# e-Commerce and Trustmarks: Results from the ALPINE Working Group

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**ABSTRACT**

Information Society Technologies and e-Commerce have not progressed as expected due to lack of security and trust. Therefore, it is needed to explore solutions to remedy this lack of confidence and thereby to establish a secure trustworthy marketplace.

This paper presents the results derived from the work carried out within the '*Special Interest Group (SIG) on Trustmarks*' during the '*ALPINE Working Group*' project. This SIG has focused its research on Codes of Conduct (CoC), Trust Boosting Mechanisms (TBM) or Trustmarks, and Alternative Dispute Resolution Mechanisms (ADR), with the aim of identifying outstanding inventories of CoC and TBM, their state of the art, and the on-going benchmarking and harmonization initiatives, as well as the key organisations leading them. The last objective of this research is to establish the already existing gap and to give some indications for future research and improvement on this topic. As result of this research "A Roadmap on Trustmarks" has been developed, which will be available at the ALPINE-WG web site: http://www.alpine-wg.org

**Keywords**

Trust specification, analysis and reasoning (within Information Technology Area); e-Commerce; Codes of Conduct (CoC); Trust Boosting Schemes (TBM); Alternative Dispute Resolution Mechanisms (ADR); Information Society; Self-regulation.

## 1 INTRODUCTION

Business leaders around the world are demanding the rapid deployment of eBusiness so that their companies may enjoy the real business benefits offered by this new technology and business process change. The cost savings to be derived from eBusiness are irresistible and the improvements in efficiency, delivery, and customer relationships are undeniable.

However, Information Society Technologies and e-Commerce is not progressing as fast or effectively as would be desirable. One of the key barrier is the perceived lack of security and confidence. In fact, the consumers still seems rather slow to adopt the new ways of e-commerce.

Studies reveal that trust is one of the key issues that enable commerce transactions, even though legal resolutions mechanisms are available. However, it seems that the mechanisms that support trust in the traditional commerce are not available in the e-Commerce world. That is why it is necessary to explore the nature of trust online, identifying the principles underpinning the concept of trust and the online mechanisms that promote it.

In December 1999[1] the Commission launched an initiative, which aimed at enabling the transition to "a digital, knowledge-based economy", "an information society for all", in order for Europe to reach its "full e-potential", and to "consider how to promote consumer confidence in electronic commerce". In this document, the Commission states that "more emphasis must therefore be placed on the role of self-regulation and co-regulation, especially in helping to build consumer confidence."

Then, within the concept of self-regulation / co-regulation, consumer confidence boosting mechanisms are needed to complement the existing regulation, and to pull down existing impediments to B2B and B2C e-commerce transactions. Within these mechanisms, codes of conduct and associated trustmarks or trust seals, and alternative dispute resolution mechanisms can be considered.

## 2 THE CONCEPT OF TRUST. TRADITIONAL VERSUS ELECTRONIC COMMERCE

Trust between parties is fundamental in order to begin commercial transactions. To increase these trust levels, organisations should design their business model to seek trustworthiness.

Organisations should analyse and understand how customer trust is generated and maintained, when they decide to design effective online systems taking into account the foundation of trustworthiness.

Although online trust is similar to offline trust in many ways, there are some important distinctions. In offline trust, the object of trust is typically a human or an entity (organization). In online trust, typically, the technology (mainly the Internet) itself is a proper object of trust (Marcella 1999). In a sense, a company's Web site is its salesperson that needs to build trust with her/his customers (Jarvenpaa et al. 1999).

"Trust" is a belief or expectation that the word or promise by the seller can be relied upon and the seller will not take advantage of the buyer's vulnerability. "Trust" implies an assurance to rely on another's integrity to do the right thing. "Trust" means exposing one's vulnerability to another party.

There large bibliography about theory and models regarding trust within traditional commerce and trust within e-commerce, hence, there are a couple of references of most recent studies:

**Commerce Standards Board** (eCSB), states that there are several differences between traditional and electronic commerce[2] (2003):

- Traditionally, trust in business organisations has been established through a combination of social, business, and legal practices that have evolved over time. But, this is not economically sustainable in the electronic commerce world.

