

## Introduction to the special issue on persuasive technologies

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In 2011, we founded the French-speaking working group PISTIL (Persuasive Interaction for SusTainablity, <http://pistil.imag.fr/>) with the following objectives: (1) to identify researchers interested in sustainable development from the Human-Computer Interaction perspective, in particular in the study of Persuasive Interaction Techniques, (2) to develop a state of the art in the field, and (3) to define a research agenda for the coming years.

Four years later, in 2015, we published our first special JIPS issue. This issue included eight articles that collected states of the art on a diversity of related themes, thereby testifying to the creation of a French-speaking community and research activity. In particular, several articles resulted from masters and doctoral students who decided to devote their research to the field.

Four years later, we now deliver our second special JIPS issue. It includes six contributions from the French-speaking community that push forward the state of the art in the area of persuasive technologies:

- The first article (Guillaume Rivière from ESTIA, Biarritz) relates a polemic that is rumbling at the international level, likely to impact the research agenda in the field,

- The 2nd paper (Alessandro Fenicio, PhD in Computer Science with a thesis on persuasion at LIG, Grenoble) focuses on the process of change and proposes a unifying framework that brings together the disciplines involved in persuasion as well as the design and execution phases of persuasive interactive systems. Persuasion is modelled as a path in a graph of states, with conditions and triggers to support state changes. This research has been applied to hiking,

- The 3rd paper (Anthony Foulonneau, PhD in Computer Science with a thesis on persuasion at LIG and Orange Labs, Rennes) identifies context as key and proposes a model for persuasive context. The field of application is procrastination while using a mobile phone,

- The 4th paper (Van Bao Nguyen, PhD in Computer Science with a thesis on persuasion at LIG, Grenoble) proposes a framework for designing persuasive interactive systems along with a set of properties. The field of application is energy,

- The 5th article (Anthony Foulonneau) proposes an early exploration of adaptation related to persuasion. While the

experiments described in this article require additional study, the work is reported here to inspire the community and to encourage additional research, which is exactly the purpose of JIPS,

- The 6th article (Guillaume Rivière) focuses on augmented reality and proposes a cairn for a 360° perception of the renewable energy available at the time of the day. The field of application is energy.

In the two special issues of JIPS edited so far, the reader will find complementary articles covering both existing works on (psychological) concepts and software architectures, also demonstrating the large diversity of application domains, and first contributions to the design and evaluation of persuasive interactive systems.

This second issue being completed, we now hand the lead of PISTIL to Yann Laurillau and Guillaume Rivière. We warmly thank them, as well as the whole community thus formed, in particular the doctoral students for their involvement. Thanks to their commitment, this second issue has been made possible. No doubt that PISTIL will continue under good auspices.

Édité par Pr. J.M.C. Bastien (Université de Lorraine) & Pr. G. Calvary (Univ. Grenoble Alpes)

## BIOGRAPHIE

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### J. M. Christian BASTIEN

is Professor of Cognitive Ergonomics at the University of Lorraine and Director of the PErSEUs laboratory (Psychologie Ergonomique et Sociale pour l'Expérience Utilisateurs, EA 7312). His work focuses mainly on methods for recording and analyzing the behavior of users of information and communication systems and on methods for the ergonomic evaluation of these systems.



### Gaëlle CALVARY

is Professor in Computer Science at the Institute of Technology and Management (Grenoble INP) of Université Grenoble Alpes. Her work focuses on User Interfaces (UI) plasticity, with the challenge to provide models, methods and tools to support the development of plastic UIs. The approach she has most explored so far is Model Driven Engineering. She defends the unification of the design, execution and evaluation phases of the UIs development processes around the notions of models and model transformations. Today she explores plasticity as a means for persuasive technology.