#### NeXt generation Techno-social Legal Encryption Access and Privacy nextleap.eu

Grant No. 688722 Project Started 2016-01-01. Duration 36 months

### **DELIVERABLE D6.3**

### YEARLY TECHNICAL AND DISSEMINATION ASSESSMENT

Vincent Puig (IRI), Raphaële Javary (IRI), Harry Halpin (INRIA)

Beneficiaries: IRI (lead), INRIA

**Workpackage:** D6.3 Yearly Dissemination Report 1

**Description:** This deliverable describes in detail the consortium's dissemination and

communication activities for the first 12 months of the NEXTLEAP project. The consortium has been very active in participating to high quality presentations at academic conferences, and has begun disseminating this knowledge to the general public and other CAPS projects both at small-group seminars and large-scale public events. It has also been very active in the publication of journal articles and books, and has started dissemination via social media. This overall stream of activity has the main goal of creating a process to commence a mutual exchange of knowledge between NEXTLEAP partners and to stakeholders outside the partners both to solicit their input and to maximize the impact of the results of the

project.

Version: 1.0

Nature: Report (R)

**Dissemination level:** Public (PU)

Pages: 25

**Date:** 2016-12-31

Project co-funded by the European Commission within the Horizon 2020 Programme

# 1. Executive summary

This first dissemination report describes the dissemination activities carried out by the NEXTLEAP project partners during the first year of the project (2016). First, we describe dissemination activities such as conferences, seminars and workshops focused in order of the different target audiences: citizens, Collective Awareness Platforms projects, standards, Internet governance and academia (including a list of publications by the members of NEXTLEAP consortium in academic journals and proceedings). We also provide a list of press interviews, blog posts, and press articles that were beneficial for NEXTLEAP's dissemination as well as updated dissemination material produced during this year such as a poster and a redesigned website. Finally, we provide a table of the KPI's to measure the advancement and the impact of the project, with a plan on how to improve dissemination in Year 2 of NEXTLEAP.

## 1. Introduction

This deliverable is the first of a series of dissemination reports, produced every 12 months, that outlinine the significant achievements in dissemination and communication by the NEXTLEAP project. This report follows the structure of the Dissemination Plan approved by the advisory board (D 6.2) and includes a measurement of the project's success against the KPIs given in the project proposal.

As stated in more detail in the Dissemination Plan (D6.2), the purpose of dissemination for this project is: First, to provide all stakeholders outside the consortium with access to a reasonable level of details on the project, so they can anticipate the impacts of the project; and second, to allow the NEXTLEAP partners to benefit from interaction with external audiences, both in order to solicit their input and to maximize the impact of the results of the project. This process of knowledge transfer and exchange with the general public of concerned citizens and parties who could not be full partners (but who may have interest in the results of the project) plays a key role for the achievement of the overall objectives.

## 2. Dissemination Activities

The activities of dissemination are focused on particular target audiences in order to maximize the impact of the project and its benefit to the greater social good by going outside the "usual" activities. Please note that not every event directly needed financing from NEXTLEAP's budget for their organization in terms of travel, publication, or other forms of support, but every event was done by researchers in the project who are directly funded by NEXTLEAP. Dissemination activities are classified below by type of target audience. The dissemination activities are given in tables per dissemination channel following each target group, with each activity sorted by date.

## 2.1 Citizens

As stated in the Dissemination Plan, the term "citizen" refers to groups of ordinary people (including but not limited to, activists and "human rights defenders") concerned with

fundamental rights and the Internet. Listed below are the events during which NEXTLEAP partners have brought educational and scientific guidance to citizens interested in the shifts privacy and decentralization are currently undergoing. During those events, issues related to decentralized networks, net rights and privacy were presented and discussed, not only as technical issues but as social issues of primary importance. In terms of interdisciplinarity, computer scientists of the NEXTLEAP project, such as Marios Isaakidis (UCL) as well sociologists and philosophers, such as Ksenia Ermoshina (CNRS) and Bernard Stiegler (IRI) took part in these conferences.

This year, NEXTLEAP partners took part in ten conferences and debates which were aimed at either the general public - people interested in improving their awareness concerning fundamental rights, privacy, cryptography and decentralized networks. NEXTLEAP also coorganized five small-group seminars, a four-seminar series on interdisciplinary digital studies, and an interdisciplinary panel at the Privacy-Enhancing Technology Conference. For instance, ordinary citizens were the target of the "cryptoparty" which took place in April 2016 in Cyprus: During this free, public workshop, an audience composed of beginners was introduced to the basic principles of practical cryptography. Privacy activists and human rights defenders from outside Europe (such as Brazil, where the government attempted to ban "end-to-end" encryption in WhatsApp) facing repression were involved in several events, such as the Internet Freedom Festival in Valencia. Note that this year NEXTLEAP did not organize any large public conference by itself such as a 'launch event' or an event at the European Parliament, but plans to do so next year.

We listed interdisciplinary and workshops panels in this section, as the majority of them were public-facing although some were focussed on the academic community. IRI hosted a panel series on Digital Studies, their "trans"-disciplinary analysis that seeks to integrate interdisciplinary perspectives to study the impact of the digital, including public intellectuals and researchers such as Milad Doueihi (Paris-Sorbonne) from the field of digital humanities and Gerald Moore (Durham University) from the field of philosophy. Likewise, we also engaged technical researchers with social issues and worked in conjunction with other EC projects such as E-CRYPT on a panel on decentralization as part of the Strategic Research Challenges for Privacy Technologies. Outreach also stretched to designers and artists at Crypto-Design in Amsterdam, and to other audiences traditionally neglected by academic cryptographers and technologists.

### 2.1.1 Conferences and Workshops

Name of the conference + weblink	Date & location	Partner	Short description
Internet Freedom Festival (IFF) https://internetfreedomfestival.org/	February 29th - March 6th 2016, Valencia (Spain)	Max Wiehle (Merlinux) Marios Isaakidis (UCL)	Max Wiehle went to this annual convention of activists and programmers and led a workshop on how to fight vandalism in Wikis and other collaborative contexts. A particularly interesting discussion came about with Debian developer and cryptographer Daniel Kahn Gillmor and Marios Isaakidis (UCL)

