



Nexa Center for Internet & Society
Politecnico di Torino

Annual Report 2016



Nexa Center

for Internet & Society

Politecnico di Torino

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The Nexa Center for Internet & Society is a research center of the Department of Control and Computer Engineering of the Politecnico di Torino (<http://dauin.polito.it>).

This report was mainly edited by Antonio Vetrò, with the contribution of the Nexa Staff. The review process has been managed by Selina Fenoglio and curated by Giuseppe Futia, Simone Basso and Davide Allavena.



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FOREWORD

The 2015-2016 academic year has been a year of both consolidation and change for the Nexa Center.

Firstly, consolidation of its role as one of the reference points in the international community of Internet studies and as one of the main actors of the national and regional digital policy conversations. The coordination of the Global Network of Internet and Society Research Centers and the support of the Internet Bill of Rights by the Italian Parliament are worthy to be mentioned here.

Secondly, consolidation of the competences in the four key expertise areas of the Center – Open content, Public Sector Innovation, Network Measurements and Fundamental Rights Online – along the two major, highly coupled, perspectives adopted by the Center – technological and legal. In support of this point, we mention the intensification of the teaching activities – with the confirmed primary role of the Digital Revolution course – and the spin-off of an Open Linked Data company.

While such consolidation shows that a certain degree of maturity has been reached on the aforementioned investigation areas, technology evolves rapidly and new challenges have to be faced. In 2015-2016 the Nexa Center started to investigate technological and legal issues entailed by four potentially disruptive technologies: the Internet of Things, Service Robots, the Blockchain and Big (Open) Data. More efforts in these directions are expected in the near future to improve the understanding of the complex societal implications of these technologies, with the possible adoption of new perspectives, *in primis* ethical-philosophical and sociological.

Consolidation, spin-offing and the opening of new research questions have been accompanied by major Staff and management changes; such turn over started in late 2015 and will be complete by end of 2017. This ongoing transition, in turn, will naturally foster further changes in the research directions, some of which can be already glimpsed from recently submitted project proposals and from the initial draft of a strategic roadmap, reported in the last part of this report.

Directors**Juan Carlos De Martin - Founder and Co-Director**

Juan Carlos De Martin is co-founder and faculty co-director of the Nexa Center for Internet & Society at the Politecnico of Torino, Italy. He is also Faculty Fellow at Harvard University Berkman Center for Internet & Society and a Senior Visiting Researcher at the Internet and Society Laboratory of Keio University (Tokyo). His most recent main interest is the future of university in the Internet age, a topic on which he is writing a book. In 2012 he published, together with co-editor Melanie Dulong de Rosnay, "The Digital Public Domain: Foundations for an Open Culture". In 2003 he co-founded, with law professor Marco Ricolfi, Creative Commons Italy, which he led between 2005 and the end of 2012. Between 2007 and 2011 Juan Carlos De Martin was the coordinator of COMMUNIA, the European thematic network on the digital public domain. Between 2007 and 2015 he was the Dean for libraries of the Politecnico di Torino. Juan Carlos De Martin also serves as member of the Scientific Board of the Institute of the Italian Encyclopedia Treccani and of the Biennale Democrazia. He is a frequent op-ed contributor to "La Stampa" and "La Repubblica", two of the Italian leading newspapers, and he often acts as a commentator in European media.

Marco Ricolfi - Founder and Co-Director

Prof. Ricolfi, was born on 19.7.1952, received his degree at the Faculty of Law of the University of Turin on 1974. Master of Laws, Yale Law School, 1975-1976. He currently is professor of Intellectual Property Law at Turin Law School, where he also teaches Business Law. He is former Director of the LL M in Intellectual Property, organized by Turin Law School together with WIPO and ILO. Between 2010 and 2012, he has been the scientific coordinator of the LAPS I European Thematic Network on Legal Aspects of Public Sector Information.

EXECUTIVE SUMMARY

The activities of the Nexa Center over the period May 2015 – May 2016 follow two main threads: **Libre Knowledge** and **Internet Power and Rights**.

Libre Knowledge is formally defined by two working areas:

- **Open content** (p. 8) concerns advocacy of an easier and wider circulation of digital contents.
- **Public Sector Innovation** (p. 13), i.e., improvement of efficiency and transparency of the public sector with making using of the concepts developed in the previous thread.

Analogously, the **Internet Power and Rights** thread is composed of the following two working areas:

- **Network Measurements** (p. 18) frames the activities – mainly software projects – aimed at improving network transparency, and at providing evidence for researchers, policymakers, activists, and citizens in general.
- **Fundamental rights online** (p. 19) is the working area for all projects that take as their main perspective the preservation of fundamental rights such as privacy, and freedom of expression.

The working areas are complemented by the participation in international networks – such as the Global Network of Internet & Society Research Centers (NoC), as coordinator – and by teaching activities.

Following the above taxonomy, we briefly summarize the main activities and achievements, before analyzing them more in the detail in the body of the report.

LIBRE KNOWLEDGE

Open content

The main efforts in this area have been devoted to the European project [PASTEUR4OA](#) (page 9). The Nexa Center contributed to the project with a research activity that verified the alignment of the Italian universities' policies and that of academic publishers' embargoes with the European funding program Horizon2020 requirements, and with results dissemination in workshops and conferences. In addition, an online tool (available at <http://oa-check.nexacenter.org/>) has been developed to digitally support policy: the tool verifies the alignment of Open Access policies of research institutions to the requirements of the European funding program Horizon 2020.

Similar policy support activities have started in the [OpenMed project](#) (page 12), which focuses on Open Educational Resources. Such a project is contributing on expanding the domain of the Open Content research area.

Also, the TellMeFirst software (hereinafter, TMF, page 8) has been further developed, adding support for the cultural heritage domain, fostering collaborations with the Softeng (software engineering) research group of the Politecnico di Torino and the new-born spin-off of the Nexa Center, Synapta. TMF has been disseminated in the DB-Pedia community, and won the “Best tool for multi-lingual journalists” prize during the #newsHACK 2016 event organized by the BBC. New TMF functionality are under study for supporting the library of Politecnico, beyond the normal dissemination activities conducted by Juan Carlos De Martin (see page 11).

Finally, further steps forward have been done in the Italian translation process of the Creative Commons 4.0 licenses (page 10), and in the collaboration with Wikimedia Italia on the negotiation of some amendments to the Italian laws and bylaws regulating the photographic reproduction of cultural heritage.

Public Sector Innovation

The Nexa Center has contributed to the innovation in the Public Sector mainly with models and procedures for improving the quality of Open Data, on the one hand, and technologies for developing Linked Data, on the other hand. The Open Data quality topic has been investigated with a traditional academic approach: a theoretical model based on a wide literature review has been developed, and its adequacy has been studied with several exploratory case studies, following an empirical approach. The projects involved in this topic are Share PSI (page 16), MAPO (page 13), WikiTrasparenza (page 15).

The technological strand was instead centered around the Public Contracts project (page 14), with the design and implementation of a robust, scalable software pipeline for harvesting and linking public contracts data. The maintenance of the Public Contracts project was later transferred to Nexa Center's spin off, Synapta, and is currently one of the flagship public service (and showcase) activities carried out by the company.

Staff

Antonio Vetrò - Director of Research (from December 2015)

Antonio Vetrò serves as Director of Research at the Nexa Center from December 2015. Formerly, he has been research fellow in the Software and System Engineering Department at Technische Universität München (Germany) and junior scientist at Fraunhofer Center for Experimental Software Engineering (MD, USA). He holds a PhD in Information and System Engineering from Politecnico di Torino (Italy).

He is specialized in empirical methodologies and statistical analyzes, applying such an empirical epistemological approach to study the impact of technology on society. After working for a few years on methodologies to improve the quality of software and data, he recently steered his research on how to transfer technological innovations to industry and public institutions.

His mission is to critically understand the benefits of IT innovations and digital culture and deliver them to societies. With such a personal commitment, he has also volunteered in several development cooperation projects in Bosnia i Herzegovina, Kenya, India and as well in local communities in Italy. You can access his [Publications](#), or consult his [Curriculum Vitae](#) and his [Track Record](#).

Federico Morando - Director of Research (until December 2015)

Federico is an economist, with interdisciplinary research interests focused on the intersection between law, economics and technology. His research activity mainly concerns models of production and sharing of digital contents, with a focus on linked (open) data. He also taught intellectual property and competition law at Bocconi University in Milan, and he lectures at the Politecnico di Torino and at the WIPO LL.M. in Intellectual Property. He has an undergraduate degree in Economics from Bocconi Univ. and a master's degree in Economic theory and econometrics from the Univ. of Toulouse.

Staff

He holds a Ph.D. in Institutions, Economics and Law from the Univ. of Turin and Ghent with a dissertation about software interoperability. Federico joined the working group of the Nexa Center in 2006 at the beginning of its first year of formal activity. From Dec. 2012, he leads the Creative Commons Italy project and he is a member of the Open Team of Regione Piemonte that launched and steers the development of the first Italian open government data portal. From 2008 to 2012, in his position as the first Managing Director of the Center, he worked closely with the Directors to define staff and project goals and to coordinate the Center's fellows. From 2013 to 2015 he served as Director of Research and Policy of the Nexa Center, focusing on the coordination of the cross-disciplinary research activities of the Center and on the related policy support actions. At the end of 2015 Federico left the staff of the Center to become a co-founder and the CEO of Synapta, an innovative start-up specializing in linked data and the first spin-off of the Nexa Center. He continues to serve as a fellow of the Center and as the public lead of Creative Commons Italia.

Lorenzo Canova - Managing Director and Staff Research Fellow

Lorenzo Canova is research fellow at the Nexa Center for Internet & Society since 2014 and since 2016 he is also Nexa Center's Managing Director. He is specialized in Open Government Data (with a strong interest in linked data), government transparency and collaborative platforms. At the Nexa Center he manages the European projects RRI-ICT Forum and Share PSI 2.0 and serves as project manager for the Global Network of Internet & Society Research Center (networkofcenters.net), a worldwide network including more than 60 research centers on Internet & Society. He is also teaching assistant of the [Rivoluzione Digitale](#) (Digital Revolution) course held by prof. De Martin at Politecnico di Torino.

INTERNET POWER AND RIGHTS**Network measurements**

The network measurement team made relevant advances in the further development of the Measurement Kit (MK, page 18) mobile network measurement library for which the well known Network Diagnostic Tool (NDT) test was implemented. In parallel, the ongoing cooperation with the OONI project on network censorship lead to the prototypical implementation of mobile apps implementing OONI tests based on MK.

Maintenance of the Neubot code base continued, albeit slowly, and the project's long-term sustainability is under study, also in light of the aforementioned changes in the Staff that will take place in early 2017

Fundamental rights online

The projects and activities under the umbrella of "Fundamental rights online" have been many, with large support from Nexa Fellows.

The most visible result achieved in this area has been undoubtedly the vote on the Bill of Rights by the Italian Parliament (see page 23); on July 28, 2015, Italy became the first European country to officially endorse an [Internet Bill of Rights](#), although only through a parliamentary motion to the Government.

With respect to the research projects in this area, for out of five have been conducted analyzing disruptive technologies: service robots, Internet of Things, Big Data and the Blockchain.

The investigation of service robot applications (page 19) has been focused on the potential legal aspects on criminal and civil liability connected with the production, processing and transmission of personal data, together with an analysis of the recent Italian Regulation For Unmanned Air Vehicles. The activities have been finalized with a document presented at the Nexa Annual conference.

In the scope of the Internet of Things (page 20), a series of IoT consumer goods actually marketed were analyzed to reflect on the concept of ownership and connected usability issues. The advances have been organized on a [semantic wiki](#), published on a research paper and disseminated at the [International Workshop on Consumers and the Internet of Things](#) (which we also organized).

Concerning Big Data, a project on data protection-aware information systems (page 22) has analyzed the information flows of a regional platform aggregating and correlating data derived from things (Internet of Things, e.g., cameras, sensors, etc.) and people (social media, mobile apps, etc.).

Moreover, and in line with Nexa Center's long established tradition of studying the societal link between decentralization and power, a new three-years project (page 24) investigates how the Blockchain can foster a more decentralized Internet, possibly in combination

with other P2P approaches. The research is in its initial phases and a literature review on the topic has been conducted.

Finally, the Nexa Center designed the structure, and maintains the content, of the Responsible Research and Innovation (page 22) in ICT Forum wiki (<http://RRI-ICT-Forum.eu>), which is the online platform at the core of the RRI-ICT project activities.

INTERNATIONAL NETWORKS

The Nexa Center coordinates the Global Network of Internet & Society Research Centers (NoC, page 26) and shall serve this role until October 2016. To date the NoC counts, between affiliated and participating centers, 68 Research Centers and more than 180 researchers. In its second year of coordination, the Nexa Center managed the internal processes and specifically improved community building by setting up software tools allowing matchmaking NoC participants by their expertise and topics of interest. Furthermore, the Nexa Center also co-organized the NoC Annual Global Meeting on "Internet & Society: emerging topics and research communities" (27 November 2015, Hong Kong).

In addition, the Nexa Center also continues to participate in the Global Network Initiative (GNI, page 27).

TEACHING

The reporting period has seen an increment of the effort in the teaching activities.

The "Digital Revolution" (p. 30) undergraduate course at Politecnico di Torino continued to be the main Nexa teaching activity: in 2015 we enrolled 177 students (of them, over 100 passed the final exam), while in 2016 the students enrolled were 201. The course featured a few guest lecturers, some of which were Nexa Fellows.

A second course was launched, "Open Data in Public Administration" (page 30). It aimed at providing participants with the skills required to manage the information assets of a public body, taking into account the opportunities and risks relating to the provision and re-use of public data.

Additionally, for the second year, the Nexa Center is organizing "Topics in Internet & Society Interdisciplinary Studies" (p. 31), the PhD course of Politecnico di Torino Doctoral Programme involving as lecturers several Nexa Trustees. The course provides an interdisciplinary overview of selected Internet & Society topics.

Finally, the Nexa Center co-organized a winter school of the Alta Scuola Politecnica (a special program for the top students of the Politecnici of Milan and Turin) called "The New Internet Society: Entering the black-box of digital innovation" (page 31). Such school aimed at teaching the basic concepts to understand the role of Internet and ICT as an enabling factor for innovations in product and service that

Staff

He studied Management Engineering at Politecnico di Torino from which he received the B.Sc. degree (in 2011) and the M.Sc. degree (in 2014). See [here](#) for his publications.

Raimondo Iemma - Managing Director (until November 2015)

Raimondo Iemma is Project Manager at Altea Digital, a company that develops digital transformation solutions. Between 2007 and 2011, he worked for research and non-profit institutions. He joined the Nexa Center in 2012 as Staff Research Fellow, serving as Managing Director for three years between 2013 and 2015, and managing coordinator of the Global Network of Internet & Society Research Centers for one year. His interests encompass open data, linked data, and open government (a list of his publications is available [here](#)). He holds a MSc in Engineering management from Politecnico di Torino

Selina Fenoglietto - Administrative Manager

Selina Fenoglietto joined the Nexa Center for Internet & Society in May 2009 as administrative assistant. She holds a Bachelor degree in Economics from the Università di Torino and her former experiences include the administrative management of projects funded by the European Commission, the World Bank and the Italian Foreign Office. She is the administrative manager of the Center since 2010.

Simone Basso - Senior Staff Research Fellow

Simone is a researcher at Nexa Center since 2010. His main research interest is measuring the internet from the edges with active means. During his PhD, completed in 2014 under supervision of prof. De Martin, he developed and now maintains [Neubot](#), a tool to measure internet performance. He contributes to MeasurementKit (a network measurement library for mobile and embedded devices) and [OONI](#) (a tool to measure internet censorship).

Staff**Giuseppe Futia – Communication Manager & Staff Research Fellow**

Linked Data Specialist at the Nexa Center for Internet & Society, Politecnico di Torino (DAUIN). He is the project manager and co-developer of Public Contracts, a tool that exploits Linked Data to enrich, query, and visualize data about Italian public procurements. Moreover, he is the Nexa project manager and the main developer of TellMeFirst, an open-source tool co-developed by the Nexa Center and the Joint Open Lab of Telecom Italia, designed for classifying and enhancing documents with Natural Language Processing and Linked Data technologies. Giuseppe is in charge of communication and press office at Nexa Center.

Davide Allavena – IT Manager & Staff Research Fellow

Davide Allavena is a Master student of Physics at Università di Pavia. He is completing his thesis on biologically detailed computational models of the cerebellar cortex. In April 2015 started his work as IT Manager at Nexa Center. His main research interests focus on network measurements, network neutrality, and open data technologies. Davide regularly contributes into the Nexa software development projects.

Miryam Bianco – Staff Research Fellow (until April 2016)

Miryam Bianco graduated in Law at the University of Turin in February 2015, with a thesis on Copyright and Digital Property. She has been Research Fellow at the Nexa Center from Amy 2015 to April 2016, performing research in the field of the Internet of Things, focusing particularly on its effects on the legal and factual position of European consumers.

Marco Conoscenti – PhD Student

Marco Conoscenti took a master degree in Computer Engineering at Politecnico di Torino in October 2015 and joined the Nexa Center in November 2015 as PhD student under the supervision of Prof. De Martin. His research topic is P2P IoT: peer-to-peer approaches for the Internet of Things scenario.

affect the competencies of future engineers and architects.

A few other teaching activities (page 32) took place involving several fellows and associates: the World Intellectual Property Organization, the Master Course Management of Libre Software, and Big-Dive course organized by the Top-IX Consortium.

ORGANIZATION AND COMMUNITY

The reporting period witnessed a relevant turn-over in the Staff, which involved also the management. While the focus of research and policy activities will be influenced soon by new members interests, the continuity with the previous management has been guaranteed in terms of roles and – necessarily – projects activities. The change has been accompanied by the birth of a spin-off company from the Center, which contributes to the positive impact of the Nexa activities to the territory. This attention to the local community is reflected also by the many Fellows from Torino, and by collaborations with other research groups both at Politecnico and at University of Torino.

LOOKING AHEAD

Relevant effort has been devoted, in the first two months of 2016, to new projects proposals (page 53). The focus on the new proposals has been on ethical values in IoT development (VIRT-EU, page 54), decentralized infrastructures in the Internet network (DECODE, page 54), collective awareness platforms (POWER AWARE, page 55) and open educational resources (HACK, page 55).

Although they maintain continuity with the well-established four working areas, all this proposals also partially reveal possible further developments in the research activities of the center, some of which are object on internal strategic reflections (page 59).

I. LIBRE KNOWLEDGE

The top-level thread that we labeled Libre Knowledge encompasses two areas: Open content – mainly focused on general-purpose projects aimed at supporting an easier and wider circulation of digital contents – and Public Sector Innovation, which elates with the application of those findings to improve the efficiency and transparency of the public sector, and of complex organizations in general.

1.1 Open Content

This section summarizes the activities that the Center performed in the field of linked data technologies, Open Access to scientific information – also in light of the involvement in the PASTEUR4OA European coordination action –, open education, open licensing and the digital public domain.

1.1.1 TellMeFirst - A knowledge discovery application

TellMeFirst is a tool designed for classifying and enriching textual documents using Linked Open Data.

Project website/page	http://nexa.polito.it/tellmefirst
Status	ongoing
Period	2012 – present
Funding	35,000 € (expected 20.000 € in 2016)
Funding organization	Telecom Italia – Joint Open Lab
Persons in charge	Giuseppe Futia (Nexa Project manager and main developer)

TellMeFirst (TMF) is an open source software designed for classifying and enhancing documents with Natural Language Processing (NLP) and Linked Open Data (LOD) technologies. Identified topics are expressed as DBpedia resources, a representation of structured information of a Wikipedia entry. The input document is then enriched with new information (images, videos, maps, news) retrieved from LOD repositories published on the Web.

Background

The adoption of Linked Data best practices for exposing and connecting information on the Web has a considerable success in several areas: multimedia publishing, open government, health care. Moreover, a specific line of research explores the points of convergence of Linked Data and Natural Language Processing (NLP): DBpedia, a central inter-linking hub for the Linking Data project, has proven to be a very suitable knowledge base for text classification, according to both technical reasons and more theoretical considerations. Further-

more, DBpedia is directly linked to the arguably largest multilingual annotated corpus ever created, which is Wikipedia: thus, it is technically perfect for automated tasks in the fields of NLP.

Objectives

TMF intends to leverage Linked Data and NLP technologies to extract the main topics from texts in the form of DBpedia resources, retrieving new information from the Web. In the previous years, we have created a structured and well-defined process to maintain the training set updated, in particular on texts concerning recent topics. Moreover, companies, public administrations, and cultural institutions also need a classification system for their specific knowledge domains and purposes. For these reasons, in the last year we have focused on a parametrized process to build a training set for classifying documents related to a defined area of knowledge. In this way, we are able to adapt TellMeFirst according to different purposes and different semantic areas.

Results

In 2015 we have developed a software pipeline to build a training set for classifying documents related to a specific domain of knowledge. The pipeline is currently driven by: SPARQL queries to get a first bunch of entities from DBpedia, and the Linked Data Recommender developed by the SoftEng group of the Politecnico di Torino, in order to discover other entities that are not identified with the previous method. More information is available on GitHub: <https://github.com/tellmefirst/dbpedia-spotlight/wiki/Domain-Corpus-Index>. In 2016, this work has been presented in occasion of the DBpedia Community Meeting in The Hague (Netherlands) (<http://wiki.dbpedia.org/events/6th-dbpedia-community-meeting-hague-2016>). Moreover, with the experience gathered with the development of TellMeFirst, Giuseppe Futia has won the “Best tool for multi-lingual journalists” prize during the #newsHACK 2016 event organized by the BBC.

1.1.2 PASTEUR4OA: Open Access Policies for European Union Research

The Coordination Action encouraging the development of matching policies on Open Access and Open Research Data in the EU.

Project website/page	http://www.pasteur4oa.eu/
Status	ongoing
Period	February 2014 – July 2016
Funding (of which Nexa)	1,935,984 € (80,891 €) for the entire project
Funding organization	European Commission (SiS.2013.1.3.3-1)
Person(s) in charge	Antonio Vetrò (<i>Nexa project manager</i>), Miryam Bianco, Simone Basso

PASTEUR4OA is a EU-funded project aiming to coordinate strategies, activities and policies on Open Access (OA). Coordinated by the Greek National Documentation Centre and addressing the European Science in Society call, PASTEUR4OA involves a broad consortium of project partners who range from research-performing organizations through research funders to OA advocacy organizations.

Background

A considerable progress was achieved on Open Access in Europe over the five years preceding the launch of the project, both in the provision of technical infrastructure and in the policy-related arena, with significant national policy developments in some EU countries and noteworthy progress at institutional level. However, mostly due to lack of coordination across the EU, a full harmonization between the policies of the Member States is still to be achieved.

Objectives

PASTEUR4OA aims at improving coordination in developing OA policies that align to the European Commission's Recommendations and Horizon2020 rules. The Nexa Center will exploit the involvement in PASTEUR4OA to increase its exper-

tise in the field; in particular, by contributing to the analysis of OA policies and the drafting of OA policy recommendations. Also, the Center will strengthen its networking and relationship with actual and potential OA-oriented policymakers.

Results

The Nexa Center contributed to the project on three different threads: support to policy, research activities, dissemination.

In relation to the support to policy, Nexa Center participated to two workshops in 2015. The first one was a full-day workshop in September 2015 in Madrid (<http://www.pasteur4oa.eu/news/143>) for Research Funders of the South-West (SW) Region (including Portugal, Spain, Malta and Italy): purpose of the meeting was to bring together policymakers of these countries and discuss the current issues at stake and align future developments. In December 2015, the Nexa Center reported on a full-day workshop on Public Engagement for Open Access at the University of Torino (<http://percorsi.agorascienza.it/it>, working group n. 6 "Open Access"). In February 2016, the Nexa Center organized (together with University of Minho, Portugal) and hosted the second Pasteur4OA

SW Regional Workshop (<https://nexa.polito.it/pasteur2016>): 36 participants took part to the workshop, including 11 speakers and the two session chairs. The workshop hosted discussions on the status of OA in Europe, on implementation and monitoring issues, and a roadmap for the next steps of the OA community has been drafted, to envision the path after the end of the project. Regarding the research activities, POLITO has been active mainly in three threads.

1) Conducting a comparative analysis of the Italian university policies, with the goal of verifying their alignment and the alignment with Horizon2020 guidelines. The analysis involved all the university OA referents.

2) Developing a tool to automatically verify the alignment of policies with H2020 guidelines, based on the classification schema provided by ROARMAP.

3) Conducting an analysis of the alignment of the academic publishers' embargoes with H2020 requirements and on the impact on related publications in Europe.

With respect to dissemination, the Nexa Center conducted four different activities

related to the comparison of Italian universities' OA policies and their relation to best practices: i) A wiki for the Italian Association on Open Science to consult the results of the analysis; ii) A briefing paper for the Italian OA community and universities; iii) A webinar in the

context of the European project OpenAIRE (<https://www.openaire.eu/>); iv) presented the results to the OpenAIRE National Workshop in Rome. In addition, a briefing paper on the analysis of publisher's embargo has been prepared for the European Commission.



1.1.3 Creative Commons Italia

The Italian affiliate of Creative Commons, a nonprofit organization that enables the spread of knowledge and creativity through free legal tools.

Project website/page	http://www.creativecommons.it/
Status	ongoing
Period	November 2003 – present
Funding	Less than 10,000 € annually, in kind
Funding organization	none (in kind contribution of the Nexa Center)
Persons in charge	Federico Morando (CC Italia project lead), Marco Ciurcina, Claudio Artusio

The Nexa Center hosts and coordinates the activities of the working group of Creative Commons Italy (CC-IT), founded in July 2003. During the reporting period the Nexa Center focused on awareness and dissemination activities, on the completion of the Italian translation of the CC4.0 licenses and CC0 waiver full legal texts and on collaborating with Wikimedia Italia to facilitate the photographic reproduction and re-use of images of the Italian cultural heritage.

