4	9	4	6	3
What do they really mean? An analysis of digital debates	Gerhard Lauer	Successful	9	7	10	7	10
Combining Sentiment Analysis with online hate speech detection.	Marc Plantevit	Successful	8	8	7	9	9
Fake News Propagation in Social Networks: A SIR-Based Model	Brian Davis	Successful	8	10	7	7	7
Investigating city mobility with holistic trajectories analytics	Matteo Magnani	Successful	8	7	7	8	7
Technical Affinities, Performance, and Perception Biases in Soccer	Matteo Magnani	Successful	10	10	10	8	10
Dynamic community detection in interactional data for a better understanding of social and economic networks	Georgina Ifrim	Successful	9	10	9	8	9
Predicting Vitamin D deficiency by mobility data and purchasing behavior	Nikos Pelekis	Successful	8	8	8	9	6
Using Machine Learning (Topic Modeling) to Define Product & Georgraphic Markets	Chedy Raïssi	Successful	0	0	0	0	0
Semantic Trajectory Mining for Python Library	Celine Robartdet	Defer until Ethical issues addressed	8	7	8	7	6
A Mixed Methods Approach to Crowdsourced Elections Data in Kenya	Gerhard Lauer	Successful	9	8	9	10	9
Multi-aspect Timeline Summarisation of Societal Debates	Brian Davis	Successful	7	8	6	7	6
Analysis of entity linking profiling on social media	Arkaitz Zubiaga	Successful	7	6	7	6.5	7

Table 6. List of project applications for Call 3 and their outcomes.

2.6 PARTICIPANT FEEDBACK

We have received positive feedback from the visitors who have undertaken access so far. A sample of which can be found below:

- 'In conclusion, it was extremely productive three weeks. I learned so many new things and made a new network of researchers. In future, I will capitalize on this experience to develop my project further and conduct new projects in collaboration with computer scientists.'
- 'Reviewing the trip in hindsight, I truly believe that this Big Data visit program is key to initiating and

furthering research. Overall, I appreciate the opportunity to be involved, am interested in furthering my involvement, and look forward to continuing this established collaboration.'

- 'I had an extremely productive visit. I first successfully converted all of my tweet JSON files into a
 pandas dataframe, which I saved as an H5 object. Using this dataframe, I was able to calculate how
 many retweets and likes each tweet in my entire dataset had received, in a matter of seconds (my
 previous script for this had looped through each JSON file and took over a week to execute for only
 3,000 tweets!)'
- 'We have proposed a new clustering formulation intended to facilitate the task of electing leaders. We have shown how it can help find representatives of polarized groups while encouraging certain levels of affinity among them. We believe this might have applications in decision-making processes involving the choice of leaders in a variety of scenarios.'
- 'The experience of this project was very fruitful from the collaboration with experts from CNR. The
 acquired knowledge about research solutions as coclustering, colacation mining and doc2vec, that
 has not been explored for multiple aspect trajectories will be dissemination at my return to UFSC for
 both students and colleagues.'
- 'The results of this study will be presented at the altmetrics workshop 2018 in London'
- 'We continue the collaboration after the successful conclusion of my visit: already on member of the ISTI-CNR group visited my lab in Paris to talk more about the research taking place in the SoBigData project and I plan to visit again the SoBigData researchers in Italy before the end of 2017. Overall, I consider the visit fruitful and extremely helpful and I am looking forward to the continued collaboration.'
- 'The most sophisticated research and the most complicated research topics require multidisciplinary teams. My experience with the KDD Lab was very valuable since I was able to work with very talented people who have a vast experience in data-related issues. This was for me a very valuable experience which will be applied in my future work.'

At the end of the experience we encourage the TNA participants to publish their experience in the SoBigData blog, following some example of their posts:

- https://drive.google.com/drive/folders/16FQWCc3qYEf82si6a8qg30bo0e236Lp8
- https://researchbyaki.blogspot.com/2018/07/visiting-department-of-computer-science.html
- http://edoardogalimberti.altervista.org/sobigdata.html
- https://clusterleader.wordpress.com/2018/04/13/computational-methods-for-electing-leadership/

2.7 LEGAL AND ETHICAL ISSUES

Prior to the visits commencing, each successful project is reviewed by the host institution from a data protection, ethical, and legal perspective. Where ethical approval is required we have developed the use of the Operative Ethic Board (composed by Francesca Pratesi, Maria Francesca Donati, Stefanie Hänold and David van Putten as in D4.8). that screens all applications and gives necessary feedback for applicants to address. This is a change from the first call where visitors applied for approval through their home institution and ensures we can be sure the ethical procedures in place are uniform and robust.

