TABULA RASA

Trusted Biometrics under Spoofing Attacks

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D5.1: Planning for dissemination activities

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CO	Confidential, only for members of the consortium (includes Commission Services)	No

D5.1: Dissemination Plan

Abstract:

Aim of this report is to present the first version of the dissemination plan of Tabula Rasa project. In other words, which actions will be taken to disseminate at the best Tabula Rasa achievements, and which targets are taken into account to do these actions.

The goal of the present Dissemination Plan is to reach the largest number of public agencies, institutions, research centers, public and private Companies, novel and potential partners which could use the research products of this project.

Contents

1. Introduction

In this document, we describe the first version of the "Dissemination Plan" of the Tabula Rasa Project.

According to the European Commission, dissemination is *a planned process of providing information on the quality, relevance and effectiveness of the results of programs and initiatives to key actors. It occurs when the results of programs and initiatives become available.*

Therefore, in this report we propose a list of possible targets to which the research products must be disseminate. At the same time, we indicate a set of possible actions which can be performed in order to reach such targets.

In order to design an effective dissemination plan, we followed the main guidelines suggested by several EU education and culture programs:

- clear rationale for and objectives of dissemination and exploitation;
- strategy identifying which results to disseminate and to which audiences – and designing programs and initiatives accordingly;
- identification of organizational approaches of the different stakeholders and allocation of responsibilities and resources;
- implementation of the strategy by identifying and gathering results, and execution of dissemination and exploitation activities;
- monitoring and evaluation of the effects of the activities.

Accordingly, this report is as follows. Section 2 describes the main targets involved in the dissemination plan. Section 3 describes a list of possible actions for each of above targets. Section 4 connects Actions and Targets. Section 5 gives a brief report of current dissemination activities which are and/or will be carried on by Tabula Rasa partners, jointly or individually.

2. Targets of the dissemination plan

In this Section, we focus on the possible targets, in terms of public and private institutions, end-users, which may take advantage from news and research products of the Tabula Rasa Project.

Several targets may be taken into consideration:

–   Government. In particular, those government institutions directly involved in security issues, as police departments and administrative offices. These institutions may be at different levels: local, national, and international. For example, immigration or administrative offices involved in the assessment of the best mean to assure the identity of people. It is well-known that identity cards and passports will require several ICAO biometrics, and Tabula Rasa project could make them better aware about strength and weakness of such systems against fake attacks.

–   Private and public companies, involved in adopting or creating novel solutions for biometric recognition, which are not completely aware about limitation of biometrics (and possibly, of the systems on the market).

–   Research community. At the best of our knowledge, even if the problem of "direct attacks" and "liveness detection" is under investigation, the topic is not yet well-known, and a few of research institutions is involved in such exploration. In this set we include also PhD and undergraduate students which would be interested in contributing on increasing the "defense degree" of biometric systems against "direct attacks".

–   End-users. Due to the large dissemination of "biometric systems" in movies, which often overestimate the potentiality of biometrics, many users could think or believe that these technologies are fully "mature", and ready to be used. On the other hand, the adoption of biometrics on a large-scale of users should be taken by trying to "teach" them which are the real pros and cons of biometric technologies.

3. Actions

In this Section, we indicate several possible actions which can be done in order to disseminate the research products of Tabula Rasa, to increase the visibility of the project partners and reach the targets listed in the previous Section.

3.1. Publishing and presenting project results

A number of conferences and journals could be publication targets. The submission deadline is included in brackets, or simply estimated where not otherwise available.

Joint publications will help to reinforce and demonstrate the collaboration between Tabula Rasa partners and will also serve to ensure that spoofing countermeasure technology addresses the broad spectrum of biometrics at a high level in addition to specialized, biometric-specific work. This activity will target broad-spectrum biometric conferences/journals from the list below (i.e. not restricted to a particular biometric, i.e. speaker recognition and "Interspeech"). Accepted papers will acknowledge the support provided by Tabula Rasa and will be made available for download on the project website. Worth remarking, this list is not exhaustive; thus, novel events may be added as dissemination activities of Tabula Rasa partners proceed.

