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# 1. Executive Summary

This document presents SP12's communication and dissemination goals, strategy, and activities during SGA2.

## 2. Introduction

### 2.1 SP12 positioning statement (from HBP's SGA2 Dissemination Plan (D11.4.1))

SP12 research focuses on the identification and analysis of social, philosophical, ethical, and legal issues raised by neuroscience and computing in general and HBP research in particular, while ensuring HBP compliance with relevant ethical principles and guidelines, engaging in capacity building and promoting productive ethical discussions between multiple stakeholders. The concrete nature of its results (attentive to the needs of HBP researchers and feeding directly into their agenda, while facilitating interactions between the public and HBP researchers) enriches and expands public involvement, analysis, and dialogue and thus represents a significant advance beyond the state of the art.

### 2.2 SP12 Communication and Dissemination general goals

In this report, we follow the HBP's SGA2 Dissemination Plan (SGA2 Deliverable D11.4.1 (D71.1 D12)) understanding of dissemination as "communication of Key Results to those who can use, benefit from or exploit them" and communication as directed to more general audiences that may not be able to benefit directly from project work.

SP12's communication and dissemination strategy has been carried out with the following goals in mind:

- To raise awareness of the social, philosophical, ethical, and legal aspects of HBP research (recognised already in the initial planning stages of the project), its goals and its products.
- To communicate how those issues are addressed at the practical and theoretical level in the Project and particularly within the framework of responsible research and innovation (RRI).
- To enhance the HBP's visibility as a leader in addressing social, philosophical, ethical, and legal issues by basing a practical ethics approach on research in neuro-ICT ethics, philosophy, and social science.
- To encourage reflexive and responsible research and innovation within and beyond HBP.

## 3. Communication

### 3.1 Internal communication (within SP12 and the HBP)

To facilitate internal communication within SP12, we created a communication working group with members of each WP that has met on a regular basis during SGA2 to facilitate exchange of ideas regarding communication within and outside the Project, and to discuss dissemination strategy. The aim of SP12's communication with other SPs has been

- To raise awareness of the ethical and societal issues raised by the research, to promote a transparent interaction, and to foster collaboration in the interpretation of the impact of different neuroscientific findings.
- To develop and implement a detailed external communication and dissemination strategy for SP12 including liaising with the PCO and other SPs to realise these aims.

## 3.2 External communication

SP12's external communication goal has been further awareness of the ethical, social and legal issues raised by HBP research and how they have been identified and addressed by its ethics and society structure. Our diverse communication and dissemination activities during SGA2 have promoted HBP's visibility and ensured that the HBP is recognised as a leader in identifying, addressing ethical issues raised by its research and in implementing RRI. Among the activities:

- Development of video and text content for different domains (YouTube, HBP website)
- Description (in informal talks and interviews) of the scope of the Project and of some of the ethical and social issues raised and how they are addressed.
- Presentation of HBP's ethical framework, distinguishing it from ethical approaches in other brain initiatives
- Development of working collaborations with other Brain Initiatives to support the creation of ethics strategies to address brain research impact in general and HBP research in particular.
- Organisation of workshops with international participants across academia, industry and policymaking with the aim of disseminating and communicating research conducted by SP12 and the wider HBP.

## 4. Dissemination: Messaging and audiences

Our scientific dissemination strategy has aimed to reach a variety of audiences via a number of channels, from publications to event participation. The table below, initially included in HBP's SGA2 Dissemination Plan, SGA2 Deliverable D11.4.1 (D71.1 D12), presents the different audiences and relevant messaging.

**Table 1: SP positioning messaging**

Audience	Positioning message for this audience
SIB and Directors	SP12 <ul style="list-style-type: none"> <li>• provides ethical, social and philosophical guidance to enhance knowledge and decision making</li> <li>• facilitate assessment of the research on the basis of the RRI framework</li> </ul>
Other SPs	SP12 <ul style="list-style-type: none"> <li>• develops and implements ethics governance measures</li> <li>• ensures communication, awareness and open interaction.</li> <li>• undertakes joint empirical and philosophical research</li> </ul>
EC and other national and EU policymakers	SP12 provides <ul style="list-style-type: none"> <li>• ethics support to make sure that the project complies with ethical standards</li> <li>• necessary philosophical/social research on topics of interest to the European citizen</li> <li>• good practices in ethics support, responsible dual use and ethical data governance</li> </ul>
Neuroscientific and ICT community in general	SP12 Builds awareness of the HBP-unique approach to identifying, addressing and managing ethical/legal/social/philosophical issues raised by Big neuroscience-ICT projects.



