

# Inclusive Robotics for a better Society



D6.4: 2nd documentary video on interactive robotics applications and impacts

Version 3.0

24.01.2020



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## DOCUMENT HISTORY

HISTORY OF CHANGES			
Version	Date	Modified by	Change
1.0	31.12.2019	Daniel López	Initial version
2.0	14.01.2020	Pilar Raya / Juan C. Moreno	Small changes (data and format updates)
3.0	24.01.2020	Daniel López	Final version

### Table of contents

<b>1. Context</b>	<b>2</b>
<b>1.1. Communication strategy of INBOTS</b>	<b>2</b>
<b>1.2. 1st documentary video</b>	<b>2</b>
<b>2. 2nd Documentary video</b>	<b>3</b>
2.1. Introduction	3
<b>2.2. Concept</b>	<b>3</b>
<b>2.2. Objectives</b>	<b>3</b>
<b>2.3. Interviews</b>	<b>4</b>
2.3.1. External stakeholders	4
2.3.2. Interdisciplinarity	5
2.3.3. Gender Balance	5
<b>2.4. Events</b>	<b>6</b>
2.4.1. GFAIH	6
2.4.2. INBOTS Annual Meeting	6
<b>2.5. Focus Groups</b>	<b>6</b>
2.5.1. Innovative Young Women	6
2.5.2. Instituto Alonso de Berruete de Palencia	6
<b>3. Results</b>	<b>7</b>
<b>3.1. Present status</b>	<b>7</b>
<b>3.2. Final launch</b>	<b>7</b>

# 1. Context

## 1.1. Communication strategy of INBOTS

This second documentary forms part of the project's communication strategy, presented in detail in Deliverable D7.3. The overall objective of this strategy is to make sure that results from the INBOTS project reach relevant stakeholders and the general public, as well as to ensure its sustainability beyond the running time of the project.

Within the mentioned strategy, the three documentaries (one for each year of the project's development) should depict the current state-of-the-art of interactive robotics and its impacts on society, and are aimed at raising awareness among the general public about interactive robotics.

One of the key problems identified in the project is, in turn, its value proposition: INBOTS will stand out by overcoming the lack of clear understanding and communication between all involved stakeholders, and by creating a community hub capable of bringing together experts to debate and create a responsible research and innovation paradigm for robotics. This objective is present in both documentaries.

## 1.2. 1st documentary video

The 2nd documentary video on interactive robotics applications and impacts of the INBOTS Project is a complementary continuation of the first documentary (Deliverable [D6.3](#)).

In the first deliverable, an industrial aesthetic was utilized in order to present the project's objectives mainly through messages from members of the consortium. Thanks to the use of chroma, images of CSA meetings, shots of the different partners and fragments of text alluding to the problems dealt with in the project's different work packages were projected on the background.



The main objectives met in this work were to increase awareness about INBOTS, and also on the consortium members, for the primary and secondary target groups identified in Deliverable D7.3.

## 2. 2nd Documentary video

### 2.1. Introduction

This second documentary focuses on two general objectives for the project. On the one hand, it seeks to establish a working synergy between external stakeholders in Interactive Robotics in Europe, filming their experiences and learning about related projects they are involved in (raising first-hand awareness on the INBOTS project, as well). On the other hand, the format moves away from the classic industrial aesthetic to draw closer to a different aesthetic, one inspired by research documentaries and film styles that strive to have a deep effect on end users and the general public.



### 2.2. Concept



The questions asked in the documentary are based on the keywords related to robotics that get the most searches in Google. This is designed to provide answers to what most concerns the general public when it comes to understanding the current and future state of interactive robotics, as well as to encourage debate on its ethical, legal and socio-economic

aspects. The storyline reflects the journey from traditional industrial robotics (confined industrial robots) to interactive robotics, focusing on the consequent need to create interdisciplinary work groups.

