Event report

May 27-29, 2015
Flagey - Brussels

2nd International Conference on Internet Science

A conference organised under the aegis of the European Commission

2nd International Conference on

Internet Science

May 27-29, 2015
Flagey - Brussels

"" Societies, governance and innovation ""

internetscienceconference.eu

1
Event Summary

Abstract

Following the 1st and very successful conference held in April 2013 in Brussels, the FP7 The Network of Excellence in Internet Science (EINS) initiative, supported by the European Commission DG CONNECT, held its 2nd International Conference on Internet Science from May 27 to 29, 2015 at Flagey in Brussels, Belgium.

This multidisciplinary conference aims at progressing and investigating on topics of high relevance with Internet's impact on societies, governance, and innovation. It focuses on the contribution and role of Internet Science on the current and future multidisciplinary understanding of societies transformations, governance shifts and innovation quests. Its main objective is to allow an open and productive dialogue between all the disciplines, which study the Internet as a socio-technical system under any technological or humanistic perspective.

May 27 - Open Day

During this first day, open to the public, over 90 participants had the opportunity to discover and interact with the EINS project experts that introduced them to new social, political and economic issues involving the Internet. The morning was devoted to the presentations of the Network of Excellence in Internet Science (EINS)s' main achievements about the understanding of Internet networks and their co-evolution with society, followed by the presentations of projects proposals of common interest in the field of Internet Science. In the afternoon, participants were invited to choose among three round tables to discuss and exchange about interesting topics:

Global Internet Governance Policy Architecture: Case studies and interdisciplinary research challenges

Engaging Citizens in the Smart City Project Through DIY Networking

Internet Research Ethics: Striking a Balance Between Conflicting Interests

At the beginning of each round table, participants introduced themselves with background information and topics of interests they wanted to discuss. At the end of the day, each round table chair presented the main insights discussed in their session to the whole audience. A cocktail concluded this first day.

May 28-29
Scientific Conference

The scientific conference involved more that 70 participants. A call for papers allowed authors whose papers had been selected to present their work during the conference. There was a relatively high participation rate of students on this call for papers and a "Best Student Paper Award" was organized to reward with a 500€ prize the best selected paper (co-)written by a student.

Thanassis Tiropanis, EINS coordinator, opened the 2-day conference. High-level keynote speeches, multidisciplinary paper sessions and panels then followed.

Six international keynote speakers delivered inspiring and captivating talks during the 2 days: Marietje Schaake, Member of the European Parliament for the Dutch Democratic Party; Noshir Contractor, Director of the Science of Networks in Communities (SONIC) Research Group at Northwestern University; Christian de Larrinaga, Founder of the Internet Society; Andrea M. Matwyshyn, Microsoft Visiting Professor at Center for Information Technology Policy at Princeton University; Marcelo Thompson, Professor of Law at Law and Technology Centre at the Faculty of Law, The University of Hong Kong; Motohiro Tsuchiya, professor of Graduate School of Media and Governance at Keio University.

During the conference, researchers and students presented their work on various topics divided into three sessions: Internet Science in Reflection, Internet Science and Societal Challenges and Internet and Innovation. Topics included: Internet and political participation, Internet of things and society, Virtual communities and behavioral patterns, Internet solutions for Sustainability, Social sciences and ethics for Internet use, Collective intelligence for innovative solutions, Intellectual property and the commons.

A panel discussion chaired by Thanassis Tiropanis including Fabrizio Sestini, Christian De Larrinaga, Chris Marsden, Jonathan Cave, Kave Salamatian and Laura Sartori shed light on the future of Internet Science and its actual distinct contribution. Other issues were addressed such as the contribution of Internet Science in the next 5 years and in Horizon 2020 as well as the synergies with Network Science, Data Science and Web Science.

During the "Best Student Paper Award" session, Laura Sartori (Programme Chair) proudly announced that Rebecca Fallon, MSc. Candidate at the Oxford Internet Institute and author of the paper entitled "#CELEBGATE: Methodological approaches to the 2014 celebrity photo hack" was the winner of the 500€ cheque prize.

At the end of the first day, Senior Expert (Advisor) within the "Net Innovation" unit of DG CONNECT of the European Commission, Fabrizio Sestini, spoke about how Internet Science is driving the development of collective awareness platforms.

Director for "Net Futures" in DG CONNECT, Mario Campolargo, concluded the conference with a talk about "Internet science and society", which was followed by the official announcement by Thanassis Tiropanis of the next Internet Science Conference in May 2016, in Florence, Italy.

2
Proceedings

Thanassis Tiropanis
Athena Vakali
Laura Sartori
Pete Burnap (Eds.)

Internet Science

Second International Conference, INSCI 2015
Brussels, Belgium, May 27–29, 2015
Proceedings

∲ Springer

All the accepted publications have been presented in three plenary sessions during the conference. Futhermore, they have been published in the renowned international journal Springer in the Lecture Notes in Computer Science (LNCS) series.