Upon completion of this process, the visitor is requested to sign the formal agreement (see Appendix D), which sets out their rights and obligations formally.

Each host institution assists their visitors with finding accommodation, obtaining computer registration, and access to the data and algorithms. Each visitor is assigned at least one supervisor for the duration with their visit, with whom they meet regularly. Training materials and scientific papers are provided to the visitors in advance of their STSM visit.

3 PLANS FOR THE FINAL 12 MONTHS

The following activities are planned for the next 12 months:

- May December 2018 Completion of Call 3 trans-national access visits
- September October 2018 Issue of Call 4 for trans-national access
- November December 2018 Review of Call 4 applications and announcement of successful projects
- January June 2019 Completion of Call 4 trans-national access visits

APPENDIX A. TNA CALLS

A.1 SECOND CALL FOR SOBIGDATA-FUNDED TRANSNATIONAL ACCESS



Second Call for SoBigData-funded Transnational Access

The SoBigData project invites researchers and professionals to apply to participate in Short Term Scientific Missions (STSMs) to carry forwards their own big data projects.

These opportunities are offered as part of SoBigData's Transnational Access (TNA) activities and calls for applications will be opened every six months.

You should submit your project application form to SoBigData by

10 December 2017

We welcome applications from individuals with a scientific interest, professionals, startups and innovators that may benefit from training in data science and social media analytics. The application form and accompanying instructions will be published here when the call opens on 16 October 2017.

Funding for a **short term scientific mission** (2 weeks to 2 months) are available up to 2500 euros per participant (to cover the cost of daily subsistence, accommodation, and European flights). STSM bursaries are awarded on a competitive basis, according to the procedure described in the application pack and eligibility criteria below, and based upon the quality of the applicant, the scientific merit of the proposed project, and their personal statement. Up to 10 bursaries are available from SoBigData in the 2017 call.

Applications are invited for access at the following centres (infrastructures).

Please, note that the user group leader and the majority of the users must work in a country other than the country(ies) where the installation is located.

This rule does not apply:

- if access is provided by an International organisation, the Joint Research Centre (JRC), an ERIC or similar legal entities;
- in case of remote access to a set of installations located in different countries offering the same type of service

Applications are invited for access at the following centres (infrastructures):

• Gate (Text and Social Media Mining), University of Sheffield:

• The Natural Language Processing (NLP) group at the University of Sheffield is one of the largest and most successful research groups in text and social media mining in the EU. We develop and maintain the world-leading open-source GATE text and social media mining infrastructure (http://gate.ac.uk), its GATE Cloud deployment, and its vibrant user community.

• Contact: Kalina Bontcheva k.bontcheva@sheffield.ac.uk

Location: Sheffield, United Kingdom

• SoBigData.it, Pisa, Italy:

The European laboratory on Big Data Analytics and Social Mining (www.SoBigData.it) is aimed at pursuing interdisciplinary research initiatives connected to the impetus that "big data" and the ICT's are having on science, and the socio-economic sciences. Participating groups in the call are: Knowledge Discovery and Data Mining Lab (KDD – ISTI), 'Networked Multimedia Information System' Lab. (NeMIS - ISTI), High Performance Computing Lab (HPC– ISTI), the Web Applications for the Future Internet (WAFI-IIT), Ubiquitous Internet groups (UI-IIT), and the Acube Lab (Acube-UNIPI), Quantitative Finance group at the ScuolaNormaleSuperiore (SNS), IMT School for Advanced Studies Lucca (NETWORKS Unit)

Contact: Roberto Trasarti roberto.trasarti@isti.cnr.it

Location: Pisa, Italy

• Fraunhofer IGD:

• The Competence Center for Information Visualization and Visual Analytics (IVA) at Fraunhofer IGD is a world-leading research centre for the interactive visualization of big data. We offer access to visual analytics and information visualization technologies and methods for multidimensional data, visual text analysis, and we offer advice in visualization, and interaction design.