Background

Creative Commons (CC) is a project building a new and more flexible paradigm for copyright. CC develops standardized copyright licenses and other (optional) technical tools to assist authors wanting to share some of their rights with users and fellow authors in a way that is easy, flexible and legally rigorous.

Objectives

In 2015/2016, CC-IT concen-

trated its effort in completing the CC4.0 licenses and CC 0 waiver translation process. Also, the working group devoted significant energy to supporting Wikimedia Italia in its lobbying (in the public interest) of the Italian Ministry of Culture to facilitate the creation and sharing of images of Italian cultural heritage.

Results

During the reporting period, the Nexa Center completed the Italian translation process of the CC 4.0 and CC0 licenses full legal text together with the CC Headquarters Legal Staff. The translation process is going to be completed soon, with the production of some meta-documentation and with the official publication of the Italian translations. CC Italy provided strategic legal support to the Wikimedia Italia lead team that is currently negotiating some amendments to the Italian laws and bylaws regulating the photographic reproduction

of cultural heritage, as well as issues related with freedom of panorama (i.e., copyright limitations concerning taking photographs or videos of buildings and other art works which are visible from public places). Negotiations are ongoing, but they already led to increased awareness about these issues (also thanks to a meeting with the Minister of Culture). Nexa fellow Marco Ciurcina (who is a practicing lawyer) had a major role in this activity. During the reporting period, the creativecommons.it website continued to be very popular, having a monthly average of 7,500 sessions from 7,440 different users (Google Analytics metrics). The contact phone number and email of CC Italy received on average a couple of support requests per week from authors and institutions interested in releasing their content using CC (and/or trying to have a better understanding of copyright law).

I.1.4 Public Domain: Supporting the Libraries of the Politecnico di Torino

Supporting the initiatives of the University Library of the Politecnico di Torino to increase awareness on the Public Domain.

Project website/page	http://digit.biblio.polito.it/pubdom.html
Status	ongoing
Period	February 2012 – present
Funding (of which Nexa)	None (Internal funding)
Funding organization	N/A
Person(s) in charge	Giuseppe Futia (Nexa contact person)

In order to increase awareness on the Public Domain, the Nexa Center supports the initiatives of the University Library (former Libraries and Museum Area) of the Politecnico di Torino.

Background

The University Library of Politecnico di Torino, in collaboration with the University of Turin, the Public Libraries of the City of Turin, the actors of Fondazione Teatro Nuovo Torino, and the support of the Nexa Center organize long-term initiatives for a “continuous celebration” of the public domain.

Objectives

The objective of this initiative is to make more people (students, professors, librarians, users of public libraries) aware



of the richness and further potential of the public domain, promoting a series of live performances, revisiting the works of some of the greatest writers and artists entered this year into the Public Domain.

Results

In 2016, in occasion of the “Torino che legge” (Turin that reads) exhibition, the University Library of the Politecnico di Torino organized a seminar entitled “Il Piccolo Principe liberato, ma non per tutti” (The Little Prince freed, but not for all). The main topic of the seminar was the relationship among “Il Piccolo Principe” book, the Public Domain, and the copyright. Prof. Juan Carlos De Martin was one of the speaker of the seminar (http://www.biblio.polito.it/eventi_culturali/2016/seminario_il_piccolo_principe_liberato_ma_non_per_tutti).

1.1.5 Open-Med

Fostering Open Education in South Mediterranean Countries

Project website/page	http://openmedproject.eu/
Status	ongoing
Period	October 2015 – October 2016
Funding (of which Nexa)	In kind contribution of Nexa Center
Funding organization	Erasmus Plus +
Person(s) in charge	Antonio Vetrò (Nexa project manager)

Capacity-building projects in the field of higher education are transnational cooperation projects, based on multilateral partnerships, primarily between higher education institutions from Programme and eligible Partner Countries.

Joint Projects operate at micro level and target higher education institutions in the eligible Partner Countries specifically.

Background

OpenMed is an international cooperation project co-funded by the Erasmus+ Capacity Building in Higher Education Programme of the European Union during the period 15 October 2015 – 14 October 2018

Objectives

The objectives of OpenMed are: to raise awareness and widen Higher Education (HE) Institutions participation in open educational practices and resources; to define the Open Educational Resources (OER) Agenda for the re-use of OER at HE institutional level; to define mid-term strategic roadmaps for the implementation of the OER Agenda at local-institutional level according to the local, cultural and institutional needs and strategies; to teach university teachers how to use and reuse OER in a pedagogically-rich context and improve their digital competences; to pilot start-up open educational practices and offer to students flexible and up to date open

contents and learning paths, with a linkage to the international community and the needs of the job market.

Results

The Nexa Center joined the project in April 2015. In the reporting period, Antonio Vetrò conducted a case study on the JORUM open education platform and participated to the second project meeting, in Coventry University. The next step is the participation in local workshops in Egypt, Morocco, Jordan and Palestine, for drafting the respective institutional strategies for OER, that will serve as general directions for the writing and implementation of the roadmaps.

1.2 Public Sector Innovation

This section describes the main activities performed by the Nexa Center in the field of open government data and public sector innovation enabled by ICTs, but also other types of innovation improving eGovernment. Several applications based on linked data are ongoing, as well as a research thread on open data quality.

1.2.1 MAPO

MAPO: Machine Processable Portals for Public Administrations using Linked Data technologies. Innovating in the Public Sector, using cloud computing and Service-Oriented Architectures to break internal information silos and make data available externally for useful applications

Project website/page	http://mapo.cosvifor.work/
Status	concluded
Period	September 2013 - August 2015
Funding (of which Nexa)	57.137,50 € (15.575 €) for the entire project
Funding organization	Piedmont Region through EU ERDF fund ("POR FESR 07/13 - Measure LI.3 – Feasibility studies")
Person(s) in charge	Lorenzo Canova (Project Manager), Giuseppe Futia (Linked Data Specialist), Alessio Melandri (Linked Data Specialist)

This is a feasibility study, led by CosViFor, for the standardization of Internet portals of Italian public administrations, also using semantic technologies.

Background

Several new requirements related with data exposure (e.g., on the use of public resources) have been promoted in Italy recently (see: Transparency Act in 2013 – D.lgs 33/2013).

However, the level of quality, standardization, and interoperability of the data exposed is still insufficient in order to consider the data "reusable".

Objectives

MAPO aims at showing how a "machine processable portal" exposing standard linked data and API could be easily implementable with just minor costs for the public administration. For doing this, the project concentrates on two distinct domains, the one of the events and the one of public expenditure. The final aim of the project is to try to create a standard for publishing linked open data for the Italian public administrations in order to make open data more reusable.

Results

This feasibility study reached

these 3 main results:

1. Analysis of the state of the art of solutions for releasing Open data for Public administrations in Italy;
2. Creating and experimenting a pipeline for standardizing and releasing linked data regarding events and public procurement contracts;
3. Building a technical solution for publishing machine readable data for the new transparency section (transparency 3.0) and event section taking in consideration results 1 and 2. A mock-up of the implementations is available here: <http://mapo.cosvifor.work/>

1.2.2 Public Contracts

Connecting fragments of open knowledge to make sense of them.

Project website/page	http://community.dati.piemonte.it/ http://trasparenza.referata.com/ (semantic wiki on Transparency Decree)
Status	ongoing
Period	April 2015 – present
Funding	28,000 € in 2016 (Nexa Center budget: 8000€)
Funding organization	Cerved, Regesta.exe
Person(s) in charge	Giuseppe Futia (Nexa Project leader)

In April 2015 the Nexa Center for Internet and Society has developed a service to represent and query procurement data of Italian Public Administrations. The service translates in Linked Open Data the XML files released by the Italian Public Sector bodies following the "anti-corruption" Act (L. 190/2012). From the beginning of 2016, the leadership of the project is passed to Synapta (<http://synapta.it/>), the start-up on Linked Data founded by Federico Morando and Alessio Melandri. Nexa continues to work on the project with the contribution of Giuseppe Futia.

Background

The Italian "anti-corruption" Act (law n. 190/2012) requires all public administrations and some publicly owned companies to release open data about procurement contracts. Every public body is obliged to yearly release, on its public website, standardized XML files containing data describing all procurement contracts (e.g. bids to every tender notice, offers by companies and awarded contract details). A

large amount of datasets are currently available concerning the last 4 years (2012-2015), from approximately 22.000 public bodies and public companies, including municipalities, universities, central government bodies, healthcare institutions.

Objectives

Our work aims at developing a framework for:

- verifying that all published procurement information is consistent with regulation;
- converting public procurement data into Linked Open Data, in order to overcome the fragmentation of existent datasets and allow easy analysis and reuse of information;
- linking contract data to other datasets, such as the national index of public administrations (SPCData currently available in RDF), DBpedia, and possibly the national business register (once it will be an open dataset);
- advanced data analysis through SPARQL queries (i.e., the total amount of contracts awarded without any tender

with respect to location/city population);

- an easy human readable representation for end users, in order to increase the public awareness about public spending, improve transparency over the public procurement chain, help companies retrieve information about past tenders.

Results

To achieve the aforementioned goals Synapta and Nexa have continued to develop the software pipeline for the representation of Italian Public Contracts data. The new GitHub repository of the project is available on the Synapta profile: <https://github.com/synapta/public-contracts>. In the first months of 2016, a data visualization on Public Contracts of public administrations in Piedmont has been developed in collaboration with the Limpido design team: <http://contrattipubblici.org/report-piemonte>. The new portal of the project will be soon available at <http://contrattipubblici.org>.

1.2.3 #WikiTrasparenza & Open Data Quality

The tool for open government transparency data.

Project website/page	http://nexa.polito.it/WikiTrasparenza
Status	ongoing
Period (Nexa contribution)	July 2014 – present
Funding	None
Funding organization	none (in kind contribution of the Nexa Center)
Person(s) in charge	Lorenzo Canova (<i>project lead</i>), Antonio Vetrò

WikiTrasparenza is a tool based on Semantic Wiki (<http://trasparenza.nexacenter.org>). It has been built for monitoring the state of government transparency in Italy and the quality of the published datasets in the context of the Italian 'Transparency' Decree (D.lgs 33/2013) and the anti-corruption Act (190/2012).

Wikitransparenza is part of Nexa center's efforts on the research topic of Open Government Data (OGD) quality and its effects on data reusability.



Background

The Italian anti-corruption Act (190/2012) requires all public administrations and some publicly owned companies to release open data about procurement contracts.

Furthermore, the Transparency Decree (D.lgs.33/2013) regulates obligations about publicity, transparency and diffusion of information about public sector bodies.

Since the adoption of the Decree, many datasets have been published by public authorities.

However it happens frequently that these datasets do not give enough information (or not clear enough), or they do not appear in the section where they are supposed to be consulted, or they are simply not machine readable.

In this framework there is the need of checking which kind of mistakes have been made in the publication of data (quality measurements), and what could be done in order to improve it.

Objectives

The first objective is to have an overview on the Open Government Data in Italy in the context of the Transparency Decree (D.lgs 33).

As second objective we aim at verifying that all published *procurement information* is consistent with regulation. We will then convert these public procurement data into linked open data RDF triples, in order to overcome the fragmentation of existent datasets and allow easy analysis and reuse.

Results

In the reporting period, the project did not receive new funding, however some progress has been done for the open data quality part.

In July 2015 results obtained by the analysis on the quality of

Italian public procurement data has been presented at the Samos Summit 2015 on ICT-enabled Governance (<http://samos-summit.blogspot.it/2015/02/the-6th-samos-2015-summit-on-ict.html>).

In January 2016, Francesca Iuliano and Faculty Fellow Marco Torchiano presented the results of a study on the quality of open data related from the public contracts of the Italian universities (<http://nexa.polito.it/lunch-37>).

In February 2016, the paper "Open Data Quality Measurement Framework: Definition and Application to Open Government Data" (Vetrò A., Canova L., Torchiano M., Camilo O.M., lemma R., Morando F.) has been accepted for publication in Government Information Quarterly. (<http://dx.doi.org/10.1016/j.giq.2016.02.001>).

Starting from April 2016, Antonio Vetrò, Lorenzo Canova and Marco Torchiano started supervising a student on a master thesis that aims at developing a permanent observatory on the quality of Italian Open Government Data: it will be a web site monitoring the quality of all Italian Open Government Data (at the beginning, those in CSV format), through the measurement framework presented in the above-mentioned journal publication.

1.2.4 SharePSI2.0: the European Thematic Network on the Technical Aspects of PSI

Highlighting technical best practices for PSI.

Project website/page	https://www.w3.org/2013/share-psi/
Status	ongoing
Period	February 2013 – July 2016
Funding (of which Nexa)	446,000 € (20,000 €) for the entire project
Funding organization	European Commission (CIP-ICT-PSP.2013.2.2b)
Person(s) in charge	Lorenzo Canova (<i>Nexa project manager</i>)



Share PSI 2.0 – coordinated by W3C – aims at bringing together stakeholders to continue in the definition of technical standards for PSI.

Background

In the open government data arena, some technical standards are well established. It would be of great benefit expand the breadth of coverage to include the majority of EU member states and beyond. Share-PSI 2.0 is the European network for the exchange of experience and ideas around implementing open data policies in the public sector.

Objectives

The main practical objective of the Share-PSI2.0 network is to

organize a series of workshops in which the network partners with direct experience will present their case studies. The output of these workshop will be a set of best practices for best implementing the PSI Directive.

Results

The network identified the following topics as focuses for its periodical workshops: Uses of open data within government for innovation and efficiency (Samos, July 2014); Encouraging data usage by commercial developers (Lisbon, December 2014); Identifying datasets for publication (Timisoara, March 2015); A self sustaining business model for open data (Krems, May 2015); Using and extending core vocabularies for greater interoperabil-

ity (Berlin, November 2015). In the context of this project, in July 2015, Lorenzo has presented the new results obtained by the analysis on the Italian public procurement data at the Samos Summit 2015 on ICT-enabled Governance.

As final outcome of this project, several best practices (BPs) have been defined and can be found on the project's website (<https://www.w3.org/2013/share-psi/bp/>). The draft version of other structured BPs is available on Share-PSI wiki (https://www.w3.org/2013/share-psi/wiki/BP_2). Lorenzo and the Nexa Center Team have especially contributed to the BPs regarding data quality assessment and feedback procedures to improve data quality.

2. INTERNET POWER AND RIGHTS

The 'Internet Power and Rights' thread focuses on two aspects. One is Network Measurements, which are carried out through software projects aimed at improving network transparency, and at providing evidence for researchers, policymakers, activists, and citizens in general. The other relates with Fundamental rights online, and gathers all projects that take as their main perspective the preservation of fundamental rights such as privacy, and freedom of expression.

2.1 Network Measurements

This section lists our network measurements and analysis efforts. These are carried out in the Neubot project which, among other things, develops the namesake piece of software.

2.1.1 Neubot, the Network Neutrality Bot

A project to measure the Internet from the edges.

Project website/page	https://nexa.polito.it/neubot
Status	ongoing
Period	June 2008 – present
Funding	about 117,000 € in the 2012-2017 period
Funding organization	Regione Piemonte (research grant), Measurement Lab / Google (two distinct unrestricted grants)
Person(s) in charge	Simone Basso, Antonio Langiu, Davide Allavena

Neubot is a project to measure the Internet from the edges with active network measurements. In its context we develop the namesake software tool and we perform other network measurement activities.

Background

Neubot started in 2008 to [study network neutrality](#). That is, the principle that the Internet should treat all packets equally, without any discrimination dependent on the protocol, the application or the source.

The scientific interest for network neutrality was motivated by the desire to understand this key characteristic of the internet that – according to many scholars – is a precondition for an open, generative Internet.

The [seminal paper by De Martin and Glorioso](#) described the conceptual architecture of Neubot. The first prototype of the neubot software was written by Mr. Gianluigi Pignatari Ardila. [Simone Basso](#) joined the Nexa Center in late 2009 and continued the development during his doctorate on network measurements under the supervision of [prof. De Martin](#).

Since 2014 the scope of Neubot (as a project) was expanded to also encompass Internet-censorship measurements activities. This happened during the [MORFEO](#) sub-project of which [OONI](#) project was also partner.

Objectives

Continue to develop MeasurementKit (MK), the library for running performance, censorship, and topology measurements from mobile devices (iOS and Android) initiated in late 2014 during MORFEO.

Specifically, start adding to MK support for the well known and widely used NDT (Network Diagnostic Tool) network performance test.

Write a uTP (Micro Transport Protocol) test for MK. This test shall be used to measure discrimination of uTP traffic (the most commonly used peer to peer protocol).

Continue to cooperate with the developers of the OONI (Open Observatory of Network Interference) by helping them to use MK to develop OONI mobile apps.

Cleanup the codebase of Neubot by splitting the client

and the server component, to make the code more manageable and take control again of the software product.

Continue the joint work with OONI developers to develop NetworkMeter, a common shell for installing, running, and visualizing results of network measurement tools.

Develop multi-server network tests to better emulate the network dynamics of peer to peer tests and hence increase the likelihood of Neubot traffic to be classified as peer to peer.

Work on data visualization and analysis. Explore the possibility to use the pipeline developed by OONI to publish, analyze and visualize Neubot results.

Results

We were able to continue the development of MK and good progresses were made in the implementation of a NDT test. Alas, we were not able to continue the work initiated one year ago by a former intern to integrate uTP into MK. Instead, cooperation was good with OONI developers and we already have prototype OONI applications using MK.

Another positive result is

that our MK development efforts are now sustained by an unrestricted grant of 50,000 USD awarded by Google Open Source Research specifically meant to sustain our MK development efforts throughout 2015 and 2016.

We started cleaning up Neubot code base as stated above. However, that turned out to be the wrong approach because the code base was significantly entangled. We are cur-

rently considering the possibility of writing the server from scratch using another language that should meet better than the current one the specifications of a Neubot server.

Some work was done to improve the implementation of NetworkMeter, however the main volunteer who was carrying out the work quit. At this point the whole effort stalled, and we are currently considering whether to declare the project

failed or resume the effort.

We were not able to make progress with respect to the development of multi-server tests or with respect data pipelines and analysis. Overall, we feel like the whole Neubot effort is under financed to really be able to sustain all the high impact goals we have set over the years and that cutting the effort or spinning off the project is the sanest way to proceed from here.

2.2 Fundamental Rights Online

This section summarizes the research and policy support activities that the Center performed in the field of fundamental rights online. As one of the prominent topics in the reporting period the legal implications of service robotics, complemented by the recent start of a research on the ownership in the Internet of Things. Other activities pertain to privacy studies, and to our participation in a EU coordination action on Responsible Research and Innovation.

2.2.1 Legal Aspects of Service Robotics

What are the legal issues related to service robotics? How could service robots impact on law and society?

Project website/page	http://nexa.polito.it/law-of-service-robots
Status	Concluded (there is an ongoing smaller spin-off project focused on open licenses and business models in this domain, to be described in the Annual Report 2017)
Period	September 2013 / August 2015
Funding (of which Nexa)	60.000 € (over the entire duration of the project)
Funding organization	Telecom Italia
Persons in charge	Federico Morando (<i>Project Manager</i>), Miryam Bianco, Marco Ciurcina (on the aforementioned spin-off project)

The Nexa Center is performing a research on legal issues related to service robotics and drones, funded by Telecom Italia (JOL CRAB at the Politecnico di Torino), which aims at identifying the legal framework that currently applies to service robots and describe the major legal issues related to their production and usage. In particular, the implications of data exchange over the cloud (e.g., trivially, to update algorithms), and liability aspects.

Background

According to a tentative definition provided by the [International Federation of Robotics](#), service robots are “*robots which operate semi or fully autonomously to perform services useful to the well-being of humans and equipment, excluding manufacturing operations*”. The possible fields of applications are extremely varied (e.g., home security, surveillance, personal transportation, inspection and maintenance, education and entertainment etc.) and may

involve a certain number of legal aspects.

Objectives

Based on the analysis of real cases of design and testing provided by Telecom Italia, the first research output identified the pertaining legal framework in order to highlight potential legal aspects connected to the development and use of service robots. Such legal threads will also provide the basis for a toolkit for drone users.

Results

The research team (constituted by: Mauro Alovisio, Claudio Artusio, Carlo Blengino, Marco Ciurcina, Giovanni B. Gallus, Guido Noto La Diega, Ugo Pagallo, Monica A. Senor, Massimo Travostino, and Giuseppe Vacigo) has been discussing with the JOL CRAB real cases of service robot development. This interaction helped abstracting three major typologies of service robot applications (robotic telepresence; robotic couriers; drones within smart-city-like environments). To address the potential

legal aspects involved, the research team analyzed the main legal threads (in particular, criminal and civil liability connected with the production, processing and transmission of personal data) together with the recent Italian Regulation For Unmanned Air Vehicles, which provides a set of safety rules for drones. Particular attention was taken to define the apportionment of liability between Telecom Italia, which actually aims to implement a cloud infrastructure for the development of service robots applications, and third parties (producers of the robot; developers

of software applications for the robot; final users). The first deliverable, "The Law of Service Robots", was completed and shared with Telecom Italia in early October 2014; in November 2015, it was updated to take into account the amendments introduced – on July 16th, 2015 – to the aforementioned Italian Regulation. On December 4th, 2015, this updated version of the deliverable has been published under Creative Commons License 4.0 (BY-SA): it is available at <https://nexa.polito.it/nexacenter-files/robots-2015.pdf>.

2.2.2 Ownership in the Internet of Things

Concepts, relevant regulation, and implications for European consumers.

Project website/page	http://nexa.polito.it/iot
Status	ongoing
Period	May 2015 – April 2016
Funding (of which Nexa)	70.000 USD as unrestricted gift
Funding organization	eBay Inc.
Person(s) in charge	Miryam Bianco (<i>Nexa Project Manager until April 2016</i>), Antonio Vetrò (<i>Nexa Project Manager from April 2016</i>), Marco Ricolfi

The Nexa Center performing a research on ownership and consumer/citizen empowerment in an Internet of Things (IoT) world. The expected outcome of the research is the realization of a conceptual framework facilitating the further implementation of a Business-to-Consumer commerce able to empower the end-user of IoT solutions. In particular, the research tries to discern the peculiarities of IoT consumer goods, analyzes the contractual terms which mainly accompany their commercialization, investigates consumer interests, and identifies the European

regulation applicable to the subject.

Background

The "Internet of Things" (IoT) – term coined in 1999 by the British technology pioneer Kevin Ashton – refers to an infrastructure composed by billions of physical goods – equipped with smart modules and integrated into the Internet – which collect data, communicate with people and with other things, and enable remote and/or autonomous command and control of environments. This integration of the physical dimension with the digital one is destined to impact sig-

nificantly on the everyday life of individuals.

Given that consumer IoT applications drive the number of connected things, one of the main challenges concerns the implications of the IoT advent for consumer goods. In fact, the latter are increasingly becoming part of the IoT infrastructure: they embed software, can be remotely monitored and controlled, and often require third-party intermediation in order to be enjoyed by their purchasers. As a consequence, technology itself, and contract, may affect customers' ability to use and trans-

fer the IoT-embedded items purchased.

Objectives

Based on the analysis of the European legislation applicable to the matter and of a set of exemplary real or potential cases, this research project aims at shaping a conceptual framework for the implementation of a consumer-empowering B2C commerce of IoT solutions.

The building of this framework will take place answering three main questions:

1. a) What concepts need to be clarified when dealing with B2C Commerce of IoT Solutions? b) For each of them, can we provide a unique definition? c) And, if not, why?

2. a) What European legal acts are applicable when dealing with B2C Commerce of IoT Solutions? b) What overall regulation can be inferred from this body of laws? c) Does it show imperfections to correct or gaps to fill?

3. a) What are the interests of the consumer of an IoT solution? b) For each of them, what obstacles stand against their realization? c) What tools could be employed to override them?

Results

Given the pragmatical approach established at the beginning of the research project, a series of IoT consumer goods actually marketed (Apple Watch, Automatic, FiLIP, Fitbit, Google Glass, LG Smart TV, and Nest Learning Thermostat) were analyzed in their contractual and

technical characteristics: each case study was carried out by answering a series of questions elaborated on the basis of the usability issues predominantly reported in the academic and gray literature previously examined (for example: the good may require to be combined with the service of a specific provider, in order to work; the functionality of a given exemplar may be unilaterally modified by the supplier after purchase; consumer ability to use the acquired product may suddenly be discontinued, because of, e.g., provider's power of remote control over the product; etc.).

This pragmatical analysis was accompanied by the examination of the European legal norms and judicial decisions deemed relevant for the topic, in order to understand whether some help to solve the usability issues I came upon could be provided by the legislation in force and by case law, or whether rather there were lacks to fill and flaws to correct.

The main technical tool employed for both the literature review and the use case analysis was a semantic wiki (<http://iot.nexacenter.org/>), specially created for the project: it has been a hub for the research materials gathered, which are classified in it according to an ontology designed on purpose; it also rallies the case studies examined.

This overall research activity led to the drafting of a research paper – “Take care, Neo: the Fridge has you’: A technol-

ogy-aware legal review of consumer usability issues in the Internet of Things” (currently under peer-review at the European Journal of Law and Technology) – which includes: the issue we focused on (i.e., the impairment of the traditional concept of ownership caused by the Internet of Things); the research methodology employed (in the event that someone else was interested in replicating it); the causes to which the challenge to the traditional notion of ownership may be ascribed; the actual usability issues identified during case study analysis; the actual possibility to employ the European legislation in force to solve some of those issues; and some recommendations (addressed both to businesses and courts) on how to reconcile the traditional notion of ownership with the new features consumer goods have acquired since the IoT advent.