The volume is available at
http://www.springer.com/fr/book/9783319186085

Publications

A Disciplinary Analysis of Internet Science – Clare J. Hooper, Bruna Neves and Georgeta Bordea

Analysing an academic field through the lenses of Internet Science: Digital Humanities as a Virtual Community – Almila Akdag Salah,Andrea Scharnhorst and Sally Wyatt

EINS Evidence Base: A Semantic Cataloguing for Internet Experimentation and Measurement – Xin Wang, Thanassis Tiropanis,Thanasis Papaioannou and Federico Morando

Living with Listening Services: Privacy and Control in IoT – Donald McMillan and Antoine Loriette

Privacy and empowerment in connective media – Jo Pierson

Engaging with Charities On Social Media: Comparing interaction on Facebook and Twitter – Christopher Phethean, Thanassis Tiropanis, Lisa Harris

Empowering female-owned SMEs with ICT in selected Arab countries and Brazil – Mona Badran

#CELEBGATE: Methodological approaches to the 2014 celebrity photo hacks – Rebecca Fallon

Communication Forms and Digital Technologies in the Process of Collaborative Writing – Kaja Scheliga

Ethics of personalized information filtering – Ansgar Koene, Elvira Perez, Christopher James Carter, Ramona Statache, Svenja Adolphs, Claire O'Malley, Tom Rodden and Derek McAuley

IAA: Incentive-based Anonymous Authentication Scheme in Smart Grids – Zhiyuan Sui, Ammar Alyousef and Hermann de Meer

Mediated community from an intergroup perspectve: A literature review – Vilma Lehtinen, Eeva Raita, Mikael Wahlström, Peter Peltonen and Airi Lampinen

3
Presentations

27 presentations from the conference are available at
http://internetscienceconference.eu/#presentations

Openings

May 27 – Open day introduction – Thanassis Tiropanis, Associate professor, University of Southampton, United Kingdom

May 28 – Programme introduction – Thanassis Tiropanis, Associate professor, University of Southampton, United Kingdom

Highlights on Internet Science

Session introduction – Anna Satsiou, Senior Researcher in the Informatics and Telematics Institute (ITI), Center for Research and Technology Hellas, Greece

Real time analysis and visualization of controversies around Wikipedia articles, EINS Open Call Project CONTROPEDIA – Andreas Kallenbrunner, Scientific Director, Social Media Research Group; Barcelona Media, Spain

Interdisciplinary explorations of self-organisation in practice, EINS Open Call Project COMPARE – Panayotis Antoniadis, Senior Researcher, Communication Systems Group ETH Zürich, Switzerland

Cross-disciplinary Participation in Open Source Communities, EINS Open Call Project CPiOSC – Wifak Gueddana, Research Associate, Information Systems and Innovation Group, London School of Economics, United Kingdom

Virtual Communities, EINS JRA6 – Chris Marsden, Professor of Internet & Media Law, University of Sussex, United Kingdom

Emergence Theories and Design Methodologies, EINS JRA2 – Clare Hooper, Research Engineer, IT Innovation Centre, University of Southampton, United Kingdom

From Smart Cities to Engaged Citizens, 3rd EINS Summer School – Anna Satsiou, Senior Researcher in the Informatics and Telematics Institute (ITI), Center for Research and Technology Hellas, Greece

Internet, Governance, Ethics & Citizens (An introduction to round tables)

An Introduction to round tables – Hugo Vivier, Unit Manager, Emerging Technologies & Media, Sigma Orionis, France

Engaging citizens in the smart city project through DIY networking – Panayotis Antoniadis, Senior Researcher, Communication Systems Group ETH Zürich, Switzerland

Global Internet Governance Policy Architecture: Case studies and interdisciplinary research challenges – Chris Marsden, Professor of Internet & Media Law, University of Sussex, United Kingdom

Internet Research Ethics: Striking a balance between conflicting interests – Luce Jacovella, Research Coordinator at Centre for Commercial Law Studies, Queen Mary University of London, United Kingdom, Bendert Zevenbergen, Doctor of Philosophy student and Research Assistant, Oxford Internet Institute, United Kingdom

Session I – Internet Science in Reflection

A Disciplinary Analysis of Internet Science – Clare J. Hooper

Analysing an academic field through the lenses of Internet Science: Digital Humanities as a Virtual Community – Almila Akdag Salah

EINS Evidence Base: A Semantic Cataloguing for Internet Experimentation and Measurement – Xin Wang

Living with Listening Services: Privacy and Control in IoT – Donald McMillan

Session II – Internet Science and societal challenges

Privacy and empowerment in connective media – Jo Pierson

Engaging with Charities On Social Media: Comparing interaction on Facebook and Twitter – Christopher Phethean

#CELEBGATE: Methodological approaches to the 2014 celebrity photo hacks – Rebecca Fallon

Session III – Internet and Innovation

Communication Forms and Digital Technologies in the Process of Collaborative Writing – Kaja Scheliga

Ethics of personalized information filtering – Ansgar Koene

IAA: Incentive-based Anonymous Authentication Scheme in Smart Grids – Zhiyuan Sui

Mediated community from an intergroup perspectve: A literature review – Vilma Lehtinen

Keynote speeches

Who is a Data Controller? – Marcelo Thompson, Law and Technology Centre at the Faculty of Law, The University of Hong Kong, Hong Kong

Is the internet the Internet? – Christian de Larrinaga, Founder of the Internet Society, United Kingdom

Closing remarks

Closing speech – Thanassis Tiropanis, Associate professor, University of Southampton, United Kingdom

4
Round Tables

Three round tables took place, allowing great interactions among all participants.