			on how a provider/server can prove that a client initiated a key change to deflect false "I didn't submit this key" accusations. The IFF also helped NEXTLEAP to get a better picture of end-user use cases. The audience and participants included activists, researchers, trainers, journalists and social scientists. This diversity made it very clear that the use cases depend heavily on the community in question.
Cryptoparty https://cryptoparty.in/Cyprus	April 24th 2016, Limassol (Cyprus)	Marios Isaakidis (UCL)	Marios Isaakidis organized a cryptoparty with invited talks from Cyprus University of Technology, the developers of the private message and file sharing system Peerio (https://peerio.com) and the EMEA Internet Observatory (http://hack66.info/observatory). Marios Isaakidis gave a talk on the peer-to-peer censorship circumvention system CENO (https://censorship.no).
Cryptorave	May 6-7 <sup>th</sup> 2016, Sao Paolo (Brazil)	Harry Halpin (INRIA)	Harry Halpin presented "A Batalha pelo Controle dos Padrões Abertos: o IETF, W3C, DRM, Blockchains e além" (A battle to control the Web: IETF, W3C, DRM, Blockchains, and More") that discussed open standards and encryption with an audience of concerned citizens and human rights defenders in Brazil.
Hacktivism and Radical Change Brick Lane Debates  https://www.evensi.uk/ hacktivism-and-radical-change-the- hive-dalston/178694624	June 21st 2016, London (UK)	Marios Isaakidis (UCL)	This event was a participatory discussion about hacktivism as a way to protest for social or political goals. On the basis of the fact that hacktivism is often misunderstood and overlooked, the purpose of the debate was to explore how persecution of hacktivists affects other campaigns and how citizens and other activists can show solidarity. Prominent activists such as Lauri Love, Privacy International researcher Eva Blum-Dumontet and Oliver Shykles from <i>Queer Friends of Chelsea Manning</i> participated.
Debate at L'Huma-Café  Digital and the coming society: how to act in front of a blind technology? (in French)	September 20th 2016, Nantes (France)	Bernard Stiegler (IRI)	Bernard Stiegler gave a talk on disruption and the different ways to resist to the blind and destructive implementation of technologies and innovation into society. He stressed the need to select and appropriate the algorithms and software that reach them at the heart of their personal

Freedom Not Fear https://www.freedomnotfear.org/	October 14th- 17th 2016, Brussels (Belgium)	Marios Isaakidis (UCL)	lives as well as their political rights.  The video is online: http://www.tvreze.fr/Le-numerique-et-la-societe-qui-vient-comment-agir-face-a-une-technologie-aveugle a2605.html  Freedom Not Fear is the annual meeting for civil rights activists from all across Europe. Marios Isaakidis got involved in discussions about surveillance, privacy and EU
Elevate Festival - Roundtable "Outstanding Activism" https://elevate.at/en/schedule/e16activism/	October 22nd 2016 Graz (Austria)	Ksenia Ermoshina (CNRS)	legislation.  Ksenia Ermoshina presented NEXTLEAP at a roundtable with well-known human rights activists.
Crypto-design <a href="https://cryptodesign.org/events/">https://cryptodesign.org/events/</a> Key Invisibility: The solution to three decades of cryptography deployment failure?	November 25th 2016, Amsterdam (Netherlands)	Harry Halpin (INRIA)	Harry Halpin gave this talk aimed at designers and artists interested in privacy issues that helped chose the annual Crypto Design Award winner.
Sciences à coeur Sorbonne- Universités – Université Pierre et Marie Curie (UPMC) http://www.upmc.fr/fr/culture/culture scientifique2/sciences a coeur 201 6/sciencesacoeur20161201.html "Accès, sécurité et protection des données" (Access, security and protection of data") In French.	December 1 <sup>st</sup> 2016, Paris (France)	Francesca Musiani (CNRS)	A public discussion between Francesca Musiani and the cryptographer Ludovic Perret, moderated by a journalist, over the exploitation of data and the use of cryptology - then the science of secrecy, now a science based on trust - evolve, in today's and tomorrow's contexts.
Chaos Computer Congress https://events.ccc.de/congress/2015/w iki/Static:Main Page	December 27-29th 2016, Hamburg (Germany)	Holger Krekel (Merlinux), Max Wiehle (Merlinux), Ksenia Ermoshina (CNRS)	The Chaos Computer Congress is Europe's largest hacker conference. At this conference Ksenia Ermoshina continued to survey the developers and users of end-to-end encryption, while developers from Merlinux participated in several panels.

## **2.1.3 Interdisciplinary Panels**

Name of the conference	Date & location	Partner	Short description
------------------------	--------------------	---------	-------------------

Digital Studies Seminar  https://digital- studies.org/wp/seminaire-digital- studies-2015-2016/	1) January 6 <sup>th</sup> 2016, 2) January 20 <sup>th</sup> 2016, 3) February 10 <sup>th</sup> 2016, 4) May 20 <sup>th</sup> 2016. Paris (France)	Bernard Stiegler (IRI), Vincent Puig (IRI), Paul-Emile Geoffroy (IRI)	A seminar series of four seminars (in 2016) on the transdisciplinary Digital Studies theme organized by IRI. Topics of interest in 2016 included decentralized architectures and social networks, cryptography and the blockchain. Scholars on the intersection of the digital and philosophy took part in a panel with Bernard Stiegler (IRI) or other IRI scholars. Participants included Jean Lassègue (EHESS), Francesco Vitale (Universita di Salerno), Pierre de Jouvencourt (Paris 1), Milad Doueihi (Paris-Sorbonne), and Gerald Moore (Durham University).
CSA Workshop on Strategic Research Challenges for Privacy Technologies <a href="https://www.cosic.esat.kuleuven.be/ecrypt/csa/privacy/">https://www.cosic.esat.kuleuven.be/ecrypt/csa/privacy/</a> Panel on "Privacy-preserving decentralization: What challenges are lying ahead?"	July 18th 2016, Darmstadt (Germany)	Carmela Troncoso (IMDEA), Nadim Kobeissi (INRIA), Harry Halpin (INRIA), and George Danezis (UCL)	This panel was co-organized with E-CRYPT with NEXTLEAP.  Other participants included: Bryan Ford (EPFL), Jeff Burdges (INRIA Rennes), André Bianchi (LEAP Encryption Access Project)

## 2.2 Collective Awareness Platforms Projects

NEXTLEAP also started to build synergy and communication with other research projects in CAPS. Discovering and increasing interest in privacy in other CAPS has been an important goal for NEXTLEAP this year, and it seems many projects need some form of privacyenhanced data analysis tools. NEXTLEAP partners attended four events in different parts of Europe. Members of the project presented the goal of the NEXTLEAP project, both informally other CAPS projects over their privacy needs, and gave overviews of the technologies NEXTLEAP has been developing that could address those needs. These discussions pointed out the necessity to collaborate in the future in particular with NETCOMMONS and MAZI. These also promoted decentralized services to the European Commission, as done by Harry Halpin and Georges Danezis during the "Sharing economy" panel at NetFutures 2016. This year's work can therefore be seen as a fruitful first step towards helping other CAPS projects to develop the use of secure and decentralized software themselves and take advantage of privacy-enhancing technologies in terms of citizen data. Note that NEXTLEAP partners will host a "launch event" in 2017, likely to be collocated with EuroS&P in Paris, and invite others CAPS projects to help make sure NEXTLEAP addresses their use-cases and to formally interview them over their needs. Note that in terms of KPIs, these conferences are considered all relevant to "Social innovation" as Digital Social Innovation is at the heart of CAPS.