### 2.2. Objectives

1. To stand out by overcoming the lack of clear understanding and communication between all involved stakeholders.
2. To coordinate with external stakeholders, such as related projects and institutions, to ensure wide outreach for INBOTS communication activities.
3. To transmit to the general public in Europe the importance of interactive robotics for our societies to develop.
4. To clarify concepts and reflect the true current state-of-the-art of interactive robotics and its impact on society, helping as such to move the general public away from media distortions often influenced by excessively-high expectations.
5. To promote social appropriation of interactive robotics in Europe.

## 2.3. Interviews

A total of 38 personal interviews have been done.

### 2.3.1. External stakeholders

Of the 38 interviews done, only 9 were done with members of the INBOTS consortium (24%). The remaining 29 (76%) took place in organizations outside of the project but that participate in related projects. Among them, it is worth mentioning the following:

Name	Organization
Bernard Stiegler	Center Pompidou
Teresa de Pedro	Centro de Automática y Robótica (CAR-CSIC-UPM)
María González	Entrepreneur
Birgit Graf	Fraunhofer (IPA)
Alba Vega	GMV
Santiago Mediano	Ilustre Colegio de Abogados de Madrid (ICAM)
Carles Sierra	Institut D'Investigació en Intel.ligència Artificial (IIIA-CSIC)
Ramón López	Institut D'Investigació en Intel.ligència Artificial (IIIA-CSIC)
Carme Torras	Institut de Robòtica i Informàtica Industrial (IRI-CSIC-UPC)
Guillem Alenyà	Institut de Robòtica i Informàtica Industrial (IRI-CSIC-UPC)
Belén Liedo	Instituto de Filosofía (IFS-CSIC)
Sara Andrés	International Business Machines Corporation (IBM)
Britt Ostlund	Kungliga Tekniska Högskolan, Stockholm (KTH)
Francesco Ferro	PAL ROBOTICS
Luca Marchionni	PAL ROBOTICS
Pablo Lanillos	Radboud University
Langdom Winner	Rensselaer Polytechnic Institute (RPI)
Andrea Bertolini	Scuola Superiore Sant'Anna (SSSA)
Laurence Devillers	Sorbonne Université
Raja Chatila	Sorbonne Université
Henning Mayer	Technical University of Munich (TUM)
Alfred Nordmann	Technische Universität Darmstadt (TUDa)
Anouschka Versleijen	Technische Universiteit Delft (TU Delft)
David Abbink	Technische Universiteit Delft (TU Delft)
Sabine Roeser	Technische Universiteit Delft (TU Delft)
Arantxa Renteria	TECNALIA
Damien Sallé	TECNALIA
Richard E. Baldwin	The Graduate Institute, Geneva (IHEID)
Concha Monje	Universidad Carlos III de Madrid (UC3M)

Rafael de Asís	Universidad Carlos III de Madrid (UC3M)
Amparo Grau	Universidad Complutense de Madrid (UCM)
Andoni Alonso	Universidad Complutense de Madrid (UCM)
Domenico Prattichizzo	Università degli Studi di Siena (UNISI)
Monica Malvezzi	Università degli Studi di Siena (UNISI)
Jordi Vallverdú Segura	Universitat Autònoma de Barcelona (UAB)
Laura Crompton	Universität Wien (UNIVIE)
Mark Coeckelbergh	Universität Wien (UNIVIE)
Sylvie Delacroix	University of Birmingham / Alan Turing Institute

### 2.3.2. Interdisciplinarity

One of the objectives, with INBOTS as well as the H2020 Programme, is to fully integrate the STEM disciplines (science, technology, engineering and mathematics) with the SSH (Social Sciences and Humanities) to deal with the complex societal issues

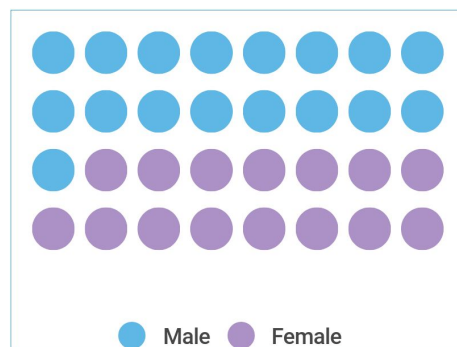


in European societies. Thus, an attempt has been made to find a balance between both fields of knowledge, doing a total of 18 interviews (47%) with profiles coming from SSH (philosophy, law, sociology, economics, etc.) and 20 interviews (53%) having profiles from the STEM disciplines (computer science, engineering, maths, neuroscience, etc.).