Global Internet Governance Policy Architecture: Case studies and interdisciplinary research challenges

Number of participants: 21
Chair: Chris Marsden (University of Sussex)

The panel first heard from 6 professors about 3 years of applied research into standards and governance. Panel members introduced three topics of importance in relation to Internet policy and governance:

1. The role of new actors in Internet governance, including civil society actors, individuals participating in campaigns, and intergovernmental organizations;
2. The role of algorithmic regulation in relation to policy decision-making;
3. Challenges in inter-disciplinary analysis of regulation/governance.

Each of these topics is interrelated but also stands alone as a significant aspect of the transformation of the Internet governance and policy space. The thematic discussion proceeded from the assumption that Internet governance now involves a range of processes including the settling of disputes and creation of norms far from enforcement practices and regulatory discussions engaged in normal 'legitimate' legal forums. The question then arises as to how this governance might be mapped or understood – including through 'algorithmic regulation – and what these new actors or processes might imply for further research on Internet governance and regulation.
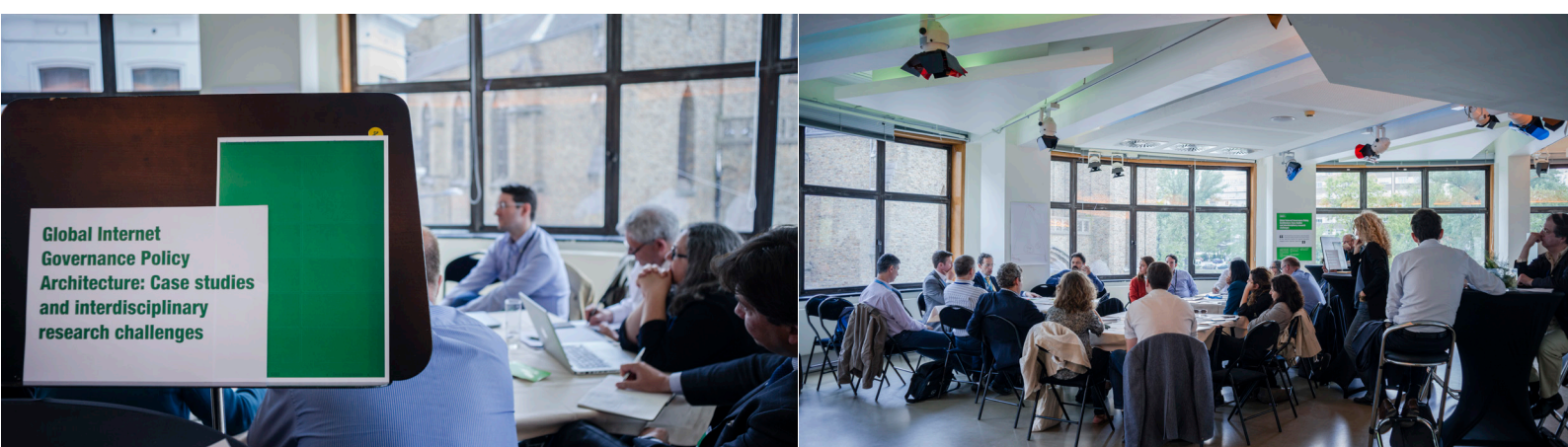
Panel participants included corporates (Telefonica, corporate communications), policy (Club of Rome Brussels) and other civil society and policy actors.

Participants discussed each topic, guided by the moderators

The round table discussed the role of new actors in Internet governance and how these actors are reshaping their own identity, moving from part of government sector to a stakeholder in itself, from periphery to core of Internet governance, crafting their roles via issue/policy entrepreneurship. The roles of intergovernmental organizations and other types of actors (including Civil Society; Citizens; Technical Community; Technical artefacts) were contrasted.

The interplay between algorithmic regulation of policy and other complexities related to conceiving of Internet governance, including modelling decision-making processes in cross-cutting governance domains was then discussed by the participants.

For the last topic regarding the future challenges in research on Internet governance and regulation, Chris Marsden identified the challenges that emerge from both multistakeholder and algorithmic regulation solutions.