Name of the event + weblink	Date & location	Partner	Short description
NetFutures 2016 http://netfutures2016.eu/programme/ sharing-economy/ Sharing Economy Panel	April 20-21st 2016, Brussels (Belgium)	George Danezis (UCL) and Harry Halpin (INRIA)	Georges Danezis and Harry Halpin took part in a panel on the "Sharing Economy". They stressed the importance of European support of open standards such as those produced by the IETF and W3C, as well as decentralized projects such as Wikipedia or GNU/Linux. These vital parts of the core infrastructure of the Internet are often overlooked by bodies such as the European Commission as they are based on contributions from individuals collaborating to a collective project that is not owned by any given entity but rather communitarian (With Francesca Bria, Francesco Saveria, and Mayo Fuster Morell).
CAPS community meeting	May 18th 2016 in Berlin	Holger Krekel (Merlinux)	Holger Krekel (Merlinux) attended this gathering of CAPS-related EU projects and interested parties. He gave an impromptu overview on aspects of NEXTLEAP and thereafter enjoyed fruitful discussions with Stravroula Maglavera from the MAZI project (offline communication infrastructures for physical communities) and with Renato Lo Cigno from the NETCOMMONS project (network infrastructure as commons). They gathered interest in arranging another meet-up to exchange research, development and community insights and tools.
DSI Workshop	June 29 <sup>th</sup> 2016, Brussels (Belgium)	Vincent Puig (IRI)	Vincent Puig attended to a workshop of presentation of other CAPS Project. The afternoon discussion group about several technologies such as the blockchain, Libre Office, Owncloud, Etherpad, KDEN Live (Alternative to Première), ABC (Attribute Based Credentials), and others was fruitful and provided input to the European Commission on the importance of supporting decentralized, open source, and free software.
Roundtable CAPSS within INSCI 2016 conference https://capssi.eu/event/insci-2016-openness-collaboration-and-collective-action/ Presentation of the NEXTLEAP project	September 12th 2016, Florence (Italy)	Ksenia Ermoshina (CNRS)	The 3rd International Conference on Internet Science hosted a number of slots dedicated to the presentation of CAPS projects, offering the opportunity for CAPS projects managers to organize a workshop. Ksenia Ermoshina presented

			NEXTLEAP at a roundtable, increasing communication with other CAPS projects.
CAPSSI Community Workshop	September 28th 2016, Bratislava (Slovakia)	Carmela Troncoso (IMDEA)	Carmela Troncoso (IMDEA) attended this gathering of CAPS-related EU projects. Dr. Troncoso gave an overview of the technologies developed in NEXTLEAP and how these technologies could be used by other projects. Several discussions with other projects managers (MAZI, NETCOMMONS, CAPSELLA, and Making Sense, in particular ) were of mutual interest, pointing out at potential collaboration in the future.

## 2.3 Standardization

NEXTLEAP's dissemination to industry and open-source community aims to co-create their protocols with the larger open source communityu, and to eventually standardize the protocols designed by NEXTLEAP in order to maximize their impact. NEXTLEAP partners attended to several free software, open source, and crypto developer events as well as more traditional industry conferences. In the open source community, these events are aimed at the co-design of the open-source versions of the protocols and broadening the community beyond the formal NEXTLEAP parters. Marios Isaakidis, Harry Halpin and Holger Krekel attended to FOSDEM, PGPSummit and OpenPGP conferences as planned. These meetings with other developers are of great impact on the technical work dimension of the project because they allow to NEXTLEAP to discuss with other programmers and developers in the field, and so bring academic theory into connection with real-world deployment issues. D5.1 gives a more thorough an analysis of these issues.

### 2.3.1 IETF/W3C Open Standards Working Groups

Name of the conference	Date & location	Partner	Short description
Panel on DRM and W3C Encrypted Media Extensions https://joi.ito.com/weblog/2016/04/06/a-recent-discus.html	March 20th Cambridge (USA)	Harry Halpin (INRIA)	This event featured a discussion over the role of DRM (Digital « Rights » Management) in open standards via Encrypted Media Extensions, including the dangers to security researchers. Other participants included Joi Ito (Media Lab), Richard Stallman (Free Software Foundation), and Danny O'Brien (EFF).
Blockchains and the Web: A W3C Workshop on Distributed Ledgers on the Web https://www.w3.org/2016/04/	June 29 <sup>th</sup> - 30th 2016, Cambridge (USA)	Harry Halpin (INRIA)	Sponsored by NEXTEAP via IRI (as well as NTT and Blockstream). Harry Halpin attended and served on Program Committee (INRIA) and IRI provided

blockchain-workshop/			financial support. This was the first standardization workshop on blockchain technology.
IETF 96 Hack-a-thon https://www.ietf.org/meeting/96/	July 17- 26th 2016, Berlin, (Germany	Nadim Kobessi (INRIA)	Nadim Kobessi was involved in updating the software used for IETF standardization.
W3C Technical Plenary and Advisory Committee Meeting (TPAC 2016) https://www.w3.org/2016/09/TPAC/	September 19-26 2016, Lisbon (Portugal)	Harry Halpin (INRIA)	Harry Halpin attended the Web Authentiation Working Group meeting, whose technology will be liely used in our open source code after a thorough privacy analysis.

## 2.3.2 Industry and Open Source Events

Name of the conference	Date & location	Partner	Short description
FOSDEM https://archive.fosdem.org/2016/	January 30th-31st, Brussels (Belgium)	Marios Isaakidis (UCL)	Marios Isaakidis attended the largest Free Software Developers meeting in Europe and got involved in the security, synchronous communications and decentralizations dev-rooms.
Worldwide LEAP developer meeting	April 21st - May 3rd, Sao Paolo (Brazil)	Max Wiehle (Merlinux)	Max Wiehle (Merlinux) attended the LEAP and PIXELATED gatherings in order to establish contact with a major integration community of NEXTLEAP and also to discuss how future NEXTLEAP efforts relate to LEAP. They discussed in-depth with developers about current and planned key management protocols and discussed challenges and tasks. Discussions also took place with South American email providers and activists who are looking at using LEAP and automatic key management.
Trust in Digital Life https://www.eema.org/event/trust- digital-world-2016/	June 15th- 16th, The Hague (Netherlan ds)	Harry Halpin (INRIA)	Harry Halpin participated on a panel on "Human Rights and Technology" with Patrice Chazerand (Director in charge of Digital Economy and Trade Groups, DIGITALEUROPE), Henrik Biering (CEO Peercraft), and Jacques Bus (Digital Enlightenment Forum).  Jacques Bus is a member of the NEXTLEAP Advisory Board that invited NEXTLEAP participation (INRIA).
PGPSummit  https://wiki.gnupg.org/ OpenPGPEmailSummit201607	July 8- 10th 2016, Frankfurt (Germany)	Holger Krekel and Max Wiehle (Merlinux)	Holger Krekel and Max Wiehle went to this invite-only meeting of developers focused on the "PGP" encryption tool set. Holger Krekel gave a talk on current discussions within NEXTLEAP, namely considerations and questions regarding provider-mediated keys and joined related sessions during the meet-up with thirty fellow researchers and