It is important to point out that profiles have especially been taken into account that, regardless of training, have a clear interdisciplinary vocation in their research.

### 2.3.3. Gender Balance

Given the low presence of women in disciplines related to robotics, it was considered fundamental to make the work of women scientists visible, as they are an example for the next generations. In this sense, parity has practically been reached in the documentary, reflecting the work of 17 women (45%) and 21 men (55%). Along these lines, a discussion group was filmed with four young women who work in different fields of robotics in Spain, who talk about their experiences with this problem.



## 2.4. Events

### 2.4.1. GFAIH

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In the documentary we covered [The Global Forum on AI for Humanity](#) (GFAIH), which took place in the context of the forthcoming organisation of a Global Partnership on AI (GPAI), as decided at the last G7 summit. This event was organized under the auspices of the French government (with participation from President Emmanuel Macron of France) and although it is focussed on artificial intelligence, we consider the event relevant for two reasons: the close relationship of this discipline with interactive robotics and the strategic and interdisciplinary affinities with the INBOTS project.

### 2.4.2. INBOTS Annual Meeting

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Images have been included in the final version of the documentary from the INBOTS Plenary Meeting, which took place on January 8 and 9 in Madrid at the Institute of Philosophy of the Spanish National Research Council, CSIC.

## 2.5. Focus Groups

Two focus groups took place in the context of the documentary.

### 2.5.1. Innovative Young Women

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The first group has four young women with promising careers in the robotics field at companies such as IBM, in the academic world or who direct start-ups in Spain. In addition to contributing to the documentary with their professional knowledge, they narrate their personal experiences in regard to the low presence of women in their professions.

### 2.5.2. Instituto Alonso de Berruete de Palencia

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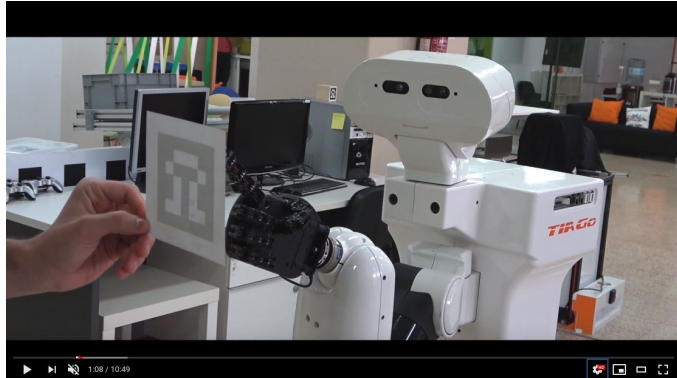
A discussion group was filmed with high school students (16, 17 years old) in the Baccalaureate of Excellence in Humanities and Social Sciences from the Instituto Alonso de Berruete in Palencia, Spain. The project was explained to the group, and the students' concerns in regard to social implementation of interactive robotics were noted.



## 3. Results

### 3.1. Present status

The documentary is currently in post-production, with coverage of the INBOTS Annual Meeting and filming of two interviews still pending. Attached to this document is a rough cut of the documentary, lasting 10 minutes, where fragments of some relevant interviews done in English are featured as well as a demonstration of the visual and narrative style that is being used to make the documentary.



- <https://youtu.be/ET1oaNuvqS8> 

### 3.2. Final launch

Launch of the final version of the documentary will be at the end of February on the consortium's YouTube channel, accompanied by a publicity campaign on social media. Given that the documentary is aimed in particular at the general public, it will be subtitled in the most spoken languages of the European Union (German, French, English, Italian and Spanish). Likewise, it is important to note that in order to reflect the linguistic plurality of the EU and make communication easier, interviewees were given the opportunity to express themselves in their mother tongue. Thus, interviews are included that were done in English, French and Spanish.