"We offered an opportunity to analyse the various stakeholders in standards and governance processes."
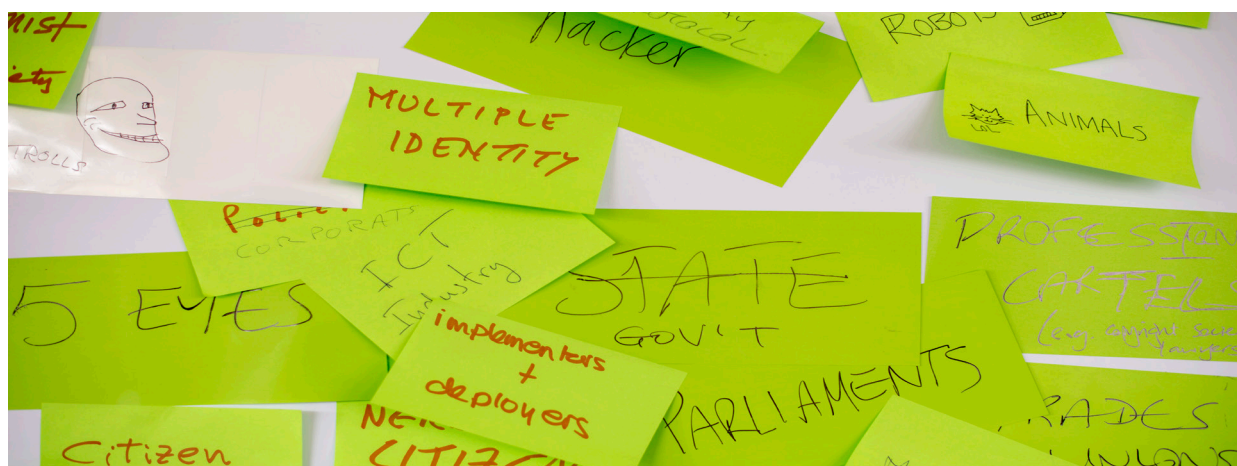
Engaging Citizens in the Smart City Project Through DIY Networking

Participants: 16
Chair: Panayotis Antoniadis (NetHood)

The workshop was organized and executed in collaboration between NetHood (Panayotis Antoniadis and Ileana Apostol) and UnMonastery (Katalin Hausel). The overall goal was to engage people from different disciplines in a collaborative process of speculative hybrid space design using DIY networking as a "boundary object". Unlike previous versions of this workshop, organisers decided to develop a more sensorial approach and invited participants to walk with them and explore the surrounding area of the conference's venue, Flagey, searching for suitable locations and possible situations: candidates for hybrid urban/artistic interventions that can facilitate contact between strangers in public spaces.

"*We gathered at the center of the main square at Flagey. While Ileana and Katalin were giving hints on how to analyze the city's built environment and observe people, we were lucky to witness a «pop-up» installation by Pepsi. Then, after a moment of bewilderment, the «key» was provided by a participant who volunteered to bring us to a very nice monastery close-by. The path was longer than expected but very rewarding, since the contrast between the huge Flagey square and the beautiful open garden of the monastery provided the setting for interesting discussions, which were concluded at an improvised wrap-up session at the cafe of the square.*" says Panayotis Antoniadis, organiser of the session.

In the first part, participants introduced themselves and commented on why they found this workshop interesting; during the field trip they were active taking photos, discussing about their observations and asking questions; and at the wrap-up session there was a lively discussion about how they could improve this experimental workshop and ideas about possible urban interventions in the areas visited. A qualitative analysis of the public spaces around the conference venue was produced, as well as ideas for possible urban interventions.

"*It was very interesting to listen to the participants' impressions and ideas for possible interventions; like a pop-up «let me show you my favorite place» stand encouraging local people to guide interested passers-by to a close-by place of personal significance; and at the same observe more relaxed the use of this interesting public space.*" says Panayotis.

Internet Research Ethics: Striking a Balance Between Conflicting Interests

Number of participants: 20
Chairs: Luce Jacovella (CCLS – Queen Mary University) and Bendert Zevenbergen (OII - Oxford University)

Internet research is an essential aspect of both private and public research and at the core of many business models and governmental activities. However, often invasive methodologies and research designs for the collection and processing of data in online experiments, challenge existing ethical principles and procedures. The Internet offers a new and complex information environment, but often research practices of private, academic and governmental institution raise ethical dilemmas, and challenge existing ethics methodologies. Researchers collect, store and analyse data from large numbers of individuals and connected devices often without users' awareness. The massive scale of research online and the enormous market for users' data and metadata demands for a new approach. Can ethics enable sound scientific research and innovation?

This round table's objective was to identify ethical problems - and devise solutions that could be applied to Internet research. The chairs invited the presentation of concrete examples by the participants where their projects had run into ethical difficulties. The discussion was then structured to suggest research approaches, methodologies and procedures that would be ethically justifiable.