			programmers.
OpenPGP Conference https://gnupg.org/conf/  NEXTLEAP and Automatic E2E emails	September 8-9th 2016, Cologne (Germany)	Holger Krekel (Merlinux), Harry Halpin (INRIA)	Holger Krekel gave a talk about "in-line key management" which reflected current thinking within NEXTLEAP around how to achieve massively more encrypted email. Both OpenPGPConf and PGPSummit conferences are comprised of people active in the field of PGP encryption, sometimes for more than a decade. They both were very useful to get in contact, disseminate information about the NEXTLEAP project and discussions led to interest in possible new standardization by the IETF. Slides: <a href="https://gnupg.org/conf/program.html">https://gnupg.org/conf/program.html</a> #holger and <a href="http://merlinux.eu/~hpk/2016-openpgpconf/#/step-1">https://merlinux.eu/~hpk/2016-openpgpconf/#/step-1</a>
RIPE NCC IXP Tools Hackathon https://atlas.ripe.net/hackathon/ixp- tools	October 22-23rd, Madrid (Spain)	Marios Isaakidis (UCL)	These hackathons are made to bring together developers, operators and designers to come up with creative new tools and visualisations that benefit the entire Internet community. In collaboration with people from CAIDA, Forth and AMS-IX Marios Isaakidis worked on "The Remote Peering Jedi". The purpose of the project was to detect unreported remote peerings so as to make the IXP peer selection process more transparent. In order to achieve that, they took traceroute/ping measurements from Atlas probes and from IXP-internal machines to CDNs and other IXPs. By analyzing the RTTs they could infer whether two IXPs are remote-peering. Then they took it even further and tried to locate in which city two IXPs do the remote peering. This work has interesting research connections on the privacy aspects of internet "backbones" that is often left out of end-to-end encryption discussions.
Automatic Mail Encryption Meetup 2016	December 14-18th 2016, Berlin (Germany)	Holger Krekel (Merlinux), Max Wiehle (Merlinux)	Holger Krekel and Max Wiehle were invited to organize this new "automatic mail encryption" conference which aims to bring developers and activists together and make progress towards more massively encrypted mails.

## 2.4 Internet Governance

One of NEXTLEAP's dissemination objectives is to influence policy-makers and governments to help defend fundamental rights related to privacy and security research at the city, regional, national, European, and international levels. NEXTLEAP partners took part in

four policy conferences: Harry Halpin attended the European Dialogue on Internet Governance in Brussels with members of the Council of Europe as member of a panel on surveillance. He was invited by Slim Amamou at the IGMena in Tunis to meet human rights defenders from North Africa and the Middle East, including women fighting for gender equality in Sudan and for open internet access in Iraq. Bernard Stiegler contributed to a panel on the importance of sharing data and source code in a non-proprietary, open and reusable format in order to innovate during the Open Government Partnership Summit in Paris. Carmela Troncoso made a business case for privacy-enhancing technologies at CPDP. These conferences were important steps towards achieving the goal of NEXTLEAP to enforce data protection as a fundamental right throughout Europe, and to make Europe an example to other countries. Although NEXTLEAP's effort just began in the first year, so far we've seen interest from policy-makers in Europe as well as efforts to copy European Data Protection regulations in nations such as Brazil, and we expect to build off these efforts in the second and third year.

#### 2.4.1 Policy Conferences

Name of the conference	Date & location	Partner	Short description
CPDP – Computers, Privacy and Data Protection <a href="http://www.cpdpconferences.org/">http://www.cpdpconferences.org/</a> Seeing Privacy Enhancing Technologies as Business Enabling Technologies	January 27th 2016, Brussels (Belgium)	Carmela Troncoso (IMDEA)	Carmela Troncoso gave a talk at a panel entitled "Enhancing privacy and security through technological innovation" organized by DG CONNECT. Panel video: <a href="https://www.youtube.com/watch?v=nHQblksLL4s">https://www.youtube.com/watch?v=nHQblksLL4s</a>
European Dialogue on Internet Governance http://eurodigwiki.org/wiki/ Transcript: From cybersecurity to terrorism - are we all under surveillance%3F From cybersecurity to terrorism - are we all under surveillance?	June 8-10th, Brussels (Belgium)	Harry Halpin (INRIA)	Harry Halpin participated as part of panel "From cybersecurity to terrorism - are we all under surveillance?" with Jans Kleijssen (Council of Europe), Gregory Mounier (Europol), Valentina Pellizzer (OneWorld Platform), and Sacha van Geffen (Greenhost). Policy issues involving encryption and "end-user" cybersecurity were put forward.
Internet Governance Middle East and North Africa (IGMena) https://www.igmena.org/	September 30-October 2 <sup>st</sup> 2016, Tunis (Tunisia)	Harry Halpin (INRIA)	Harry Halpin attended at the invitation of Slim Amamou, NEXTLEAP Advisory Board member, and briefly presented the NEXTLEAP project. Users for future user studies were recruited from over 50+ at-risk human rights activists from North Africa and the Middle East.
The Open Government Partnership Summit <a href="https://ogpsummit.org">https://ogpsummit.org</a> "Les biens communs numériques" / "Digital common goods"	December 9 <sup>th</sup> 2016, Paris (France)	Bernard Stiegler (IRI)	Bernard Stiegler participated in a roundtable about the necessity of sharing data and source codes in a non-proprietary, open and reusable format, animated by Henri Verdier (French State Chief Technology Officer and Chief data officer, deputy to the Secretary General for Government Modernization) with Claire Legros and Yann Moulier-Boutang.

## 2.5 Academia

NEXTLEAP's goal was to move forward the under-theorized discussion of decentralization in the technical, social, legal and philosophical senses. Considering the interdisciplinary nature of the NEXTLEAP project, papers and journal articles were published in a wide variety of venues. With this in mind, an distinction is typically be made between computer science, where conference proceedings are usually more valued than journal publications and are published formally, and the humanities (as well as social sciences), where most conferences have a relatively high acceptance rate and often have formal no "proceedings", as what is most valued is the peer-reviewed journal publication that can precede or follow conference presentations. To distinguish these kinds of events, peerreviewed conferences with published proceedings are given an asterisk. In total, fourteen talks were given in academic conferences and there were a number of journal papers, including an e-book entitled The Internet and Privacy in 40 pages by Francesca Musiani. She also organized two workshops around decentralization and privacy, as well as two relevant edited journals. Although NEXTLEAP has not started it's own seminar series (as detailed in the Education Plan in D6.4), relevant academic seminars were given by members both at partners (such as INRIA's Prosecco Seminar) and to interested outside parties. Lastly, given the large amount of new hires by NEXTLEAP partners in terms of new Ph.D. students and researchers, considerable investment was made both teaching and attending training events in decentralization, privacy, cryptography and security - including the first-ever academic blockchain summer school.