The subject and findings of the research project were then presented and discussed – on April 11th, 2016 – in the International Workshop on Consumers and the Internet of Things (<http://nexa.polito.it/consiot2016>), organized by the Nexa Center and hosted by the Cyber-Physical Systems Week 2016.

The research project was initially programmed to last one year starting from May 2015. However, at the beginning of 2016, Nexa Center and eBay Public Policy Lab agreed to continue the collaboration for another year: the subject of this 2nd year of research will be the relation between Internet of Things and Circular Economy.

2.2.3 Data protection-aware information systems

Legal Support for the smart mobility card and for the Internet of Everything platform of the Piedmont Region.

Project website/page	N/A
Status	concluded
Period	15.11.2015 – 31.12.2015
Funding (of which Nexa)	25,000 €
Funding organization	CSI Piemonte
Persons in charge	Alessandro Mantelero (<i>Nexa Project Manager</i>)

The Nexa Center is involved in several projects and other activities concerning the Smart City domain. The *fil rouge* of this involvement is a strong attention to the role and rights of citizens.

Background

In the past, the Nexa Center took part in the SMILE (Smart Mobility, Inclusion, Life&Health, Energy) project. Coordinated for the City of Turin by the Torino Wireless Foundation, SMILE was a strategic project, aiming at involving several key stakeholders in the definition of the domains and long-term goals of Torino as a Smart City.

A similar activity, focused on providing legal and strategic support with respect to personal

data management and flows, was provided to CSI Piemonte, with respect to the recently released Smart Data Net platform (<http://www.smartdatanet.it/>).

Objectives

The activity conducted with CSI Piemonte concerned the analysis of data flow connected to the Smart Data Net platform, a publicly funded Big Data and Internet of Things platform supported by Regione Piemonte and aiming at fostering innovation in this domain for Piedmontese SMEs.

Results

In 2016, the Nexa Fellows Ciurcina, Morando and Mantelero provided multidisciplinary support to CSI Piemonte with respect to the SmartDataNet

platform of the Piedmont Region.

CSI Piemonte is the information system consortium to which Piedmont Region entrusts the management and implementation of its ICT services.

The SmartDataNet platform allows software developers and innovative firms to aggregate and correlate a diverse set of data streams, including data derived from things (Internet of Things, e.g., cameras, sensors, etc.) and people (social media, mobile apps, etc.).

The project focused on three different legal aspects related to the use of the platform by citizens, companies and public entities: privacy policies, terms of use and licensing.

2.2.4 RRI-ICT Forum: Promoting Responsible Research and Innovation in ICT

The European support action fostering responsible research and innovation in ICT.

Project website/page	http://RRI-ICT.eu http://RRI-ICT-Forum.eu
Status	ongoing
Period	January 2015 – January 2018
Funding (of which Nexa)	about 1M€ (about 80k€ for the Nexa Center)
Funding organization	European Commission
Persons in charge	Lorenzo Canova (<i>Nexa project manager</i>), Davide Allavena (<i>IT manager</i>)

The RRI-ICT Forum aims at monitoring, analyzing, supporting and promoting SSH (Social Sciences and Humanities) contribu-

tion to and RRI (Responsible Research and Innovation) approach in ICT research and innovation.

The RRI-ICT Forum consortium is composed of a multidisciplinary group led by Sigma Orionis. The Nexa Center coordi-

2. Internet Power and Rights

nates the work on the online wiki platform of the project: RRI-ICT-Forum.eu.

Background

Responsible Research and Innovation (RRI) is an emerging concept that the European Commission defines as “an inclusive approach to research and innovation (R&I), to ensure that societal actors work together during the whole research and innovation process. It aims to better align both the process and outcomes of R&I, with the values, needs and expecta-

tions of European society.”

RRI includes the design and implementation of policies to: engage society more broadly in research and innovation activities; increase access to scientific results; ensure gender equality; take into account the ethical dimension; and promote science education.

Objectives

The RRI-ICT Forum aims at monitoring, analyzing, supporting and promoting SSH (Social Sci-

ences and Humanities) contribution to RRI (Responsible Research and Innovation) in ICT research and innovation.

Results

The Nexa Center designed the structure and maintains the content of the RRI in ICT Forum wiki (<http://RRI-ICT-Forum.eu>), which is the online platform at the core of the project activities. On February 2, 2015 the First Project Review took place with a positive evaluation.

2.2.5 Declaration of Internet Rights

The ongoing work of the study commission established by the Italian Chamber of Deputies.

Project website/page	http://camera.civi.ci
Status	ongoing
Period	June 2014 – September 2015
Funding (of which Nexa)	N/A
Funding organization	N/A
Person(s) in charge	Juan Carlos De Martin

A draft Declaration of Internet Rights has been released by a study commission established by the Italian Chamber of Deputies. After a 5 months public consultation, an updated version of the Declaration is being elaborated by the commission.

Background

In October 13, 2014, a [draft Declaration of Internet Rights](#) has been published in Italy, as the first outcome of the work of the study commission established in July 2014 by the President of the Italian Chamber of Deputies, Laura Boldrini, and led by Prof. Stefano Rodotà for the development of principles and guidelines on the subject of Internet rights. The commission (list of members here) is made up of MPs (one for each group) and ex-

perts, including Nexa co-director Juan Carlos De Martin.

In recent months, several European institutions moved in the same direction. At the end of 2013 the Speaker of the UK House of Commons established a [commission on digital democracy](#). In February 2014, the German Bundestag established a parliamentary standing commission on the “[Digital Agenda](#)”. In April 2014, the Council of Europe published a [guide of human rights for Internet users](#). In the summer of 2014, the French Parliament established a “[Commission de réflexion et de propositions ad hoc sur le droit et les libertés à l’âge du numérique](#)”, which counts among its members the intellectual Philippe Aigrain (trustee of the Nexa Center) and the Italian re-

searcher Francesca Musiani. Both the British and French commissions plan to present their findings at the beginning of 2015. In the same two countries, there are also two other significant initiatives. In UK, “Labour Digital”, an influential group of experts close to the British Labour Party, has just published “[Number One in Digital](#)”, with several references to democracy and human rights in the digital age. In France, the [annual report](#) of the State Council has also analyzed the relationship between digital and human rights.

Objectives

The aim is to achieve a document to be delivered to the Italian Parliament and Government to contribute – in Italy, in Europe and worldwide – to protect In-

ternet as a platform, not only for the economic development, but also for the exercise of fundamental human rights.

Beyond the participation of Juan Carlos De Martin in the study commission, the Nexa Center committed to gather

contributions to the draft Declaration along the consultation process.

Results

After the wide discussion with experts and all citizens interested, on July 28, 2015, Italy became the first European coun-

try to introduce an Internet Bill of Rights. The Declaration has been approved by the Italian Parliament and it is available on line at

<http://www.camera.it/leg17/1179>.

The Declaration of Internet Rights is available also in English, French, Spanish and German.

2.2.6 P2P Approaches for the Internet of Things

Approaches for a decentralized Internet.

Project website/page	https://nexa.polito.it/P2P4IoT
Status	ongoing
Period	November 2015 – November 2018
Funding	about 50,000 €
Funding organization	Tim Joint Open Lab
Person(s) in charge	Marco Conoscenti (<i>Nexa Project Manager</i>)

Peer-to-peer (P2P) approaches for the Internet of Things (IoT) is a Ph.D. research project started at the Nexa Center in collaboration with TIM Joint Open Lab (JOL). The main goal of this research is to build a more decentralized Internet where people are at the center.

Background

The IoT is a scenario where billion of devices are equipped with sensors, storage and computational capabilities, and will be connected to the Internet. They will collect, produce and exchange data, both with humans or other devices.

P2P networking systems are those systems where services and resources are not provided by centralized servers, instead they are equally supplied and consumed by each node of the system – called peer.

The research especially focuses on a P2P system called Blockchain. It is a database firstly used in Bitcoin – the well-known cryptocurrency – for storing and validating economic transactions. The distributed consensus is achieved among peers, i.e., all peers agree on which is the current state of the Blockchain, which transactions are stored and validated. For this reason, the Blockchain is not a simple database: All types of contracts can be coded into the Blockchain and the system ensures that all parties involved fulfill the contract. So the Blockchain can be employed for providing in a decentralized way all services that so far have needed for a centralized trusted entity.

Objectives

The research will identify how the Blockchain, possibly in

combination with other P2P approaches, can foster a more decentralized Internet, which truly empowers people. Different applications of this technology will be analyzed, especially focusing on applications in the IoT scenario.

Results

The first result of this research is a short paper on a Systematic Literature Review, i.e., a review of the literature conducted with a rigorous and auditable method and with precise goals and research questions. In particular, the goal was to understand whether the Blockchain can be employed for decentralizing transactions of IoT devices (not only economic transactions, but also calls, messages, data exchanges etc.) and providing a framework for decentralized and secure storage of transactions data.

3. INTERNATIONAL NETWORKS

The Nexa Center is involved in several international networks to perform joint research, policy support, and coordination on Internet Science topics. Currently, the main project in this respect is the Global Network of Internet & Society Research Centers, coordinated by the Nexa Center until October 2016.

3.1 The Global Network of Internet & Society Research Centers

The Nexa Center is acting as coordinator through 2016.

Project website/page	http://networkofcenters.net/
Status	ongoing
Period	October 2014 – October 2016
Funding (of which Nexa)	40,000 € for the first year
Funding organization	Compagnia di San Paolo
Person(s) in charge	Juan Carlos De Martin (<i>coordinator</i>), Lorenzo Canova (<i>project manager</i>)

In October 2014, the Nexa Center took the role of administrative coordinator of the [Global Network of Internet & Society Research Centers](#), until October 2016. The Nexa Center is playing the role of contact point and facilitator.

Background

Since late 2012, the Nexa Center is amongst the eight founding members of the Global Network of Interdisciplinary Internet & Society Research Centers (NoC). The NoC is a collaborative initiative among academic institutions with a focus on interdisciplinary research and a strong attention to the social impact and policy implications of their research agenda. During 2013 and 2014, the Nexa Center has been involved in several NoC activities, as member of the Steering Committee. In particular, the roadmap and guiding principles for the NoC were discussed, with the aim to set up common practices for knowledge exchange amongst the NoC members (such as learning calls, workshops and conference), and joint research threads, focusing on interdisciplinary topics such as the role of online intermediaries, and Internet governance. In October 2014, the Nexa Center took the role of administrative coordinator of the Network, until October 2016.

Objectives

Building on previous work and achievements, our main objective is to contribute making the NoC the most relevant Internet & Society research community worldwide both as a group of institutions and as a network of individuals. Some achieved initiatives relate with internal management, including online presence. Other pertain to the facilitation of research projects, such as the ones on Internet Governance models and on the role of Online Intermediaries (see <http://www.networkofcenters.net/research>), as well as other special initiatives, such as the public consultation on the Italian Declaration of Internet Rights.

Results

In its second year of coordination, the Nexa center continued to manage several internal processes, including managing the online presence, managing the Steering Committee gatherings, moderating mailing-lists, including Netsociety, a public discussion list (with public archive) open to anyone who wishes to discuss Internet & Society issues and curating the dissemination processes. During spring and summer 2015, the Nexa Center improved community building by setting up internal tools allowing matchmaking between partici-

pants, based on their expertise and topics of interest.

Moreover, after co-organizing the Network Annual Meeting 2014 in the context of the “[NoC academic symposium on Internet Governance](#)” (2 October 2014, Torino), during Fall 2015 the Nexa Center co-organized the Annual Global Meeting 2015 on “[Internet & Society: emerging topics and research communities](#)” (27 November 2015, Hong Kong). Contextually, on November 26 the launch of the Digital Asia Hub (Hong Kong) took place together with the presentation the essay collection “[The Good Life in Asia's Digital 21st Century](#)”.

Throughout 2015 three NoC regional meetings were held: a Symposium on Human Rights & the Internet in India (New Delhi, 17 January), a conference on “Internet policy in Latin America: Between borderless governance and national initiatives” (Buenos Aires, 24 April) and a seminar on “International Regulatory Trends on Personal Data Protection” (Santiago de Chile, 11 December).

As regards current activities, for Spring 2016 a [series of Hang-out Calls on Internet & Society hot topics](#) is planned.

To date the NoC counts, between affiliated and participating

3. International Networks

centers, 68 Research Centers (a full list of the Centers is available here: <http://networkofcenters.net/centers>) and more that 180 researchers.

3.2 Global Network Initiative

A non-governmental organization with the dual goals of preventing Internet censorship by authoritarian governments and protecting privacy rights of individual.

Project website/page	https://globalnetworkinitiative.org/
Status	ongoing
Period	March 2013 – present
Funding (of which Nexa)	N/A
Funding organization	N/A
Person(s) in charge	Juan Carlos De Martin

GNI champions fundamental human rights online, with a focus on privacy and freedom of expression. GNI includes civil society and academic participants, but also investors and several major ICT companies (such as Google, Microsoft, Yahoo! or Facebook), with the aim of providing them with a standard framework to deal with funda-

mental rights online, ensuring accountability and enabling opportunities for policy engagement and shared learning across stakeholders.

In March 2013, the Nexa Center for Internet & Society joined the Global Network Initiative as the first Italian participant. Nexa was welcomed in

GNI as “a critical source of interdisciplinary research, informed by expertise in technology, law, and economics, on Internet policy from a European perspective.”

During the reporting period, the Nexa Center participated in various periodic “learning calls” of the Network.



4. TEACHING

The Digital Revolution undergraduate course at Politecnico di Torino is in detail in this section, because of its strong affinity with the Center both in terms of topics and people involved (from the professor to the teaching assistant, going through many guest lecturers). Three further courses that were delivered by Nexa staff, fellows and trustees during the reporting period are also described, as well as “Other teaching activities”.

4.1 “Digital Revolution”: an Undergraduate Course at Politecnico di Torino

A Politecnico di Torino undergraduate course – trying to understand the times we are living.

Project website/page	http://rivoluzionedigitale.polito.it/ https://github.com/nexacenter/RivoluzDigitale
Status	ongoing
Period	March 2012 – present
Funding (of which Nexa)	standard funding by Politecnico di Torino (additional support in kind)
Funding organization	Politecnico di Torino + Nexa internal funding
Person(s) in charge	Juan Carlos De Martin (<i>lecturer</i>), Lorenzo Canova (<i>teaching assistant</i>), Simone Basso (<i>teaching assistant</i>).

“Rivoluzione Digitale” (Digital Revolution) is an elective course for first-year students at Politecnico di Torino. It aims to contribute to the education of future engineers and architects as digital individuals, by providing students with the multidisciplinary knowledge required to understand the digital revolution, and by teaching them practical online-world skills.

Background

Ranging from business activities to culture, from politics to everyday life, digital-revolution effects are so deep and lasting that the traditional education of engineers and architects has to

be complemented with selected multidisciplinary knowledge – legal, economic, historical and social – to fully understand the aspects of the digital revolution and the related impact on society.

Moreover, on the practical side, responsible and aware digital citizens need to master online skills such as blogging, discussing on mailing lists and on twitter, producing short videos of themselves presenting their own work and ideas.

Objectives

1) To provide students the multidisciplinary knowledge required to understand the multi-

ple aspects of the digital revolution, and its impact on the society.

2) To teach students practical online skills.

Results

The course featured few guest lecturers, some of which are Nexa trustees or fellows.

In 2015 we enrolled 177 students. Of them, over 100 passed the final exam. In 2016, the course enrolled 201 students.

Francesco Mecca, one of the best students of the 2015 course, will be spending 10 weeks at the Berkman Center as a Summer Intern.

4.2 Open Data in Public Administrations

Providing knowledge of management and transparency of data published by Public Administrations.

Project website/page	https://didattica.polito.it/zxd/cms_data/attachment/21/INPS-ValorePA_OPEN-DATA-NELLA-PA.pdf
Status	ongoing
Period	March 2016 – May 2016
Funding (of which Nexa)	N/A
Funding organization	N/A
Person(s) in charge	Juan Carlos De Martin, Federico Morando, Raimondo Iemma, Marco Torchiano, Giuseppe Futia

The Nexa Center delivered a 40 hours course to the employees of public administrations on the Open Data principles, in the

context of the continuing training program provided by the Politecnico di Torino.

Background

Over the past decades, public administrations collect data in a

4. Teaching

digital format for their internal functions and to demonstrate the results of their work. Such data are known as “public sector information” and are made freely available according to specific policies of publication (Open Data). This course is thus inscribed in this context, to provide the knowledge to manage processes for data management, reuse, and publication.

Objectives

The course provided participants with the skills required to manage the information assets of a public body, taking into account the opportunities and risks relating to the provision and re-use of public data. The course exploited a multidisciplinary approach, adapting to different learning paths of learners, and

touching advanced topics such as linked data and data fusion.

Results

Lectures were held by Juan Carlos De Martin, Marco Torchiano, Raimondo Iemma, Federico Morando, and Giuseppe Futia. Students have been evaluated on the basis of group work developed from data published by the administrations in real cases.

4.3 Topics in Internet & Society Interdisciplinary Studies

A course of excellence organized within Politecnico di Torino doctoral program.

Project website/page	N/A
Status	concluded
Period	24 – 28 June 2015
Funding (of which Nexa)	N/A
Funding organization	Politecnico di Torino Doctoral School
Person(s) in charge	Juan Carlos De Martin (<i>course coordinator</i>), Selina Fenoglio (<i>administration</i>).

As in 2015, the Nexa Center leveraged the presence of the Nexa Trustees for the annual Board and organized a doctoral course on “Internet & Society” at Politecnico di Torino.

Background

It is commonly understood that the Internet now affects almost every aspect of society—from knowledge sharing to economic interactions – and of personal life (digital divide permitting). Understanding the relationship between Internet and society is a complex matter, since its shape and its evolution are not

an immutable technological law, but instead the consequence of specific choices, both private and public, that could – at least in principle – very well change over time.

Objectives

Topics in Internet & Society Interdisciplinary Studies is a course addressed to students of all Doctoral Programs. At Politecnico di Torino. It is aimed at providing an interdisciplinary overview of a selection of Internet & Society topics currently addressed by scholars at global level, all of which have tangible

implications in many domains, and may very well suggest new lines of reasoning to ongoing research of PhD candidates

Results

At the time of writing this report the following trustees have been involved in the lectures: Philippe Aigrain (Computer scientist and author); Brett Frischmann (Yeshiva University); Jean-Claude Guédon (University of Montreal); Lucie Guibault (Institute for Information Law (IviR) - University of Amsterdam); Charles Nesson (Harvard University).

4.4 ASP Winter school “The New Internet Society: Entering the black-box of digital innovation”

A course of excellence organized within the “Alta Scuola Politecnica”

Project website/page	http://www.asp-poli.it/wp-content/uploads/2016/04/XI_The-New-Internet-Society_list.pdf
Status	concluded

Period	14 – 18 March 2016
Funding (of which Nexa)	N/A
Funding organization	“Alta Scuola Politecnico” Politecnico di Torino and Politecnico di Milano
Person(s) in charge	Juan Carlos De Martin (<i>course coordinator</i>), Lorenzo Canova (<i>Tutor</i>), Antonio Vetrò (<i>Tutor</i>)

In 2004, the Politecnico di Milano and Politecnico di Torino founded the Alta Scuola Politecnica (ASP), restricted to 150 young and exceptionally talented students, selected solely on the basis of merit, among the applicants to the Laurea Magistrale Programmes (equivalent to a Master of Science) in Engineering, Architecture and Design at the two universities. The resulting Community is made up of very motivated and exceptionally qualified students (about 60% achieved their Bachelor of Science – B.Sc. – degree *cum laude*) with a passion for innovation, coming from about 20 different countries; more than 1/3 of them are women. These students follow a curriculum additional to their degree Programmes, completely in English, based on *ad-hoc* courses and the development of multidisciplinary projects.

The mission of ASP is to provide society with high-profile graduates combining in-depth (vertical) disciplinary knowledge from their Laurea Magistrale Programmes with interdisciplinary (horizontal) skills that are needed to work in a truly multidisciplinary environment.

Background

The ASP (Alta Scuola Politecnica, <http://www.asp-poli.it/>) Winter school is a 5 days intensive course for the top 2% Master’s students of the Politecnico di Torino and Milano that in 2016 took place in Belgirate (14-18 March).

Objectives

The course “The New Internet Society: Entering the black-box of digital innovation” had the objective to provide the students with a set of theoretical and applied tools in management of innovation. In addition, the

schools aims at teaching the basic concepts to understand the role of Internet and ICT as an enabling factor for innovations in product and service that affect the competencies of future engineers and architects, in a wide number of industries. The course is constructed to stimulate the debate on current issues and challenges such as smart cities, e-government and big data.

Results

For this edition Juan Carlos De Martin gave lectures and insights about the influence of technology on society and *viceversa*, with two lectures: “The Cultural Roots of Digital Innovation” and “Sharing and Collaboration in the Digital Age: Facts and Myths”. Antonio Vetrò and Lorenzo Canova have been the tutors of the school, for assisting and evaluating the students in their homework during and after the school.

4.5 Other teaching activities

There are several links between the activities of the Center and the teaching activities of the co-directors, faculty fellows and other fellows of the Center, including Marco Ricolfi, Juan Carlos De Martin, Ugo Pagallo, Alessandro Mantelero and several other fellows and associates.

WIPO Master (LL.M)

The World Intellectual Property Organization and the University of Turin organize an LL.M in Intellectual Property Law at the ILO International Training

Center in Turin. The LL.M is coordinated, starting from 2016, by Nexa Fellow Alessandro Cogo, who succeeded Nexa co-director Marco Ricolfi.

Master Course Management of Libre Software

In June 2015, Juan Carlos De Martin, Federico Morando, Raimondo Iemma and Antonio Servetti have been teachers at the “Master di I livello in management del software libero”, a course for officials in the public

administrations and managers in private corporations.

Big Dive

The Top-IX consortium and other partners organize Big Dive, a five-week training program providing the key technical skills needed to dive into the big data universe, including some multidisciplinary knowledge useful to extract value from data. Antonio Vetrò will give lectures in June on the topic of data quality.

5. FUNDING, ORGANIZATION, RELATIONSHIPS & COMMUNITY

This section provides some financial and budgetary information, details about the internal functioning of the Nexa Center, including discussion on organizational aspects, and a synthesis of the relationships of the Center with its community and with other institutions.

5.1 Budget Summary

Table I below summarizes the total costs sustained by the Nexa Center in fiscal year 2015.

Research personnel		260,000 €
Nexa Center staff	171,000 €	
Tenured personnel	89,000 €	
Other personnel		57,000 €
Other costs		145,000 €
Events organization and communication	31,000 €	
Travel (Nexa)	50,000 €	
Travel (guests/speakers)	4,000 €	
Equipment	6,000 €	
Functioning costs (heating, phone, cleaning, etc.)	3,000 €	
Outlays for the use of the Center venue	20,000 €	
Surplus from projects to PoliTo personnel	11,000 €	
Indirect costs (contribution to the Politecnico di Torino budget, deducted from Nexa projects)	20,000 €	
Total costs		462,000 €

Table I: Nexa Center: costs sustained in 2015

“Other personnel” (see Table I) includes administrative personnel (Selina Fenoglietto), personnel dealing with events and communication (Giuseppe Futia), technical personnel (Luca Leschitutta until 15th January 2015, and Davide Allavena from April 2015) and an estimate of the cost of other managerial activities, which are not directly related to re-

search (e.g., 30% of the cost of Federico Morando, 40% of the cost of Raimondo lemma, 70% of the cost of Antonio Vetrò from 16th November). Some cost entries (e.g., tenured personnel) include in kind contributions (see also Table 2 below).

The contribution of the Nexa Center to the budget of Politec-

nico di Torino is calculated as the share of the external funding deducted by the central administration or the Department of Control and Computer Engineering (DAUIN), mainly to cover indirect costs. This amount is decreasing; it is 20,000 € in 2015 and it will be at least 11,800 € in 2016.

5.Funding, Organization, Relationships & Community

Project / other source of funding	2015	2016	2017
Master Software Libero		2,600 €	
Grant from Regione Piemonte	29,200 €	4,300 €	
EINS – Network of Excellence on Internet Science (including MorFEO)	58,900 €	2,700 €	
Open-DAI	1,000 €		
RRI-ICT Forum	8,800 €	6,900 €	6,000 €
SHARE 2.0	10,000 €	6,400 €	
LAPSI 2.0	900 €		
Past projects leftover	5,000 €	11,000 €	19,500 €
Grant from Harvard University - NoC Internet Governance Case Studies Series CC	13,000 €		
Grant from Google – Measurement Kit		32,000 €	13,500 €
Grant from Google M-Lab (Google Inc.)	12,800 €	9,700 €	
PASTEUR4OA	33,400 €	25,200 €	4,000 €
Grant from Telecom Italia (TellMeFirst)	7,800 €	19,600 €	
Grant from Telecom Italia (the Law of Service Robots)	14,600 €	19,900 €	22,700 €
Grant from Telecom Italia (online privacy)	21,500 €	300 €	21,300 €
Global Network of Interdisciplinary Internet & Society Research Centers (NoC)	34,200 €	21,700 €	
Grant from 5T (Smart Mobility)	1,400 €		
Grant from Regesta.exe (Spazio Dati)		10,000 €	
POWER AWARE – Lights off, brains on		30,000 €	13,000 €
Grant from CSI-Piemonte	12,000 €	22,200 €	5,000 €
ODINO (Piemonte ICT Cluster)	9,600 €		
MAPO (Regione Piemonte through EU ERDF fund)	14,000 €	1,400 €	
Grant from eBay (Internet of Things)	12,000 €	54,400 €	40,000 €
Grant from ICANN (Internet Governance)	3,000 €	23,200 €	
Contribution in kind from Politecnico di Torino (mainly personnel effort)	128,900 €	110,500 €	110,500 €
Contribution in kind from Prof. Marco Ricolfi	30,000 €	30,000 €	30,000 €
Total	462,000 €	444,000 €	285,500 €

Table 2: Nexa Center: expected funding in 2015, 2016 and 2017 (as of May 2016)

Table 2 provides an overview of the sources of funding in 2015 and some estimations of the expected funding in 2016 and 2017, which are based on relatively conservative assumptions. In fact, only funding related to ongoing relationships and agreements

(even without strict legal obligation to provide this funding, e.g. because it is subject to the discretionary evaluations of some funding institutions) is reported. No funding is listed in case of simple submitted and unapproved project proposals. It is

also worth mentioning that some of the funding threads are likely to be available and used by the Center also beyond 2015. In those cases, the figures reported do not capture the entire amount of the funding.