The round table was highly participative. The participants were encouraged to present their ideas in response to the cases presented, as well as questions posed by the chairs. This approach allowed themes to emerge from an open exchange of ideas. Through the discussion, by the end of the workshop, participants felt they had been able to structure their own arguments and ideas about Internet research ethics and gained new insights on how to apply them to their work. The chairs took notes of the discussions, from which valuable new topics for their own research projects emerged.

The majority of participants were academics from different disciplines: computer science, physics, law, ethics, sociology, business, and political sciences. One participant was a former advisor to the President of the European Commission.

This round table was divided into 2 sections

Section 1 - The participants played a game of 'spin the bottle' to introduce themselves. Each participant was asked to say their name, affiliation, background and their interest in participating to the round table. In this way the chair tried to tease out the main topics and case studies that would become the focus of the discussion. The interaction was left to develop naturally with only few interventions to steer the conversation back to the main focus. Participants provided excellent cases they had worked on and provided much feedback and opinions on each other projects.

Section 2 – The second part of the discussion focused on possible solutions to the problems raised in the first section of the round table. At the end, chairs summarized the main topics and ideas, asking participants whether this was a fair reflection of the conversations. Prizes were bestowed to those who had contributed with real cases.

Participants discussed some of the most central topics regarding the ethics of Internet research, such as: The relationship and inherent power imbalances between researchers and research subjects; Meaningful (informed) consent; when to provide opt-in and opt-out; Vulnerable subjects (in crisis management or research with minors); Issues regarding data subject's trust, identity, and privacy; Contextual awareness of privacy policies; Raising awareness of Internet research methods and education in digital literacy; Time sensitivity of ethical justifications and decisions; Alternative Internet business models that do not rely on trade in personal data; Social media profiling and employment.

"We reached conclusions regarding our three main topics."

1. Identify ethical principles and values that can be applied in different contexts and times

The main ethical concerns when humans are involved as research subjects, is to assess and prevent risk. The rapid advance of technology makes it difficult to foresee all possible risks, especially if these are projected far in the future. Further, the perception of risk by those designing the project depends on their personal context, institutional ethos and research objectives at the time of the project. Often, the potential risks (some of which could manifest over time) or the socio-political context in which the research takes place (e.g. when research is done on subjects from different cultural background) are not considered as part of the project design. Unfortunately, ethical considerations are too often done ex-post as a critical consideration on how a project should have been designed. For this reason, it is important to identify principles and values that can reasonably be applicable to different contexts over time.

2. Change the paradigm of Internet research: include ethics by design

To address the many ethical dilemmas that can rise during Internet experiments, ethical principles should be embedded from the offset of the research design process. To be effective, ethical considerations should be reinforced through the active participation of all the stakeholders, especially those who have a crucial role in assessing the value of research and assign rewards (ethics boards, programme committees, journal editors, lawyers, funding agencies, etc.) and users.

The current model is based on data as the main currency, but as technology advances and people gain awareness on the value of the data they entrust on the web, the economic paradigm might change with the emergence of new business models. The market is pushing into a direction that people cannot yet see. In this case, having an ethical approach and recognize the value of data might in the future become a competitive advantage. This evolution has already been experienced in other sectors (Conscious Capitalism - companies that have ethical policies and demonstrate consistency with their policies gain more clients).

3. Empower users

Enabling user's agency is a crucial challenge. Agency implies awareness, empowerment, and emancipation. Technology can help developing tools to empower users agency, but these alone cannot suffice without training and Internet literacy. How can users influence research design, relevant policies, and industry practices, if at all? There is a task for researchers to take the feedback loop from users and data subjects seriously as part of the ethical considerations.