Public	SP12 Builds awareness about the HBP's commitment to ethical discussion and the principles of RRI and the need for a careful evaluation of the ethical quality of HBP research products.
All	SP12 identifies and evaluates the potential social, ethical, philosophical impact of new knowledge and technologies produced by the HBP, and undertakes deliberate engagement with the neuroscientific, related ICT and public communities at a global level.
Social and legal scientists, humanities researchers	SP12 offers new knowledge on ethics and responsibility in neuro-ICT research

## 5. Dissemination and communication activities during SGA2

SP12 has communicated and disseminated via a wide range of channels, primary and supporting, including, but not limited to, briefs, newsletters, workshops, social media and webinars. The activities have reached out to citizens, experts, policy makers, academics, and other stakeholders.

### 5.1 Primary channels

#### 5.1.1 *Scientific publications*

##### 5.1.1.1 Articles

SP12 research team is an international, multi-disciplinary group. Our diverse backgrounds have allowed us to approach important questions posed by neuroscientific research from social, biopolitical, philosophical, ethical, and clinical perspectives. The issues raised revolve not just around how to carry research out in an ethical and responsible way but also around how to link the research to societal needs and how to approach some of its individual and societal consequences. We have published several peer reviewed articles in high impact journals as main or sole authors (for example, in *Frontiers in Systems Neuroscience*, *AJOB Neuroscience*, *Regenerative Medicine*, *Frontiers in Psychiatry*, *Frontiers in Psychology*, *Neuron*, *Neuroethics*, *IEEE Security and Privacy*, *Front. Neuroinform*) and SP12 researchers have also contributed to a number of high-profile, peer reviewed articles in journals such as *Neuron*.

Below a selection of some of the topics discussed and relevant articles that have reached a wide audience and have received a substantial amount of attention (as per Altmetric Attention Score which, by analysing a variety of outlets, provides a weighted count of all the online attention received by a research product).

##### 5.1.1.1.1 *Data governance and general description of ethical issues raised by HBP research*

We showcase two articles below. The first (P1858) focuses on ethical issues arising from the use of big data in international neuroscience collaborations. It develops the concept of 'responsible data governance', applying the principles of Responsible Research and Innovation to the challenges presented by governance of neuroscience big data in the HBP. The article outlines responsible data governance actions and relationships over the data lifecycle. The HBP Medical Informatics Platform is used as an example to illustrate 'responsible data governance' processes and structures. Altmetric score: 36.

The second article (P1665), co-written with researchers of SP12 and other HBP SPs, focuses on this topic. Article discusses concerns about privacy and data protection, military use of neuroscientific findings, consciousness, and artificial intelligence among others.

P1858 Fothergill, B. T., Knight, W., Stahl, B. C. and Ulnicane, I. (2019) Responsible Data Governance of Neuroscience Big Data. *Front. Neuroinform.* 13:28. doi: 10.3389/fninf.2019.00028

P1665 Salles, A., Bjaalie, J., Evers, K., Farisco, M., Fothergill, T., Guerrero, M., Maslen, H., Muller, J., Prescott, T., Stahl, B. C., Walter, H., Zilles, K., Amunts, K. (2019) The Human Brain Project: Responsible Brain Research for the Benefit of Society. *Neuron*; 101:3; doi:10.1016/j.neuron.2019.01.005. Article metrics PLUMX Citations 5, Captures: Exports-Saves: 4, Readers: 47 Social Media: Shares, Likes & Comments: 270. Tweets: 131

#### 5.1.1.1.2 *Consciousness*

Consciousness is a first-person experience that cannot be known objectively from the outside. This means that in order to know whether a particular entity is conscious or not some criteria is needed. Combining empirical findings and conceptual approaches, the article below by researchers from SP3 and SP12 present operational criteria for detecting consciousness in some particularly challenging cases, for example, in non-human animals, machines, and people with compromised ability to communicate (for instance comatose patients).

P2013 Pennartz, C., Farisco, M., Evers, K. (2019) Indicators and criteria of consciousness in animals and intelligent machines: an inside-out approach. *Frontiers in Systems Neuroscience.* 25 doi: 10.3389/fnsys.2019.0005. Altmetric score: 43.