• **Contact**: Thorsten May thorsten.may@igd.fraunhofer.de

Location: Darmstadt, Germany

• UT:

 UT brings in a curated and inter-linked dataset of Estonian e-government and e-health service descriptions, detailed statistics of usage of said services, and data related to societal and economic development in Estonia over the past decade. The dataset is complemented with relevant automated analysis methods.

Contact: Marlon Dumas marlon.dumas@ut.ee

Location: Tallin, Estonia

LUH: L3S Research Center / Leibniz University Hannover:

 L3S provides access to innovative and cutting-edge datasets, methods and technologies for Web Science. The Alexandria infrastructure is based on a number of unique datasets like the German and UK Web Archives which span around 20 years of Web history, ArchivelT collections, etc.. Researches focus around Web Search (especially temporal and Entity-centric

search), Web Information Management (including semantic technologies) and the Web of People (including Personalization and Social Web).

Contact: Gerhard Gossen gossen@l3s.de

Location: Hannover, Germany

Aalto University:

The Data Mining group in ICS focuses on developing novel methods to extract knowledge from data, designing algorithms to summarize large volumes of data efficiently and effectively, and exploring new ways of using the extracted information. The research conducted in the Sociophysics Laboratory in BECS focuses on: (i) living and other complex systems, their measurement, analysis, modeling, understanding and control, (ii) detection of communities and social dynamics, with a focus on the dynamics of scientific interactions and human behavior in social and information systems.

Contact: Aristides Gionis aristides.gionis@aalto.fi

Location: Aalto, Finland

ETHZ:

• The Computational Social Science group at ETH Zurich aims to integrate social research by bringing modeling and computer simulation of social processes and phenomena together with related empirical, experimental, and data-driven work, while combining the perspectives of different scientific disciplines (e.g. computer science, socio-physics, social and complexity science). Big Data analytics, data-driven socio-systems, social mining, real-time data mining, the creation of self-organizing systems, innovation and the analysis of how science works, are core subjects of interest.

Contact: Nino Antulov-Fantulin nino.antulov@gess.ethz.ch

Location: Zurich, Switzerland

The goal is to provide researchers and professionals with access to big data computing platforms, big social data resources, and cutting-edge computational methods. STSM visitors will be able to:

- Interact with the local experts
- Discuss research questions
- Run experiments on non-public big social datasets and algorithms
- Present results at workshops/seminars

The STSM visits will enable multi-disciplinary social mining experiments with the SoBigData Research Infrastructure assets: big data sets, analytical tools, services and skills.

Description of the TNA offered

The SoBigData RI manages vertical, thematic environments, called **exploratories**, on top of the SoBigData infrastructures, for performing cross-disciplinary social mining research. The Transnational Activities offered in this call will be for short-term scientific missions, between 2 weeks and 2 months.

Each STSM proposal needs to be aligned with one of the following **exploratories** and also specify which of the centres listed above they wish to access:

• City of Citizens:

- Participating Partners: SoBigData.it, Aalto University
- Brief description: The exploratory is concerned with investigating city mobility. Our data scientists already study the traffic in the Italian cities of Pisa and Florence by analyzing Big Data sources such as mobile phone traces, veiculargps and social media data as proxy of human behaviour. New STSM proposals on complementary topics are welcome.

Well-being and Economy:

- Participating Partners: UT, SoBigData.it
- Brief description: This exploratory uses data of purchases in supermarkets and investigates the changes in people's behavior after the economic crisis. This study allows to work out an early indicator of diseases. We also study the measurement of the real cost of life by studying the price variation. Furthermore we try to correlate people's well being with their social and mobility data. We also focus on systemic risk and credit risk measures and modeling using a complex network approach. Furthermore, we work on the topic of network reconstruction from partial information, focusing on social, economic and financial systems. New STSM proposals on complementary topics and/or methods are welcome.

Societal Debates:

- Participating Partners: Gate, LUH, Fraunhofer IGD, Aalto University, SoBigData.it
- Brief description: By analysing discussions on social media and newspaper articles, this exploratory studies public debates to understand which are the most discussed topics, key opinions and stances expressed, and the characteristics of the various debate participants. By automatically analyzing and understanding text documents, we identify themes, follow the discussions around them, and track them through time and space.