5
Pictures / Video

A selection of the **conference pictures** is available at

http://internetscienceconference.eu/#photo-gallery

The post-event **video trailer** of the conference is available at

http://internetscienceconference.eu/#post-event-trailer

6
Audience
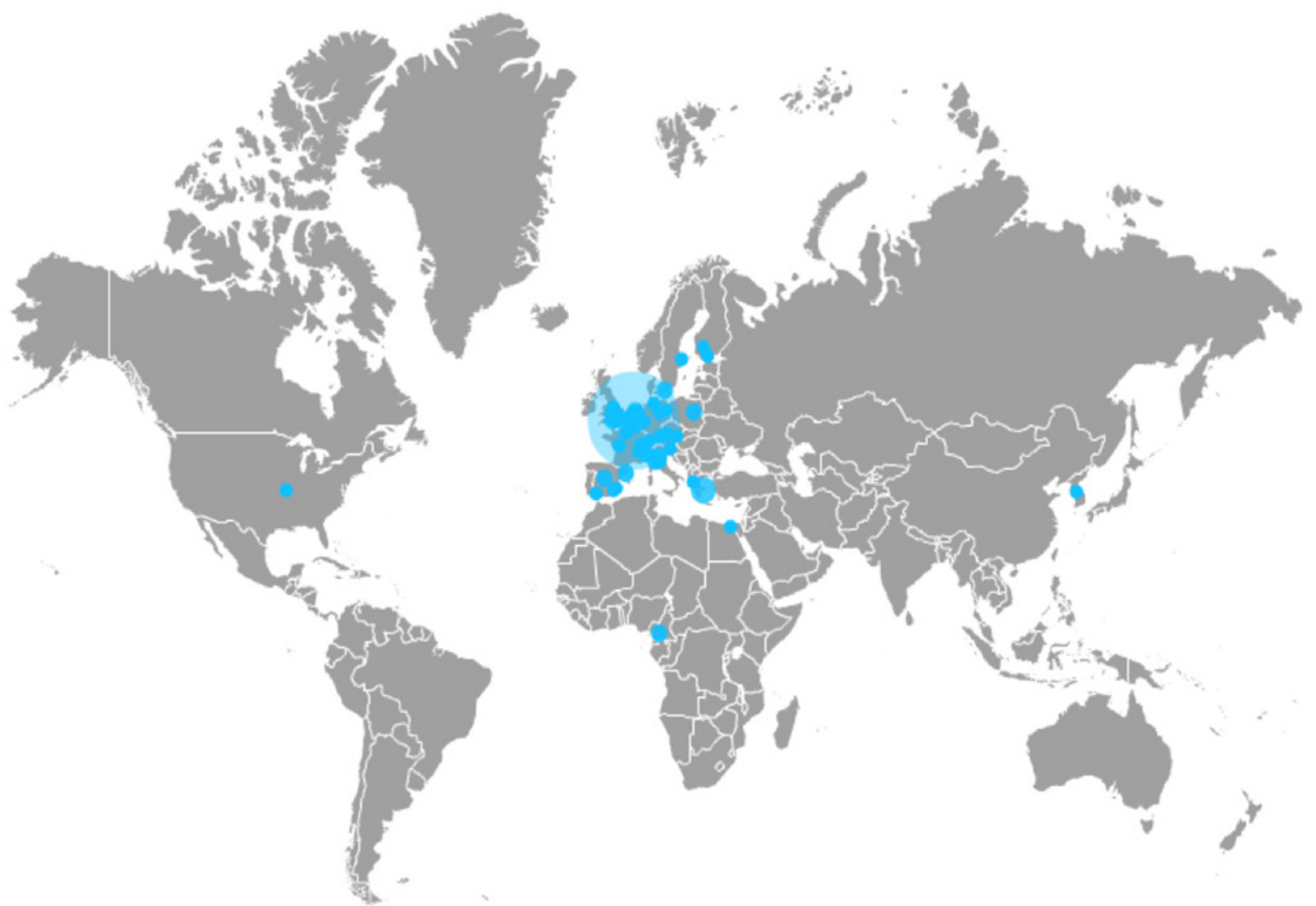
151 people registered from over 20 countries.

# Several universities and companies attended.

AIT — Barcelona Media — Belobog Research Corporation — Business Solutions Europa — Bxl-numerique forum — Centre Balears Europa — CERTH — CNRS and UPMC Sorbonne Université — CVLT — Delft University of Technology — Digital Enlightenment Forum VZW — EFMC — eHumanities Group / KNAW — EMLS RI — Europe Analytica — European Commission — European Digital Rights — FirstHand — GNKS Consult — HIIG — IIT-CNR — iMinds-Smit — IMNRC-NewPOL Network — IT Innovation — Keio University — London School of Economics — Member of the European Parliament — Missouri University of Science and Technology — Mobile Life Centre — Stockholm University — NetHood — Nexa Center for Internet & Society — NL Permanent Representation to EU — Northwestern University — Octopux Consulting — Oxford University — People's Daily — Politecnico di Torino-Nexa Center — Princeton University — Stockholm University — Sussex University — Technische Universität München — Telefonica — The European House-Ambrosetti — ULB Université Libre de Bruxelles — University of Antwerp — University of Athens — University of Cairo — University of Cambridge — University of Hong Kong — University of Leuven — University of Ljubljana — FGG — University of Nottingham — University of Southampton — University of Thessaly — University of Warwick — unMonastery — Vilma Elisa Lehtinen — VUB — Waterloo Hills
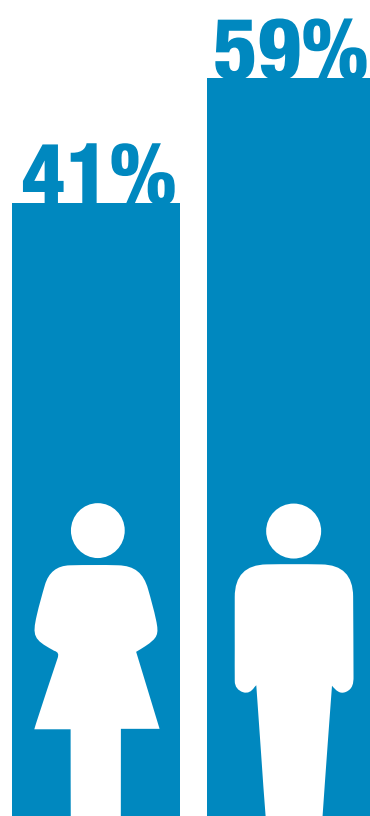
90 people attended the open day, 72 went to the Scientific Conference.
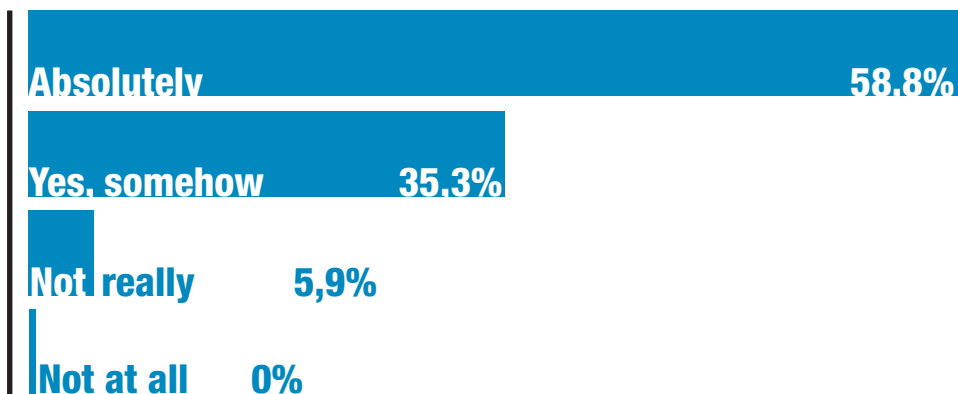
16% of all attendees were students.