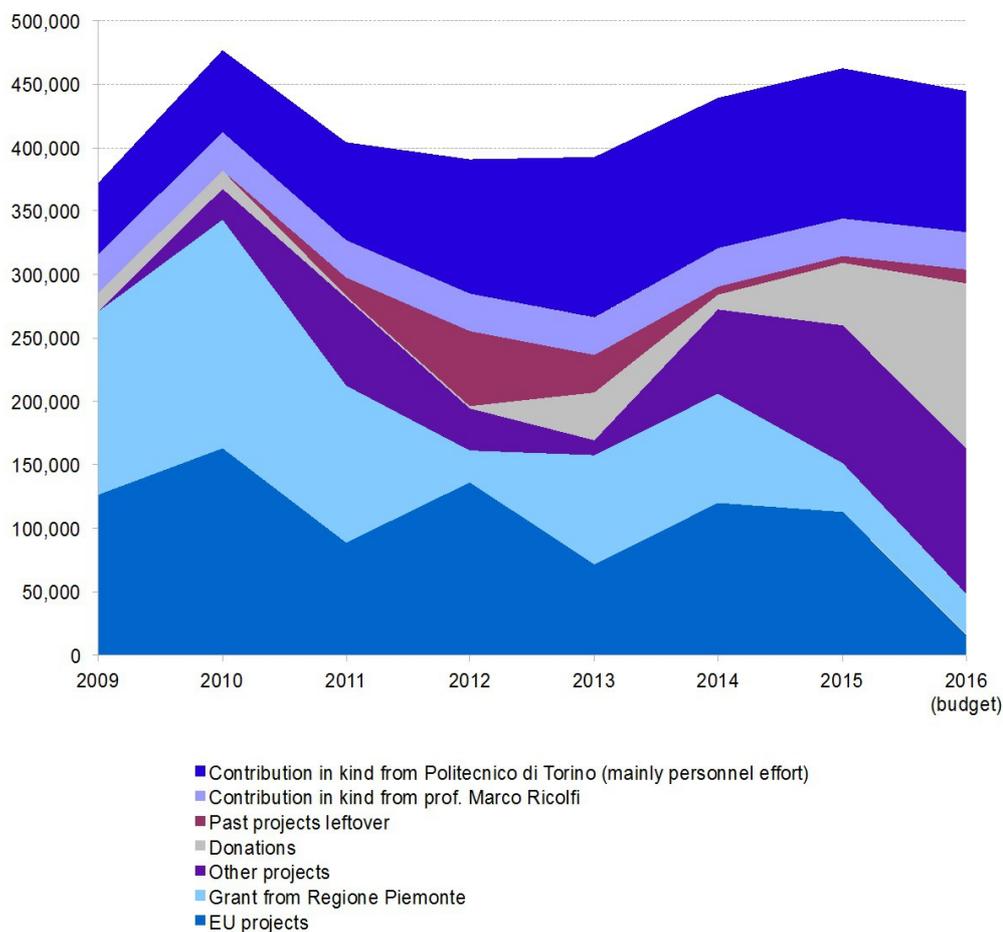


Figure 1: Composition of available financial resources (in Euros), 2009 – 2016

Figure 1 reports the composition of the available financial resources from 2009 to 2016

(forecasts only for 2016). It can be noticed that funding from European projects is notably de-

creasing, but is counter-balanced by donations.

5.2 Accountability and transparency

(The 'Accountability and transparency principles' of the Nexa Center are here reported, as finalized in December 10th, 2013, in light of the debate involving Nexa directors and trustees, and reported in the following page <http://nexa.polito.it/transparency-and-accountability>).

The Nexa Center for Internet & Society is an independent research center. While the reputation of the center ultimately rests on the quality, consistency and integrity of its actions over the course of time, the Nexa Center also adopts several *ex ante* rules to support the independence of the center both in substance as well as in external perception. In this regard, the issue of funding is particularly sensitive. As a general principle, the Nexa Center does not accept funding that may limit the ability of the center to carry out independent and unbiased research. The Center strives to ensure that its funding comes from a range of entities, including public sector bodies, foundations, the private sector and individuals, to minimize the dependency from any specific actor (or category of actors). Since funding provided by for-profit entities is particularly sensitive, during each reporting period, including the one covered by this Report, the Nexa Center is committed to follow accountability and transparency guidelines concerning for-profit funding. Such guidelines are formalized as follows:

1. The existence and the nature of all funding over €1,000 will be published on the website of the Nexa Center and regularly updated. Each year, the Nexa Center will also publish on its website the public version of its Annual Report, containing the same information.

2. In a given year, and as a matter of principle, funding coming from any single for-profit entity should not exceed 15% of the budget of the Center in that year. This threshold will be reexamined at each annual meeting of the Board of Trustees, according to the general principle that, if the Center budget increases, this threshold will be proportionally reduced.

3. The overall contribution coming from for-profit entities should in principle not exceed 1/3 of the overall budget of the Center in that year.

4. If the aforementioned thresholds are to be exceeded, the case will be brought to the attention of the Board of Trustees which will issue a binding recommendation to be included in the Annual Report.

5. In any case, the relationship with for-profit funders will explicitly provide that the Nexa Center accepts to undertake a certain research activity based only on the scientific method and without being constrained by any previous indication or directive from the funder (e.g., in

terms of expected deliverables and research products, apart from agreeing on the definition of the field of research and organizational details).

6. Consultancy and similar activities involving more specific directives from a third party, if undertaken, will be clearly labeled as such.

7. Any changes to these policies will be subject to the approval of the Board of Trustees.

Regarding the reporting period, the funding guidelines have been respected as far as point 1.–5. above are concerned. Regarding point 2., funding from a single for-profit entity (coming from Google Inc., Telecom, 5T, Regrsta.exe, eBay and ICANN) remained below the 15% cap (implying a maximum funding of about € 69,410 in 2015). The same goes for the criteria expressed at point 3.

Considering current estimations of the 2016 budget, criteria at points 2 and 3 will be respected also in the next reporting period. Instead, the overall contribution coming from for-profit entities could slightly exceed 1/3 of the overall estimated budget of 2016 (169,000 € i.e., 38% instead 33%) and for estimations of the 2017 budget, the overall contribution will be 42% instead 33%.

Funding coming from for-profit entities	% of 2015 budget (absolute value)	% of 2016 budget (absolute value)
Google	2,76 %	9,39%
Google Inc., 1600 Amphitheatre Parkway Mountain View, CA USA	(12,800€)	(41,700€)
Telecom Italia	9,49 %	8,96 %
Telecom Italia S.p.A., Piazza degli Affari n. 2, 20123 Milano	(43,900 €)	(39,800 €)
5T	0,30 %	
5T S.r.l., Via Bertola 34, 10122 Torino	(1,400)	
Regesta.exe		2,25 %
Regesta.exe S.r.l., Via Monte Zebio 19, 00195 Roma		(10,000 €)
eBay	2,61 %	12.25 %
eBay Sweden AB Stockholm C/O Recall Deutschland GmbH Landsbergerstrasse 140 Leipzig 04157 Germany	(12,000 €)	(54,400 €)
ICANN	0,67%	5,23 %
The Internet Corporation for Assigned Names and Numbers (ICANN) 12025 Waterfront Drive, Suite 300, Los Angeles; CA 900094 USA	(3,000 €)	(23,200 €)
Total from for-profit entities	15,83%	38,08%

Table 3: Funding coming from for-profit entities

5.3 Organizational aspects

During the reporting period, two new researchers entered the Nexa staff in chronological order:

- Marco Conoscenti, who completed his Master's thesis in the analysis and development of

rate control algorithms for hyperspectral images compression at Politecnico di Torino in 2015. He joined the Nexa Center in November 2015 as PhD student under the supervision of Prof. De Martin. His research topic is P2P IoT: peer-to-peer ap-

proaches for the Internet of Things scenario;

- Carmine D'Amico, computer engineering student at the Politecnico di Torino, started an internship at the Nexa Center in December 2015. He is currently

working on the development of the Neubot's MPEG DASH test on Measurement Kit.

- Antonio Vetrò, who formerly was postdoctoral research fellow in the Software and System Engineering Department at Technische Universität München (Germany). He is now the Director of Research at the Nexa Center.

At the same time, four staff members concluded their collaboration with the Nexa Center:

- Federico Morando, who joined the working group of the Nexa Center in 2006 at the beginning of its first year of formal activity. From 2008 to 2012 Federico has been the first Managing Director of the Center and from 2013 to 2015 he served as Director of Research and Policy of the Nexa Center, focusing on the coordination of the cross-disciplinary research activities of the Center and on the related policy support actions. Federico will continue participating in the Nexa community as a Fellow;

- Raimondo Iemma, who joined the Nexa Center in 2012 as Staff Research Fellow and served as Managing Director for three years between 2013 and 2015 and will continue participating in the Nexa community as a Fellow;

- Alessio Melandri, who collaborated as intern during 2014-2015 developing software. In particular with Simone Basso he created a node.js registry tool,

with Giuseppe Futia contributed to TellMeFirst and also worked on Linked Data projects, he will continue participating in the Nexa community as a Fellow;

- Miryam Bianco, who from May 2015 to April 2016, has been Research Fellow at the Nexa Center, performing research in the field of the Internet of Things, focusing particularly on its effects on the legal and factual position of European consumers.

As usual, the Nexa Centers hosted interns who collaborated on specific projects: it is the case of Antonio Langiu and Carmine d'Amico, both currently working on the development of Measurement Kit tests.

We changed the organization of the steering meetings, by having two separate sessions: firstly a restricted meeting on strategic and financial topics only (with the co-Directors, the Director of Research, the Director of Privacy, the Managing Director and the Administrative Manager), followed by a plenary session where all staff member discuss on the ongoing activities with the co-directors, inspired by lean principles. The new organization of the steering meetings aims at improving the communication within the staff and with the co-directors focusing on the content of the activities conducted, hence freeing the plenary session from the organizational aspects.

The “task forces” around

specific projects, introduced in last reporting period, are still in course but with smaller groups (often on a peer base) and less frequently (on demand).

On the other hand, we continued rationalizing our IT infrastructure, e.g., by turning web-sites of concluded projects into static web pages, and by adopting more efficient pipelines for our server maintenance. Further reflection is ongoing on how to balance the need of sustaining the Nexa community in all its aspects, and reducing organizational costs.

We also kept on improving and using tools to more easily structure information (such as semantic wikis), which were adopted in projects (e.g. in the RRI project and in the Network of Centers), and will become useful to structure information about the activities of Nexa as a whole (people, projects, budget, publications).

Finally, we tried to keep improving the involvement of the Nexa Fellows in the Nexa community: by gathering them around projects/events of their interest (e.g. at the Nexa Annual conference), by collecting their plans and suggestions in a more structured way (see, e.g., the online form <https://nexa.polito.it/aggiornamento-fellows>), and by starting a new tradition, i.e. the “Nexa Fridays”, a weekly occasion for staff and fellows to meet informally, chat and drink.

5.4 Fellowships 2016 and Faculty Associates

A list of the current Fellows of the Center is available at page 72 ff. of this Report.

Since its creation, the Nexa Center took advantage of the cooperation of a group of more or less strictly connected fellows, who provided countless insights and enriched the knowledge-sharing activity of the Nexa Center. The explicit model for this kind of interaction was the network of fellows of the Berkman Center for Internet & Society at Harvard University, obviously with several adaptations and on a smaller scale.

While the Fellows of the Nexa Center typically contribute *pro bono* to the activities of the center, some of them, the “Research Fellows”, perform a research specifically for the Nexa Center as a Ph.D. Student or with some kind of research grant (e.g., as “assegnisti di ricerca”). “Faculty Fellows” are tenured professors of the Politecnico di Torino or of the Università di Torino, which are the two universities forming the academic constituency of the Nexa Center. Since 2013, the Nexa Center created the position of “Faculty

Associate”, i.e., scholars and lecturers whose field of research covers topics of interest for the Nexa Center.

Formally becoming a Fellow of the Nexa Center implies the membership in a closed mailing-list devoted to the Fellows, the possibility of taking part to internal “closed-doors” meetings at the Center (for instance, brainstorming sessions, but also the meeting of the Board of Trustees) and, of course, the possibility of publicly using the title of Fellow of the Nexa Center for Internet & Society, and of appearing as such on the website of the Nexa Center. On top of that, depending on their research proposals, fellows may receive a limited amount of financial support (defined on a case by case basis) and reimbursement for travel and similar expenses related to their approved projects related to the Center.

During the month of June, the Nexa Center will also announce its Fellows for the next

academic year (2016/2017). The update list of fellow is available at p. 64 ff. of this report. This list includes two new fellows:

Davide Allavena is a master student of Physics at Università di Pavia. In April 2015 he started his work as IT Manager at Nexa Center. His main research interests focus on network measurements, network neutrality, and open data technologies. Davide regularly contributes into the software development projects of the Nexa Center.

Antonio Langiu is a student of computer engineering at the Politecnico di Torino. Since 2014, he collaborates with the Nexa Center, and in particular with Simone Basso. He studied how the advertising network libraries included in mobile applications use (or abuse) permissions to collect user's data, and he is now contributing to the development of MeasurementKit.

5.5 Visitors at the Nexa Center and Nexa Researchers Abroad

As in the previous reporting period, during the Fall 2015, Juan Carlos De Martin spent a week at Harvard University as Berkman Center faculty fellow.

Alessandro Mantelero spent the following visiting periods abroad:

I) UOC Universitat Oberta de Catalunya (Barcelona) - Inter-

net Interdisciplinary Institute (IN3): June-September 2015.

II) Nanjing University of Information Science and Technology: March-May 2016.

5.6 Partnerships

See <http://nexa.polito.it/partnerships> for a complete overview.

While new potential partners have been involved in the numerous fundraising activities at the beginning of 2016 (page 53 ff.), the Nexa Center kept its role of coordinator of the Global Network of Internet & Society Research Centers (page 26) for another year, entering the last semester of coordination. Moreover, the Nexa Center continued being part of the Global Net-

work Initiative as the first Italian participant in this NGO, and collaborating with the [OONI](#), [MeasurementLab](#), and [Wikimedia](#) projects. Regarding the collaboration with the OONI project, specifically, the Nexa Center helped to set up the [OONI mini hackathon taking place in Rome](#) on October 1 and 2, 2015.

As far as the regional dimen-

sions is concerned, the birth of a spin-off consolidated the partnerships in the linked open data domain, [Regesta.exe](#) in particular. Strict collaborations are going with the Politecnico di Torino, especially with the [Softeng](#) (software engineering) research group, with the [Istituto Superiore Mario Boella](#) and the [Joint Open Lab of TIM](#).

6. OUTREACH

This section summarizes the activities of the Nexa Center aimed at increasing awareness about the Center and its main fields of research. Notice that some project-specific activities of this nature have been described in previous sections.

6.1 Introduction

In the last year, the Nexa Center has intended to strengthen outreach activities to highlight results of its research projects, creating new opportunities for debate, discussion, and collaborations.

To reach this purpose, the Nexa Center has organized several workshops and hackathons, in addition to its consolidated monthly meeting series.

Among the most important meetings we mention “ConsIoT 2016: The CPS Week 2016 International Workshop on Consumers and the Internet of Things” organized in April 11 (Vienna, Austria – <http://nexa.polito.it/consiot2016>).

In the field of Open Data, we note the civic hackathon entitled “Hunting 4 data hunters!” (<http://nexa.polito.it/iodd2016>), organized in collaboration with Synapta, the start-up founded by the Nexa Fellows, Federico Morando and Alessio Melandri. This civic hackathon took place in occasion of the Italian chapter of the International Open Data Day 2016.

These workshops and hackathons represent a chance to demonstrate practical implications of Nexa policy support activities, as well as creating chances for the dissemination of

For more information, refer to...

<http://nexa.polito.it/newsroom>
<http://nexa.polito.it/press-releases>

results.

During the last reporting period, the Nexa Center has enriched contents related to own activities and identity, creating a new awards page (<http://nexa.polito.it/awards>). At the same time, we are adopting a strategy to automatize the building of pages that summarize the same types of contents (for instance the page indexing all videos published on the website: <https://nexa.polito.it/audio-video>) in order to keep the contents updated, decreasing the effort of the Nexa staff.

6.2 7th Annual Conference: Digital loyalty and servitude

For additional information, including the videos of the sessions, see <http://nexa.polito.it/conf2015>

On December 4, 2015 the Nexa Center organized its 7th Annual Conference on “Digital loyalty and servitude”. The annual conference, that took place in the Sala Agorà of the I3P (Innovative Enterprise Incubator of the Politecnico di Torino) gathered more than 100 participants, including researchers, professionals, students, and other experts.

The Conference has been extensively communicated through the website, the mailing-lists, and the social media channels of the Nexa Center and in close collaboration with the Communications Departments of the Politecnico di Torino and the University of Turin. Some Nexa Fellows, such Mauro Alovisio, supported the dissemination of the

conference through communication channels followed by Turin lawyers.

A great online coordination effort has been made to simultaneously define and spread the official Nexa press releases from all these partners.



This annual conference featured two keynote speeches by Gianmarco Veruggio (CNR-IEIIT, Institute of Electronics, Computer and Telecommunication Engineering) and Bruce Sterling (Science fiction author and Nexa

Center Trustee).

For the first time, the Nexa Conference has been broadcasted live on IoETv, an Italian web tv specialized on contents related to Internet of Things, robotics and drones, and smart cities. The collaboration between Nexa and IoETv has been extended to following meetings, such as the CPS Week International Workshop on Consumers and the Internet of Things (<http://nexa.polito.it/consiot2016>).

The web page of the conference published on the Nexa Center website was one of the top 3 most visited pages during the last reporting period.

6.3 Nexa Wednesdays

An established tradition of continuing innovation and exchange of opinions!

The monthly meetings open to the public called “Nexa Wednesdays” became a usual appointment for the Nexa Center fellows and friends since September 2008. At the time of finalizing this report, 86 Nexa Wednesdays have taken place. The meetings are held on the second Wednesday of each month, from 18:00 to 20:00, and they are available in live streaming at: <http://nexa.polito.it/upcoming-events>. Videos of presentations are available at: <https://www.youtube.com/user/NexaCenter>. During the meetings, the audience following the live streaming can join the discussion via Twitter. The tweets are shown on a side screen. Attendance at Nexa Wednesdays as a rule exceeds 20 and sometimes 30 participants (thus, attendance frequently almost saturates the physical capacity of the Center's meeting room).

In order to promote an interdisciplinary exchange on the Internet & Society field, also introducing new people to the discussion, guests of the meeting are encouraged to use a simple language, avoiding unnecessary technicalities. You can find a list of all the Nexa Wednesdays at <http://nexa.polito.it/mercoledì>.

This is a short summary of

Nexa Wednesdays that have taken place during the last reporting period:

76th Nexa Wednesday – [The evolution of Internet governance model and the transformation of ICANN](#): June 10, 2016; guests: Andrea Beccalli (ICANN), Stefania Milan (University of Amsterdam).

77th Nexa Wednesday – [Multistakeholder governance: from technical to the legal standards](#): July 8, 2015; guest: Luca Belli (Center for Technology and Society of Fundação Getulio Vargas Law School).

78th Nexa Wednesday – [Security and surveillance on the network: insights from the Hacking Team case](#): September 9, 2015; guests: Fabio Chiusi (journalist, Nexa Center Fellow) and Claudio Agosti (researcher and developer).

79th Nexa Wednesday – [Right of access to the Internet in the Italian Constitution](#): October 14, 2015; guest: Guido D'Ippolito (Cultura Democratica Think Tank).

80th Nexa Wednesday – [IoT-Health. The Internet of Things for a new health](#): November 11, 2015; guest: Guido Noto La Diega (Queen Mary, Univer-

sity of London).

81st Nexa Wednesday – [Personal data outside the EU. What solutions and perspectives for business after the loss the Safe Harbour Agreement?](#): December 9, 2015; guest: Alessandro Mantelero (Nexa Center Director of Privacy).

82nd Nexa Wednesday – [Why the Internet is the anti-utopia](#): January 13, 2016; guest: Fabio Chiusi (journalist, Nexa Center Fellow).

83rd Nexa Wednesday – [Linking liability: from copyright to data protection](#): February 10, 2016; guest: Miquel Peguera, Universitat Oberta de Catalunya.

84th Nexa Wednesday – [Words of digital wisdom](#): March 9, 2016; guest: Roberto Casati (CNRS, Institut Jean Nicod, Ecole Normale Supérieure).

85th Nexa Wednesday – [Poetry and machine: from the first computer to the Google-poetry](#): April 13, 2016; guest: Francesco Ruggiero (writer).

86th Nexa Wednesday – [The nexus between New Media and Gender Empowerment](#): May 11, 2016; guest: Elena Pavan (Scuola Normale Superiore, Nexa Center Fellow).

6.4 Nexa Lunch Seminars

Since May 2012, the Nexa Center launched a series of meetings entitled “Nexa Lunch Seminars” held on the fourth Wednesday of the month, from 13.00 to 14.00. As in the case of Nexa Wednesdays, it is possible

to follow all the meetings live over the Internet by streaming video at: <http://nexa.polito.it/upcoming-events>. Audience interactions and dissemination are dealt in the same way as for the Nexa Wednesdays. A list of the Nexa

Lunch Seminars is available at <http://nexa.polito.it/lunch-seminars>. This is a short summary of Nexa Lunch Seminars that have taken place during the last reporting period:

31st Nexa Lunch Seminar
– **Tenders and public contracts: from the XML to the Linked Open Data:** May 27, 2015; guests: Nicola Rustignoli (Nexa Center Intern), Giuseppe Futia (Nexa Center Research Fellow).

32nd Nexa Lunch Seminar
– **Social renaissances:** June 23, 2015; guests: Leonardo Camiciotti (TOP-IX) e Monica Paolizzi (SocialFare).

33rd Nexa Lunch Seminar
– **Data curation @ SpazioDati:** July 22, 2015; guest: Matteo Brunati (SpazioDati).

34th Nexa Lunch Seminar
– **App, Store, and Society: permissions and profiling:** September 23, 2015; guest: Antonio Langiu (Nexa Center Intern).

35th Nexa Lunch Seminar
– **PASTEUR 4OA: harmonizing the Open Access policies in Europe:** October 28, 2015; guest: Federico Morando (Nexa Center Director of Research and Policy).

36th Nexa Lunch Seminar
– **Ownership and control of consumer goods in the Internet of Things: case studies and legal perspectives:** November 25, 2015; guest: Miryam Bianco (Nexa Center Research Fellow).

37th Nexa Lunch Seminar
– **Evaluation of Open-Government data: the case of public contracts:** January 27, 2016; guests: Francesca Iuliano, Marco Torchiano (Politecnico di Torino).

38th Nexa Lunch Seminar

– **How is the Internet censorship:** February, 24; 2015 guests Simone Basso (Nexa Center Fellow), Arturo Filastò (Hermes Center).

39th Nexa Lunch Seminar
– **ICT4D, technologies for development: a critical approach:** March 23, 2016; guest: Serena Carta (journalist).

40th Nexa Lunch Seminar
– **OER, MOOCs and beyond: an overview of the Open Education movement:** April 27, 2016; guest: Fabio Nascimbeni (Universidad Internacional de la Rioja).

41st Nexa Lunch Seminar
– **Contemporary Journalisms:** May 25, 2016; guest: Alessandro Cappai (journalist).

6.5 Other Meetings

Other meetings organized by the Center during the reporting period have been:

Risks and potentiality of permanent connections, organized in collaboration with Unione Culturale Franco Antonicelli. Guests: Antonio Casilli (Paris Institute of Technology) and Collettivo Ippolita, July 17, 2015.

How open data became proprietary in the European Court of Justice, with Maria Bottis (Ionian University), September 24, 2015.

The truth, please, on Sili-

con Valley, with Luca De Biase (Nexa Center Trustee), Carlo Blengino (Nexa Center Fellow), October 15, 2015.

The Linked Data for libraries, archives, and museums, with Mauro Guerrini (University of Florence), November 4, 2015.

Artificial Intelligence: Should You Be Worried?, organized in collaboration with the Politecnico PhD School. With Luciano Floridi (University of Oxford), November 10, 2015.

International Open Data Day 2016 (the Italian chap-

ter) – Hunting 4 data hunters! Civic hackathon organized in collaboration with the start-up Synapta, March 5, 2016.

Is Your Smart Thermostat Yours? Reflecting on the Impact of the Internet of Things on Ownership and Control of Consumer Goods. Workshop organized during the Cyber-Physical Systems (CPS) Week 2016, April 11, 2016 (Wien, Austria).

Instructions on an intangible future, with Stefano Quintarelli (Deputy of the Italian Republic, Nexa Center Trustee).