[1] "eEurope Initiative, An information society for all. Communication on a Commission initiative for the special European Council of Lisbon, 23 and 24 March 2002", available at: http://europa.eu.int/information_society/eeurope/news_library/pdf_files/initiative_en.pdf

[2] "E-commerce Trustmark is no longer an option, it is the requirement for growing customer trust", by Chris F.Brendon, chairman of eCommerce Standards Board

- Customers doing e-business concerned about the lack of privacy of personal or sensitive information collected for a specific transaction, this is the so called fear for untrustworthy persons capture personal information and use it in ways that harm the individual.
- Customers interact with an invisible provider, invisible delivery processes, and invisible process controls. The intangible nature of the e-commerce relationship in itself causes uncertainty, together with the complex legal structure for protection enforcement.
- The diffuse nature of the interactions, the invisibility of many intermediaries and agents in the transaction, and the need to gather and secure customer information means that organisations have to build and sustain customer trust in this new environment.

Besides, it states that "major customer concerns when making online purchases related to not just one factor, but to the composite of Security, Privacy, and Customer Services issues". It highlights these concerns and risks as the major impediments together with a list of problems detected during a research analysis. It also highlights a list of problems detected during the research analysis:

SECURITY

- Risk: Non-secure transactions and not conducted by authenticated parties
- Problem: Fear of theft is the major deterrent to shopping online: 'Theft of identity'

PRIVACY

- Risk: Personal data are not kept private, not stored safety, and not used as agreed.
- Problems:
  - Mistrust of Internet technologies and the level of privacy and information security that these technologies provide.
  - Doubts about misuse, disclose or improperly handle personal information and / or sensitive information gathered about customers via Web.
  - Security of personal and / or sensitive information disclose across Internet
  - Uncertainly about how personally information will be used or disclose by the recipient organisation
  - Unsolicited advertising material and other intrusions

SERVICE

- Risks:
  - Received service levels are not up to an acceptable standard, with no easy access to effective systems for complaint handling and redress
  - Apparent lack of Value Proposition as perceived by customers to warrant taking the risks involved
- Problems:
  - Lack of quality service, which is becoming a major differentiating factor. The anonymity of the interactions requires unconventional considerations.
  - There are key elements of customer service:
    - Ease of access
    - Quality of product
    - Certainty of fulfilment of requirements
    - Efficient dispute resolution % service recovery

Most of literature on trust agree when establishing a list with the main ten main principles surrounding trust online:

| | |
|---|---|
| 1. *Trust depends on identity*<br>2. *Trust is based on information*<br>3. *Trust is a function of the perception of risk*<br>4. *Trust depends over time and with increased reciprocity*<br>5. *Trust is a matter of degree*<br>6. *Culture affects trust* | 7. *Third party ratings are important in developing trust*<br>8. *Second party opinions are important in developing trust*<br>9. *First party information is important in developing trust*<br>10. *Formal and social controls are important in developing trust* |

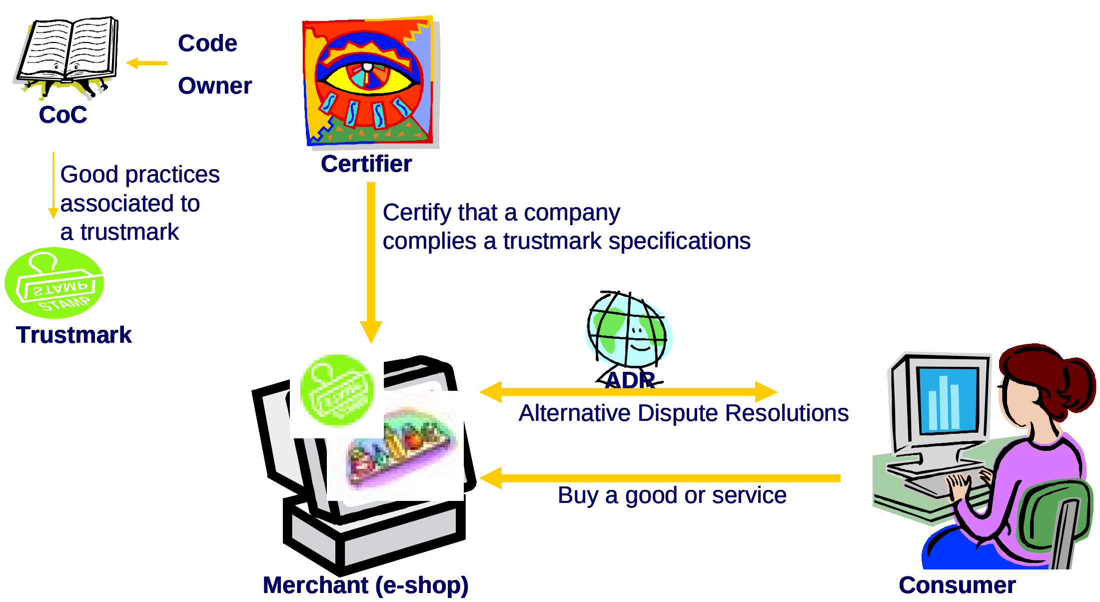
There are also some researches about Human-Computer Interaction design and trust-based models, as the one carried out by **Florian N. Egger** (FNE 2003) from **Eindhoven University of Technology**. He is currently involved in the development of a model of trust that describes “what design factors affect consumers’ assessment of online vendors’ trustworthiness. Six components were identified and regrouped into three categories: Prepurchase Knowledge, Interface Properties and Information Content”.