1%
Press

9%
European
Commission

16%
Student

74%
Regular ticket
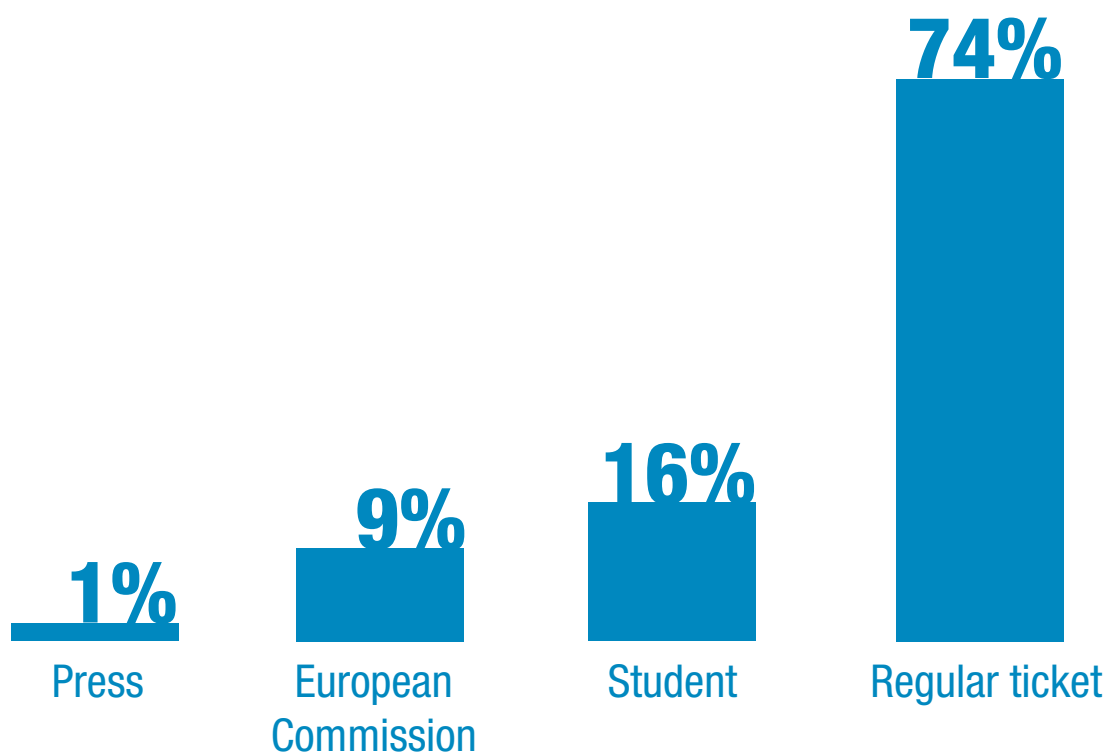
Participant ticket types

41%

59%

Gender balance

What did participants attend this conference for?*

Sessions, talks...