6.6 Website

In 2015 major changes were made to improve the user's browsing experience and to automatize pages that list the same

kind of contents (such as multimedia resources), in order to keep information updated. During the reporting period the

website:

– collected a significant amount of traffic: about 24,000 visits from 16,300 different visitors.

6. Outreach

Since the previous report, the site remained steady in visits with a slight decrease in terms of different visitors (about 16,900 in the previous year – all data collected in may 2016 from Google Analytics). It is worth noting that in 2015 – 2016 our website had two exceptional peaks in popularity. In June 2015 with the organization of the doctoral course on Internet & Society Studies (<http://nexa.polito.it/2015/06/doctoral-course>) and the launch of the open source tool for exploring the Italian Public

Contracts (<http://nexa.polito.it/2015/06/bandi-contratti-pubblici>). The other peak was in December 2015 in the period of the Nexa Annual Conference (<http://nexa.polito.it/conf2015>).

– has been extensively linked on the Web. According to Google web-master tools, 860 domains contain links to the Nexa Center's website. During the reporting period the website obtained a good international exposure: if 75% of traffic came from Italy, about 3% came from the US, about 2%

from Germany and the UK and about 1% each from India, France, Brazil, and Spain.

The first graph (Figure 1) depicts the Nexa website page-views from October 2010 (beginning of measurements) up to now as registered by Google Analytics. The peaks are in conjunction with the annual conferences.

The second graph, relevant to the reporting period, (Figure 2) shows peaks in June 2015 and December 2015 as previously described.

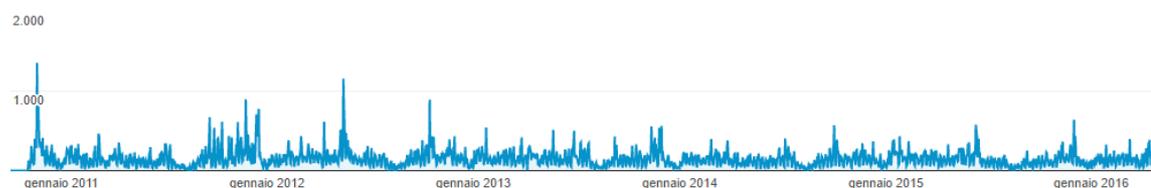


Figure 2: Monthly page-views of the Nexa Website since its creation

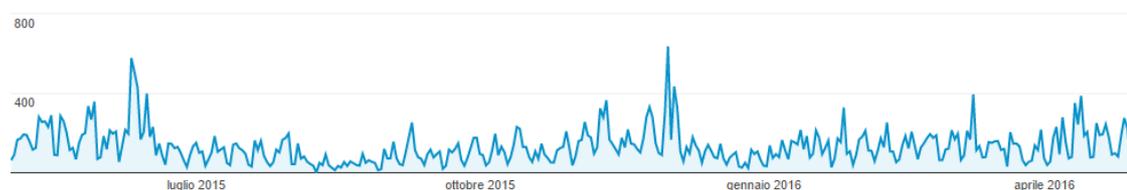


Figure 3: Weekly page-views of the Nexa website during the reporting period

6.7 Media Exposure

Traditional newspapers and magazines, such as “La Stampa”, “Il Corriere della Sera”, “Il Sole 24 Ore”, “Il Venerdì di Repubblica”, spread the Nexa Center’s press releases and gather opinions of Nexa community members on the “Internet & Society” topic.

During the last reporting period, the co-director Juan Carlos De Martin has started a new collaboration as op-ed contributor at “La Repubblica” (previous for “La Stampa”). Some of the matters discussed in the editorials of prof. De Martin gave rise to many discussions on social media and Nexa mailing list (See <http://nexa.polito.it/newsroom>). In 2016, some of the “BBC” websites (in particular the “BBC R&D” channel and “BBC News Labs” blog) have cited the Nexa Center, reporting the results from the #newsHACK event organized in London (March 2016). In that occasion,

Giuseppe Futia have won the “Best tool for multilingual journalists” prize (<http://www.bbc.co.uk/rd/blog/2016-03-irfs-wee-knotes-number-216>), collaborating with BBC researchers and developers. This news has also been reported by “La Repubblica” Turin edition (http://torino.repubblica.it/young-turin/2016/03/22/news/dal_poli_alla_bbc_progettando_nuovi_sofware_per_il_giornalismo-136078782/).

An entire article published on “La Stampa” and written by the journalist Luca Castelli has been dedicated to the 7th Nexa Annual Conference organized in December 2015 (<https://www.las-tampa.it/2015/12/07/tecnologia/il-nostro-futuro-tra-ro-bot-e-reti-servizi-e-servit-digitali-L0MxhOFc9ZSuOiDkOn-jz7N/pagina.html>).

In January 2016, reflections of Marco Torchiano (Nexa Fellow)

and Antonio Vetrò (Director of Research) on open data quality issues have been reported on the ForumPA magazine (<http://www.forumpa.it/pa-digitale/open-data-la-scala-5-star-non-basta-fondamentale-la-qualita-del-dato>).

The co-directors of the Nexa Center gave various interviews on “Internet & Society” issues to newspapers and radios (e.g., Rai Radio I and Radio 24), both traditional and online.

Some of the Nexa fellows are contributors in blogs and online newspapers, addressing issues related to many research topics of the center. The Nexa fellow Fabio Chiusi, for instance, is one of the most important Italian journalists that discuss issues related to control, censorship, and digital surveillance. The Nexa fellow Carlo Blengino continues his collaboration as hosted blogger with “Il Post” online newspaper.

6.8 Mailing lists and social media

The Center has three main mailing-lists:

- the **Nexa-Fellows** mailing-list is a private list connecting the core Nexa Center collaborators; it is used for various purposes, including confidential communications and to coordinate the activities of the fellows on specific projects; the list has about 49 members (Nexa Center fellows, Faculty Associates, and staff) and relatively low traffic (about 244 messages since May 2015);
- the **Nexa mailing-list** is used to inform all the fellows and friends of the Nexa Center

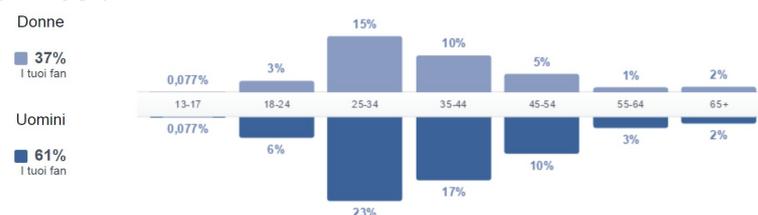


Figure 4: Gender and age of Facebook fans

about the events and publications of the Center, and to circulate information regarding books, reports and other materials about “Internet & Society” in general; the list is open to anybody, upon subscription, and all the members can both read and post new messages;

the list has about 636 members (529 one year ago) and collected almost 1,300 posts since May 2015;

- the **Nexa-Announce** mailing-list is a low traffic list used to spread information about Nexa Center public events and

publications; it is open to anybody, upon subscription, in read only mode. The Center also uses various internal mailing-lists to connect the members of the staff and/or some sub-sets of them working on specific projects. The general internal mailing-list of the staff of the Center saw about 2200 posts since May 2011. During

the reporting period, the Center also increased the use of social networks Facebook (facebook.com/nexa.center) and Twitter (@nexacenter).

On Twitter, the center has 2,280 followers (1,893 the previous year) while, the total number of fans on Facebook is 1,300 (1,117 the previous year), with distribution shown in Figure 4.

The fans of the page come mainly from Italy (983) and the US (44), but also from the UK (32), France (21), Germany (17) and other European and non-European countries.

YouTube Channel: Videos: 292 ; Created: Feb 6, 2009; Lifetime views: 19,992; reporting period: about 4,030 views for a total of almost 517 hours watched.

6.9 Nexa research travels in 2015

This is a list of research travels of Nexa community members that have taken place during the financial year 2015:

Kick off meeting - Project RRI-ICT Forum; Bruxelles (Belgium) from 19th January to 20th January, Raimondo Iemma.

Study commission on Internet Rights and digital democracy of the Italian Chamber of Deputies, Roma (Italy) 11th January to 12th January, Juan Carlos De Martin.

Speaker: "Il pianeta connesso. La nuova dimensione della privacy" Roma (Italy) 27th January to 28th January, Juan Carlos De Martin.

Meeting RRI-ICT Forum Project; Sophia Antipolis (France) from 16th February to 17th February, Federico Morando.

Open Data Parlamento, Roma (Italy) 17th February to 18th February, Claudio Artusio, Raimondo Iemma.

Open Data Day, Cagliari (Italy) 20th February to 21st February, Raimondo Iemma.

Study commission on Internet Rights and digital

democracy of the Italian Chamber of Deputies, Roma (Italy) 23rd February, Juan Carlos De Martin.

Info day European Call CAPS Horizon 2020; Paris (France) from 23rd February to 25th February, Lorenzo Canova.

Circumvention Technology Festival – Project EINS Valencia (Spain) from 3rd March to 9th March, Simone Basso.

Coordinator of the Global Network of Internet & Society Research Centers (NoC) and speaker: International Conference House of Japan; Tokyo (Japan) from 7th March to 11th March, Juan Carlos De Martin.

Workshop Share-PSI 2.0 Project: Open data priorities and engagement; Timisoara (Romania) from 15th March to 18th March, Lorenzo Canova.

Study commission on Internet Rights and digital democracy of the Italian Chamber of Deputies, Roma (Italy) 26th March, Juan Carlos De Martin.

Meeting "Spaghetti"

Open Data; Bologna (Italy) 28th March, Giuseppe Futia, Nicola Rustignoli.

Researcher Mobility – Project EINS Turin (Italy) from 24th March to 29th March, Elena Pavan.

Open Data Quality: from Theory to Practice – Project EINS Munich (Germany) from 29th March to 30th March, Lorenzo Canova, Raimondo Iemma, Federico Morando.

Study commission on Internet Rights and digital democracy of the Italian Chamber of Deputies, Roma (Italy) 30th March, Juan Carlos De Martin.

Meeting at Sigma Orionis; Sophia Antipolis (France) from 2nd April to 4th April, Simone Basso.

Meeting at Italian Ministry of Economic Development Roma (Italy) 9th April, Juan Carlos De Martin.

Coordinator of the NoC and speaker: Internet Policy borderless Workshop; Buenos Aires (Argentina) from 21st April to 27th April, Juan Carlos De

Martin.

Meeting RRI-ICT Forum Project; Bruxelles (Belgium) from 22nd April to 24th April, Federico Morando.

Meeting Portolan Project; Pisa (Italy) 26th April, Simone Basso.

Meeting: Spazio Dati Linked Trento (Italy) 29th April, Giuseppe Futia, Alessio Melandri.

Conference: “Italia decide 2016”; Roma (Italy) from 11th May to 12th May, Raimondo lemma.

Working open access - Project Pasteur40A; Bruxelles (Belgium) from 13th May to 14th May, Federico Morando.

Study commission on Internet Rights and digital democracy of the Italian Chamber of Deputies, Roma (Italy) 21st May, Juan Carlos De Martin.

Speaker: “BarCAMP Wikipedia Montecitorio” Roma (Italy) 22nd May, Federico Morando.

Seminar TGC 2015: “innovare prodotti” Milano (Italy) 22nd May, Miryam Bianco.

Conference CEDEM 2015 - Share-PSI 2.0 Project, Krems (Austria) from 20th May to 22nd May, Lorenzo Canova, Raimondo lemma.

Speaker seminar: “Internet Rights” – Fondazione Zoè Vicenza (Italy) 22nd May, Juan Carlos De Martin.

EINS Conference Bruxelles (Belgium) from 26th May to 28th May, Lorenzo Canova, Federico Morando.

Speaker: “Open Data Parlamento” Roma (Italy) 28th May, Claudio Artusio, Raimondo lemma.

Visiting researcher Internet Disciplinary Institute Barcelona (Spain) from 1st June to 20th June, Alessandro Mantelero.

Summt ICT and Summer School, Share-PSI 2.0 Project; Samos (Greece) from 30th June to 7th July, Lorenzo Canova, Giuseppe Futia, Lorenzo Rustignoli.

Conference CAPS Horizon 2020; Bruxelles (Belgium) from 6th July to 8th July, Lorenzo Canova.

Annual Conference - Project RRI-ICT Forum; Bruxelles (Belgium) from 8th July to 9th July, Federico Morando.

Study commission on Internet Rights and digital democracy of the Italian Chamber of Deputies, Roma (Italy) 14th July, Juan Carlos De Martin.

Meeting at the Aspen Institute; Milano (Italy) from 24th July, Juan Carlos De Martin.

Study commission on Internet Rights and digital democracy of the Italian Chamber of Deputies, Roma (Italy) 28th July, Juan Carlos De Martin.

Visiting researcher Internet Disciplinary Institute; Barcelona (Spain) from 30th July to 10th September, Alessandro Mantelero.

Speaker Conference ICLIC 2015; Southampton (United Kingdom) from 16th September to 19th September,

Alessandro Mantelero.

Visiting researcher Internet Disciplinary Institute; Barcelona (Spain) from 21st September 30th September, Alessandro Mantelero.

Coordinator of the NoC: Berkam Center and Harvard University Meetings; Boston (USA) from 7th September to 10th September Juan Carlos De Martin.

Working open access - Project Pasteur40A; Madrid (Spain) from 27th September to 28th September, Federico Morando.

Hackaton ADINA; Roma (Italy) from 30th September to 5th October, Davide Allavena, Simone Basso, Giuseppe Futia and Alessio Melandri.

Interview with Zygmunt Bauman at COMETA Foundation Como (Italy) 03rd October, Juan Carlos De Martin.

Speaker: Ferrara International Festival 2015; Ferrara (Italy) 04th October, Juan Carlos De Martin.

Speaker: Internet Festival Pisa (Italy) from 9th October to 11th October, Simone Basso.

Creative commons; Roma (Italy) 13th October, Federico Morando.

Conference Total Mobilization Web; Paris (France) from 14th October to 18th October, Juan Carlos De Martin.

Speaker: e-privacy winter edition; Cagliari (Italy) from 15th October to 18th October; Simone Basso.

Conference ITC 2015 - Project RRI-ICT Forum; Lis-

bona (Portugal) from 19th October to 23rd October; Simone Basso, Lorenzo Canova.

Conference Privacy; Amsterdam (Netherlands) from 23rd October to 26th October; Alessandro Mantelero.

Conference Total Mobilization Web Symposium Clouds of Things legal security; Windsor (United Kingdom) from 25th October to 27th October; Miryam Bianco.

12th Semantic MediaWiki Conference; Barcelona (Spain) from 28th October to 30th October; Alessio Melandri.

Speaker for RAI5 broadcast: “Lo stato dell’arte”; Roma (Italy) 29th October; Juan Carlos De Martin.

12th Semantic MediaWiki Conference; Barcelona (Spain) from 28th October to 30th October; Alessio Melandri.

Open research data creating bridges open; Bologna (Italy) 11th November; Antonio Vetrò.

Coordinator of the NoC and speaker: Annual Conference IGF 2015; Joao Pessoa (Brasil) from 7th November to 13th November Juan Carlos De Martin.

International Conference: Maximising interoperability – core vocabularies, location-aware data and more, Share-PSI 2.0 Project; Berlin (Germany) from 23rd November to 27th; Giuseppe Futia.

Annual Conference of theNoC: “Internet & Society: Emerging Topics and Research Communities”; Hong Kong (China) from 24th November to 29th November Lorenzo Canova, Juan Carlos De Martin.

Digital school “Fondazione Basso”; Roma (Italy) from 2nd December to 3rd December; Juan Carlos De Martin.



7. PROJECT PROPOSALS

In this section, project proposals issued by the Nexa Center (as coordinator or partner) during the reporting period are shortly described, also indicating the outcome of the submission (when already published).

7.1 VIRT-EU

Designing IoT application with ethical principles.

Project website/page	N/A
Status	Under evaluation
Period	N/A (duration: 36 months)
Funding (of which Nexa)	1.999.951,25€ (350.022,60 €) for the entire project
Funding organization	European Commission (H2020-ICT-2016-2017 - Topic: ICT-35-2016: Enabling responsible ICT-related research and innovation)
Person(s) in charge	Alessandro Mantelero, Antonio Vetrò

Abstract

VIRT-EU: The networked future promises new relationships between people and artifacts, the private and the public, the individual and the collective. The increased networking capabilities of pervasive technologies mean that of personal data are being produced, analyzed, monetized and connected to other data streams in ways that hold both enormous potential and pose profound challenges for European society. Recent policy, such as the EU General Data Protection Regulation, reflects mounting public concerns around emerging data practices, RRI, data ethics and privacy. VIRT-EU addresses these concerns at the

point of design through researching and intervening upon the development cultures and ethics of the next generation IoT innovators. We ask how do European IoT innovators and developers make ethically consequential decisions – about code, hardware and data – for new connective devices? What assumptions about human behavior, privacy and freedom underpin European cultures of IoT innovation? VIRT-EU will analyze and map the ethical practices of European hardware and software entrepreneurs, maker and hacker spaces, and community innovators. Leveraging state of the art collaborative SSH and ICT methodological innovations, our goals are to (1) understand

how IoT innovators enact ethics as they design future devices and (2) generate a new framework for Privacy, Ethical and Social Impact Assessment (PESIA), which will proactively position ethical self-assessments in the development process of IoT technologies. These tools, informed by legal approaches, data mining, quantitative and qualitative social science and design research serve to secure a place for societal concerns in the generation of new technologies, engaging societal stakeholders in ensuring a digital future which is populated by innovative devices and services that are explicitly aligned with, and conscious of, the ethical and social values held by EU citizens.

7.2 DECODE

Developing a privacy-aware IoT hub with a distributed and open architecture

Project website/page	N/A
Status	Under evaluation
Period	N/A (duration: 36 months)
Funding (of which Nexa)	4.987.673,75€ (185.125,00 €) for the entire project
Funding organization	European Commission (H2020-ICT-2016-2017 - Topic: ICT-I2-2016 “Net Innovation Initiative”)
Person(s) in charge	Juan Carlos De Martin, Marco Ciurcina

Abstract

DECODE: Today’s Internet is becoming increasingly centralized, slowing innovation and

challenging its potential to revolutionize society and the economy in a pluralistic manner. DECODE will develop practical alternatives through the creation,

evaluation and demonstration of a distributed and open architecture for managing online identity, personal and other data, and collective governance in a citi-

7. Project Proposals

zen-friendly and privacy-aware fashion. Strong digital rights that makes it possible for data subjects to determine access rights to their information through flexible entitlements and open standard-based agreements regarding data governance (on the model of Creative Commons licenses) will be woven into the technological architecture. DECODE will increase digital sovereignty of European citizens by enabling them to produce, access and control their data and exchange contextualized information in real-time, and in a con-

fidential, and scalable manner. DECODE will develop a modular privacy-aware IoT hub with a free and open source operating system backed by a state of the art Blockchain infrastructure supporting smart-contracts and privacy protections. The architecture will be demonstrated through four pilots in Barcelona and Amsterdam, in the field of digital democracy, citizen sensing, and collaborative economy. The pilots will be run with the active involvement of social entrepreneurs, hackers, and makers. Innovators will be able to build

solutions on top of the platform through hackathons and open challenges, while ensuring their security, resilience and privacy preserving qualities. This aims to create a decentralized innovation ecosystem that will attract a critical mass able to shift the current centralized data-driven economy towards a decentralized, sustainable and commons-based economy. DECODE puts agency and data control in the hands of citizens, to improve citizens' well-being and society for the collective benefit of all.

7.3 POWER AWARE

Collective Internet platform to increase awareness of citizens on electric power consumption.

Project website/page	N/A
Status	Approved
Period	N/A (duration: 6 months)
Funding (of which Nexa)	50,000 \$ for the entire project
Funding organization	Siebel Energy Institute
Person(s) in charge	Antonio Vetrò

Abstract

Power Aware is a web platform comparing energy consumption patterns for citizens with similar characteristics (e.g., house size, family composition, number and type of appliances)

and recommending saving strategies to reduce power consumption at homes. The comparison is made by means of interactive data visualizations that show to the citizens their power consumptions related to clusters of similar users. The web platform will offer additional features

aimed at building a smart community, such as social tools and consumptions forecasting. The mission of Power Aware is to enhance citizens' awareness on key factors of energy costs, to reduce energy use by changing the consumption habits.

7.4 HACK

Improving digital skills of teachers in Higher Education

Project website/page	N/A
Status	Under evaluation
Period	N/A (duration: 36 months)
Funding (of which Nexa)	451.670,00 € (136.870,00 €) for the entire project
Funding organization	Erasmus +
Person(s) in charge	Antonio Vetrò, Lorenzo Canova

Abstract

A host of recent policy initiatives, in particular the European Commission's Opening Up Education communication and related initiatives (such as Open Education Europa), have put a renewed emphasis on the creation of digital resources for education. In particular, the research accompanying the communication found that 50%-80% of students in EU countries never use digital textbooks, exercise software, broadcasts/podcasts, simulations or learning games, that most teachers at primary and secondary level do not consider themselves as 'digitally confident' or able to teach digital skills effectively, and that 70% would like more training in using ICTs. Within Higher Education, the emergence of Massively Online Open Courses (MOOCs) and other blended methodologies is vastly increasing the demand for digital learning opportunities. The demand for such opportunities is increased further by continued promotion of lifelong learning, leading students to ask for customizable, flexible study experiences which can be taken along with other responsibilities such as work. In the meantime, despite increasing demand, Europe is suffering from an acute lack of teachers with the appropriate skills to design and develop digital educational resources, and/or run ICT-enabled educational courses. These skills include not only a level of technical competence and knowledge of educational technologies, but also the ability to coordinate multidisciplinary teams (able to focus on innovative pedagogy) in the realization of course-development activities. The HACK project

aims to tackle this problem at its source by:

- Improving the skills of teachers-in-training and recently-graduated teachers in developing and delivering content for e-learning courses;

- Networking groups of these teachers in different countries (primarily but not exclusively Italy, Spain, the UK, Belgium and Malta) so as to use Open Educational Resources (OER) and ICT-enhanced pedagogical approaches to share and combine work and improve cross-border collaboration;

- Match the skills of teachers with that of other professionals (media-production experts, quality-assurance professionals, web developers etc), to allow for trans-disciplinary course creation teams.

A consortium of organizations active in e-learning design, teacher-training, event-management and e-learning innovation will tackle the problem through a project designed to:

- Develop a methodology for a 5-day intensive course, modeled after business-plan competitions and/or software hackathons, whereby recently-graduated teaching professionals will learn the knowledge and skills necessary for e-learning course/MOOC creation.

- Organize 3 instances of these "Higher Education teachers' hackathons" around Europe, in which participants will have 5 days to learn specific skills and to create prototype courses, which could be further developed after the end of the project;

- Set up a European semantic and "connectivist" resource database and network, which would promote the reproduction of these events by new institutions and in new countries, either independently or with the help and expertise of the consortium members.

The organization of the project hackathons will draw upon methodologies for such events created by industry-leaders such as the Y-Combinator startup accelerators or the TEDx network for independently organized TED events. These methodologies have never been applied to educators' courses in Higher Education, hence the project will represent a very original contribution to the field of e-learning and learning innovation. By the end of the project, we will have equipped at least 90 teachers from 30 different institutions to design and deliver their own e-learning courses and MOOCs – with their competence being proven through the development of a prototype course during the project's course. The European e-learning community will benefit from the project since: - it will increase in size, thanks to additional teachers trained in the project; - the variety of materials and courses available for re-sharing and re-use will increase, thanks to the materials created by the newly trained teachers, that will be collected in a sustainable semantic and "connectivist" platform; - the vibrancy and international links of the community will improve thanks to the particular international networked format of the 'HACK' events – any institution in Europe will be able to replicate a 'HACK' event, multiplying all the above effects for each

7. Project Proposals

event organized. In addition, as a consequence of more e-learning offerings, individuals in affected

communities will benefit from increased flexibility of learning pathways, lower costs of tuition,

and improved opportunities for access to Higher Education.

7.4 *Previous proposals*

As far as proposals submitted in the previous reporting period are concerned, the Horizon 2020 (H2020) proposal Exponent^E, coordinated by the Nexa Center, was not sufficiently successful to be eligible for funding: in particular, it is the case of a research and innovation action, regarding the study of the sustainability of collective awareness platforms (CAPS) devoted to monitoring of network neutral-

ity.

MAPO, a feasibility study proposal on open data collaborative editing submitted to the Piedmont ICT Innovation Cluster, received funding, and was actually carried during the reporting period.

Other H2020 proposals, in which the Nexa Center participated as a partner, were submit-

ted and were not successful. It is the case of “Public Security, Social Media Mining and Challenges to the Rule of Law” (SecSMRL) dealing with the rule of law and fundamental rights, primarily privacy in the context of social media networks. The same goes for the NudgeWare proposal, led by CERTH, that was aiming at bridging behavioral sciences and data science for choice engineering in ICT applications.



8. OUTLOOK

In this section, we report the research recommendations and future directions proposed from the staff of the Nexa Center. We welcome anyone's feedback, and especially Trustees' feedback, on these proposals as they are key to shaping our future.

Looking ahead: reflections from the Staff on the future directions

Although we, the Staff of the Nexa Center, are conscious that research directions in funding programs are not negotiable, and that a principal component of the study objects is the specific interest of the staff members in a given period, we are working on a research roadmap to guide our activities in the mid-term period. Therefore, in February 2016, we started to conduct internal reflections for identifying future, strategic directions for the next years. In the first two months, internal meetings within staff members took place to share ideas and methodologies. In April a public presentation of the ideas generated in those meetings – and following personal studies – have been done in the presence of a group of Fellows, with the goal of gathering feedback.

The current result of the activity presented above is reported in this section of the Annual Report, in the form of short paragraphs describing the discussed directions. Hence, because they are in their initial stages, for the moment they shall not be considered as a strategic roadmap, but rather as a collection of individual scientific interests, roughly aligned with the mission of the Nexa Center.