This model also informs the Human-Computer Interaction (HCI) design of e-commerce systems in that its components can be taken as trust-specific high-level user requirements. (FNE 2003)

Traditional HCI analysis and design methods can be employed effectively to address usability aspects of eCommerce interfaces, but they may fail when it comes to designing trust-inducing features susceptible to convert users into customers. (FNE 2003)

## 3 THE CONCEPT OF CODE OF CONDUCT, TRUSTMARK (SEALS) AND ADR

Trustmarks or seals of approval are currently one of the chief mechanisms for promoting consumer confidence and self-regulation in ecommerce. Independent organizations (referred to as Code Owners) establish standards (Codes of Practice) for conducting e-commerce and certify that particular online businesses (Code Subscribers) have met those standards. The Code Subscriber is then permitted to display the Code Owner's seal or trustmark on their website. This is expected to improve customer confidence.



**Codes of Conduct (CoC):** “It is a document formally stipulates certain rules of business conduct that a trader should respect in order to obtain and use the corresponding Trustmark”

**Trustmark or Trust seal:** “ A label or visual representation indicating that a merchant commits to comply with a number of best business practices, or trustmark requirements prescribed by certain Code of Practice, including redress mechanims”.

**Out-of-court dispute settlement or Alternative Dispute Resolution (ADR):** “This concept refers to all means of resolving disputes without having recourse to litigation for redress”. Usually, ADR systemas are classified in four main categories:

- **Arbitration:** It is the most formal type of out-of-court dispute settlement, parties choose one or more neutral persons to whom they present their dispute for a binding decision.
- **Mediation / Conciliation:** It aims to reach a voluntary settlement of the dispute with the help of a third party.
- **Consumer compliants board or ombudsmen proceedings:** They are schemes to handle consumer complaints, set up by consumer, trade or industry organisations or by public authorities.
- **Internal business customers’ complaint handling:** It refers to company policies to establish and maintain ‘customer satisfaction’. This may take the form of a guarantee scheme (the customer gets the assurance about the safe delivery of the goods or services) or a money-back guarantee.

Trustmark programs vary considerably in their terms and operation. Some of them certify only particular aspects of online business, such as privacy, while others certify a broad range of issues including advertising, disclosures, contract terms and performance, and security. Most of them include provisions concerning internal and/or third-party dispute resolution, and some Code Owners provide or monitor dispute resolution services involving their Subscribers. Some programs certify only that the Subscribers have accurately disclosed their own policies, while others certify that Subscribers follow the Code Owner's standards.

Nevertheless, most of Trustmark programs usually cover the next common principles:

**1. Identity of the offerer**
- 1.1 Identity of the offerer
- 1.2 Offerer general obligations
- 1.3 Offerer certification

**2. Server host identity**
- 2.1 Server host

**3. Product and services**
- 3.1 Technical characteristics
- 3.2 Qualitative characteristics
- 3.3 Availability
- 3.4 Prices
- 3.5 Warranties

**4. Order procedures**
- 4.1 Order procedure
- 4.2 Contractual condition
- 4.3 Supply restrictions
- 4.4 Delivery conditions
- 4.5 Order error protections
- 4.6 Payments

**5. Customer service**
- 5.1 Responsible
- 5.2 Cooling of period
- 5.3 Faulty goods
- 5.4 Claims procedures
- 5.5 Solving disputes

**6. Advertising**
- 6.1 Advertising

**7. Reference legislations**
- 7.1 Transactions
- 7.2 Consumer protection

**8. Security**
- 8.1 Websites protection
- 8.2 Payment data protection
- 8.3 Personal data protection
- 8.4 Childrems protection