#### 2.5.1 Academic conferences

Name of the conference	Date & location	Partner	Short description
http://www.internetsociety.org/events/ndss-symposium-2016/tls-13-ready-or-not-tron-workshop-programme  ProScript-TLS: Verifiable Models and Systematic Testing for TLS 1.3 in TLS 1.3 Ready or Not	February 21st 2016, San Diego (United States)	Nadim Kobeissi (INRIA), Karthik Bhargavan (INRIA), B. Beurdouche (INRIA)	Karthik Bhargavan attended. The work presented formal verification over TLS, a key protocol on the network layer for identity and encrypted messaging systems.
New Directions in Cryptography & Applications to Cyber-Security http://www.turing-gateway.cam.ac.uk/tgmw35.shtml	June 15th 2016, Bletchley Park (UK)	Marios Isaakidis (UCL)	Marios Isaakidis attended this conference about various contemporary issues like post-quantum, lightweight/low zero cryptography, cryptography for embedded systems, new requirements for emerging/novel applications/distributed ledger technology (eg, digital currency), cryptographic aspects of next-generation identity management, eg, biometrics, computing on encrypted data, privacy and anonymity, protocol

			Cryptanalysis and Computationally Sound Analysis of Protocols.
Hot Topics in Privacy-Enhancing Technologies (HOTPets), co-located with PETS 2016 "The Responsibility Of Open Standards In The Era Of Surveillance"	July 22nd 2016, Darmstadt (Germany)	Harry Halpin (INRIA)	This paper discusses ethical and technical issues in standardization relating to privacy and security.  Open Access: <a href="https://www.securityweek2016.tu-darmstadt.de/fileadmin/user_upload/Group_securityweek2016/pets2016/4_res_ponsibility_of_open_standards.pdf">https://www.securityweek2016.tu-darmstadt.de/fileadmin/user_upload/Group_securityweek2016/pets2016/4_res_ponsibility_of_open_standards.pdf</a>
International Association for Media and Communication Research Conference <a href="http://iamcr.org/leicester2016">http://iamcr.org/leicester2016</a> "When peer-to-peer 're-centralizes': socio-technical necessity, market drive, or failure?"	July 27-31st 2016, Leicester (UK)	Francesca Musiani (CNRS)	Francesca Musiani discussed centralization and p2p systems from a socio-technical perspective, as explored in D2.2. (CNRS)
4S/EASST Conference  www.easst.net  "Embedding rules in information technology infrastructure: a reflection"	August 31st- September 3rd 2016, Barcelona (Spain)	Francesca Musiani (CNRS)	Francesca Musiani discussed the embedding of rules into infrastructure, in particular net rights being embedded in protocols (with Annalisa Pelizza and Stefania Milan.)
Internet Science Conference (INSCI 2016) http://insci2016.complexworld.net/ "End-to-End Encrypted Messaging Protocols: An Overview"	September 12nd-14th, Florence, (Italy)	Ksenia Ermoshina (CNRS), Francesca Musiani (CNRS), Harry Halpin (INRIA)	Ksenia Ermoshina made a scientific presentation of the NEXTLEAP project: work on deliverable 3.1. The text of the presentation was published in <i>Proceedings of Internet Science Conference</i> (INSCI 2016: 244-254).
Association of Internet Researchers (AoIR) Conference http://aoir.org/aoir2016/ "Migrating Servers, Elusive Users: Reconfigurations of the Russian Internet in the Post-Snowden Era"	October 5- 8th 2016, Berlin (Germany)	Francesca Musiani (CNRS)	Francesca Musiani (with Ksenia Ershomina) discussed issues of surveillance related to a possible user studies in Russia.
Workshop on Programming Languages and Analysis for Security (Co-located with ACM CCS 2016) <a href="https://plas2016.programming.systems/">https://plas2016.programming.systems/</a>	October 24th, 2016, Vienna (Austria)	Karthikeyan Bhargavan (INRIA)	Karthikeyan Bhargavan presented "Formal Verification of Smart Contracts." focussing on a formal analysis of the reasons for the failure of smart contracts like the DAO in Ethereum, as explored in D2.1.
Workshop of Privacy in the Electronic Society, co-located with CCS 2016 "UnlimitID: Privacy-Preserving Federated Identity Management using Algebraic MACs." In Proceedings of Workshop of Privacy in the Electronic Society,	October 24th 2016, Vienna (Austria)	Harry Halpin (INRIA) George Danezis (UCL), Marios Isaakidis (UCL)	Marios Isaakidis presented UnlimitID, a work details privacy-preserving federated identity based on Oauth that uses blind signatures to prevent the identity provider from violating the privacy of its users (D2.2). Open Access: <a href="http://dl.acm.org/citation.cfm">http://dl.acm.org/citation.cfm</a> ?

			id=2994637&CFID=857072842 &CFTOKEN=74551814
International Workshop on Semantic Web (IWSW), co-located with International Congress on Information (INFO 2016) http://iwsw2016.blogspot.fr/2016/10 /final-program-of-iwsw-2016.html "Semantic Insecurity: Security and the Semantic Web"	November 3rd 2016, Havana, (Cuba)	Harry Halpin (INRIA)	Harry Halpin gave the opening talk at the workshop, discussing security and privacy considerations on open data.
International Conference on Cryptology and Network Security (CANS) http://cans2016.di.unimi.it/program "LEAP: A Next-Generation Client VPN and Encrypted Email Provider"	November 14 <sup>th</sup> -16 <sup>th</sup> , 2016, Milan (Italy)	Harry Halpin (INRIA)	Harry Halpin (with Elijah Sparrow, Kali Kaneko, and Ruben Pollan) submitted a paper on behalf of NEXTLEAP. His paper gives an overview and open security issues with the open-source codebase that some of the NEXTLEAP partners will be using in secure messaging protocols.
ASIACRYPT 2016_ www.asiacrypt2016.org "Multi-Key Homomorphic Authenticators"	December 4th-8 <sup>th</sup> , 2016, Hanoi (Vietnam)	Dario Fiore (IMDEA)	In this paper, Dario Fiore (with A. Mitrokotsa and L. Nizzardo), E. Pagnin. introduced and formally define multi-key Has, proposing a construction of a multi-key homomorphic signature based on standard lattices and supporting the evaluation of circuits of bounded polynomial depth. This new kind of multi-key signature could be used in the protocols produed by NEXTLEAP.
Security Standardization Workshop http://csrc.nist.gov/groups/ST/ssr20 16/program.html "Security Analysis of the W3C Web Cryptography API"	December 5-6 <sup>th</sup> , Washington D.C. (USA)	Harry Halpin (INRIA)	This paper (with Kelsey Cairns and Graham Steel) formally analyses the security issues with the W3C Web Cryptography API in Javascript, as used by Crypto.cat and other secure messaging tools.