We make them openly available here with minimum editorial intervention to keep them as close as possible to the proponents' original ideas. They are presented with the intent of eliciting feedback to guide our next steps, and we hope they can serve as source of inspiration for our readers.

From studying Internet & Society to studying Internet and Societies

Proponent: Antonio Vetrò

There are unexplored dimensions of society, marginalized from the mainstream one (e.g., geographically, economically), that the Nexa Center did not cross through its studies so far. We foresee to investigate the impact of Internet Technologies on those societies. In particular, we are interested in understanding how the social and cultural forces in such marginalized contexts shape technology to make it empowering, and, reversely, what are the risks (or opportunities) when technology break those socio-cultural values.

An example of a research question of interest is: Which ICTs and related skills can enable improvements in the lives of persons in marginalized societies, given their actual life needs and contexts?

And, complementary: Which ICT skills are not suitable to improve the lives of persons in marginalized societies, given their actual life needs and contexts? How should ICT be shaped to be more empowering and respectful of local specificity? (A related sub-research question might be: which accountability principles technology-driven data collection in humanitarian action should follow?)

In addition, we are interested in understanding how local culture and network society influence the understanding and movement of particular social values among technology and how local difference and networked commonalities can influence the development of ethical subjects.

On the methodological level, we believe that the most appropriate theoretical foundations should rest on the “Capabilities Approach” (CA) (Sen, 1999), which focuses on the development of human beings according to their values, differences, responsibilities and needs, in contrast to the mainstream approaches that are resource or utility-based (e.g., economic growth). By adopting the Capability Approach, goods and assets (as are the ICTs) have value only when they are instruments for the expansion of concrete opportunities (i.e., the capabilities) for people to improve their life according to their “functionings”, i.e., the achievements a person may value targeting (for example, being adequately nourished, or being able to be independent when moving). As a consequence, ICTs and ICT skills are valuable only if they contribute to increase the persons' capabilities set or their substantive freedom to conduct the life they value. As a matter of fact, the use of CA has been recently advocated as a foundational framework for the usage of ICTs in developing countries (Kleine, 2010), (Kleine, 2013), (Islam et al., 2015). Given the growing evidence of failures of ICT interventions in developing countries – the World Bank has reported

8. Outlook

a 70% failure rate in ICT for development projects to increase universal access to information infrastructure (IEG World Bank, 2011) – we believe it is time for an approach based on the peoples' human capabilities rather than measures of access or usage.

IEG World Bank (2011). Capturing Technology for Development. International Communication Union (ITU) (2015). Measuring the Information Society Report.

Islam, D., Ashraf, M., Rahman, A., & Hasan, R. (2015). Quantitative Analysis of Amartya Sen's Theory: An ICT4D Perspective. *International Journal of Information Communication Technologies and Human Development (IJICTHD)*, 7(3), 13-26. Jayachandran S. (2014). "The roots of Gender Inequality in Developing Countries", *Annual Review of Economics, Annual Reviews*, vol. 7(1), pages 63-88, 08. Kleine, D. (2010). ICT4WHAT?—Using the choice framework to operationalise the capability approach to development. *Journal of International Development*, 22(5), 674-692.

Kleine, D. (2013). *Technologies of choice?: ICTs, development, and the capabilities approach*, MIT Press.

Sen A. (1999). *Development As Freedom*, Oxford University Press, Oxford.

World Bank (2016). *World Development Report 2016 : Digital Dividends*.

On the future of Neubot Project

Proponent: Simone Basso

The future of the Neubot project (i.e., the project inside which we develop both Neubot proper and MeasurementKit) is now more uncertain than ever. Simone (the person who developed most of the code and who is writing this text) will leave Nexa in about one year because he reached the maximum number of years in which he could stay at Nexa.

Apart from Simone's specific feelings, there is general understanding among the Staff that it is not sustainable to develop software with the specific constraints posed by a University such as Politecnico di Torino, where developing software is not valued and where the academic culture dominates over the hacker culture necessary for understanding Neubot as an ongoing effort.

Simone is still committed to continue on his own some of the efforts he carried out here at Nexa in the last six years. He specifically aims to continue the development of MeasurementKit and Neubot on his own, and to seek funding for that. Nexa of course could take part into some of these efforts, for example by providing some funding, or by cooperating to development.

Yet, the concrete possibility of continuing to work on developing and maintaining software projects inside Nexa is subject to strict conditions related to the artisanship culture and the developers skills needed to carry out such network measurements projects. This leads to the question on whether scarce Nexa resources are correctly allocated if allocated on writing software.

Therefore, we welcome feedback from the Trustees as to whether the Nexa Center should continue to invest the significant human and economical effort required to develop software, or whether it should bend to academic "realpolitik" and shift the focus from developing software useful to inform policy and research to research and policy alone.

From company centric Internet to person centric Internet

Proponent: Marco Conoscenti

Nowadays the Internet is company-centric. Great part of the Internet traffic flows in a pretty small number of big companies, which store in their centralized servers an enormous amount of personal data of millions of people, i.e. data about individuals' behaviors and preferences. Social networks are owned by centralized companies, which decide the content to show first to users. Messaging applications rely on the intermediation of servers of centralized companies. And many other examples can be done.

On the contrary, the goal of our research is a more person-centered Internet, which truly empowers people. To do so, we will investigate peer-to-peer approaches, characterized by the absence of centralized servers. We will study a framework for secure and decentralized storage of data. We will focus on applications which allow people to gain full control of their data, deciding which information share and with whom, which data instead keep private. Privacy is one of the fundamental rights of Internet users and its observance becomes indispensable particularly in the rising scenario of the Internet of Things, where many more user devices will be connected to the Internet and even more sensitive data will be produced.

However, a privacy-oriented Internet is just one of the aspects of a person-centered Internet. We will analyze the possibility of developing, by a peer-to-peer system called the Blockchain, platforms which help people to collaborate in a large scale. Such these cooperative platforms are not owned and controlled by any single entity, but the community of people who use them. Finally, we will explore the potentialities of the Blockchain as a basis for platforms which allow people to be rewarded if they accomplish an action for the common good.

From Open Linked Data To Big Open Linked Data

Proponent: Giuseppe Futia

The concept of Linked Data takes the World Wide Web's elements of global identifiers and links and applies them to raw data, not just documents. Given the heterogeneous nature of the Web, this open approach, as underlined by Tim Berners Lee, leads to a multi-thematic, multi-perspective, and multi-medial global knowledge graph, in which Linked Data plays an important role for data integration and linking.

The expression of Big Data, instead, refers to datasets that are so large or complex that traditional data processing applications are inadequate. In particular, such inadequacy is connected to specific features of data, the so-called 5 Vs: *volume, velocity, value, veracity, and variety*.

As noticed by Pascal Hitzler and Krzysztof Janowicz ("Linked Data, Big Data, and the 4th Paradigm", *Semantic Web – Interoperability, Usability, Applicability* an IOS Press Journal) "the Big Data notion of variety seems the most intriguing one for the Semantic Web research community". Variety could be considered "a generalization of semantic heterogeneity" in which Linked Data and Semantic Web technologies represent drivers of integration and linking.

For this reasons, experiments on Linked Data and Big Data frameworks can represent a real field of application, not just from a knowledge organization perspective (see also the paper: Shiri, A. (2014). "Linked Data Meets Big Data: A Knowledge Organization Systems Perspective". *Advances In Classification Research Online*, 24(1). doi:10.7152/acro.v24i1.14672). There are now the conditions to design and develop an open architecture and a knowledge graph to demonstrate the real potential in the combination of Linked Data and Big Data approaches.

The potential relationships between paradigms and frameworks exploited in Linked Data and Big Data addresses two main research questions of interest:

RQ1: How can the technological foundations of Linked Data and Big Data can be further improved and combined to create an open software architecture for a multi-thematic, multi-perspective, and multi-medial global knowledge graph from heterogeneous sources?

RQ2: Which are the features of a research method to meet and evaluate security, scalability, performance, openness, interoperability of the software architecture mentioned earlier? And how we can measure the quality of the knowledge graph produced with this software architecture?

8. Outlook

From Open Access advocacy to reflections and experimentation on Open Science

Proponent: Antonio Vetrò

Different forces are shaping the way and the goal of Science in the new century (Wagner, 2009). The Internet and its related technologies, combined with the philosophical postulate of openness in Science (Peters, 2009), is one of them: Internet increases and extends the openness of Science in new ways, from enabling open access to scientific resources (Suber, 2010) to foster collaborations based on Web2.0 technologies (Shneiderman, 2008). As a consequence of such forces, Open Science and Science 2.0 movements has come into beings and their development has been reinforced by recent calls for the global governance of science from European Institutions (Oettinger & Moedas, C., 2015), which considered the transition towards Open Science a fundamental step to foster knowledge circulation and thus as a driver for faster and wider innovation.

In this scenario, the Nexa Center shall move from its historical activity of Open Access advocacy (through, for example, support to Open Access policies) to a wider landscape of actions and reflections, related to the concept of Open Science and Science 2.0.

We will reflect on the philosophical and ethical postulate of openness in Science, on the impact of the new technological paradigms (such as Big Data) in scientific studies, and consider ethical aspects in the relationship of scientists with the society and public institutions, in which the Internet and the connected data play a determinant role. Looking back to the gender studies of the 80s could be an important source of information and inspiration.

Such reflections will be complemented by experimentation on the Internet technologies in the Open Science context: for example using the Semantic technologies to increase the value of research data, fostering the usage of open educational resources with connective technologies, engaging citizens on society problems with the help of awareness platforms. While several benefits are expected from such experimentation (e.g., the stimulation of influences between disciplines and part of the scientific activities conducted in proximity with civil society), observation or reasoning on negative impacts will close the loop with the reflections, contributing to the understanding of the risks and limitations of the concepts of Open Science and Science 2.0.

Peters, M.A. (2009) On the Philosophy of Open Science, *International Journal of Science in Society*, 1(1), 1-27.

Peters, M.A. (2010). Openness, Web 2.0 Technology, and Open Science. *Policy Futures in Education*, 8(5), 567-574.

Shneiderman, B. (2008) Science 2.0, *Science*, 319, 1349-1350.

Suber, P. (2010). A very brief introduction to open access.

Wagner, C. S. (2009). *The new invisible college: Science for development*. Brookings Institution Press.

Oettinger, G. and Moedas, C. (2015) , "Opening up to an ERA of Innovation" conference, Brussels, 22 June 2015, <http://bit.ly/1O86kfi>

ANNEX I – NEXA PEOPLE

Some pieces of biographical information about the co-directors, staff, trustees and fellows of the Center follow.

1.1 Directors

Juan Carlos De Martin - Founder and Co-Director

See dedicated box at page 2 of the EXECUTIVE SUMMARY.

Marco Ricolfi - Founder and Co-Director

See dedicated box at page 2 of the EXECUTIVE SUMMARY.

1.2 Trustees

Phillip Aigrain



Dr. Philippe Aigrain was trained as a mathematician and theoretical computer scientist, and holds a Doctorate and a "Habilitation à Diriger les Recherches" qualification from University Paris 7. From 1972 to 1981, he worked in software engineering research labs of software companies. He was a research fellow at U.C. Berkeley in 1982. Since then, and before joining the European Commission in 1996, he headed research teams in the field of computer processing, indexing, retrieval and user interface for audiovisual media (video, music, still images). He is the author of more than 50 research and technology assessment papers. He is presently CEO of Sopinspace, Society for Public Information Spaces, a company founded by

him in 2004. Sopinspace develops free software and provides commercial services for the organization of public debates and collaborative work over the Internet. In parallel, he is active as an analyst of the stakes of the information revolution and engaged in actions for the reform of intellectual rights regimes. He has authored books on this subject among which: "Cause commune: l'information entre bien commun et propriété", Fayard 2005 (translated in Italian and Arabic), and "Sharing: Culture and the Economy in the Internet Age", Amsterdam Univ. Press, 2012 (translated in Polish). His books and numerous papers on the information commons, access to knowledge and intellectual rights are accessible under CC licenses on his blog. Philippe Aigrain also writes poetry and short fiction pieces that are published on the Internet.

Yochai Benkler



Yochai Benkler is the Berkman Professor of Entrepreneurial Legal Studies at Harvard, and faculty co-director of the Berkman Center for Internet and Society. Before joining the faculty at Harvard Law School, he was Joseph M. Field '55 Professor of Law at Yale. He writes about the Internet and the emergence of networked economy and society, as well as the organization of infrastructure, such as wireless communications. In the 1990s he played a role in characterizing the centrality of information commons to innovation, information production, and freedom in both its autonomy and democracy senses. In the 2000s, he worked more on the sources and economic and political significance of radically decentralized individual action

and collaboration in the production of information, knowledge and culture. His work traverses a wide range of disciplines and sectors, and is taught in a variety of professional schools and academic departments. In real world applications, his work has been widely discussed in both the business sector and civil society. His books include *The Wealth of Networks: How social production transforms markets and freedom* (2006), which received the Don K. Price award from the American Political Science Association for best book on science, technology, and politics, the American Sociological Association's CITASA Book Award an outstanding book related to the sociology of communications or information technology, the Donald McGannon award for best book on social and ethical relevance in communications policy research, was named best business book about the future by *Strategy & Business*, and otherwise enjoyed the gentle breath of *Fortuna*. In civil society, Benkler's work was recognized by the Electronic Frontier Foundation's Pioneer Award in 2007, and the Public Knowledge IP3 Award in 2006. His articles include *Overcoming Agoraphobia* (1997/98, initiating the debate over spectrum commons); *Commons as Neglected Factor of Information Production* (1998) and *Free as the Air to Common Use* (1998,

characterizing the role of the commons in information production and its relation to freedom); From Consumers to Users (2000, characterizing the need to preserve commons as a core policy goal, across all layers of the information environment); Coase's Penguin, or Linux and the Nature of the Firm (characterizing peer production as a basic phenomenon of the networked economy) and Sharing Nicely (2002, characterizing shareable goods and explaining sharing of material resources online). His work can be freely accessed at benkler.org.

Maurizio Borghi



Maurizio Borghi is Professor of Law at Bournemouth University, where he is the Director of the Centre for Intellectual Property Policy & Management (CIPPM). Prior to joining Bournemouth he has been lecturer at Brunel University Law School, research fellow at Bocconi University of Milan and visiting scholar at the Center for the Study of Law and Society at the University of California, Berkeley. His research is primarily focused on developing a right-based understanding of law for the information society. In this vein, he has extensively published on the subjects of copyright, data protection, and the role of law in the digital age. His monograph 'Copyright and Mass Digitization' (co-authored with Stavroula Karapapa) has been published in 2013 by Oxford University Press.

Mario Calderini



Mario has a PhD in Economics from the University of Manchester and he has a BSc and an MSc in mechanical engineering from Politecnico di Torino. He is Full Professor at Politecnico di Milano and he served as Senior Advisor to the Italian Minister for Research and Innovation Policies and coordinated the 'Smart Communities' Working Group for the steering committee of the Italian Digital Agenda. He teaches Management of Innovation and Technology Strategy at undergraduate, master and postgraduate level and in the Alta Scuola Politecnica. Mario sits in the scientific committee of the PhD program in "Economics and Management of Technology" at Politecnico di Torino and University of Bergamo and of the PhD program in "Economics of Institutions and Creativity" at University of Torino. His main research interest is in the Economics and Management of Innovation. His numerous publications in international journals cover research and innovation management issues, technology policies and empirical studies on the determinants of innovative activity. He has been involved in several research projects and his research has attracted funds and sponsorships to Politecnico di Torino from several Institutions such as the European Commission, the Italian Ministry for Research, the Italian Ministry of Industry, the Italian Authority for Communications and several research foundations, private consultancy companies, banks and industry associations. Mario Calderini is the delegate for Public Policies of the Fondazione COTEC per l'Innovazione Tecnologica, under the Honorary Presidency of Giorgio Napolitano, President of the Italian Republic. He is the co-director of Fondazione Rosselli's Laboratorio di Economia dell'Innovazione "Franco Momigliano" and has a permanent cooperation with Fondazione Giovanni Agnelli. He is currently a member of the Intellectual Property Rights Commission at Politecnico di Torino and a member of the Dean's board for Politecnico's Fourth Faculty of Management. Mario Calderini is also a member of the Scientific Committee of "Quaestio", the Lombardy Region System for Research and Technology Transfer Centres Evaluation, and sits in the permanent product liability working group established by the European Community in order to monitor the impact of Directive 85/374/CE on liability for defective products. In 2005 he joined the expert group of the United Nations Conference on Trade and Development (UNCTAD) with the task of peer reviewing the UN's World Investment Report 2005. In 2006 he was nominated by the Italian Delegation as an expert to the Administrative Council of the European Patent Office (EPO). In the recent past, he was a member of the National Physics of the Matter Institute International Evaluation Panel and the national representative in the European Commission's Board for Regional Technology Advisor Centre.

Luca De Biase



Luca De Biase is a journalist and writer. He is the founder and chief editor of Nòva, the science and technology crossplatform section at Il Sole 24 Ore. He is the president of Fondazione Ahref, which is meant to research and help improve the information ecosystem emerging in the social media. He is author of "Economia della felicità", "Il mago d'ebiz" and "In nome del popolo mondiale". He blogs at blog.debiase.com and lucadebiase.nova100.ilsole24ore.com. He edited with Giorgio Meletti "Bidone.com". He contributed to the project and implementation of

various initiatives, such as Skillpass, ScienceXpress, I nonni raccontano, EquiLiber, Reporters Online. He teaches Journalism and social media at Iulm in Milan. He teaches Social media and international policy at Sciences Po, Paris.

Josef Drexl



Professor Dr. Josef Drexl, LL.M., graduated from the University of Munich and holds a Ph.D. degree (1990) and a habilitation degree of the same University, in addition to an LL.M. degree from the University of California at Berkeley. Josef Drexl worked as a law professor at the Universities of Würzburg and Munich from 1997 to 2006; he continues to be a honorary professor at the University of Munich. Since 2002 he has been a director of the Max Planck Institute for Innovation and Competition in Munich. In 2003, Professor Drexl was elected the first chair of the Academic Society for Competition Law (ASCOLA). In 2010, he became a member of the Bavarian Academy of Sciences. As the Chair of the Managing Board of the

Munich Intellectual Property Law Center (MIPLC) he is responsible for an internationally renowned LL.M. program in IP. He acted as a visiting professor at Oxford University, LUISS University (Rome) and New York University. He regularly teaches in the LL.M. program in EU law at the University of Paris 2 Panthéon-Assas. Professor Drexl is an expert in international and European competition law, intellectual property law, consumer law and WTO law.

Luciano Floridi



Luciano Floridi is Professor of Philosophy and Ethics of Information at the University of Oxford, where he is the Director of Research and Senior Research Fellow of the Oxford Internet Institute, Governing Body Fellow of St Cross College, Distinguished Research Fellow of the Uehiro Centre for Practical Ethics, Faculty of Philosophy, and Research Associate and Fellow in Information Policy of the Department of Computer Science. Outside Oxford, he is Adjunct Professor of the Department of Economics, American University, Washington D.C. His most recent books are: *The Fourth Revolution – How the infosphere is reshaping human reality* (Oxford University Press, 2014), *The Ethics of Information* (Oxford University

Press, 2013), *The Philosophy of Information* (Oxford University Press, 2011), *The Cambridge Handbook of Information and Computer Ethics* (editor, Cambridge University Press, 2010), and *Information: A Very Short Introduction* (Oxford University Press, 2010). He is Editor in Chief of *Philosophy & Technology* and of the *Philosophical Studies* book series (Springer). He is currently Chairman of Ethics Advisory Board of the European Medical Information Framework (EMIF), member of Google's Advisory Board on "the right to be forgotten" and member of the Advisory Board of Tencent's Internet and Society Institute. In 2012-13, he was Chairman of EU Commission's "Onlife Initiative" project. Among his recognitions, he has been elected Fernand Braudel Senior Fellow by the European University Institute; awarded the Cátedras de Excelencia Prize by the University Carlos III of Madrid, was the UNESCO Chair in Information and Computer Ethics and Gauss Professor of the Academy of Sciences in Göttingen. He is a recipient of the APA's Barwise Prize, the IACAP's Covey Award, and the INSEIT's Weizenbaum Award. He is an AISB and BCS Fellow, and a Fellow of the Académie Internationale de Philosophie des Sciences.

Brett Frischmann



Brett Frischmann is Professor of Law at the Benjamin N. Cardozo School of Law, Yeshiva University, where he teaches intellectual property and Internet law. He is currently the Director of Cardozo's IP and Information Law Program, an Affiliated Scholar of the Center for Internet and Society at Stanford Law School, and an Affiliated Faculty Member of The Vincent and Elinor Ostrom Workshop in Political Theory and Policy Analysis, Indiana University. He received a BA in Astrophysics from Columbia University, an MS in Earth Resources Engineering from Columbia University, and a JD from the Georgetown University Law Center. After clerking for the Honorable Fred I. Parker of the U.S. Court of Appeals for the Second Circuit and

practicing at Wilmer, Cutler & Pickering in Washington, DC, he joined the Loyola University, Chicago law faculty in 2002.

Urs Gasser



Urs Gasser is the Executive Director of the Berkman Center for Internet & Society at Harvard University and a Professor of Practice at Harvard Law School. He is a visiting professor at the University of St. Gallen (Switzerland) and at KEIO University (Japan), and he teaches at Fudan University School of Management (China). Urs Gasser serves as a trustee on the board of the Nexa Center for Internet & Society at the Politecnico di Torino and on the board of the Research Center for Information Law at the University of St. Gallen, and is a member of the International Advisory Board of the Alexander von Humboldt Institute for Internet and Society in Berlin. He is a Fellow at the Gruter Institute for Law and Behavioral Research. Dr. Gasser has written and edited several books, and published over 100 articles in professional journals. He is the co-author of “Born Digital: Understanding the First Generation of Digital Natives” (Basic Books, 2008, with John Palfrey) that has been translated into 10 languages (including Chinese), and co-author of “Interop: The Promise and Perils of Highly Interconnected Systems” (Basic Books, 2012, with John Palfrey). Urs Gasser’s research and teaching activities focus on information law, policy, and society issues. Current projects – several of them in collaboration with leading research institutions in the U.S., Europe, and Asia – explore policy and educational challenges for young Internet users, the regulation of digital technology (currently with focus on cloud computing), ICT interoperability, information quality, the law’s impact on innovation and risk in the ICT space, cybersecurity, and alternative governance systems. He graduated from the University of St. Gallen (lic.iur., Dr.iur.) as well as Harvard Law School (LL.M. '03) and received several academic awards and prizes for his research, including Harvard’s Landon H. Gammon Fellowship for academic excellence and the “Walther Hug-Preis Schweiz”, a prize for the best doctoral theses in law nationwide, among others.

Jean-Claude Guédon



Prof. Jean-Claude Guédon began his career at Glendon College (York University) in Toronto, Ontario in 1970 and has been a professor at the Université de Montréal since 1973, first in the Institut d'histoire et de sociopolitique des sciences, and, since 1987, in the Département de littérature comparée. He is a long-time member of the Internet Society serving as co-chair of the program committee in 1996, 1998 and 2000, and member of the same committee in 1997, 1999 and 2002. In 1991, with Bill Reading and Walter Moser, he launched the first electronic scholarly journal in Canada: Surfaces. Between 1998 and 2003, he was Chair of the Advisory Board for CNSLP (Canadian National Site Licence Project, now known as CRKN (Canadian Research Knowledge network)). From 2002 until 2006, he was a member of OSI's Information Program sub-board. Between 2003 and 2007, he was a member of the Advisory Board of eIFL (Electronic Information for Libraries). In 2006 he was elected (until November 2008) Vice-President of the Canadian Society for the Humanities and Social Sciences. He has advised numerous governmental bodies, including the Ministère de la Recherche (France) for their e-publication project in the humanities and the social sciences; the Agence de la francophonie for matters pertaining to new technologies; the Quebec Minister of Communication in charge of the information highway; and the Quebec Ministry of education for the integration of the new technologies into the curriculum. He regularly acts as expert for the European Commission. He is also on the editorial board of several journals, and his three books are all available in Italian.

Lucie Guibault



Dr. Lucie Guibault is associate professor at the Institute for Information Law of the University of Amsterdam (UvA). She studied law at the Université de Montréal (Canada) and received in 2002 her doctorate from the University of Amsterdam, where she defended her thesis on Copyright Limitations and Contracts: An Analysis of the Contractual Overridability of Limitations on Copyright. She is specialized in international and comparative copyright and intellectual property law. Lucie Guibault has been carrying out research for the European Commission, Dutch ministries, UNESCO and the Council of Europe. Her main areas of interest include copyright and related rights in the information society, open content licensing, collective rights management, limitations and exceptions in copyright, and author’s contract law. She has been involved as legal partner in Creative Commons Netherlands since 2005 and in projects related to Europeana (EuropeanaConnect and Europeana Awareness) since 2009.

She is in charge of the coordination of the IViR International Copyright Law Summer Course. Dr. Guibault is member of the international editorial board of *Les Cahiers de propriété intellectuelle*, member of the editorial board of the *Journal of Intellectual Property and Information Technology (JIPITEC)*, and correspondent for the *Netherlands for Computer Law Review International (CRI)*.