Migration Studies:

- Participating Partners: SoBigData.it, GATE, ETHZ
- Brief description: This exploratory will try to answer key questions around migration within Europe and worldwide, with particular focus on economic models of migration. Social media is being used as a key information source.

Pre-requisites:

- 1) Good understanding of social data and, ideally, track record of prior social data analysis projects
- 2) Experience with using at least one of machine learning, natural language processing, and/or complex networks algorithms

A.2 THIRD CALL FOR SOBIGDATA-FUNDED TRANSNATIONAL ACCESS



Third Call for SoBigData-funded Transnational Access

The SoBigData project invites researchers and professionals to apply to participate in Short-Term Scientific Missions (STSMs) to carry forward their own big data projects. These opportunities are offered as part of SoBigData's Transnational Access (TNA) activities and calls for applications will be opened every six months.

You should submit your project application form to SoBigData by

April 20th 2018

We welcome applications from individuals with a scientific interest, professionals, startups and innovators that may benefit from training in data science and social media analytics. In order to apply you have to fill the Project Application Form.

Funding for a short-term scientific mission (2 weeks to 2 months) is available up to 3500 euros per participant (to cover the cost of daily subsistence, accommodation, and European flights). STSM bursaries are awarded on a competitive basis, according to the procedure described in the application pack and eligibility criteria below, and based upon the quality of the applicant, the scientific merit of the proposed project, and their personal statement.

Up to 15 bursaries are available from SoBigData in this 2018 call. Success rates from previous calls have been very high (65-75%). Applications from female scientists are particularly encouraged.

Visitors are welcome between 1 June 2018 and 30 Nov 2018

Pre-requisites for projects to carry out hosted research:

- Good understanding of social data and, ideally, track record of prior social data analysis projects
- Experience with using at least one of machine learning, natural language processing, and/or complex networks algorithms

Pre-requisites for projects to integrate new tools/datasets/services:

- An already existing open-source tool for social media mining to be integrated OR
- An already created openly licensed dataset of relevance to SoBigData, that can be integrated within the infrastructure

Please, note that the user group leader and the majority of the users must work in a country other than the country(ies) where the installation is located. This rule does not apply:

• if the applicant is from an International organisation, the Joint Research Centre (JRC), an ERIC or similar legal entities;

• in case of remote access to a set of installations located in different countries offering the same type of service

Applications are invited at the following centres (infrastructures):

Gate (Text and Social Media Mining), University of Sheffield:

- The Natural Language Processing (NLP) group at the University of Sheffield is one of the largest and most successful research groups in text and social media mining in the EU. We develop and maintain the world-leading open-source GATE text and social media mining infrastructure (http://gate.ac.uk), its GATE Cloud deployment, and its vibrant user community.
- Contact: Kalina Bontcheva k.bontcheva@sheffield.ac.uk
- Location: Sheffield, United Kingdom

SoBigData.it, Pisa, Italy:

- The European laboratory on Big Data Analytics and Social Mining (www.SoBigData.it) is aimed at pursuing interdisciplinary research initiatives connected to the impetus that "big data" and the ICT's are having on science, and the socio-economic sciences. Participating groups in the call are: Knowledge Discovery and Data Mining Lab (KDD ISTI), 'Networked Multimedia Information System' Lab. (NeMIS ISTI), High Performance Computing Lab (HPC– ISTI), the Web Applications for the Future Internet (WAFI-IIT), Ubiquitous Internet groups (UI-IIT), and the Acube Lab (Acube-UNIPI), Quantitative Finance group at the Scuola Normale Superiore (SNS), IMT School for Advanced Studies Lucca (NETWORKS Unit)
- Contact: Roberto Trasarti roberto.trasarti@isti.cnr.it
- Location: Pisa, Italy

Fraunhofer IGD, Darmstadt, Germany:

- The Competence Center for Information Visualization and Visual Analytics (IVA) at Fraunhofer IGD is a world-leading research centre for the interactive visualization of big data. We offer access to visual analytics and information visualization technologies and methods for multidimensional data, visual text analysis, and we offer advice in visualization, and interaction design.
- **Contact**: Thorsten May; thorsten.may@igd.fraunhofer.de
- Location: Darmstadt, Germany

UT, University of Tartu, Estonia:

- UT brings in a curated and inter-linked dataset of Estonian e-government and e-health service
 descriptions, detailed statistics of usage of said services, and data related to societal and
 economic development in Estonia over the past decade. The dataset is complemented with
 relevant automated analysis methods.
- Contact: Marlon Dumas marlon.dumas@ut.ee
- Location: Tallin, Estonia

L3S Research Center / Leibniz University Hannover:

- L3S provides access to innovative and cutting-edge datasets, methods and technologies for Web Science. The Alexandria infrastructure is based on a number of unique datasets like the German and UK Web Archives which span around 20 years of Web history, ArchivelT collections, etc.. Researches focus around Web Search (especially temporal and Entity-centric search), Web Information Management (including semantic technologies) and the Web of People (including Personalization and Social Web).
- Contact: Avishek Anand <u>anand@l3s.de</u>
- Location: Hannover, Germany

Aalto University:

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Contact: Aristides Gionis aristides.gionis@aalto.fi

Location: Aalto, FInland

ETHZ:

- The Computational Social Science group at ETH Zurich aims to integrate social research by bringing modeling and computer simulation of social processes and phenomena together with related empirical, experimental, and data-driven work, while combining the perspectives of different scientific disciplines (e.g. computer science, socio-physics, social and complexity science). Big Data analytics, data-driven socio-systems, social mining, real-time data mining, the creation of self-organizing systems, innovation and the analysis of how science works, are core subjects of interest.
- Contact: Nino Antulov-Fantulin nino.antulov@gess.ethz.ch
- Location: Zurich, Switzerland

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The STSM visits will enable multi-disciplinary social mining experiments with the SoBigData Research Infrastructure assets: big data sets, analytical tools, services and skills.

Description of the TNA offered

The SoBigData RI manages vertical, thematic environments, called **exploratories**, on top of the SoBigData infrastructures, for performing cross-disciplinary social mining research. The Transnational Activities offered in this call will be for Short-Term Scientific Missions (STSM), between 2 weeks and 2 months.

Under this call, there will be two kinds of proposals funded: STSM research proposals and STSM tool/data integration proposals. Each kind is described in more details next.

Each STSM research proposal needs to be aligned with one of the following **exploratories** and also specify which of the centres listed above they wish to access:

- City of Citizens:
 - o Participating Partners: SoBigData.it, Aalto University
 - Brief description: The exploratory is concerned with investigating city mobility. Our data scientists already study the traffic in the Italian cities of Pisa and Florence by analyzing Big Data sources such as mobile phone traces, veicular gps and social media data as proxy of human behaviour. New STSM proposals on complementary topics are welcome.
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 - o Participating Partners: UT, SoBigData.it

o Brief description: This exploratory uses data of purchases in supermarkets and investigates the changes in people's behavior after the economic crisis. This study allows to work out an early indicator of diseases. We also study the measurement of the real cost of life by studying the price variation. Furthermore we try to correlate people's well being with their social and mobility data. We also focus on systemic risk and credit risk measures and modeling using a complex network approach. Furthermore, we work on the topic of network reconstruction from partial information, focusing on social, economic and financial systems. New STSM proposals on complementary topics and/or methods are welcome.

Societal Debates:

- o Participating Partners: Gate, LUH, Fraunhofer IGD, Aalto University, SoBigData.it
- Brief description: By analysing discussions on social media and newspaper articles, this exploratory studies public debates to understand which are the most discussed topics, key opinions and stances expressed, and the characteristics of the various debate participants. By automatically analyzing and understanding text documents, we identify themes, follow the discussions around them, and track them through time and space.

• Migration Studies:

- o Participating Partners: SoBigData.it, GATE, ETHZ
- o **Brief description**: This exploratory will try to answer key questions around migration within Europe and worldwide, with particular focus on economic models of migration. Social media is being used as a key information source.

• Sports Analytics:

- o Participating Partners: SoBigData.it, FRH
- Brief description: This exploratory aims at investigating new ways of measuring sports performance from Big Data sources, allowing for monitoring and possibly predict the activity of professional athletes. The exploratory also focuses on investigating the relation between sports performance and success, intended as both success of players, tactics and strategies in sports competitions and success of players and teams in terms of popularity and revenues.