#### 5.1.1.1.3 *Fundamental neuroethics/ Dialogical Approach to Ethics*

How to conceptualise and address the ethical and societal issues raised by neuroscience? While there is agreement that neuroscientific research raises a number of challenging issues there is no consensus regarding how to examine those issues. The first paper below (P1929) defends fundamental neuroethics, a conceptual approach (developed by the HBP's Neuroethics team) that has received significant attention internationally, particularly within the international brain initiatives.

The second article (P1857) develops a novel approach to ethics in neuro-ICT research, based on discourse ethics and Responsible Research and Innovation. This dialogical approach helps to overcome limitations of current research ethics practice, based on ethics reviews by institutional review boards and underpinned by ethical principlism. The novel ethics dialogues approach draws on practices developed in the HBP.

P1929 Salles, A., Evers, K., Farisco, M. (2019) The need for a conceptual expansion of neuroethics. *AJOB Neuroscience*; 10:3, doi:10.1080/21507740.1632972. Altmetric score: 22.

P1857 Stahl, B. C., Akintoye, S., Fothergill, B. T., Guerrero, M., Knight, W. and Ulnicane, I. (2019) Beyond Research Ethics: Dialogues in Neuro-ICT Research, *Front. Hum. Neurosci.* 13:105. Altmetric score: 25.

#### 5.1.1.1.4 *Drug addiction and the brain.*

Drug addiction is one of the most urgent problems afflicting our society. Addiction has been typically understood in terms of brain mechanisms that are beyond the individual control, or as the effect of the individual choices of the addicted. The article below combines these two classical approaches, stressing the causal role played by the socio-economic status of the individual through the impact on his unaware brain activity. On the basis of this, the paper argues for a socio-political form of responsibility for preventing and managing addiction crisis.

P1827 Farisco, M., Evers, K., Changeux, J.-P. (2018) Drug addiction: from neuroscience to ethics. *Frontiers in Psychiatry*; 9: 595 doi: 10.3389/fpsy.2018.00595. Altmetric Score: 12.

### 5.1.1.2 Books

P1063 Rose, N. *Our Psychiatric Future* (2019). Each of the nine chapters of this important contribution examines a major controversy in the field of psychiatry: how to understand mental disorders. It addresses issues such as the scale of psychiatric diagnosis, and the future of psychopharmacology among others.

### 5.1.1.3 Opinions

The Ethics & Society SP has produced a number of joint research documents known as Opinions. Opinions are expected to shape the HBP's approach to specific issues particularly relevant to the project (such as, for example, Data Governance or Dual Use). During SGA3, SP12 researchers developed the Opinion Trust and Transparency in Artificial Intelligence (SGA2 Deliverable D12.5.4 (D79.4 D51)), examining crucial aspects in the discussion regarding trustworthiness of AI, how to understand it and implement it in that context.

### 5.1.1.4 Reports

The Ethics and Society group has published reports on the basis of reviews of the relevant literature, and webinars attended by representatives from different SPs of the HBP and leading experts in the relevant field. Topics include Machine Learning and Big Data for Neuro-diagnostics, (SGA2 MS12.1.1), Neuromorphic Computing and Infrastructure and Community Building, (SGA2 D12.1.1) among others.

### 5.1.1.5 Briefs

The Ethics and Society group has published briefs highlighting some of the important research and work areas that has been carried out in SGA1 and SGA2 (From 2014 to 2020). They can all be found at the DBT webpage<sup>1</sup>. One example is the brief on Dealing with the dual use of HBP research - the citizens perspective<sup>2</sup>. This brief presents the fine line that European citizens want HBP and other neuroscience research projects to walk between civilian and PSIM research, along with the most common concerns held by citizens and the recommendations that citizens gave for addressing them. Citizens across Europe endorse neuroscience research, which they find to be important and beneficial. However, they have concerns about its potential political, security, intelligence or military uses and its possible wider societal consequences and call for action from policy makers to address these concerns.

## 5.1.2 *Presentations at conferences and workshops (selection)*

Members of the Ethics and Society Subproject regularly gave keynote speeches, invited talks, and presentations as well as organised panels at major international scientific conferences and workshops. These provided excellent opportunities to share research and good practices and develop links with diverse scientific disciplines, research fields and other projects doing research on ethics, neuroscience, ICT, science and technology studies, philosophy, Political Science, policy studies, governance of emerging technologies and other areas.