## 2.5.3 Academic journals

- Simon Oya, Fernando Perez-Gonzalez, Carmela Troncoso (IMDEA), "Design of Pool Mixes Against Profiling Attacks in Real Conditions", 2016, IEEE/ACM Transactions on Networking, <a href="http://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=90">http://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=90</a>
- Dario Catalano and Dario Fiore (IMDEA), "Practical Homomorphic Message Authenticator for Arithmetic Circuits", 2016, *Journal of Cryptology*. Open Access:<a href="https://eprint.iacr.org/2015/194.pdf">https://eprint.iacr.org/2015/194.pdf</a>.
- Harry Halpin (INRIA), Alexandre Monnin, "The Decentralization of Knowledge", *First Monday*, December 2016, Vol. 21, n.12, **Open Access:** <a href="http://firstmonday.org/ojs/index.php/fm/article/view/7109/5655">http://firstmonday.org/ojs/index.php/fm/article/view/7109/5655</a>
- Francesca Musiani (CNRS), Cécile Meadel (eds.), "Reclaiming the Internet with distributed architectures.", December 2016, *First Monday*, Special Issue, Vol. 21, n.12. (Previously

supported by ANR project ADAM – Distributed architectures and multimedia applications. NEXTLEAP allowed Francesca Musiani to bring the project to completion. The special issue focusses on decentralization and distributed architectures from an interdisciplinary perspective).

• Dmitry Epstein, Christian Katzenbach, Francesca Musiani (CNRS), "Doing internet governance: practices, controversies, infrastructures, and institutions", *Internet Policy Review*, vol. 5, issue 3, 2016. **Open Access:** <a href="http://policyreview.info/articles/analysis/doing-internet-governance-practices-controversies-infrastructures-and-0#editorial">http://policyreview.info/articles/analysis/doing-internet-governance-practices-controversies-infrastructures-and-0#editorial</a>

#### **2.5.4 Books**

• Francesca MUSIANI, *Internet et vie privée en 40 pages*, 2016, Toulouse, Uppr Editions. Ebook: <a href="http://www.uppreditions.fr/livre/978-2-37168-074-6">http://www.uppreditions.fr/livre/978-2-37168-074-6</a> internet-et-vie-privee/English title: *Internet and privacy in 40 pages*.

Abstract: In recent years, the massive surge in data volume, the development of the Internet of things and of artificial intelligence, the emergence of a 'algorithmic regulation', the valorization (and the misuse) of personal data for commercial and advertising purposes, the cellular uses of the Internet, the ever-more intrusive and opaque digital surveillance have reshaped societies. These disruptive changes in society and in the digital economy go hand in hand with evolutions in how citizens expose and protect their private lives; these transformations are simultaneously technical, economic, social and cultural. Standing at the crossroad between the sociology of technologies and law, the author explores the current trends relating to privacy in the digital age, uncovers the various tensions it is subjected to, and the diversity of its definitions and reach; the author also studies the delicate balance between legal supervision and technical safeguards, surveillance and protection, business models and transparency, consumers' rights and civil liberties.

### 2.5.5 Organization and co-organizations of workshops

Track 1, 4S/EASST Conference http://www.nomadit.co.uk/easst/eass t_4s2016/panels.php5? PanelID=3840 Preview: Materializing Governance by Infrastructure	September 1st-2nd 2016, Barcelona, Spain	Francesca Musiani (CNRS), co- convenor	Blog post on the track: http://www.4sonline.org/blog/post/ materializing governance by infrastruct ure Building on the respective fieldworks of track convenors, including Francesca Musiani (CNRS), and on many submitted contributions, this track conducted at the foremost STS conference discussed technical architectures as proxies for state power and private sector influence, as technologies of governance become the heart and the 'battlefields' of economic and social conflicts.
Pre-conference to AoIR http://www.hiig.de/events/pre-aoir- the-internet-rules-but-how/ The Internet Rules, But How? An STS take on "Doing" Internet Governance	October 5th 2016, Berlin, Germany	Francesca Musiani (CNRS), co- organizer	This workshop addressed the growing interest in researching and observing IG from an STS-informed perspective.  More broadly, the workshop facilitated a discussion and an exchange of perspectives about the intertwined roles of design, infrastructures, architectures, and informal communities of practice in

l	
ı	16
	[( <del>i</del>
	10

#### 2.5.6 Academic seminars

Name	Date & location	Partner
Prosecco security seminar Encrypted messaging with Cryptocat	May 2nd 2016, Inria Paris (France)	Nadim Kobeissi (INRIA)
Microsoft Research Seminar Secure Messaging: Modern Theory and Practice.	July 25th 2016 Cambridge (United Kingdom)	Nadim Kobeissi (INRIA)
Berkeley Center for New Media, The History and Theory of New Media Lecture Series <a href="http://bcnm.berkeley.edu/2016/10/17/htnm-anthropocene-stiegler-revisited/">http://bcnm.berkeley.edu/2016/10/17/htnm-anthropocene-stiegler-revisited/</a> "Technology, Space and Reason with Bernard Stiegler Revisited. 'The New Conflict and the Faculties and Functions: Quasi-Causality and Serendipity in the Anthropocene'"	October 13 <sup>th</sup> , 2016 Berkeley (USA)	Bernard Stiegler (IRI)
Prosecco Security Seminar Traffic Analysis - When Encryption is not Enough to Protect Privacy	October 19th, 2016, Paris (France)	Carmela Troncoso (IMDEA)

### 2.5.7 Training Courses, Videos and Documentation

### • IACR Summer School on Blockchain Technologies

Corfu (Greece), May 30th-June 2nd 2016 George Danezis, Harry Halpin (INRIA), Ksenia Ermoshina (CNRS) and Marios Isaakidis (UCL) attended. George Danezis (UCL) presented D2.1 work "Decentralization as a privacyenhancing technology" to about 200 researchers and IT industry people. <a href="https://bitcoinschool.gr">https://bitcoinschool.gr</a>

#### Computer and Network Security

MIT (USA), Spring 2016 Harry Halpin attended (INRIA) this intensive course by Ron Rivest. https://courses.csail.mit.edu/6.857/2016/

#### Summer school on real-world crypto and privacy

Sibenik (Croatia), June 5-10 2016
Carmela Troncoso (IMDEA) made an "Introduction to Traffic Analysis."
Presentation online: <a href="http://summerschool-croatia.cs.ru.nl/2016/slides/CarmelaTroncoso.pdf">http://summerschool-croatia.cs.ru.nl/2016/program.shtml</a>