Each STSM integration proposal can focus on the integration of already existing open source tools for social media mining or social datasets within the SoBigData infrastructure as a whole or via integration within one of the national facilities listed above. Applications focused on interoperability and integration with other European Research Infrastructures are also strongly encouraged. Applicants for integration proposals are strongly encouraged to contact informally their target host institution, to discuss and ensure technical feasibility of the proposal prior to submitting the application.

APPENDIX B. APPLICATION FORM

SoBigData Transnational Access Application form



Application form to be submitted to ta-admin@sobigdata.eu , accompanied by a 2 page CV as an appendix. Please make it all 1 PDF file.

Family Name			Nationality			
First Name			Birth year			
Gender (tick the appropriated item):		O	female	O male		
Home Institution:						
Legal Status of Home Institution Code[1]		Home Institution Country Code[2]:				
Function / Job / Title:		Position Code[3]:				
Mailing Address:						
Phone (office):			Phone (mobile):			
Fax:			E-mail:			

Short Biography(max 500 words)

Please provide details of your academic qualifications and experience in your research area

Note: Please supplement this with a 2 page CV, as an appendix to your application. **Recent Publications** (please list 5) Web page and open code: Please provide pointers to your web page and any open source code you have on github or elsewhere. SoBigData Infrastructure access being applied for: Name of the host institution: Start date: Location: Specific requests for preparation or training (optional) Note: Project title, Project objectives and Description of the planned work, and References are intended to provide information on the project that the applicants are proposing to work on during the trans-national access at the above named host institution. **Project title:**

SoBigData - 654024

www.sobigdata.eu

Project objectives (max 500 words)					
Description of the planned work (max 2 pages, figures and tables included)					
Personal statement: expected achievements and impact (max 500 words)					
Outline the reasons why you are interested in the TNA, what you wish to gain from it, and how you expect it to contribute to your own research in the future.					
Dissemination plans (max 500 words)					
Describe how you plan to bring lessons learned in the TNA to the attention of members of your project team, academic department or organization, or the research community at large. This could be in the form an informal talk, a brief report, a blog post, or a publication.					
References					
Main scientific field of the project					
Give the particular field of research in your project, e.g., "Social network analysis", "Natural Language Processing", or "Machine Learning".					
1.Request for SoBigData sponsorship? O Yes O No					
2.Any other EU project related to this proposal? O Yes O No In case of positive response, specify:					

3.How did you hear about SoBigData?

O personal contact O web page O conference O twitter
O article O other (specify)

I confirm that, I will send a Summary Report no later than 2 months after the end of the access visit, and that the results of the proposed project will be published specifying that the project leading to the publication has received funding from the European Union's Horizon 2020 programme: "The research leading to these results has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 654024 (SoBigData)"

Date:

Signature:

APPENDIX C. EVALUATION FORM



SoBigData Transnational Access: Proposal Evaluation form

Completed evaluation forms to be sent to ta-admin@sobigdata.eu AND K.Bontcheva@sheffield.ac.uk

Reviewer Name		Nat	ionality	
Gender (tick the appropriated item): q female q male q prefer not to say				
Affiliation:				
Home Institution Country Co	ode[1]	Job Title:		
E-mail:				
[1]AL=Albania, AT=Austria, BE=Belgium, BG=Bulgaria, CH=Switzerland, CY=Cyprus, CZ=Czech Republic, DK=Denmark, EE=Estoni FI=Finland, FR=France, DE=Germany, GR=Greece, HR=Croatia, HU=Hungary, IS=Iceland, IE=Ireland, IL=Israel, IT=Italy,				
Project title:				
Applicant Name:				
Applicant's Institution:				
Quality of the applicant:				
Please provide a brief summary on the quality of the applicant, based on their CV.				
Applicant score (delete as appropriate): 1 – unsatisfactory; 2 – adequate; 3 – good; 4 – very good; 5 –				

excellent

Quality of the proposed research project:

Please comment.

Quality score (delete as appropriate): 1 – unsatisfactory; 2 – adequate; 3 – good; 4 – very good; 5 – excellent

Originality of the proposed research project:

Please comment.