Anna Masera



Anna Masera graduated in History at Yale in 1983. In 1984 she was awarded a master degree in journalism from the Columbia University. In 1986 she started to work as journalist for "Italia Oggi", an Italian daily newspaper. Then she worked for the press agency Reuters and later for Mondadori, writing for two monthly magazines: "Fortune Italia" and "Espansione". In the meantime she was also a consultant for the talk show "Milano, Italia" of the Italian public broadcaster. She started to work for Panorama "life and style" section in 1994 when Internet started to gain widespread diffusion. Since then she is following the development of new media: first she founded "Panorama Web", then she was hired by "La Stampa" in 1999 to launch their website. At "La Stampa" she was deputy editor and social media editor (2012-2013). She also blogged on "The Guardian" from 2007 to 2011. Since January 2014, Anna temporarily left her position at "La Stampa" and to serve as Head of Press and Communications Officer of the Italian Chamber of Deputies.

Angelo Raffaele Meo



1961-1969 Assistant Professor of Electrical Engineering at Politecnico di Torino.
1970- Full Professor of Computer Science at Politecnico di Torino.
1970-1999 head of "Centro per l'Elaborazione Numerale dei Segnali" CNR.
1979-1985 director of the "Progetto Finalizzato Informatica", CNR.
1991-1996 scientific director of "Centro di Supercalcolo Piemonte".

He has published more than one hundred papers dealing with computer science. In particular, he investigated switching theory, hardware design, signal processing, speech analysis and synthesis, and pattern recognition. He has coordinated many academic and industrial national research projects on computer science. He was president of the Academy of Sciences of Torino. In 2002 he was called by the Italian Minister of Technology to preside at a Commission entrusted with the task of promoting open source in the Italian Public Administration.

Charles Nesson



Charles Rothwell Nesson is the William F. Weld Professor of Law at Harvard Law School and the founder of the Berkman Center for Internet & Society and of the Global Poker Strategic Thinking Society. He is author of *Evidence*, with Murray and Green, and has participated in several cases before the U.S. Supreme Court, including *Daubert v. Merrell Dow Pharmaceuticals*. In 1971, Nesson defended Daniel Ellsberg in the Pentagon Papers case. He was co-counsel for the plaintiffs in the case against W.R. Grace that was made into the film *A Civil Action*. Nesson attended Harvard College as an undergraduate, and then Harvard Law School where he joined the list of only a handful of people in history to have graduated summa cum

laude. Nesson was a law clerk to Justice John Marshall Harlan II on the United States Supreme Court, 1965 term. He then worked as a special assistant in the Department of Justice Civil Rights Division. His first case, *White v. Crook*, made race and gender-based jury selection in Alabama unconstitutional. Nesson joined the Harvard Law School faculty in 1966, and was tenured in 1969. He is "currently leading a project to reify university as a meta player in cyberspace, to legitimize and teach poker and the value of strategic poker thinking, and to advance restorative justice in Jamaica". In 2006 he taught *CyberOne: Law in the Court of Public Opinion* with Rebecca Nesson and Gene Koo. He teaches courses in the law and practice of Evidence (how to prove the "truth"), *Trials in Second Life*, and a reading group with Fern Nesson on *Freedom*.

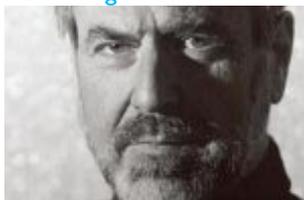
Maria Chiara Pievatolo



Maria Chiara Pievatolo is associate professor of political philosophy in the Department of Political Sciences at the University of Pisa. She has been theorizing and practicing the open access publishing in the field of humanities since the 90s of the last century, first as political philosophy editor of the *Sito Web Italiano per la Filosofia (SWIF)* founded by Luciano Floridi, and then as curator and founder of

the "Bollettino telematico di filosofia politica", of the "Giuliano Marini" Archive, and of the book series Methexis. She is also a member of the open access Crui committee and one of the founding members of the Aisa (Associazione italiana per la promozione della scienza aperta). Since the end of 2014 she has been one of the associate editors of the Directory of the Open Access Journals (Lund University). A detailed list of her works, many of which hypertextual, experimental, openly accessible, can be found at <http://www.sp.unipi.it/index.php/it/docenti-top/122-pievatolo-maria-chiara/118-pievatolo-maria-chiara-ricerca>.

Michelangelo Pistoletto



Michelangelo Pistoletto was born in Biella in 1933. He began to exhibit his work in 1955 and in 1960 he had his first solo show at Galleria Galatea in Turin. An inquiry into self-portraiture characterizes his early work. In the two-year period 1961-1962 made the first Mirror Paintings, which directly include the viewer and real time in the work, and open up perspective, reversing the Renaissance perspective that had been closed by the twentieth-century avant-gardes. These works quickly brought Pistoletto international acclaim, leading, in the sixties, to one-man shows in important galleries and museums in Europe and the United States. The Mirror Paintings are the foundation of his subsequent artistic output and theoretical thought. In 1965 and 1966 he produced a set of works entitled Minus Objects, considered fundamental to the birth of Arte Povera, an art movement of which Pistoletto was an animating force and a protagonist. In 1967 he began to work outside traditional exhibition spaces, with the first instances of that "creative collaboration" he developed over the following decades by bringing together artists from different disciplines and diverse sectors of society. In 1975-76 he presented a cycle of twelve consecutive exhibitions, *Le Stanze*, at Galleria Stein in Turin. This was the first of a series of complex, year-long works called "time continents". Others are *White Year* (1989) and *Happy Turtle* (1992). In 1978, in a show at Galleria Persano in Turin, Pistoletto defined two main directions his future artwork would take: *Division and Multiplication of the Mirror* and *Art Takes On Religion*. In the early eighties he made a series of sculptures in rigid polyurethane, translated into marble for his solo show in 1984 at Forte di Belvedere in Florence. From 1985 to 1989 he created the series of "dark" volumes called *Art of Squalor*. During the nineties, with *Project Art* and with the creation in Biella of *Cittadellarte - Fondazione Pistoletto* and the *University of Ideas*, he brought art into active relation with diverse spheres of society with the aim of inspiring and producing responsible social change. In 2003 he won the Venice Biennale's Golden Lion for *Life-long Achievement*. In 2004 the University of Turin awarded him a laurea honoris causa in Political Science. On that occasion the artist announced what has become the most recent phase of his work, *Third Paradise*. In 2007, in Jerusalem, he received the Wolf Foundation Prize in the Arts, "for his constantly inventive career as an artist, educator and activist whose restless intelligence has created prescient forms of art that contribute to fresh understanding of the world."

David Post



David Post is currently the I. Herman Stern Professor of Law at the Beasley School of Law at Temple University, where he teaches intellectual property law and the law of cyberspace. He is also a Fellow at the Center for Democracy and Technology, a Fellow of the Institute for Information Law and Policy at New York Law School, an Adjunct Scholar at the Cato Institute, and a contributor to the influential Volokh Conspiracy blog. Professor Post is the author of *In Search of Jefferson's Moose: Notes on the State of Cyberspace* (Oxford, 2009), a Jeffersonian view of Internet law and policy. He is also coauthor of *Cyberlaw: Problems of Policy and Jurisprudence in the Information Age* (West, 2007), and numerous scholarly articles on intellectual property, the law of cyberspace, and complexity theory. He has been a regular columnist for the *American Lawyer* and *InformationWeek*, a commentator on the *Lehrer News Hour*, *Court TV's Supreme Court Preview*, *NPR's All Things Considered*, *BBC's World*, and recently was featured in the PBS documentary *The Supreme Court*. After receiving a Ph.D. in physical anthropology, he taught in the Anthropology Department at Columbia University before attending Georgetown Law Center, from which he graduated summa cum laude in 1986. After clerking with then Judge Ruth Bader Ginsburg on the DC Circuit Court of Appeals, he spent 6 years at the Washington D.C. law firm of Wilmer, Cutler & Pickering, after which he then clerked again for Justice Ginsburg during her first term at the Supreme Court (1993 - 1994), before joining the faculty of the Georgetown University Law Center (1994 - 1997) and then Temple University Law School (1997 - present). Professor Post's writings can be accessed online at www.davidpost.com.

Stefano Quintarelli



Stefano Quintarelli is a serial entrepreneur (and prolific blogger), who pioneered the commercial development of the Internet in Italy. In 2013 he was elected to the Chamber of Deputies of the Italian Parliament as an independent candidate in the list "Scelta Civica". He graduated in IT science at the University of Milan. In 1989 he founded MI.NE.R.S. (Milano Network Researchers and Students), the student telecom association that developed the first e-mail independent system in Italy. In 1994, he was one of the founder of I.NET, the first commercial ISP in Italy for professionals, that hosted the Milan Internet Exchange (MIX), the first and most important exchange point of ISP traffic in Italy, he also contributed to the birth of

AIIP the Italian association of Internet Providers. He was one of the founding members of: CLUSIT, Italian association for IT security; AIPSI, Italian association of professionals of IT security (Italian division of ISSA.org); Equiliber, Association for balanced information on technology innovation; VoIPex, consortium for interoperability, quality and transparency of IP services. He has been a supporter of civic IT backing the first civic networks in Italy (e.g. RCM the civic network of Milan and ONDE - Online Desenzano). He promoted the birth of DMIN.IT, the forum on digital media development in Italy, coordinated by Leonardo Chiariglione (the president of MPEG). He is a supporter of network neutrality and knowledge sharing and he sustained since the beginning the activities of "Condividi la Conoscenza", the conferences organized by sen. Fiorello Cortiana and in 2005 he introduced in Italy the network neutrality topic in a congress with Lawrence Lessig and in other occasions. He is author of many books and papers on Internet published on the most important Italian newspapers and he is scientific coordinator of updating workshops on technological topics for the Italian finance community. He chaired the Italian ISP association (AIIP) till January 2007, he is a member of the Programming committee of Federcomin (innovation services of the Italian federation of industry). He has been awarded by "Corriere della Sera-Economia" as one of the 30 most innovative Italian entrepreneurs.

Stefano Rodotà



Prof. Stefano Rodotà: Professor of Civil Law, University of Rome; former Chairman of the Italian Data Protection Authority; former Chairman of the European Group of the Data Protection Authorities Chairman of the Commission on Genetic Testing and Counselling; Member of the European Group on Ethics in science and technologies, Member of the Convention drafting the Charter of Fundamental Rights of the European Union (2000); Former Member of the HUGO Ethics Committee (1997-2000); Member of the Ethics Committee of the National Research Council; Work in the field of the legal and social effects of scientific innovation (1972-2000); Important work in the field of bioethics (1989-2000); Author of several

books and editor of a number of periodicals; Member of the Italian Parliament (1979-1994); Vice-President of the Chamber of Deputies (1992); Member of the Parliamentary Assembly of the Council of Europe (1983-1994); Member of the European Commission's Group of Advisers on the Ethical Implications of Biotechnology (1994-1997); Member of the European Group on Ethics (since 1998); Chairman of the European Group of Authorities for the Protection of Privacy (1999-2000).

Bruce Sterling



Bruce Sterling, author, journalist, editor, and critic, was born in 1954. Best known for his ten science fiction novels, he also writes short stories, book reviews, design criticism, opinion columns, and introductions for books ranging from Ernst Juenger to Jules Verne. His nonfiction works include "The Hacker Crackdown: Law and Disorder on the Electronic Frontier", "Tomorrow now: envisioning the next fifty years" (2003) and "Shaping things" (2005). He is a contributing editor of WIRED magazine and writes a weblog. During 2005, he was the "Visionary in Residence" at Art Center College of Design in Pasadena. In 2008 he was the Guest Curator for the Share Festival of Digital Art and Culture in Torino, Italy, and the Visionary in

Residence at the Sandberg Instituut in Amsterdam. In 2011 he returned to Art Center as "Visionary in Residence" to run a special project on Augmented Reality. He has appeared in ABC's Nightline, BBC's The Late Show, CBC's Morningside, on MTV and TechTV, and in Time, Newsweek, The Wall Street Journal, the New York Times, Fortune, Nature, I.D., Metropolis, Technology Review, Der Spiegel, La Stampa, La Repubblica, and many other venues.

Sacha Wunsch-Vincent



Dr. Sacha Wunsch-Vincent is Senior Economic Officer under the Chief Economist at the World Intellectual Property Organization (WIPO). He is one of the main authors of the World Intellectual Property Report, and the Global Innovation Index, and has contributed to establishing the economic work of the Organization over the last four years. His primary research foci and current area of work are concerned with the interaction of innovation, intellectual property and economic development. Before joining WIPO, he was an economist at the OECD Directorate for Science, Technology, and Industry for seven. Before that he was a Swiss National Science Fellow at the Berkeley Center for Law and Technology (University of California, Berkeley) and the Washington-based institute for International Economics. He served as advisor to organizations such as the World Bank and the World Economic Forum, and he has testified to national governments and parliaments, in particular on copyright. Sacha holds a Master's degree in international economics from the Maastricht Economic Research Institute on Innovation and Technology, University of Maastricht, and a PhD in economics from the University of St. Gallen, Switzerland. He teaches international economics at Sciences Po Paris and the World Trade Institute.

1.3 Staff and roles

Alessio Melandri – Staff Research Fellow (until December 2015)

See dedicated box in the: 1.5 Fellows .

Antonio Vetrò – Director of Research

See dedicated box in the EXECUTIVE SUMMARY.

Davide Allavena – IT Manager and Staff Research Fellow

See dedicated box at page in the EXECUTIVE SUMMARY.

Federico Morando – Director of Research and Policy (until December 2015)

See dedicated box in the EXECUTIVE SUMMARY.

Giuseppe Futia – Communication Manager and Staff Research Fellow

See dedicated box in the EXECUTIVE SUMMARY.

Lorenzo Canova – Managing Director (from December 2015) and Staff Research Fellow

See dedicated box in the EXECUTIVE SUMMARY.

Marco Conoscenti – PhD Student

See dedicated box in the EXECUTIVE SUMMARY.

Miryam Bianco – Staff Research Fellow (until April 2016)

See dedicated box in the EXECUTIVE SUMMARY.

Raimondo Iemma – Managing Director and Staff Research Fellow (until November 2015)

See dedicated box in the EXECUTIVE SUMMARY

Selina Fenoglietto – Administrative Manager

See dedicated box in the EXECUTIVE SUMMARY.

Simone Basso – Staff Senior Research Fellow

See dedicated box in the EXECUTIVE SUMMARY.

1.4 Interns

Antonio Langiu – Intern

Antonio Langiu is a student of computer engineering at the Politecnico di Torino. He got in touch with the Nexa Center attending the Rivoluzione Digitale course. In November 2014 he started an internship at the Nexa Center to study the permission models used by applications available via app stores. He contributed to study how the advertising network libraries, included in mobile applications, use (or abuse) permissions to collect user's data, and he is now contributing to the development of MeasurementKit.

Carmine D'Amico – Intern (since December 2015)

Carmine D'Amico is a computer engineering student at the Politecnico di Torino. He got in touch with the Nexa Center in 2014, when he attended the Rivoluzione Digitale course. He started an internship at the Nexa Center in December 2015. He is currently working on the development of the Neubot's MPEG DASH test on Measurement Kit.

1.5 Fellows

Massimo Durante – Faculty Fellow 2014-2016



Massimo Durante is Researcher in Philosophy of Law at the Department of Law of the University of Turin. He holds a Ph.D. in Philosophy of Law, Department of Law, University of Turin, and a Ph.D. in History of Philosophy, Faculty of Philosophy, University of Paris IV Sorbonne. He teaches courses in Legal Informatics and Philosophy of Law at the Department of Law, University of Turin. He is member of the Board of the International Erasmus Mundus Phd Program “Law, Science, and Technology”. His main fields of research concern the relation between Law and Ethics, Legal Informatics, Computer and Information Ethics. Author of several books, he has widely published articles, essays and book chapters in Italian, English and French. He is also member of editorial boards and peer-reviewer for several international reviews. He has been involved in many research projects in the fields of Philosophy of Law, Legal Informatics, and ICTs policies. He is also currently interested in Governance Theory and Digital Democracy.

Alessandro Mantelero – Faculty Fellow 2011-2016 & Director of Privacy



Alessandro Mantelero is Full-Tenured Aggregate Professor of Private Law and of Innovation & International Transactions law at the Politecnico di Torino. He is Director of Privacy at the NEXA-Center for Internet & Society at Politecnico di Torino, part-time expert at the Nanjing University of Information Science & Technology, and Programme coordinator of the Double Degree program in Management and IP Law (Polytechnic University of Turin – Tongji University of Shanghai). In 2016, he has been appointed Expert Consultant by the Council of Europe to draft the new Guidelines on the application of data protection principles to Big data. His research interests are in the field of law and technology, with a focus on personal data. During the last three years, he investigated the legal issues concerning the use of big data analytics, adopting an interdisciplinary approach in the investigation of the individual and collective implications of the data-driven decision-making processes. He has held visiting appointments at Harvard (Berkman Center for Internet & Society, 2012), Oxford (Oxford Internet Institute, Visiting Fellow 2013 and 2014), Nanjing University of Information Science & Technology (School of Public Administration, Visiting Professor 2013) and Universitat Oberta de Catalunya (Internet Interdisciplinary Institute, Visiting Professor 2015; Faculty of Law, Visiting Professor 2016). Alessandro is involved in different national and international research programs: (2012-2015) “European Network of Excellence in Internet Science” project, funded by the European Commission (task leader of the deliverable D5.1.2 on “Internet Privacy, Identity, Trust and Reputation Mechanisms”), (2013-16) Smart mobility, project member (Politecnico di Torino, 5T s.r.l.), (2015) SmartDataNet platform, project member (CSI Piemonte, Piedmont Region). He has been involved in different private initiatives and research groups. He was member of the Digital Advisory Group at the American Chamber of Commerce in Italy (2011 – 2012) and member of the “Task Force: Control of identity” at Identity Talk in The Tower project (Giesecke & Devrient).
webpage: <http://staff.polito.it/alessandro.mantelero/>

Ugo Pagallo – Faculty Fellow 2011-2016



Ugo Pagallo is Professor of Jurisprudence at the Department of Law, University of Turin, since 2000, faculty at the Center for Transnational Legal Studies (CTLS) in London and faculty fellow at the Nexa Center for Internet and Society at the Politecnico di Torino. Member of the European RPAS Steering Group (2011-2012), and the Group of Experts for the Onlife Initiative set up by the European Commission (2012-2013), he is chief editor of the Digitalica series published by Giappichelli in Turin and co-editor of the AICOL series by Springer. Author of nine monographs and numerous essays in scholarly journals, his main interests are AI & law, network and legal theory, robotics, and information technology law (specially data protection law, copyright, and online security). He currently is member of the Ethical Committee of the CAPER project, supported by the European Commission through the Seventh Framework program for Research and Technological Development.

Marco Torchiano – Faculty Fellow 2015-2016



Marco Torchiano is Associate Professor at the Politecnico di Torino, where he is also a member of the Software Engineering Research Group. He was a post-doctoral researcher at the Norwegian University of Science and Technology (NTNU). He holds the MSc and the PhD in Computer Engineering at the Politecnico di Torino. He is author or co-author of more than 100 articles published in journals and international conferences. He collaborates with the Nexa Center in particular on models of quality assessment of open data.

Daniele Trincherò – Faculty Fellow 2013-2016



Daniele Trincherò is professor at Politecnico di Torino (Dept. of Electronics and Telecommunications), where he manages the iXem Labs (which he co-founded with Riccardo Stefanelli in 2004). His research interests encompass Wireless Networks, Sensor Networks, Internet of Things, and solutions to reduce digital divide in developing countries, and in marginal areas of developed ones. He is member of the Institute of Electrical and Electronics Engineers (IEEE).

Mauro Alovisio – Fellow 2012-2016



Mauro Alovisio graduated in Law at the University of Turin, Italy. He has specialized in Data Protection and New Technologies Law. Currently he is working at the Legal Office of the University of Turin. During his professional activity he dealt with the privacy and the reorganization of the public administration through the use of the new technologies. Mauro is author of scientific articles published in Italian journals and co-author on law books. He is the President of "Centro Studi di Informatica Giuridica" and he is a member of the "Commissione Informatica del Consiglio dell'Ordine degli Avvocati di Torino". As part of his Nexa fellowship, Mauro will focus on research topics related to personal data in the EVPSI project and

within the implementation of pilots in the Open-DAI project, also touching other issues related to public administrations in digital environment.

Giovanni Arata – Fellow 2013-2016



Giovanni Arata holds a degree in Communication Sciences (Università degli Studi di Siena, 2001) and a PhD in "Information Systems and Organization" (Università degli Studi di Trento, 2006). During his doctoral studies, he has been visiting fellow at the University of California - San Diego and at the University of Oslo, and hosted at the U.S. Department of State within the 'International Visitor Leadership Program'. Since 2008, he works as researcher and freelance journalist, focusing in particular on the social and organizational impacts of the Internet. He writes for Italian newspapers and blogs such as Il Sole 24 Ore (Nòva), Punto Informatico, e-Gov, and works as analyst at Formez-PA and Regione Emilia - Romagna. Since 2010,

he has been developing #socialPA, a project aimed at surveying and analysing the social media presence of Italian public administrations. #socialPA is carried out in cooperation with the Nexa Center.

Claudio Artusio – Fellow 2015-2016



Claudio Artusio graduated in Law at the University of Turin in 2009. He collaborates with the Nexa Center since the spring of 2010 focusing on Public Sector Information (PSI) and open licenses. As Staff Research Fellow, from 2013 to 2015, he performed support and research in the field of open contents and open licenses: he provided front office assistance for Creative Commons Italia and was the operation manager of SeLiLi – the Free Licenses Service clinic. In addition, he followed the advancement of the LAPS2.0 and PASTEUR4OA projects and managed the development of the research performed by the Nexa Center on the Legal Aspects of Service Robotics and on the exploitation of Open Data within the Italian Parliament. Previously, he managed the contents of the EVPSI Research Project and the LAPS2 Thematic Network

websites, both dedicated to PSI, and studied the potential connections between Trademarks (and related IP rights) and PSI within the EVPSI Project.

Eleonora Bassi – Fellow 2012-2016



Eleonora Bassi is a researcher with a legal and philosophical background. She graduated in Law and holds a PhD in Philosophy of Law and Legal Theory (University of Torino, Law School). She worked at the University of Torino (Law School, 2008-2012) and at the University of Trento (Computer Science Department, 2012-2015). Her research fields are legal theory and political philosophy, privacy law, open data policies, smart city and digital innovation for public administrations.

Lorenzo Benussi – Founding Fellow



Lorenzo Benussi, Laura Magistrale in Communication Sciences and PhD in Economics of Innovation, is advisor for digital policy at the TOP-IX Consortium where he develops projects and policies to support digital innovation. He was counsellor of the Italian Minister of Education and Research and member of task forces to promote online engagement and e-participation at the Ministry of Reforms and the Ministry of Foreign Affairs. Lorenzo is also member of the scientific board of Opencoesione, open data project of the Ministry of Treasury, and member of the board for innovation of the IREN Group. Lorenzo is fellow of the Nexa Center for Internet & Society at the Polytechnic of Turin where he conducts researches on

the economics of innovation, strategic management and economics of knowledge. Lorenzo main interest both as professional and researcher is the evolution of innovation models due to the pervasive diffusion of digital networks.

Enrico Bertacchini – Founding Fellow



Dr. Enrico Bertacchini is assistant professor at the Department of Economics and Statistics “S. Cogneetti De Martiis”, University of Turin, where he teaches Cultural Economics and Governance of Economic Processes. He graduated in Economics at the University of Turin and holds a Master in Economics from CORIPE–Collegio Carlo Alberto and a Ph.D. in Institutions, Economics and Law from the Universities of Turin and Gent. His main interests within the “Internet & Society” field concern Internet as an infrastructure for the production of and access to information goods and the economic analysis of the information society. He has multidisciplinary competences concerning the economics of culture and the economic analysis of intellectual property, with a particular focus on commons-based models for the production of and access to information goods. His works has been published, among others, in the Journal of Cultural Economics, International Journal of Cultural Policy, International Journal of Arts Management, Review of Law and Economics, Ecological Economics and Regional Studies.

of intellectual property, with a particular focus on commons-based models for the production of and access to information goods. His works has been published, among others, in the Journal of Cultural Economics, International Journal of Cultural Policy, International Journal of Arts Management, Review of Law and Economics, Ecological Economics and Regional Studies.

Carlo Blengino – Fellow 2011-2016



Carlo Blengino lives in Turin and is a lawyer and a partner of the legal firm “Studio Legale Catalano Penalisti Associati”. He deals exclusively with criminal law cases, with special reference to culpable crimes, professional liabilities, economics criminal laws, intellectual property rights, crimes involved with IT and new technologies, defense of privacy and personal data. Since the early nineties, he has debated in law courts the main issues of copyright, from CDs rental to campaigns for file sharing (among his many defenses, the one in the well-known sentence on downloading -Cass.149/07- and the defense of many users in the Peppermint case). He thus gained a concrete experience of sanctions in the area of copyright law. He is a

member of the IT Commission within the Bar Council of Turin. He contributes to several on-line magazines, to the magazine “Diritto dell’Informazione e dell’Informatica” of the Calamandrei Foundation and his works are published by Giappichelli Editore, UTET Giuridica and EGEA.

Nicola Bottero – Founding Fellow



Nicola Bottero is a practicing lawyer with a degree in Law from the University of Turin with a thesis on comparative law. He also graduated in the Intellectual property Specialization Course jointly organized by the University of Turin and the WIPO Academy. On top of practicing private law, industrial law and commercial law, works with the Chairs of Commercial and Industrial Law at the Law Faculty of the Universities of Turin. He also teaches industrial law within some master degrees. He has been a member of the working group of Creative Commons Italy since its beginnings in 2003.

Fabio Chiusi – Fellow 2014-2016



Fabio Chiusi is a freelance journalist (Wired, L'Espresso, Repubblica) and blogger (ilNichilista, Chiusi nella rete) who regularly writes about Internet censorship, surveillance and the complex relationship between digital technologies, politics and society. He holds a MSc in Philosophy of Science from the London School of Economics. He is the author of 'Critica della democrazia digitale. La politica 2.0 alla prova dei fatti' (Codice Edizioni).

