



ERCIM "ALAIN BENSOUSSAN"
FELLOWSHIP PROGRAMME



Scientific Report

First name / Family name	Dr. Fatoumata G. Camara
Nationality	French
Name of the <i>Host Organisation</i>	Fraunhofer
First Name / family name of the <i>Scientific Coordinator</i>	Dr.-Ing. Matthias Peissner
Period of the fellowship	01/04/2015 to 31/03/2016

I – SCIENTIFIC ACTIVITY DURING YOUR FELLOWSHIP

The post-doc period was dedicated to investigating different directions around Worth-Centered Design (WCD): development of methods and techniques for supporting worth-centered developments; studying relationships between worth and similar notions (e.g., values, needs), WCD and similar approaches; and assessing the applicability of WCD in actual contexts.

The abovementioned research topics were addressed through different means, in collaboration with researchers and practitioners from the host institute and external institutions.

- Methods and techniques around WCD

FutureID¹, a European project which aimed at promoting the use of electronic identification means, has provided the framework for reflection regarding this direction. Through a close collaboration with researchers from the host institute, this axis has resulted in the development of a technique, derived from sentence completion, for interactive systems evaluation in worth-centered development contexts.

The resulting technique has been operationalized using innovative material and evaluated using the FutureID prototype, through usability testing sessions. Outcomes from this

¹ <http://www.futureid.eu/>

preliminary evaluation are encouraging: participants appeared to be enthusiastic regarding the material and perceived the originality of the technique as well as its strengths over questionnaires.

- Worth and similar notions, WCD and similar approaches

Within the recent years, we have experienced the introduction of different methodologies and approaches that aimed at supporting designers to take more human-oriented sensitivities into account during interactive systems development.

Worth-Centered Design is such a methodology that places achievement of worth in the center of design. Other similar methodologies and approaches include Value-Sensitive Design (VSD) and the user experience framework developed in the host institute. If these methodologies and approaches highlight additional criteria for design and provide designers with different means to address them, it still remains unclear how they connect to each other. During the post-doc, this issue has been addressed with the aim to bring first elements of answer to two main questions: What relationships between core notions underlying the different methodologies and approaches (i.e., worth, values, needs, etc.)? What similarities and differences between the methodologies and approaches?

The research work has been carried out through an intensive literature review on different topics: VSD, user experience in general and more specifically the conceptual user experience framework developed in the host institute, and positive emotions. In addition, the investigated questions have been discussed and reflected both internally and externally with: researchers from the host institute, Prof. Michael Burmester from HDM (*'Hochschule Der Medien'*), and a panel of researchers during the 'Charting the Next Decade for Value Sensitive Design' workshop held in Denmark.

Outcomes have revealed that worth is a more encompassing notion compared to the other similar ones. Outcomes have also revealed that the different methodologies and approaches should be considered as complementary rather than adverse. Therefore, the best approach in a given context could result from combining methods and techniques borrowed from different methodologies and approaches.

- WCD applicability in actual contexts

Despite its potential, WCD has not received yet much attention from industry. This notice raised several questions: Is the methodology applicable to industrial context? Is the related knowledge meaningful to practitioners? Are the highlighted benefits of WCD from research actually relevant from practitioners' point of view?

To investigate the questions, a one-day workshop was carried out with practitioners from Orange Labs Lannion.

Outcomes from the workshop have highlighted that participants understand well knowledge related to WCD and perceived the relevance of the methodology benefits. However, outcomes from the workshop have also highlighted the need for more examples of worth-centered developments (particularly outside academia) and further development in terms methods, techniques, and tools dedicated to WCD.

II – PUBLICATION(S) DURING YOUR FELLOWSHIP

“Bringing Value-Centered Design and Worth-Centered Design together through Worth Maps”, Charting the Next Decade for Value Sensitive Design workshop (in conjunction with “Critical Alternatives” conference), 2015

III – ATTENDED SEMINARS, WORKHOPS, CONFERENCES

Value Sensitive Design workshop (in conjunction with “Critical Alternatives” conference), Aarhus – Denmark, August 2015

IV – RESEARCH EXCHANGE PROGRAMME (REP)

The research exchange program was carried out in the SEIT laboratory of university of Cyprus and consisted in conducting a study which aimed at evaluating a middleware (H5CM) with experienced developers.