**9. Code of practice properties**
- 9.1 Scope and objectives
- 9.2 Definitions
- 9.3 Code review
- 9.4 Code availability
- 9.5 Enforcement

**10. Trustmark properties**
- 10.1 Trustmark localisation
- 10.2 Chek on-line
- 10.3 Restrictions
- 10.4 Duration
- 10. 5 Monitoring

## 4 BENCHMARKING ON CURRENT TRUSTMARKS

'ALPINE Working Group ' is a project funded by the European Commission to launch and manage Special Interest Groups (SIGs) regarding Information Security, whose organization consortia is made of: the Open Group, ETIS, European Software Institute (ESI). One of the selected SIG's is about 'Trustmarks'.

This Special Interest Group has carried out a state of the art on the current international Codes of Conduct, Trustmark Schemes associated, as well as the out-of-court alternative resolution mechanism provided or redressed. For this purpose, we have researched on already done benchmarking studies, we also have selected the next trust boosting schemes:

| **ORGANISATION** | **TRUSTMARK (LOGO)** |
|---|---|
| L@belsite<br>www.labelsite.org | |
| Trusted Shops<br>www.trustedshops.org | |
| Comercio Certificado(CEC)<br>Sitio Certificado (SiEC)<br>www.cac.com.ar | |
| e-com-quality mark<br>www.e-com-quality-mark.it | |
| Din Testes Website<br>www.en.dincertco.de | |
| Qweb<br>www.qwebmark.com | |
| TRUST-e<br>www.truste.org | |
| Square trade<br>www.squaretrade.com | |
| Webassured.com<br>www.webassured.com | |

| **ORGANISATION** | **TRUSTMARK (LOGO)** |
|---|---|
| Confianza online<br>www.confianzaonline.org | |
| AGACE<br>www.agace.net | |
| Bureau Veritas WebValue<br>www.bvwebvalue.com | |
| IQA : Internet Quality Assurance<br>www.eqa.es/iqa.html | |
| Marca AENOR de Buenas Prácticas Comerciales para el Comercio Electrónico<br>www.aenor-e.com | |
| Euro-Label<br>www.euro-label.com | |
| E-comtrust<br>http://www.e-comtrust.org/ | |
| Aol Certified Merchant Program<br>http://shopping.aol.com | |
| Betterweb<br>www.pwcbetterweb.com | |

| ORGANISATION | TRUSTMARK (LOGO) |
|---|---|
| Consumer Trust<br>www.cnsg.com.sg | |
| HON – Health On the Net<br>www.hon.ch | |
| BBBOnline Reliability<br>www.bbbonline.com/reliability | |
| BBBOnline Privacy<br>www.bbbonline.com/privacy | |
| Confiar-e<br>www.confiare.cl | |

| ORGANISATION | TRUSTMARK (LOGO) |
|---|---|
| Casetrust<br>www.ct.case.org.sg | |
| CPA Webtrust<br>www.cpawebtrust.org | |
| Online Shopping Trust<br>Japan DMA & Chamber of Commerce<br>mark.cin.or.jp | |
| Trust UK<br>www.trustuk.org.uk | |
| Webtrader<br>http://www.soldi.it/webTraderSite/reseau_it.html | |

And for each of these trust boosting schemes, we have gathered information to classify them according the following criteria:

| INFORMATION CLASSIFICATION CRITERIA | |
|---|---|
| • Sponsoring body | • Security principle |
| • Nature of the body that develops the seal | • Description of other issues |
| • Experience of the body that develops the seal | • Mechanism to resolve a dispute |
| • Service provided by the Trustmark certifier | • Certification process (steps) |
| • Document type | • Concession procedure |
| • Consumer input | • Redress & enforcement |
| • Principles/issues documented (within the Code of Conduct or Trustmark Scheme) | • Fee |
| | • Other considerations |

As result of the research carried out in this Special Interest Group within ALPINE Working Group, **"A Roadmap on Trustmarks"** is being developed.

## 5 TRUST BOOSTING SCHEMES. KEY HARMONISATION INITIATIVES

Within this scenario of diversity and proliferation of trust boosting schemes, the objective was to provide business and consumers with a way of identifying schemes that meet certain standards of acceptability and with measures to evaluate or compare competing schemes.

Until now, most trustmarks have been national, but the new proposals are intended to cross national boundaries.