Marco Ciurcina – Founding Fellow



Marco Ciurcina. Rome, Italy, 05.02.65. Italian lawyer, working in the field of commercial and contractual law, Information Technology law, Copyright, Patent and Trademark law. He teaches "Law and ethics of communication" at the Politecnico di Torino, Faculty of Information Science. Free software and digital freedoms activist.

Alessandro Cogo – Founding Fellow



Alessandro Cogo is associate professor at the Turin Law School, where he teaches business and IP law. He holds a PhD in Intellectual Property Law jointly granted by the Universities of Pavia and Munich. Author of a book on Copyright contracts and of essays, commentaries and case comments on copyright and trademark law, he has been working lately on projects related to secondary liability in IP matters and big data.

Deborah De Angelis – Founding Fellow



Deborah De Angelis has a degree in Law from Luiss University in Rome; in January 2000 she became a lawyer specialized in digital music law. In 2001 she founded the legal office DDA. She also authored various publications in matters relating to authors' digital rights. In May 2004 became a member of the Creative Commons Italy working group. Since January 2008 she is the President of A-DJ, an international associations who cares legally protecting and promoting professional Djs. She has a deep knowledge of all legal issues related to the working of collecting societies (with particular reference to the Italian Society of Authors and Editors, SIAE): this expertise is especially valuable within the Creative Commons and related projects.

In 2008-2009, she coordinated the Creative Commons Italy / SIAE Working Group.

Giulio De Petra – Fellow 2011-2016



Giulio De Petra received his degree in Economics from University of Siena, Italy. He worked in the service organization in BNL (Banca Nazionale del Lavoro), one of the top Italian banks, as expert in software design methodologies and in database administration. Later, he moved to the consulting division of IPACRI (Istituto per l'Automazione della Casse di Risparmio Italiane), where he was in charge of the research activities and projects. It has been senior consultant for the RSO Institute and it was for several years ICT advisor for the major of the city of Rome. Later, he became executive manager in AIPA (Autorità per l'Informatica nella Pubblica Amministrazione) - public local administration division. After he became di-

rector general for eGovernment at the Prime Minister's department of Public Administration where he promoted the first national plan for eGovernment. Afterwards he became general manager in CNIPA (Centro Nazionale per l'Innovazione della Pubblica Amministrazione) leading as a director the public local administration department. Giulio De Petra then became general executive manager for Innovation before for the Autonomous Region of Sardinia and later for the Calabria Region. It has been member of the Prime Minister's Committee for the Statistical Information Assurance and he was vice president of ASSINTER (National association of the regional public administration companies working in the ICT field). Since 2010 he has been working at Informatica Trentina, as executive manager. Giulio De Petra founded and supported many national associations working on political and social issues of technological innovation, including "ICT for Democracy", "Network", "The NetCentury – for a Free Knowledge Society".

Arturo Filastò – Fellow 2015-2016



Arturo Filastò (@hellais) is Vice President of Hermes - Center for Transparency and Digital Human Rights and he is a free software developer at GlobaLeaks and The Tor Project. He studied Mathematics and is currently student of Computer Science at Università di Roma "La Sapienza". He collaborates with the Nexa Center in software development for network measurements, in particular those aimed at identifying cases of censorship.

Giovanni B. Gallus – Fellow 2013-2016



Giovanni Battista Gallus is a lawyer, admitted before the Supreme Court, ISO 27001:2005 Certified Lead Auditor, founding member of the law firm "GM-LEX Studio Legale", and member of Array.eu, a network of IT Lawyers. He holds an LL.M. granted by the University of London - UCL, and a PhD by the University of Molise. He practices mainly in the field of Criminal Law, ICT Law, Copyright and Data Protection Law. He is teaching assistant in Information Technology Law and Advanced Information Technology Law at the School of Law of the University of Milan. President of the Italian Association of Cyberlawyers ("Circolo dei Giuristi Telematici"), and fellow of the Hermes Center for Transparency and Digital Human

Rights, and a passionate user and supporter of Free Software. Author and co-author of several books and articles, among which "Contenuti aperti, beni comuni" (McGraw-Hill, 2009) and "The new Information Technology Crimes" (Giappichelli, 2009).

Stefano Leucci – Fellow 2013-2016



Stefano Leucci works in the field of data protection. He combines a legal background with IT skills for assessing and solving data protection issues, bridging the gap between legal teams and ICT departments. He has a wide range of experience in strategic advising for improving organizational efficiency and reducing risks of data breaches through gap analysis and digital forensics techniques. His main research interests are privacy-by-design methodologies and privacy enhancing technologies. @stefanoleucci

Alessio Melandri – Fellow 2015-2016



Alessio Melandri is a coder, and student of computer engineering at the Politecnico di Torino. He got in contact with the Nexa Center for Internet and Society after the course Rivoluzione Digitale held by Professor Juan Carlos De Martin. He collaborated with Nexa as intern during 2014-2015 developing software. In particular with Simone Basso he created a node.js registry tool, with Giuseppe Futia contributed to TellMeFirst and also worked on Linked Data projects. When necessary, he has also helped to initialize and maintain some semantic mediawikis. Wikipedia's user from 2012, he held a basic lesson about how to edit the online encyclopedia during the said course.

Elena Pavan – Fellow 2013-2016



Elena is Assistant Professor at the Institute of Humanities and Social Sciences of the Scuola Normale Superiore. She holds a degree in Communication Sciences (University of Padova, Italy, 2004) and a PhD in Sociology (University of Trento, 2009). She developed her expertise in the study and the use of social network analysis in various field of research (from supra national governance political processes to human-computer interaction) and in conjunction with other analytical techniques, such as lexicon-content analysis. Her most recent research interests pertain to the relationships between collective action/political participation and social media use. Within this area, she is working interdisciplinary to combine technical and social knowledges into the study of socio-technical systems and is employing network analysis techniques and tools. She recently published in international journals and in relevant Italian journals. Her PhD dissertation on Internet governance and multistakeholderism has been released in January 2012 as a book for Lexington Publications. Elena was involved, on a pro bono basis, in the EINS Network for the Nexa Center, in particular within the research group focusing on "Virtual Communities". Currently, she is contributing to Nexa on the nexus between digital media and society, in particular from a gender perspective.

Monica A. Senor – Fellow 2012-2016



Monica A. Senor is partner of Studio Legale Catalano Penalisti Associati law firm since 2001. She is a criminal lawyer, specialising in legal issues concerning data protection and criminal law related to new technologies; from a criminal procedure point of view, she specializes in digital and biometric forensics. She's a member of the IT Commission of the Turin Bar Association and because of this role she works with the Court of Turin on the implementation of the digitalization of the criminal proceeding. She's the scientific coordinator and also teacher of a private training course for lawyers' state licensing exam. She contributes to online magazines, such as Medialaws and Penale.it and her papers have also been published by Giappichelli, EGEA, Springer and UTET Giuridica. She holds lectures and presentations on IT law matters.

Massimo Travostino – Founding Fellow



Massimo Travostino graduated in law from University of Turin (1993) and has a post-graduate degree in international and comparative law (1996). He is a practicing lawyer at Studio Legale Pecoraro-Travostino and assists public entities and private companies in commercial and contract law, with a focus on intellectual property/information technology and telecommunication sectors. He carries out regular teaching activity and is author of articles and essays.

Giuseppe Vaciago – Fellow 2012-2016



Giuseppe Vaciago has been a lawyer of the Milan Bar since 2002 and he is actually a partner of R&P Legal Firm. For the last 10 years his primary focus has been IT Law with a focus on cyber crime. He has assisted many national and international IT companies. Academically, he received his PhD on Digital Forensics from Università di Milano and he is a Professor at Insubria University (Varese and Como) where he holds a course on IT law. He attended Fordham Law School and Stanford Law School as a Visiting Scholar to expand his studies in his own particular research

area. Giuseppe Vacigo is the author of many publications on cybercrime, including both scientific journals and textbooks, which have been adopted by the University where he teaches. He has also delivered many lectures and presentations in both Italy and abroad. He is fellow at the Cybercrime Institute of Koln and member of the Editorial Board of Journal of Digital Investigation. As part of his Nexa fellowship, Giuseppe will propose research topics related to digital forensics and fundamental rights from an “Internet & Society” perspective and big data and social control.

1.6 Faculty Associates

Andrea Cairola – Faculty Associate



Andrea Cairola is a journalist and an expert in international cooperation in the field of media development and promotion of freedom of expression. His didactic activities include teaching video-journalism at the School of Journalism of the Catholic University of Milan as well as in other academic settings and in grass-root projects. He holds a first advanced degree in Economics at the Bocconi University of Milan, a MA in International Journalism from the City University of London, and a certificate as Media Law Advocate by the Programme in Comparative Media Law and Policy of the Oxford University. He has participated to several conferences/academic-seminars in Europe and Asia on issues related to journalism and information; as well as he contributed, edited or reviewed publications about comparative media law, press freedom, investigative journalism, Internet and society, and freedom of information. Since 2012, he is holding the position of “Communication and Information Adviser” at the Beijing Office of UNESCO, the United Nations agency with the mandate to promote free flow of information. For UNESCO, he also worked based in Kazakhstan, and Afghanistan and in the “Freedom of Expression Division” at the Paris-headquarter, dealing with media-development and press freedom in Afghanistan, Central African Republic, Balkans and the Transcaucasian countries and in other conflict/post-conflict/transition environments. Andrea also worked as a print and broadcast journalists, authoring video contributions aired on “Report” and “Presadiretta”, prime-time investigative programmes on the Italian public broadcaster RAI; producing and hosting a current-affairs TV series for Current Tv Italy; collaborating with national newspapers and magazines such as La Stampa, D di Repubblica, and Il Fatto. In 2003, he has written and co-directed the award-winning documentary Citizen Berlusconi, produced by a pool of European and US public service televisions and aired in more than 20 countries around the world. He has participated to several conferences/academic-seminars in Europe and Asia on issues related to journalism and information; as well as he contributed, edited or reviewed publications about comparative media law, press freedom, investigative journalism, Internet and society, and freedom of information.

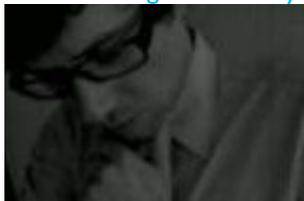
Giancarlo Frosio – Faculty Associate



Giancarlo Frosio is the Intermediary Liability Fellow at the Center for Internet and Society at Stanford Law School, where he launched the Intermediary liability research focus area of the Center, the World Intermediary Liability Map (WILMap), and the Stanford Intermediary Liability Lab (SILLab). Since 2013, Giancarlo also serves as affiliate faculty at the Harvard CopyrightX program, where he lectures and coordinates the Turin University Affiliated Course, whose first edition he personally launched. Giancarlo is a qualified attorney with a doctoral degree (Scientiae Juridicae Doctor, S.J.D.) in intellectual property law from Duke University Law School in Durham, NC. Additionally, he holds an LL.M. with emphasis in intellectual property law from Duke University Law School, an LL.M. in information technology and telecommunications law from Strathclyde University in Glasgow, and a law degree from Università Cattolica in Milan. His research focuses on copyright law, digitization, history of creativity, public domain, open access, Internet and user based creativity, intermediary liability of online service providers, network information economy, access to knowledge (A2K), and identity politics. From 2010 to 2013, Giancarlo served as the Deputy Director and Lecturer of the LL.M. in Intellectual Property law jointly organized by WIPO and the University of Turin. He is also a Faculty Associate of the NEXA Research Center for Internet and Society in Turin, where he acted as Chief Editor and author of the Final Strategic Report of COMMUNIA, the European Thematic Network on the Digital Public Domain funded by the European Commission within the eContentplus framework. In 2013, he also served as a Research Fellow at the University of Nottingham. The post was one of the research projects of the new Centre for Copyright and New Business Models in the Creative Economy (CREATE) funded by the UK Research Councils. He is the author of numerous legal articles and publications. His book “Cumulative Creativity: From the

Oral Formulaic Tradition to Digital Remix” is soon to be published.

Thomas Margoni – Faculty Associate



Thomas Margoni is a senior researcher at the Institute for Information Law. His research focus concentrates on the relationship between law (primarily copyright, designs, and patents), new technologies, and the Internet, from a comparative and international point of view. He is Marie Curie grant holder, and conducts a variety of research studies at the EU level. Thomas is regularly invited at international conferences, is a member of different initiatives connected with intellectual property, new technologies, and the Internet, and has served as an IP advisor for private and public entities. Since 2008 he has been a fellow at the Nexa center for Internet and Society, where he directs the free licences law clinic SeLiLi (<http://selili.polito.it>).

Giorgio Ventre – Faculty Associate



Giorgio Ventre is Professor of Computer Networks in the Department of Electrical and Information Engineering of the University of Napoli Federico II where he is leader of the COMICS research group on computer networking and multimedia communications. He owns a laurea degree in Electronic Engineering and a PhD in Computer Engineering, both from the Federico II. From 1991 to 1993 he was with the Tenet Group at the International Computer Science Institute and the University of California at Berkeley. In 1993 he joined the University of Napoli Federico II first as an assistant professor. In 1999 Giorgio Ventre was co-founder of ITEM, the first national research laboratory of the Italian University Consortium for Informatics (CINI), and from 2004 to 2011 was President of CRIAI, an industrial research centre on ICT in Napoli. He is now Director of ITEM and member of the board of CINI. He has been principal investigator for a number of national and international research projects and in four EU-funded research projects on the Future Internet. Giorgio Ventre has co-authored more than 200 publications and he is senior member of the IEEE and of the ACM, and he is member of AICA and of IET. He is area editor for the Computer Networks journal, Elsevier. His researches are sponsored by the European Commission, the Italian Government and by several national and international companies. He has also launched four start-up companies from the research activities developed in his lab.

1.7 Alumni

Cristiana Sappa – Fellow 2011-2016
Federico Cairo – Fellow 2012-2016
Miryam Bianco – Research Fellow 2015-2016
Dario Chaifouroosh – Intern 2016
Roberta Bruno – Intern 2015
Alessandro Quaranta – Intern 2014-2015
Fiorenza Oppici – Intern 2013
Alberto Segà – Staff 2013
Maria Serena Ciaburri – Intern 2013
Nadia Tecco – Staff 2012-2013
Silvia Bisi – Fellow 2010-2012
Elias Carotti – Research Fellow 2009-2012
Irene Cassarino – Fellow 2009-2012
Davide Bardone – Research Fellow 2009-2011
Carolina di Vonzo – Fellow 2009-2011
Corrado Druetta – Research Fellow 2009-2011
Valentin Vitkov – Fellow 2009-2011
Maria Crea – Staff 2011
Federica Cedriano – Staff 2009-2011
Antonella Giulia Pizzaleo – Research Fellow 2009-2010
Ilaria Buri – Staff 2009-2010
Anna Piccitto – Staff 2009-2010
Maria Teresa Medina Quintana – Staff 2006-2008
Andrea Glorioso – Staff 2006-2007

ANNEX II – NEXA PUBLICATIONS

This section includes published articles, but also other products of the research of the Nexa fellows, encompassing reports and some selected blog-posts and presentations. Please, notice that the list is not comprehensive and just includes a set of contributions signaled by the Nexa fellows themselves.

All Nexa Staff members and Fellows are listed in bold type.

Research Publications

(books; articles; papers)

M. ALOVISIO, *Privacy, videosorveglianza e GPS ai tempi del Jobs Act*, Diritto e Giustizia, 2016

M. ALOVISIO, *Responsabilità di un portale informativo online per diffamazione attraverso un commento postato sul forum da un utente anonimo*, 2016

M. ALOVISIO, *Chiarimenti sugli adempimenti privacy connessi all'utilizzo di cookie*, Diritto e Giustizia, 2015

M. ALOVISIO, *Nuove regole per droni e microdroni*, Diritto e Giustizia, 2015

M. ALOVISIO, *Regole privacy per il dossier sanitario elettronico*, Diritto e Giustizia, 2015

M. ALOVISIO, *Nuovi disegni di legge sul cyberbullismo: audizione del Garante Privacy*, Diritto e Giustizia, 2015

M. ALOVISIO, *App e siti web a rischio privacy per bambini*, Diritto e Giustizia, 2015

M. ALOVISIO, *Violazione della privacy attraverso diffusione online di fotografie*, Diritto e Giustizia, 2015

M. ALOVISIO, *Diffamazione via facebook e libertà di espressione*, Diritto e Giustizia, 2015

J. Stevovic, **E. Bassi**, A. Giori, F. Casati, G. Armellin, *Enabling Privacy by Design in Medical Records Sharing*, Serge Gutwirth, Ronald Leenes, Paul De Hert. *Reforming European Data Protection Law*. Springer 2015, pp. 385-406, 2015 https://books.google.it/books?id=EjdxBQAAQBAJ&pg=PA228&dq=gutwirth+computers&hl=it&sa=X&redir_esc=y#v=onepage&q&f=false

G. Frosio, *Cumulative Creativity: from the Oral Formulaic Tradition to Digital Remix*, Columbia University Press, 2016

G. Frosio, *Digital Piracy Debunked: A Short Note on Digital Threats and Intermediary Liability*, 5(1) *Internet Policy Review* (2016), 2016 <http://policyreview.info/articles/analysis/digital-piracy-debunked-short-note-digital-threats-and-intermediary-liability>

G. Frosio, *User Patronage: the Return of the Gift in the "Crowd Society"*, 2015(5) *Mich. St. L. Rev.* 1-63, 2015 <http://ssrn.com/abstract=2659659>

G. Frosio, *A History of Aesthetics from Homer to Digital Mash-ups: Cumulative Creativity and the Demise of Copyright Exclusivity*, 9(2) *Law and Humanities* 1-35, 2015

<http://www.tandfonline.com/doi/full/10.1080/17521483.2015.1093300>

R. Iemma, *Towards Personal Data Services: a view on some enabling factors*, *International Journal of Electronic Governance*, 2016 <http://www.inderscience.com/info/inarticle.php?artid=76690>

A. Ferraris, **S. Leucci**, S. Bresciani, F. Giunchiglia, *An innovation ecosystem beyond the triple helix model: the Trentino's case*, *Internationalization of Entrepreneurial Innovation in the Global Economy*, IGI Global, Vol. 1, 2015

S. Leucci, S. Girella, J. L. a Beccara, *Pubblica amministrazione e protezione dei dati personali "nelle nuvole": criticità e soluzioni*, *Informatica e Diritto - Edizioni Scientifiche Italiane*, Napoli, 2014, Vol. 2, 2014

S. Leucci, *Privacy e conservazione dei documenti informatici nel cloud computing*, *Il Sole 24 Ore - Pubblica Amministrazione* 24, Special issues - December 2015, 2015

A. MANTELERO, *Personal data for decisional purposes in the age of analytics: from an individual to a collective dimension of data protection*, *Computer Law and Security Review*, 32 (2): 238-255, 2016

A. MANTELERO, *Personal data for decisional purposes in the age of analytics: from an individual to a collective dimension of data protection*, *Computer Law and Security Review*, 32 (2): 238-255, 2016

A. MANTELERO, *Right to be forgotten e pubblici registri. I giudici italiani chiedono lumi alla Corte di Giustizia, ma lasciano poche possibilità al diritto alla cancellazione dei dati*, *Nuova giur. civ. comm.* XXXII (1): 70-80, 2016

A. MANTELERO, **G. Vaciago**, *Data protection in a big data society. Ideas for a future regulation*, *Digital Investigation*,

15: 104-109, 2015

A. MANTELERO, *Il trattamento dati nelle imprese nel post Safe Harbour. Strategie di breve, medio e lungo periodo*, Dir. informaz. informatica. XXX (4-5): 887-908, 2016

A. MANTELERO, *L'ECJ invalida l'accordo per il trasferimento dei dati personali fra EU ed USA. Quali scenari per cittadini ed imprese?*, Contratto e Impresa Europa, 20 (2): 719-733, 2016

A. MANTELERO, *The protection of the right to be forgotten: lessons and perspectives from open data*, Contratto e Impresa Europa, 20 (2): 734-743, 2015

A. MANTELERO, *Data protection, e-ticketing, and intelligent systems for public transport*, International Data Privacy Law 2015, 5 (4): 309-320, 2015

M. Ricolfi, *Orphan Works and Moral Rights*, in F. Brison, S. Dusollier, M.C. Janssens e H. Vanhees (curated by), Moral Rights in the 21st Century, Larcier, Bruxelles, 208-215, 2015

M. Ricolfi, *Trademarks and Human Rights*, in P. Torremans (curated by), Intellectual Property Law and Human Rights, Wolters Kluwer, Alphen aan den Rijn, 453-490, 2015

M. Ricolfi, *Il concorso nell'illecito di contraffazione di marchio*, in V. Di Cataldo, V. Meli e R. Pennisi (curated by), Impresa e Mercato, Studi dedicati a Mario Libertini, Tomo II, Concorrenza e mercato, Giuffrè, Milano, 1205-1220, 2015

M. Ricolfi, *Trattato dei marchi. Diritto europeo e nazionale*, Voll. I e 2, Giappichelli, Torino, (available under CC NC license at www.giappichelli.it/trattato_marchi.html), 2015

M. Ricolfi, *The new paradigm of creativity and innovation and its corollaries for the law of obligations*, (curated by) Peter Drahos-Gustavo Ghidini e Hanss Ullrich, Kritika: Essays on Intellectual Property, Vol. I, Edward Elgar, Cheltenham, 2015

M. Ricolfi, *Free Software and Creative Commons Licenses in Italy: A Work Still in Progress*, (curated by) Axel Metzger, Free and Open Source Software (FOSS) and other Alternative License Models. A Comparative Analysis, Springer International Publishing AG, Switzerland, 251-269, 2015

M. A. Senior, *28 aprile 2016: la Corte Suprema americana e le Sezioni Unite della Cassazione sull'hacking di Stato*, Medialaws.eu, 2016 <http://www.medialaws.eu/28-aprile-2016-la-corte-suprema-americana-e-le-sezioni-unite-della-cassazione-sullhacking-di-stato/>

M. A. Senior, *Aula e fascicolo digitali: a Cremona le prove tecniche per un futuro processo penale virtuale*, ilprocessotelematico.it (Giuffrè), 2016

M. A. Senior, *Notifiche telematiche (PPT)*, ilprocessotelematico.it (Giuffrè), 2016

M. A. Senior, *Processo penale telematico, i passi dopo la sperimentazione*, forumpa.it, 2016

M. A. Senior, *La Corte Suprema dell'Ontario (Canada) bandisce i "tower dump"*, Medialaws.eu, 2016

M. A. Senior, *Le sentenze on line violano la privacy, "questa non è trasparenza"*, forumpa.it, 2016

M. A. Senior, *Il volo radente dei droni su privacy e data protection*, Medialaws.eu, 2015

M. A. Senior, *Un altro "tango down" in tema di data retention*, Medialaws.eu, 2015

J. C. Carver, J. Cabot, L. L. Minku, **M. Torchiano**, *Regression Testing, Spoken Language, Crash-Inducing Commits, UML, and Legal Policy*, IEEE Software, Vol.33, pp.12-14, ISSN:0740-7459, 2016 <http://porto.polito.it/id/eprint/2631237>

L. Ardito, G. Procaccianti, **M. Torchiano**, **A. Vetrò**, *Understanding Green Software Development: A Conceptual Framework*, IT PROFESSIONAL, Vol.17, pp.44-50, ISSN:1520-9202, 2015 <http://porto.polito.it/id/eprint/2556751>

G. Vaciago, *Le responsabilità penali nella crisi d'impresa*, Pacini Editore, 2016

A. Botta, **A. Avallone**, **M. Garofalo** and **G. Ventre**, *Internet streaming and network neutrality: comparing the performance of video hosting services*, International Conference on Information Systems Security and Privacy, 2016

A. Vetrò, **L. Canova**, **M. Torchiano**, **C. Orozco Minotas**, **R. Iemma**, **F. Morando**, *Open Data Quality Measurement Framework: Definition and Application to Open Government Data*, Government Information Quarterly, 2016 <http://porto.polito.it/id/eprint/2631238>

A. Vetrò, **M. Torchiano**, *Qualità del dato open, ecco come aumentarla: l'utente al centro*, ForumPA, 2016, <http://www.forumpa.it/pa-digitale/open-data-la-scala-5-star-non-basta-fondamentale-la-qualita-del-dato>

A. Vetrò, **M. Torchiano**, *Qualità degli Open Data: il caso dei contratti pubblici delle Università*, ForumPA, 2016, <http://www.forumpa.it/pa-digitale/qualita-degli-open-data-il-caso-dei-contratti-pubblici-delle-universita>

AA. VV., *Gli Open Data in ambito parlamentare*, Report. Versione 1.0 Beta, 2015 <http://nexa.polito.it/open-data-parlamentari>

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Other

(reports; presentations; personal blogs)

C. BLENGINO, *IlPost.it* (personal blog: articles on the subject of copyrights and in relation to recent judgments of the ECJ on issues related to electronic communication networks), <http://www.ilpost.it/carloblengino/>

F. CHIUSI, *Il Nichilista* (personal blog), <http://ilnichilista.com/>

F. CHIUSI, *Chiusi nella rete* (personal blog), <http://chiusinellarete-messengeroveneto.blogautore.repubblica.it/>

F. CHIUSI, *Wired author*, <http://www.wired.it/author/fchiusi/>

G. Futia, A. Vetrò, G. Rizzo, *TellMeFirst – A Knowledge Domain Discovery Framework*, Presentation at the DBpedia Community Meeting, 2016, http://www.slideshare.net/giuseppe_futia/tellmefirst-a-knowledge-domain-discovery-framework