

Digital signature services for users

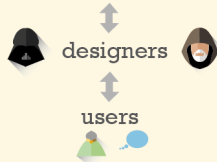
Improving user experience to support trust among work partners

LORRAINE TOSI¹, AURÉLIEN BÉNEL, KARINE LAN
(LORRAINE.TOSI, AURELIEN.BENEL, KARINE.LAN)@UTT.FR

TECH-CICO, INSTITUT CHARLES DELAUNAY (UMR CNRS)
TROYES UNIVERSITY OF TECHNOLOGY, FRANCE
¹LEX PERSONA

1 Observation

15 years of laws and standards



Will service/proofs be available whenever needed?
What if a hacker views and alters proofs?
Will the technology chosen be accepted by a court?

Trust is not enacted

How can we give rise to this trust and maintain it throughout the use of digital trust services?

Lex4Lab
lex4lab.com

Long-term testing of a nearly final version by 2 groups of end-users

Methodology

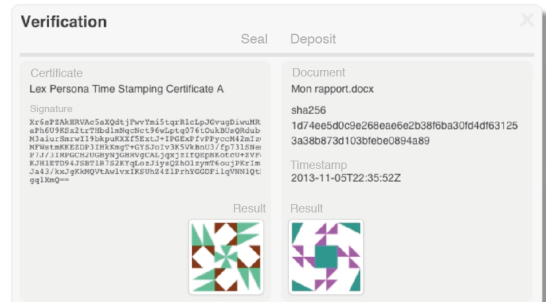


3 Solutions

Vizualitation, interaction and processes

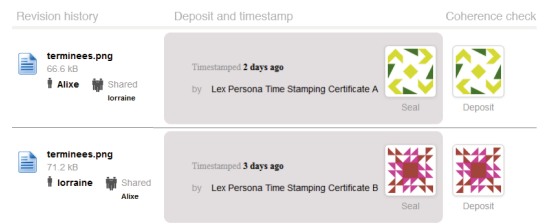
"The game of cryptology"

Does someone want to falsify? Involving the user in digital signature checking translating technical elements [Lex4Lab screenshots]



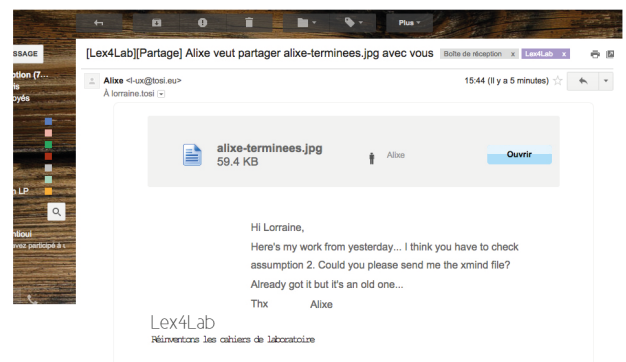
Recipients as witnesses

Viewing the history of a document and unconsciously checking related signatures [Lex4Lab screenshots]



The person who wrote me once

Binding an anonymous account to an e-mail address only by sharing a document [Lex4Lab screenshots]



2 Hypotheses

Learning by doing

The user may try different settings and inputs, watching corresponding outputs, and making assumptions about general rules.

«Given enough eyeballs, all bugs are shallow»

The more different people verify proofs : signatures, document history, etc. the more frequently they do, the more signatures will be trusted by people. Signatures should be perceived preattentively.



An old timestamping machine

Identity: administrative statement vs interaction continuity

Idea that "true identity" is indeed the firstname and surname assessed by one's country administration. Alternative : Once the first interaction has been initiated -based on hints provided outside the system-, identity can be understood as being identical to the person involved in the former interaction. Identity would no more be about proper nouns but about pronouns.

- More adequate to trust (or mistrust) between work partners.



4 Conclusion



Digital signature services

- Result in more trust
- Give more meaning to the signature
- Do not affect security requirements

Identify precisely

- the benefits for the users,
- the perceived usefulness of simplifying the technicity for them

Future work