On 3 May 2000, David Byrne, European Commissioner for Health and Consumer Protection, praised the collaborative work of two groups: the Bureau Européen des Unions de Consmmateurs (BEUC – also known as the European Consumers' Organisation) and the Union of Industrial and Employers' Confederations of Europe (UNICE). He stated the need to identify a set of general principles to be respected by all codes and provide a recognisable EU logo (to be incorporated in participating Trustmark Schemes thereby creating a recognisable common denominator in the level of protection afforded to consumers).

Both organisations have worked on the **e-Confidence project**, a European Commission (EC) initiative "seeking to promote high standards of consumer protection and to encourage the sale of goods and services on the Internet". They hoped to create a European Union trustmark, and in September 2001 they completed the 'European Trustmark Requirement' (ETR). They took as reference the **Organisation for Economic Co-operation and Development (OECD)** 'Guidelines for Consumer Protection in the Context of Electronic Commerce', which settle out the core characteristics of effective consumer protection for on-line business-to-consumers transaction.

The Council of Better Business Bureaus (CBBB) in the United States is working with international organizations to create a single global trustmark, together with Federation of European Direct Marketing (FEDMA), Eurochambers (the Association of European Chambers of Commerce and Industry) and consumer, and e-commerce organizations in Chile, China, Japan, Korea, Singapore, and Taiwan, and others. In November 2002, they were granted to encourage the creation of a **Global Trustmark Alliance (GTA)**, knitting together national or regional trustmarks in a co-branding initiative. The GTA has developed some guidelines with general recommendations for Trustmark schemes, and for ADRs.

EuroCommerce has developed an impartial Code of Conduct, on the basis of self-regulation, for on-line consumer transactions. The project objective is to provide an internationally interoperable European Trustmark which is expected to become a recognised marker likely to be used by a vast majority of e-traders to extend their trading relationships. **Project Euro-Label** will beneficially impact on cross-border transactions on the Internet.

The Association of European Chambers of Commerce and Industry, EUROCHAMBERS, launched the **Online Confidence initiative**, to foster and support an environment of confidence in online transactions. Online Confidence offers a definitive asset to buyer and seller to do business in a trustworthy environment. It does this through providing a quick and easy dispute resolution process.

The **Global Business Dialogue on Electronic Commerce (GBDe)** created a Trustmarks Working Group and it proposed the use of Trustmarks schemes to encourage good e-business practices by merchants and to help consumers to identify trustful merchants. But, due the large proliferation of trustmarks, which offer different levels of protection, to avoid consumer confusion, the GBDe has developed guidelines, to help ensure greater transparency, minimum voluntary standards and comparable levels of protection among competing trustmark programs.

**SATURN Initiative (Security Applications and Technologies for Universal infoRmation Networks)** aims to continue the work already done in 'Trustmarks' Special Interest Group within ALPINE Initiative. Once established the state-of the art of trustmarks and identifying the main problems and gaps, this initiative objective aims to propose a new trust boosting scheme, following recommendations provided by the former harmonisation initiatives, aims to reinforce the principle of 'security', and also a new trustmark certification process will be developed, offering a product and process based certification approach, which is the most innovative part of the initiative.

As conclusion, after analysing all these harmonisation initiatives, all of them seek the same objectives, to provide a general guidelines to be followed when developing Codes of Conduct and Trust Boosting Schemes, so that these self-regulation mechanisms could be comparable and to provide a better decision-making strategy for those organisations who aim to adhere to any of them.

## 6 CONCLUSIONS

It is welcomed the diversity of trustmark schemes, believing that competition could offer those marks that would work best, taking care of business and consumers interests, however, this proliferation could confuse consumers more than reassure them. Then, it is clear it is needed to develop measures to evaluate or compare competing schemes, as well it is also needed trustmarks benchmarking and harmonisation initiatives, together with awareness and promotion initiatives.

Within the Trustmark Special Interest Group, **"A Roadmap on Trustmarks"** is being developed based on experts contributions, which is available at: http://www.alpine-wg.org , and it provides more detailed information about the current situation and on-going initiatives regarding trust boosting mechanism, as well as already existing gaps to be covered, because, there is still a long path to cover.

And within the SATURN Initiative, recommendations given by the former harmonisation initiatives will be put into practice with the definition of a new Trust Boosting Scheme and a new associated Certification Process, offering both issues, product and process certification.

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