



International cooperation for Trust

BIC Discussion Paper

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Why do we need INCO for Trust?

The first obvious response to the question “Why do we need INCO for Trust” is that when talking about trust, we cannot ignore the influence of the culture on the concept of trust. This concept has not the same meaning in Europe or America and in Asia and south Africa due to the fact that in Europe and America it is an individualist culture whereas in Asia and South Africa it is a collectivist one [1]. In addition to the fact that culture has a major influence on trust, culture is not the only criteria to consider when talking about trust, but societal values, language differences have also an impact on trust. Thus, trust needs can be and are different from a culture or a country to another one.

Now, the next question is what do we need to understand and manage trust at a World Wide level? We need a more World Wide trust model using a multi-lateral and multi-cultural approach that:

- 1) first involve the end-users and listen to their trust needs; and
- 2) then translate these trust needs into parameters that makes sense to these end-users.

How to build a World Wide trust model?

Several powerful trust models [2][3][4][5][6][7] have been proposed to model trust in different contexts (wireless networks, sensors networks, etc.). These models use mathematical models that can be enough for this kind of context. However, if we use them in other contexts that involve the Human, such as social networks, they are useless, as they don't take into account the cultural factors. A very good example is a study that has been conducted for online shopping and e-commerce where it has been proven that the trust model used by e-bay does not suit Asian users' expectations [8][9].

On another hand, several multi-cultural models have been proposed such as MCR [10], however these models have not been designed for trust management. Thus, it is not possible to use them to model trust.

As a consequence, to build a World Wide trust model, we need to extend existing trust models and integrate multi-cultural aspects.

How INCO can help and how to best move forward?

From an international point of view, different actions are required:

Collaboration with:

- International security experts having a user-centric approach regarding trust, privacy and security (Brazil, India, South Africa, Canada, USA, France, etc.)
- International experts from different disciplines to take into account the differences in terms of culture, laws, etc.

- Collaboration with international standardization organisations such as W3C, ETSI, IETF, etc.

These collaborations can start through:

- Creation of multidisciplinary working groups in each targeted country (right experts from each discipline).
- Organization of international multidisciplinary workshops in targeted countries (involving wider public) As far as we know, a World Wide trust model does not exist and this is mainly due to the complexity of the problem as it implies Human and cultural factors which can only be possible by involving people and researchers more different cultures.
- This kind of model requires covering various regions in the World (India, China, South America, South Africa, etc.) to suit different cultural regions and languages. The only way to be able to do it is to provide a way to create and strengthen collaboration between trust experts from different cultures. This can be done through international cooperation and more specifically, international workshops and working groups.
- As a conclusion, using an international cooperation approach for a trust taking into account cultural differences is mandatory if we would like to design a multi-cultural trust model that can be understood and used by different cultures.

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A full presentation can be found at http://www.bic-trust.eu/files/2012/10/BOUDAUD_BIC_WS27Nov2012.pdf



About the Author

Dr. Karima Boudaoud is Assistant Professor at the University of Nice Sophia Antipolis. She had obtained her PhD. degree in Computer Sciences from Ecole Polytechnique Fédérale de Lausanne (EPFL) and had received her M.Sc in Computer Sciences from the University of Versailles Saint Quentin-en Yvelines (UVSQ). She has participated in several research projects in the area of Networks and Services Security funded by the European Commission (IST-FP6 research programme), CNRS-INRIA-DGA and Fond National Suisse. She has served in several TPC and OC of several national and international (IEEE/IFIP or others) conferences and workshops (IM, WWW, ICC, NOMS, etc.). Her main research interest is Security management but a security management oriented towards the User and her previous research field was intrusion detection using multi-agent system.