#### 1st Interdisciplinary Summerschool on Privacy (ISP 2016)

Nijmengen (the Netherlands), July 10-15 2016 George Danezis (UCL) and Marios Isaakidis (UCL) attended. George Danezis presented "Privacy-friendly smart metering, insurance, and other services" and "Anonymous communications beyond Tor". Presentation online: <a href="https://www.pilab.nl/isp-summerschool-2016/danezis.pdf">https://www.pilab.nl/isp-summerschool-2016/danezis.pdf</a> <a href="https://www.pilab.nl/isp-summerschool-2016/danezis.pdf">https://www.pilab.nl/isp-summerschool-2016/danezis.pdf</a>

#### Pharmakon Summer Academy (IRI)

France, August 4-17 2016

The videos are available on the website <a href="http://pharmakon.fr">http://pharmakon.fr</a>. Nick Srnicek was the main guest this year, invited to discuss platform capitalism and his "accelerationist manifesto". The following videos are of particular interest to NEXTLEAP topics:

- Bernard Stiegler, "Thinking the care with Marx into the coming exosomatization"\_https://youtu.be/ac3csuGYFxE
- Nick Srnicek, "About platform capitalism" <a href="https://youtu.be/YxT59mXDLDI">https://youtu.be/YxT59mXDLDI</a>
- Geert Lovink, "About platform theory. Discussion with Nick Srnicek" <a href="https://youtu.be/lsk-zvxeqbE">https://youtu.be/lsk-zvxeqbE</a>
- Raphaële Javary (IRI), "Capacitation and empowerment".\_ https://youtu.be/nnpPFLkihww

### International School on Foundations of Security Analysis and Design – August-September 2016

Harry Halpin attended (INRIA). He presented a session on "Decentralization Privacy and Security" (D2.1).

Presentation online: <a href="http://www.sti.uniurb.it/events/fosad16/halpin.pdf">http://www.sti.uniurb.it/events/fosad16/halpin.pdf</a> <a href="http://www.sti.uniurb.it/events/fosad16/Programme.html">http://www.sti.uniurb.it/events/fosad16/Programme.html</a>

#### • Introduction to Cryptography

Paris (France), Fall 2016.

Taught by Nadim Kobeissi (INRIA) at Conservatoire national des arts et métiers (CNAM). <a href="https://github.com/kaepora/courscrypto">https://github.com/kaepora/courscrypto</a>

IACR-SEAMS Summer School "Cryptography: Foundations and New Directions"
 Hanoi (Vietnam), Nov. 27-Dec. 4th 2016
 Harry Halpin (INRIA) to discuss NEXTLEAP protocols with both cryptographers present as well as industry representatives such as Thai Duong of Google.
 <a href="http://viasm.edu.vn/en/hdkh/cryptoschool2016">http://viasm.edu.vn/en/hdkh/cryptoschool2016</a>

## 3 Media and Dissemination Material

NEXTLEAP is working to engage with the general public on the issues of decentralization and privacy through appearances in the mainstream news media and by the use of social media. In particular, Bernard Stiegler, due to already being engaged with news media, started bringing these issues to the attention of the wider European discourse.

## 3.1 Press

There was one interview with project co-ordinator Harry Halpin and two analyses of Bernard Stiegler (IRI) in the mainstream press relevant to NEXTLEAP:

• *Les Inrocks*, June 28th, The Internet: the machine is running amock, as seen by Bernard Stiegler (in French), <a href="http://www.lesinrocks.com/2016/06/28/medias/internet-machine-folle-vue-bernard-stiegler-11850003/">http://www.lesinrocks.com/2016/06/28/medias/internet-machine-folle-vue-bernard-stiegler-11850003/</a>

- *Revue Le 1*, October 4th, "Facebook is inherently toxic and demeaning" (in French), <a href="http://le1hebdo.fr/numero/124/facebook-est-foncirement-toxique-et-avilissant-1846.html">http://le1hebdo.fr/numero/124/facebook-est-foncirement-toxique-et-avilissant-1846.html</a>
- New Scientist, February 22nd, "Apple vs FBI: Who will win this struggle for power?"
   <a href="https://www.newscientist.com/article/2078419-apple-vs-fbi-who-will-win-this-struggle-for-power/">https://www.newscientist.com/article/2078419-apple-vs-fbi-who-will-win-this-struggle-for-power/</a>

### 3.2 Social Media Presence

### 3.2.1 Facebook Group

A public group was created on Facebook: <a href="https://www.facebook.com/groups/904572596315916/?">https://www.facebook.com/groups/904572596315916/?</a> fref=ts). The group has to date 36 members who can share relevant information, events, news articles and academic public through nearly daily posting. In addition to all partners, web developers and activists who are interested in the project are also part of the group. This group is for public-facing small group discussion and the group has helped members like IRI discover possible employees like Tam Kien and has led to productive discussions around the website design.

#### 3.2.2 Twitter

On Twitter, the NEXTLEAP account NEXTLEAP2020 (<a href="https://twitter.com/NEXTLEAP2020">https://twitter.com/NEXTLEAP2020</a>) is used to share relevant information, events, news articles and academic publications but also to establish links with other projects, to create networks and to monitor the debate on technological issues. The account was started in July 2016 and currently has 69 followers. We hope that a series of high-profile media events in the second year, colloborative work on net rights, as well as the production of working open source code can increase the number of followers dramatically.

#### **3.2.3 Videos**

Three introductory videos were shot during the face-to-face meeting in Paris in September 2016. They present three of the partners explaining the goals of the NEXTLEAP project in approximately five minutes. These videos are available on Vimeo, the NEXTLEAP website and the NEXTLEAP Facebook group. Further videos still being edited include interviews with Bernard Stiegler on the future of the Web and Noam Chomsky (MIT) on the importance of funding open source software that protects privacy to be released next year.

- Francesca Musiani (CNRS): https://vimeo.com/187038671
- Georges Danezis (UCL): <a href="https://vimeo.com/187038662">https://vimeo.com/187038662</a>
- Carmela Troncoso (IMDEA): https://vimeo.com/187038660

#### 3.2.4 Blog Posts

Blog posts allow researchers to communicate their ideas to the general public in a longer form that allowed by social media, and are so an important part of NEXTLEAP. Currently we encourage NEXTLEAP researchers to use their personal blogs, and are linked to from the NEXTLEAP webpage.