Originality score (delete as appropriate): 1 – unsatisfactory; 2 – adequate; 3 – good; 4 – very good; 5 – excellent

Feasibility and Impact on SoBigData:

Discuss whether the proposal is feasible given the short duration of the visit. Also comment on how the proposed project would help enhance SoBigData's impact through joint publications, outreach to new countries/research groups, open source software, or any other planned contributions that can realistically be expected to arise.

Feasibility Score (delete as appropriate): 1 – unsatisfactory; 2 – adequate; 3 – good; 4 – very good; 5 – excellent

Overall Score (delete as appropriate) 1 – unsatisfactory; 2 – adequate; 3 – good; 4 – very good; 5 – excellent

In the event of equal scoring, weighting will be given to users who have not previously used the SoBigData infrastructure, to young researchers and to those working in countries where no research infrastructure is available. The selection panel shall also pay regard to issues of gender equality.

APPENDIX D. AGREEMENT TEMPLATE



3 ottobre 2018

Department Of Computer Science.

Head of Department Professor Guy Brown

Lucy Moffatt Regent Court 211 Portobello Sheffield S1 4DP

Tel: +44 (0) 114 222 1901 **Fax:** +44 (0) 114 222 1810 **Email:** 1.moffatt@sheffield.ac.uk

Dear **USER NAME**

INSERT PROJECT TITLE

The SoBigData Consortium are pleased to inform you that your project INSERT PROJECT TITLE (annex 1) has been accepted by the selection panel.

The duration of your visit to INSERT HOST is for INSERT DURATION, starting INSERT START DATE and ending INSERT END DATE.

In line with University financial regulations please refer to annex 2 for information with regards to expenditure and allowable costs. Please ensure that these guidelines are adhered to so we can ensure that your funding claim is eligible in line with EC and University legislation.

You may be required to receive Ethical Approval from the Host Institution. If so full details will be provided to you before your arrival.

In addition you will be required to sign a non-disclosure agreement which will be provided and signed by you on the day of arrival for your visit.

I should be grateful if you would confirm that you are happy to accept this offer on the above terms by signing and returning a copy of this letter to me at the above address.

Accepted on behalf of	Accepted by
SoBigData Consortium	
Signature:	
	Signature:
Name: Lucy Moffatt	Name:
Date:	Date:

Annex 1

Project Details

Annex 2

Financial Guidelines

SoBigData – Trans-National Access

Travel Expense Guide for User Groups

Trans-National Access (TNA) is granted by seven national infrastructures:

Gate: Kalina Bontcheva (k.bontcheva@sheffield.ac.uk)

SoBigData.it: Roberto Trasarti (roberto.trasarti@isti.cnr.it)

Fraunhofer: Thorsten May (thorsten.may@igd.fraunhofer.de)

UT: Marlon Dumas (marlon.dumas@ut.ee)

L3S: Avishek Anand (anand@l3s.de)

AALTO UNIVERSITY: Aristides Gionis (aristides.gionis@aalto.fi)

Nervousnet: Antulov-Fantulin Nino (nino.antulov@gess.ethz.ch)

Researchers should be advised that travel costs incurred while undertaking a Trans-National Activity must be made by the most economical method available.

• Air Fares

 Should be Economy Class and be by the cheapest route where possible (whilst considering reasonable travel durations).

Rail Fares

 Standard Class Rail Fares or discounted rail should be used where possible and bookings should be made at least 7 days in advance of travel. First class travel will not be reimbursed.

Public transport

• Should be used where possible. Car mileage will normally be reimbursed to the equivalent value of a standard class rail fare.

Subsistence

○ Will only be reimbursed for participants who require overnight accommodation (i.e. not for the host organisation). In such cases, subsistence we would expect claims at the following maximum rates: €7.50 for one meal, €12 for two meals and €22.00 for all meals.

Accommodation

Should be a reasonable price for the location of the meeting and estimations for standard hotel prices (per person per night) are listed below.

Partner	Standard accommodation cost per night
GATE – Sheffield	€ 95
SoBigData.it – Italy	€105
Fraunhofer – Germany	€115
UT – Estonia	€ 75
L3S – Germany	€ 80
AALTO UNIVERSITY	€ 90
Nervousnet	€140

If you have any queries regarding costs of travel then please contact com-resadmin@sheffield.ac.uk

The maximum you can be refunded for your whole stay is €3,500. If you incur more than this then the funding provided by the TNA SoBigData Consortium will be capped.