Overall, SP12 researchers have participated in over 70 events (diverse conferences and workshops such as ORBIT, Global Neuroethics Summit, IBRO, European Association for the Study of Science and Technology EASST, Science in Public, ETHICOMP, UK Association of Studies in Innovation, Science and Technology AsSIST-UK.)

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<sup>1</sup> <https://tekno.dk/article/publications-human-brain-project/?lang=en>

<sup>2</sup> <http://tekno.dk/wp-content/uploads/2015/10/Nr.-7-Dealing-with-dual-use-of-HBP-research-The-citizens-perspective-1.pdf>



Specific examples:

- SP12's leader, Kathinka EVERS, was a keynote speaker in Max Planck Symposium: Nature-Culture (13 December 2018, Berlin, Germany). The Max Planck Symposium was an interdisciplinary attempt to bring together influential scholars from many different fields studying consciousness, e.g. anthropology, psychiatry, philosophy and neuroscience. The upshot was increased collaborations across these fields, and a planning of a five-day workshop for 2021 in the aim of strengthening this interdisciplinary approach to consciousness studies. (E1690)
- The Neuroethics working group of the International Brain Initiative meets yearly in South Korea. In this important international forum, SP12 researchers have been able to provide an overview of the ethical and societal issues confronted by the HBP and enhance HBP's leadership in addressing and managing them. In particular, last year SP12's researcher Arleen SALLES presented the HBP's neuroethical approach in the Global Neuroethics Summit 2019, Daegu, South Korea, September 26 2019. (E363)
- SP12 colleague Nicklas BANG BÅDUM presented the EuropeSay process, where 900 citizens in 13 countries, across 156 events were engaged and consulted on AI. The presentation was at the Second Citizen Engagement Festival Brussels, organised by the Joint Research Council of the European Commission in December 2019 (E1977).
- HBP Ethics and Society researchers from the Foresight Lab and Ethics Support team organised panels at Science in Public Conferences in 2018 (Cardiff, UK) and 2019 (Manchester, UK) to share practices developed at the HBP. Science in Public conferences bring together some 200 interdisciplinary and international researchers and practitioners from the fields such as science communication, Science and Technology Studies and science policy. The panels organised by the HBP researchers provided an opportunity to present and reflect on the HBP work on Responsible Research and Innovation, data governance, dual use, Artificial Intelligence and other topics as well as allowed to get feedback and establish links with relevant research and practitioner communities. (E615 for 2019 and E1735 for 2018)

### 5.1.3 *Organisation/Co-organisation of conferences*

SP12 researchers co-organised 4 major conferences (Y1E0373, E1943, E362, E1600). Co-Organisation and Organisation of these conferences has included active involvement in the planning of the events from the beginning, including selection of relevant topics and speakers, participation as Keynote speakers, and poster presentation. Example:

- E1566 HBP International Conference Understanding Consciousness: A scientific quest for the 21st century, Barcelona, Spain, June 2018). The HBP international conference on consciousness in Barcelona drew together a number of world-leading figures in the field and a broad audience of researchers, students and professionals. It was the first cross-HBP conference of that magnitude ever organised and is expected to be the first in a series. As one result of that conference, a Special Issues in Frontiers is forthcoming in 2020 with contributions from a wide range of influential researchers on consciousness.

### 5.1.4 *Organisation of workshops and webinars (selection)*

SP12 researchers have organised a range of workshops and webinars both internally for HBP partners and externally, engaging the public and scientific communities (E1612, E1590, Y1E0123). To illustrate, during December 2019, an **EBRAINS Community Building Workshop** (E1208) was held in Brussels. The aim of the workshop was to gain insight into the wishes and needs of stakeholders to the EBRAINS research infrastructure. Participants included representatives of patient organisations, clinicians, medical and IT industry, and neuroscientific networks. The results of the workshops where insights and recommendations to be included in the EBRAINS community building, aid in the benefit the EBRAINS research infrastructure may provide to society.