• George Danezis' blog: https://conspicuouschatter.wordpress.com/

- "The Social Construction of Trust in Cryptographic Systems", February 3<sup>rd</sup> 2016.\_https://conspicuouschatter.wordpress.com/2016/02/03/the-social-construction-of-trust-in-cryptographic-systems/
- "The Poverty of "Crypto and Empire": Against a narrowing of the politics of cryptography", April 7th 2016. <a href="https://conspicuouschatter.wordpress.com/2016/04/07/the-poverty-of-crypto-and-empire-against-a-narrowing-of-the-politics-of-cryptography/">https://conspicuouschatter.wordpress.com/2016/04/07/the-poverty-of-crypto-and-empire-against-a-narrowing-of-the-politics-of-cryptography/</a>
- "Strategic nation-state attacks on proof-of-work cryptocurrencies", May 30rd 2016.\_ https://conspicuouschatter.wordpress.com/2016/05/30/strategic-nation-state-attacks-on-proof-of-work-cryptocurrencies/
- Nadim Kobeissi's blog: "Remarks on Viber Message Encryption", May 4th, 2016 <a href="https://nadim.computer/2016/05/04/viber-encryption.html">https://nadim.computer/2016/05/04/viber-encryption.html</a>
- Francesca Musiani blog post: "Materializing governance by infrastructure", Track 1, 4S/EASST Conference, August 14th 2016.
   <a href="http://www.4sonline.org/blog/post/materializing">http://www.4sonline.org/blog/post/materializing</a> governance by infrastructure
- Inria's blog post: "NEXTLEAP: sécurité des données nouvelle génération", Interview with Harry Halpin on NEXTLEAP. October 11th 2016.\_ <a href="https://www.inria.fr/centre/paris/actualites/NEXTLEAP-securite-des-données-nouvelle-generation">https://www.inria.fr/centre/paris/actualites/NEXTLEAP-securite-des-données-nouvelle-generation</a>.

## 4 KPIs

Every year, NEXTLEAP measures its performance on dissemination impact based on the KPIs for the project established in the Dissemination Plan and the Project Plan. As can be see in the following table, NEXTLEAP partners have very successful in spreading its results via participating in engaging the open source and standards community and participating in academic conferences (as well as publishing academic articles). This is reflected in the high participation in research conferences and journals, as well as the social innovation, industry or standards conferences. In this area of dissemination, the targets have been met, and often largely exceeded. There was also, due to the new graduate students hired by NEXTLEAP and new topics engaged with such as decentralization, a large amount of effort spent at academic trainings, including the first Summer School on Blockhain technologies.

Dissemination was also successful this year regarding citizen involvement in the social issues around privacy, security, and decentralization via a large amount of outreach at grassroots and citizen centric conferences. Many NEXTLEAP researchers have spoken at public initiatives for citizens and other self-organized grassroots events. These events, along with blog posts and other communication activity on social media, have contributed to forging an initial connection between these initiatives and NEXTLEAP. The NEXTLEAP consortium partner IRI is preparing its contributive platform and list of rights to spread awareness of Net Rights, and the international citizen networks contacted in the first year will be crucial for the success of these deliverables.

The NEXTLEAP consortium also reached the targeted number of events on policy issues, and have begun an active dialogue with European Internet governance, including some members of European Parliament via Advisory Board member Mattias Bjärnemalm as well as at-risk human rights defenders from across the Middle East and North Africa due to the work of Advisory Board member Slim Amamou. Partners participated in across the spectrum of events, including government and public bodies initiatives (local, national, European and international) which favor or support the use of

cryptography and the deployment of decentralized networks. We expect the contacts there to be lead to concrete interventions politically in defense of net rights over the rest of the project, and so are focusing on this more than expected.

A few areas need more development. There are many less blog-posts than expected, namely because IRI does not run a regular blog post and the researchers involved in the project blog infrequently. As a correction to this, in 2017 we will start a blog around the philosophical issues around data ethics, privacy, and security. Also, due to the lack of activity on the web-page and in social media due to IRI's infrequent updates, as there has not much engagement with the project in social media. This will addressed by hiring a web-site manager competent in social media by IRI, as the previous website manager did not have a background in social media.

Please note that some tasks were not planed to start on Year 1 and so the corresponding lines on the table remain empty, such as the online discussion over Net Rights due to start in 2017. In particular, many of the KPIs cannot be measured as they are related to protocol standardization and software development that is still under work, but these will be measured at the end of the project.

Performance Dimension	KPI	Target	Action (Objective)	Realized	%
Increase decentralized and privacy- preserving protocols	Number of Protocols produced, demonstrated, and shipped to standardization	4	Design and coding of new protocols (Task 3)	Protocol work is still in development in WP2 – WP5.	-
Bind social science and technical protocol design closer together	Number of case studies	30 overall (5 in depth)	Commit to doing case-studies with appropriate groups (Task 1)	30 surveys and 3 ongoing in depth. We expect to reach 100% next year.	50%
Spread awareness of Net Rights	Number of people participating in seminars, conferences, and online discussion of Net Rights documents	10,000	Outreach through seminars and conferences over Net Rights (Task 2)	Not started yet. Will start as soon as IRI completes platform.	-
Demonstrate portability of decentralization across different types of domains	Different kinds of domains using the protocols	10	Outreach across a diverse set of domains (Task 3)	Not started yet. The protocols are still under development.	-
Demonstrate	Number of	100,000	Outreach	Not started yet.	_

scalability and use with real- world citizens to enable bottom- up participation	individual citizen users that take up our protocols		over centralization and mass surveillance in larger ethical backdrop (Task 2)	The protocols are still under development.	
Increase co- operation and innovation capacity of Europe	Number of open-source projects, businesses and public institutions that adopt our protocols	12	Outreach to public institutions and the 'privacy market' (Task 2)	Not started yet. Protocols and software still under development.	-
Demonstrate durable interdisciplinary foundations of Internet science	Number of interdisciplinar y panels	15	Encourage researchers from across disciplines to work together (Task 1)	5	33%
Dissemination Typ	oe	Examples	Target (per year)	Realized	%
Dissemination Typus User-facing websi		Posts on George Danezis' blog, Nadim Kobeissi's blog, INRIA blog		Realized 6	% 15%
		Posts on George Danezis' blog, Nadim Kobeissi's blog, INRIA	year)		

	Website visitors, presentation video viewers			
Research Conference	NDSS TRON, Hot Topics in Privacy- Enhancing Technologies (HOTPets), 4S/EASST Conference, Internet Science Conference, Association of Internet Researchers (AoIR) Conference, ACM CCS, ASIACRYPT,	8	13	160%
Social Innovation, Industry, or Standards Conference	W3C Workshop, FOSDEM, PGPSummit, OpenPGP Conference, RIPE NCC IXP Tools Hackathon, CPDP - Computer Privacy and Data Protection, Trust in Digital Life	3	12	400%
Policy Conferences	European Dialogue on Internet Governance, Internet Governance Middle East and North Africa (IGMena),	3	4	130%
Grassroots Citizen Conferences	Internet	5	10	200%

	Freedom Festival (IFF), Cryptoparty, Worldwide LEAP developer meeting, Brick Lane Debates, Elevate Festival,			
Research Journals	Internet Science, Journal of Cryptology, First Monday, Internet Policy Review,	3	8	230%
Media Event	Les Inrocks, Revue, New Scientist	2	3	150%
Training Courses, Videos and Documentation	IACR Summer School on Blockchain Technologies, Summer school on real-world crypto and privacy, Computer and Network Security, Pharmakon Summer Academy,	5	8	160%