Global Model and Observatory for International Responsible Research and Innovation Coordination

http://responsibility-rri.eu/

RESPONSIBILITY- Workshop and 4rd Project Meeting: 11th-12th September 2014 Siena, Italy

SEVENTH FRAMEWORK PROGRAMME

Grant Agreement No 3214

No.	Partner Name	Logo
1	Fraunhofer IPK	
2	Signosis Sprl	
3	De Montfort University	
4	University of Namur	
5	Technical University of Berlin	
6	University of Oxford	
7	GeoImaging Ltd	
8	University Sienna	
9	University of the Aegean	
10	University Malaysia Sarawak	
11	Universidad de Chile	
12	Kyushu Institute of Technology	
13	Arbeiter Samariter Bund Wien Gesundheits und Soziale Dienste Gemeinnutzige Gmbh	

AGENDA OF THE WORKSHOP (PUBLIC PART)

Department of Information Engineering and Mathematical Sciences, Room 101

Via Roma, 56
53100 Siena, Italy
https://goo.gl/maps/UTSCb

Friday, 12th September 2014

Time table	Subject	Responsible partner(s)
09:00-09:15	**Introduction and welcome for invited guests**	Fraunhofer
09:15-09:30	**"Introduction by the DIISM Department Chair: Survey of DIISM Activities"** **Santina Rocchi, DIISM Chair, UNISI**	UNISI
09:30-10:00	**"Opinion Dynamics and Responsible Research Innovation"** **Agnes Allansdottir, Toscana Life Sciences**	UNISI
10:00-10:30	**"Complex Systems Approach to Sustainability"** **Chiara Mocenni, DIISM - UNISI**	UNISI
10:30-11:00	**"Social Robots for supporting autonomy and well-being of elderly people "** **Iolanda Iacono, DISPOC - UNISI**	UNISI
11:00-12:00	**Discussion**	All

ABSTRACTS OF THE WORKSHOP

"Opinion Dynamics and Responsible Research and Innovation"

Agnes Allansdottir, Toscana Life Sciences

The question of the dynamics of public opinion is as central to the issue of Sustainability as it is to the issue of Responsible Research and Innovation. Indeed there are strong overlaps between the two issues as publics might, and often actually do, resist new initiatives, developments or changes or, alternatively, publics might push for changes and demand new developments. In the first part of my talk I will briefly outline and discuss some of the ways in which scholars attempt to capture and to analyse opinion dynamics, defined as the shifts and trends in public opinion over time and across social systems, surrounding important societal challenges and issues, that tend to be somewhat complicated, such as Sustainability and RRI. I will make my case by drawing upon a series of EC funded research projects. In the second half of my talk I will discuss how the complex systems approach to opinion dynamics, can open up new and exciting horizons for research in the near future. I will conclude my talk with a series of points to consider for future research on societal debates over sensitive or challenging issues

"Complex Systems Approach to Sustainability"

Chiara Mocenni, DIISM - University of Siena

Sustainability is a complex system, as it results from co-evolution and interdependence among at least four classes of organizational forms: economic, biophysical, social and political. I propose adding to these classes the mathematical modeling of complex biophysical and socio-economic phenomena. The modeling class consists with the definition of the way we decide to connect all the other classes. My proposal, explained in this talk, is to assemble a multilayer network, where each layer represents the connections among the elements of the system under study from the economic, biophysical, social and political point of view. Then, the modeling phase allows us to connect all these layers by accounting for nonlinearities and system's complexity. The proposed process requires the management of large and non homogeneous datasets. This huge amount of information can be treated statistically to obtain preliminary insights on data validation and coherence. Then, the network analysis can be used to observe and

understand emergent and unexplained patterns, as well as to perform predictions and support sustainable decisions and management of real systems.

"Social Robots for Supporting Autonomy and Well-Being of Elderly People"

Iolanda Iacono, DISPOC - UNISI

The Laboratory of Robotics and Learning Technologies of University of Siena is coordinated and directed by Prof. Patrizia Marti. The laboratory develops projects in various fields of application, from entertainment, to learning, from rehabilitation, to providing support to the development of the autonomy of persons with disabilities. At the Responsibility workshop, we will present two projects currently undergoing in our lab: ACCOMPANY Project and PARO. Both projects relate to the development and field trials of robotic technologies for supporting wellbeing and autonomy of elderly people.

The European funded ACCOMPANY (Acceptable robotiCs COMPanions for AgeiNg Years) project aims to facilitate independent living of older persons at home. A major challenge of the research is to explore rich and natural ways for interaction, focusing on empathy as a means to enable meaningful and engaging relations between human and machine (Amirabdollahian et al. 2013; Marti et al., 2013). The project utilizes Care-o-Bot and a smart home environment as a development platform to provide functionality to assist older persons at home.

The second project experiments with PARO, a baby seal robot used to stimulate social and communication skills of elderly people with cognitive and social disturbances (Marti et al., 2005). PARO was developed at AIST, a Japanese research institute that regularly collaborates with the Robotics and Learning Technology Lab. It was firstly introduced in Japan as a pet robot. The first experimentation as therapeutic device were conducted in Italy by our lab in early 2004. The research is still ongoing to complement qualitative observations with quantitative data on the therapeutic efficacy of the tool. In particular, the robot is currently used in controlled experiments to measure its efficacy as non pharmacological treatment of elderly people with behavioural disorders and dementia.

For more information: www.roboticsandlearning.org, www.patriziamarti.it