In March 2019 the **AI 360 Workshop** was held in Copenhagen (E1997). This workshop was designed to facilitate a comprehensive evaluation of the future implications of Artificial Intelligence (AI). The

workshop brought together recognised experts in rights and ethics, law, social science, culture, politics and economy for a multi-dimensional and thorough treatment of AI and its implications for our future societies. The AI 360 methodology is a multidisciplinary approach to identifying the most important societal implications of AI, and for producing concrete action-oriented solutions. The outcome of AI 360 | COPENHAGEN is a report delivered to the European Commission, the Human Brain Project, and fed into a Europe-wide citizen engagement process on AI called EuropeSay.

Ethics and Society researchers also organised and/or participated in workshops and webinars on topics such as Ethics and neurorobotics and RRI. Specifically, the HBP Ethics and Society Subproject and Neurorobotics Subproject researchers met for one-day **Workshop on Ethics and Neurorobotics** to discuss current developments in the field of neurorobotics and ethical and societal issues they raise including dual use, academia-industry collaboration and data governance. The workshop led to collaborative research on these topics and preparation of a collaborative publication.

(Y1E0387 Ethics and Neurorobotics workshop of Ethics and Society Subproject and Neurorobotics Subproject 14.09.2018 Technical University of Munich <https://www.ethicsdialogues.eu/2018/11/02/ethics-and-neurorobotics-workshop/>)

In November 2018, at the **HBP Curriculum Workshop**, Ethics and Society members provided lectures on Responsible Research and Innovation, Artificial Intelligence, public engagement and other topics for a group of international and interdisciplinary students. Lectures were recorded and are available on the HBP website. E1813 Research, Ethics and societal impact workshop of Ethics and Society subproject and HBP Education 15-17.11.2018 Karolinska Institute, Stockholm

<https://education.humanbrainproject.eu/web/2nd-hbp-curriculum-workshop-series/ethics-workshop>

Finally, a **Data Policy Manual Webinar** by Ethics Support team members was designed to answer frequently asked questions about data governance, data protection, compliance and the HBP Data Policy Manual. The webinar was primarily addressed to the HBP Ethics Rapporteurs but was open to other HBP members as well. Recording is made publicly available on the HBP website. E1698 6.12.2019 [https://www.youtube.com/watch?v=nn5Z4CpmtgQ&feature=emb\\_title](https://www.youtube.com/watch?v=nn5Z4CpmtgQ&feature=emb_title)

## 5.2 Supporting Channels

### 5.2.1 HBP website content

Periodic update of content in “Social, Ethical, Reflective,” including the following videos (views from March 18, 2020):

- “What makes us human”  
<https://youtu.be/hm4XK02dFIU> This video provides an introduction to the societal and ethical issues raised by brain research by posing the question of the role played by neuroscience in unveiling our humanness.
- “Informed consent” -  
This video introduces viewers to the notion of consent, what it means, how it is necessary, and what “informed” means. 249 views <https://youtu.be/mOCb3lRprwM>
- Interviews: (addressing topics such as consciousness, neuroethics, citizens’ engagement, data protection, among others)
  - 1- Kathinka EVERS, <https://youtu.be/aYToCHJnwgg>
  - 2- Arleen SALLES, <https://youtu.be/EwZlRkFoBh8>
  - 3- Michele FARISCO <https://youtu.be/TGgEtDQIYEs>
  - 4- Lars KLÜVER <https://youtu.be/GRtLjZYfPM>
  - 5- Nicolas ROSE <https://youtu.be/ePMNrFV03BQ>

- 6- Manuel GUERRERO <https://youtu.be/yAaxk2fsZZI>
- 7- Bernd STAHL (No longer online)
- 8- Tyr FOTHERGILL (No longer online)
- 9- Kathinka EVERS <https://www.humanbrainproject.eu/en/follow-hbp/news/a-continuum-of-consciousness-the-intrinsic-consciousness-theory/>
- E2150 Michele FARISCO Neuroscience of Drug Addiction highlights policy/ethical issues <https://www.humanbrainproject.eu/en/follow-hbp/news/neuroscience-of-drug-addiction-highlights-policy-ethical-issues/> Starting from empirical data about the connection between aware and unaware brain operations, this blog post suggests that different caring strategies for addiction might be implemented, for instance through a direct pharmacological approach or through an indirect approach aiming at influencing the brain by altering external environmental conditions, including cultural and social institutions. In particular, considering that brain development is particularly sensible to external inputs for about 20 years after birth, the experiences during this period of time, especially familiar and educational conditions, play a crucial role in exposing the subject to the risk of addiction.