Networking

Personal development

Speakers

Other

Were participants satisfied?*

Absolutely 58.8%

Yes, somehow 35.3%

Not really 5,9%

Not at all 0%

Were sessions and talks interesting?*

Yes, definitely 47.1%

Yes, somehow 52.9%

Not really 0%

Not at all 0%
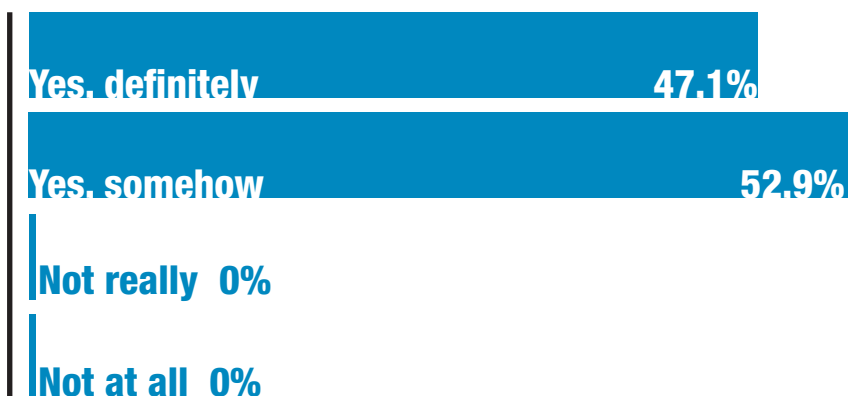
*Based on the results of a survey sent to all participants.

7
Testimonies

Participants' say

Rebecca Fallon (Oxford University, UK)

"A brilliant confluence of international minds and a truly impressive breadth of work in an emerging field."

Motohiro Tsuchiya (Keio University, Japan)

"A good cross-point of multidisciplinary Internet sciences!"

Ansgar Koene (University of Nottingham)

"This was a very engaging conference with high quality keynote presentations, thought-provoking round table discussions and lively interactions throughout the meeting. I managed to make a lot of interesting new connections which will hopefully lead to some interesting new research projects."

Bendert Zevenbergen (Oxford University, UK)

"The Internet Science conference provided an excellent venue for researchers interested in the multidisciplinary aspects of the Internet. It was interesting to hear presentations that transcend silos and exchange views with enthusiastic researchers from all fields. Many new ideas and projects were formulated at this conference."

Jonathan Cave (University of Warwick, UK)

"Well done – I found the conference stimulating and enjoyable. In many ways, I'll miss EINS, though hopefully I can now actually do some Internet Science."

Chris Marsden (University of Sussex, UK)

"Well done on holding the conference last week – timings went off because of speaker 'enthusiasm' and audience arriving late, but you can't help that!"

Panayotis Antoniadis (Nethood, Switzerland)

"This was an inspiring event where interdisciplinarity manifested through the affirmation of differences and the joy of diversity rather than futile efforts for convergence."

Thanassis Tiropanis (University of Southampton, UK)

"Thank you very much for the good work on ensuring everything ran smoothly on this big conference."

8
Committees

GENERAL CHAIR

Thanassis Tiropanis, University of Southampton

PROGRAMME CHAIRS

Athena Vakali, Aristotle University of Thessaloniki
Laura Sartori, University of Bologna

EVENT COORDINATOR

Roger Torrenti, Sigma Orionis

ORGNISATION COMMITTEE

CHAIR: Anna Satsiou, Centre for Research and Technology Hellas
Franco Bagnoli, University of Florence
Hugo Vivier, Sigma Orionis
Cindy Temps, Sigma Orionis

PROCEEDINGS CHAIR

Pete Burnap, Cardiff University

TECHNICAL PROGRAMME COMMITTEE

Andreas Fischer, University of Passau
Anna Satsiou, Centre for Research and Technology Hellas
Anne-Marie Oostveen, University of Oxford
Armin Haller, Australian National University
Barbara Catania, University of Genova
Bart Lannoo, iMinds
Ben Zevenbergen, Oxford University
Clare Hooper, University of Southampton
Chris Marsden, University of Sussex
Dimitri Papadimitriou, Alcatel-Lucent
Donny McMillan, Mobile Life
Federico Morando, Nexa Center for Internet and Society
George Iosifidis, Centre for Research and Technology Hellas
Heiko Niedermeyer, Technical University of Munich
Ioannis Stavrakakis, University of Athens
Jonathan Cave, University of Warwick
Karmen Guevarra, Cambridge University
Konstantinos Kafetsios, University of Crete
Mahdi Bohlouli, University of Siegen
Mark Rouncefield, University of Lancaster
Markouris Karaliopoulos, Centre for Research and Technology Hellas
Mayo Fuster Morell, Harvard University
Meryem Marzouki, University Pierre and Marie Curie
Nathalie Mitev, London School of Economics
Panayotis Antoniadis, ETH Zurich
Patrick Wüchner, University of Passau
Pete Burnap, Cardiff University
Sara Helen Wilford, De Montfort University
Tamas David-Barrett, University of Oxford
Tim Chown, University of Southampton
Tim Davies, University of Oxford
Xin Wang, University of Southampton
Ziga Turk, University of Ljubljana

"We would like to thank you all, who attended the 2nd International Conference on Internet Science, at Flagey, in Brussels, on May 27-29 2015."

SIGMAORIONIS

This event report was created by Sigma Orionis

www.internetscienceconference.eu