



# International cooperation for Trust

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**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.

## References

- [1] D. Isherwood, M. Coetzee and J.H.P. Eloff, Towards Trust and Reputation for E-Commerce in Collectivist Rural Africa, International Symposium on Human Aspects of Information Security & Assurance (HAISA 2012), 6-8 June 2012 in Crete, Greece.
- [2] Antonio Maña, Hristo Koshutanski, Ernesto J. Pérez, A trust negotiation based security framework for service provisioning in load-balancing clusters, *Computers & Security*, Volume 31, Issue 1, February 2012, Pages 4-25
- [3] Azzedine Boukerche, Yonglin Ren, A trust-based security system for ubiquitous and pervasive computing environments, *Computer Communications*, Volume 31, Issue 18, 18 December 2008, Pages 4343-4351
- [4] Fabio Martinelli, Marinella Petrocchi, A Uniform Framework for Security and Trust Modeling and Analysis with Crypto-CCS, *Electronic Notes in Theoretical Computer Science*, Volume 186, 14 July 2007, Pages 85-99
- [5] Şerif Bahtiyar, Mehmet Ufuk Çağlayan, Extracting trust information from security system of a service, *Journal of Network and Computer Applications*, Volume 35, Issue 1, January 2012, Pages 480-490
- [6] Aarthi Nagarajan, Vijay Varadharajan, Dynamic trust enhanced security model for trusted platform based services, *Future Generation Computer Systems*, Volume 27, Issue 5, May 2011, Pages 564-573

[7] Gabriele Lenzini, Mortaza S. Bargh, Bob Hulsebosch, Trust-enhanced Security in Location-based Adaptive Authentication, *Electronic Notes in Theoretical Computer Science*, Volume 197, Issue 2, 22 February 2008, Pages 105-119

[8] Daechun An, Sanghoon Kim, Effects of National Culture on the Development of Consumer Trust in Online Shopping, *Seoul Journal of Business*, Volume 14, Number 1, June 2008.

[9] Bessie Chong Why culture matters for the formation of consumer trust? A conceptual study of barriers for

realizing real global exchange in Hong Kong Asia Pacific Management Review 8(2), 217-240, 2003.

[10] M. Mekhilef, Y. Page, M. Bel, M. Moessinger, Designing for Unrevealed Values, *International Design Conference – Design 2012*, Dubrovnick, Croatia, May 21-24, 2012.

A full presentation can be found at [http://www.bic-trust.eu/files/2012/10/BOUDAUD\\_BIC\\_WS27Nov2012.pdf](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.

Offshore trust and private offshore fund will ideally do for the asset ownership and protection, but they are not intended for the permanent commercial operations. Asset Protection is a complex service directed at the state protection against political and business risks associated with the activity of a specific individual, as well as against the risks that may arise from members of his family in the context of these activities. Such protection can provide such legal structures as trusts and founds and the correct transfer of the clients assets in them. Offshore trust and private offshore fund will ideally do for the asset ownership and protection, but they are not intended for the permanent commercial operations. Articles 2nd INCO-TRUST Workshop on. INTERNATIONAL COOPERATION IN TRUST AND SECURITY Workshop topic: International Data Exchange with Security and Privacy: Applications, Policy, Technology, and Use. Contributors: Rebecca Wright, Rutgers University Jim Clarke, Waterford Institute of Technology Anupam Datta, Carnegie Mellon University Artur Hecker, Institute Telecom-ParisTech Jos   Fernandez,  cole Polytechnique de Montr  al Aljosa Pasic, Atos Origin Volkmar Lotz, SAP Neeraj Suri, TU Darmstadt. 20. Page 1 / 20. Inco-trust workshop on international cooperation in trust and security. I. Executive Summary. Security and privacy are critical to establishing a trustworthy cyber infrastructure. A plenary workshop bringing... Trust is a valuable though elusive concept in the realm International Politics because it enables actors to minimize the main feature of this realm: uncertainty. The absence of a supranational hierarchy, or world government as it is often coined, makes uncertainty an inevitable condition. This essay will hold that trust is needed; not only to establish fruitful cooperation but also to transcend this uncertainty. In addition, the argument will be made that trust alone, however, will not suffice. By examining the case of the Oslo Talks in 1993, I will argue that a general form of trust, courageously employed by the Israeli and Palestinian negotiators, was not embedded in institutional cooperation. The trustee is the legal owner of the property in trust, as fiduciary for the beneficiary or beneficiaries who is/are the equitable owner(s) of the trust property. Trustees thus have a fiduciary duty to manage the trust to the benefit of the equitable owners. They must provide a regular accounting of trust income and expenditures. Trustees may be compensated and be reimbursed their expenses. A court of competent jurisdiction can remove a trustee who breaches his/her fiduciary duty. Some breaches of fiduciary duty can be charged and tried as criminal offenses in a court of law. A trustee can be a natural person, a business entity or a public body. A trust in the United States may be subject to federal and state taxation. Madrid    The International Trademark System. Hague    The International Design System. Lisbon    The International System of Geographical Indications. Budapest    The International Microorganism Deposit System. Article 6ter. WIPO for Creators. Global Cooperation. Global Infrastructure. Building Respect for IP. All cooperation. Resources Resources. IP Databases. Funds-In-Trust. WIPO has long-term relationships with a number of key donor countries. These donor countries provide Funds-in-Trust (FIT) to finance technical assistance and human capacity building projects to developing countries and countries with economies in transition. Find out more. Funds-in-trusts in the biennium 2020/21. Key aspects of WIPO's policy on the management of voluntary contributions.