## 5.2.2 Media coverage

### 5.2.2.1 Citizen and stakeholder engagement on AI

The stakeholder engagement on AI through the AI360 COPENHAGEN workshop was promoted in Danish national radio (E2253) and on social media via Facebook. Related interviews on AI and results from the workshop has been published in Danish newspapers (E2250<sup>3</sup>, E2252<sup>4</sup>) and via a newsletter (E2256<sup>5</sup>) and report (E1996<sup>6</sup>).

The citizen engagement on AI through the EuropeSay consultations was promoted through Facebook and twitter campaign to hire hosts. Hiring was also done by direct promotion through relevant public organisations. In relation to EuropeSay two interviews has been published in Danish newspaper (E19117, E19128) and on Danish national radio (E17709) and an article on the DBT webpage<sup>10</sup>.

### 5.2.2.2 HBP neuroethics

In addition to the above, SP12 researchers have written for online journals, for printed media and given interviews to newspapers.

Some examples:

**Online journal** - E2147 Michele FARISCO Coma patients might feel pleasure and pain like the rest of us <http://scienordic.com/coma-patients-might-feel-pleasure-and-pain-rest-us>  
<https://videnskab.dk/krop-sundhed/foeler-komapatienter-smerte-og-nydelse-ligesom-os-andre>

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<sup>3</sup> <https://www.version2.dk/blog/kunstig-intelligens-vi-loeber-loebesk-ud-stepperne-1087770>

<sup>4</sup> <https://www.version2.dk/artikel/teknologiraadet-drop-etiske-guidelines-stil-tekniske-krav-ordentlig-ai-1087920>

<sup>5</sup> [https://tekno.dk/wp-content/uploads/2019/08/AI360\\_Newsletter..pdf](https://tekno.dk/wp-content/uploads/2019/08/AI360_Newsletter..pdf)

<sup>6</sup> [https://tekno.dk/wp-content/uploads/2015/10/AI360\\_HumanBrainProject\\_Recommendations\\_report-1.pdf](https://tekno.dk/wp-content/uploads/2015/10/AI360_HumanBrainProject_Recommendations_report-1.pdf)

<sup>7</sup> <https://techst.dk/hvad-mener-du-om-brugen-af-kunstig-intelligens/?fbclid=IwAR2Sr6sHYcMXW6BgHSErPNaSOWUY30kNRffysYQHxkih85Z00JswUBia-WA>

<sup>8</sup> <https://techst.dk/eu-plan-for-kunstig-intelligens-faar-opbakning-fra-erhvervsliv-og-borgere/>

<sup>9</sup> <https://www.dr.dk/radio/p1/orientering/orientering-2020-02-18/00:46:49>,

<https://www.facebook.com/teknologiradetDBT/posts/2716628511746232>,

[https://www.linkedin.com/posts/the-danish-board-of-technology-foundation\\_httpslnkdingbpb6hm7-kunstig-intelligens-activity-6635814630327488512-UQPE](https://www.linkedin.com/posts/the-danish-board-of-technology-foundation_httpslnkdingbpb6hm7-kunstig-intelligens-activity-6635814630327488512-UQPE), [https://www.linkedin.com/posts/the-danish-board-of-technology-foundation\\_skal-vi-regulere-og-lovgive-om-udviklingen-activity-6635531096736047104-V2rB](https://www.linkedin.com/posts/the-danish-board-of-technology-foundation_skal-vi-regulere-og-lovgive-om-udviklingen-activity-6635531096736047104-V2rB)

<sup>10</sup> <http://tekno.dk/article/eusay-ai/?lang=en>

Usually we think that some abilities are exclusive prerogative of what we call consciousness as opposed to the unconscious. This blog post suggests that this dualistic view contrasting consciousness and the unconscious might fail to recognise the strong link between them. Particularly, aware and unaware brain levels share not only cognitive abilities, but also the capacity to experience emotions, both positive and negative. This has important ethical implications, for instance for the treatment of comatose patients.

**Printed media** - Il Sole 24 Ore (Newspaper, Milan) requested an opinion piece on how the HBP addresses the ethical issues raised. Such piece was published May 2019 (reference below). E371 Arleen SALLES Serve una teoria neuroetica per "guidare" la ricerca sul cervello. domenica 05 MAGGIO 2019.

**Newspaper Interview** - La Nacion (one of two main newspapers in Buenos Aires, Argentina) interviewed Dr Salles to talk about neuroethics and specifically how the HBP identifies and addressed the main ethical and societal issues raised by its research. E2141 Arleen SALLES Ethics in the Big Brain Initiatives. <https://www.lanacion.com.ar/sociedad/arleen-salles-la-neuroetica-se-ocupa-lo-nid2168733>

Cordis article on Ethics in the Human Brain Project 31 May 2019 <https://cordis.europa.eu/article/id/125258-shaping-the-ethical-direction-of-the-hbp-for-the-public-interest> This article on the European Commission's research portal Cordis interviews HBP Ethics and Society Subproject leader Professor Kathinka EVERS and Ethics Director Bernd STAHL. The article highlights good ethics and Responsible Research and Innovation practices developed in the HBP, mentioning data governance, Artificial Intelligence and public engagement activities organised by the Danish Board of Technology.

## 5.2.3 Blogs

### 5.2.3.1 Ethics Dialogues <https://www.ethicsdialogues.eu/>

The Ethics Dialogues has had 45 blog posts (October 2018-March 2020). Based on Ethics Support dialogical approach to ethics, this blog has brought together various tasks, good practices, scientific publications and collaborations with HBP colleagues and external stakeholders.

The goal of Ethics Dialogues is:

- To facilitate research-based ethics dialogues with HBP members, Ethics Rapporteurs and the Ethics Advisory Board to support reflection, good practice and compliance.
- To develop good practices for ethics support processes, combining empirical research and practice as part of the HBP's approach to Responsible Research and Innovation.

The blog posts in diverse formats have covered a broad range of our activities including:

- Q&A with all Ethics Support Task leaders introducing their Tasks: Ethics Support in the HBP, compliance, support for Ethics Advisory Board, support for Ethics Rapporteurs, Ethics Support Outreach and Dissemination, Ethics-related Data Governance and Data Protection
- Disseminating findings of our scientific publications on dialogical approach to ethics and responsible data governance
- Highlighting our collaborative workshops within HBP such as on social and ethical aspects on neurorobotics as well as our sessions co-organised with the Foresight Lab at the Science in Public Conferences in 2018 and 2019
- Showcasing our links with international networks such as neuroethics and data working groups of the International Brain Initiative and responsible innovation in neurotechnology work of the OECD
- Providing an opportunity for interdisciplinary young researchers doing their internships with Ethics Support team to reflect on their experiences of learning about ethics of technology and attending HBP Education events

- Giving a voice to our collaborators within the HBP, such as Task T11.2.5 *Coordination of Gender Equality Activities* and Ethics Rapporteurs, as well as outside the HBP, such as the SIENNA project

All blog posts are publicly available to HBP members, stakeholders and broader public. They provide a rich resource about the HBP, RRI and ethics of technology including many links to further resources (videos, publications, websites etc.). According to Google Analytics, by early March 2020 the blog had some 3,500 users and more than 9,000 page views.

### 5.2.3.2 HBP Neuroethics and Philosophy Blog <https://ethicsblog.crb.uu.se/tag/neuroethics/>

The HBP Neuroethics and Philosophy Blog has had 14 posts (April 2018, March 2020) on neuroethics issues. Researchers, policy makers, journalists and the public read the blogs, and posts about HBP work have stimulated broader international media interest. It has 6,652 followers April 2020.

The HBP Ethics and Philosophy Blog focuses on neuroethics broadly understood. This entails addressing practical issues such as whether brain research subjects give their informed consent, and whether their privacy is protected, empirical issues such as what neuroscientific findings can tell us about how humans make moral decisions, and conceptual issues such as how to interpret neuroscientific findings, and how to understand notions such as mind reading, human identity and privacy. The main goal of the Blog is to introduce readers to some of the many complexities involved in addressing these issues, and promoting a careful and multilevel reflection on them.

In particular, the Blog has examined the notion of an ethics of the whole brain, has delved into the issue of drug addiction as a mental and social disorder, provided novel models of consciousness and implications for the ethical treatment of patients with disorders of consciousness, has introduced and discussed neuroethical reflection in the Human Brain Project, and presented the issue of cultural awareness in the international brain initiatives.

### 5.2.4 *Twitter handles*

@HBPEthics

@HBP\_Ethics\_Sppt