Conferences

General computer vision and pattern recognition

British Machine Vision Conference (BMVC, 2011-2014)

Automatic Face and gesture recognition (FG, 2012-2014)

Computer Vision and Pattern Recognition (CVPR, 2011-2014)

International Conference on Computer Vision (ICCV, 2011-2014)

International Conference on Pattern Recognition (ICPR, 2012-2014)

European Conference on Computer Vision (ECCV, 2012-2014)

International Conference on Image Analysis and Processing (ICIAP, 2011-2013)

European Signal Processing Conference (EUSIPCO, 2011)

Biometrics and Security

International Joint Conference on Biometrics (IJCB, 2011)

Biometrics: Theory, Applications and Systems (BTAS, 2012)

International Carnahan Conference on Security Technology (ICCST, 2011)

SPIE Biometric Technology for Human Identification (SPIE BTHI, 2011)

International Conference on Document Analysis and Recognition (ICDAR, 2011)

Annual Conference of International Speech Association (Interspeech, 2011-2013)

IEEE International Conference on Face Gesture and Recognition (FG, 2012-2013)

Journals

General computer vision

IEEE Transactions of Pattern Analysis and Machine Intelligence (PAMI)

International Journal of Computer Vision (IJCV)

IEEE Transactions on Systems, Man and Cybernetics (SMC)

Pattern Recognition/Pattern Recognition Letters (PR/PRL)

Journal of Visual Language and Computing

Image Vision and Computing

Biometrics and Security

International Journal of Biometrics (IJB)

IEEE Transactions on Information Forensics and Security (IFS)

IEEE Transactions on Acoustics, Speech and Language Processing (ASLP)

International Journal of Digital Crime and Forensics (JDCF)

Computer Speech and Language

3.2. Promoting and organizing international competitions

Organization of international competition on several topics of direct attacks should be done in order to involve other research communities and companies from several countries. The aim is making the point about the current technology on direct attacks.

Besides the competition promotion, it must be taken into account the dissemination of data sets generated for such competitions and, in general, for obtaining the experimental results during the project. To this aim, an appropriate section named "Data set download" will be added to the current Tabula Rasa Web page.

Software/hardware based countermeasures provided during the project could be made "available" to uses through web applications, by which each interested user could be directly and concretely appreciate achievements of Tabula Rasa project.

3.3. Dissemination of project brand

It might be interesting to run a workshop on spoofing, covering how spoofing can be performed and any systems that we have developed for countering such attacks. In organizing such workshops, several levels of end-users must be taken into account.

Moreover, promoting lectures and tutorials on the topic of spoofing and direct attacks, on mono- and multi-modal biometric systems could be taken into account.

Another point of interest is the preparation of appropriate brochures and posters that can be brought to conferences, meetings and other events.

Finally, Tabula Rasa partners will establish two annual awards to be given to outstanding research contributions within the project ("Student Award" and "Senior Award").

3.4.Dissemination at large

Significant dissemination can be achieved by responding promptly to media interest. For example, recent work in ear recognition has resulted in:

- Scientific Entertainment Television (Bang goes the theory)
- News segments (ITV news, BBC Newsround)
- Magazine articles (Wired)
- High profile internet articles (Slashdot)
- Newspaper article (The Daily Telegraph)

Besides these "traditional" way of dissemination, we could also consider novel means as social networks. In the following we mention some of them:

- Facebook is a well-known social network which allows the creation of "discussion groups" which can be easily disseminated through invitation. An appropriate discussion group about Tabula Rasa could be created.
- LinkedIn is a social network aimed to professional exchanges at different levels, especially concerning research communities, and public and private companies. Even in this case, the creation of appropriate discussion group could be done.
- Mendeley is an academic social network aimed to exchanges at research level. Mendeley allows a very easy sharing and dissemination of publications and research products. The creation of a partnership devoted to Tabula Rasa should be possible.
- Youtube is a multi-media network where it is possible to share music and videos very easily. An appropriate profile for Tabula Rasa could be created in order to public the most important achievements or "lessons" devoted to multi-biometrics and their pros, cons and weaknesses. Several levels of users could be reached in this way.

Besides social networks, the dissemination of the main web-page of Tabula Rasa, by making such page very easy to consult for different levels of possible users (institutions, partners, end-users), for example by pointing out the most appropriate aspects which could move the interest of them.

Finally, a specific "Tabula Rasa newsletter" could be proposed to maintain updated potential, external partners and/or users.

4. Targets-Actions connection

In this Section, we briefly link the set of Actions described in Section 3 with the possible targets listed in Section 2.

The following Table 1 summarizes, for each target, the possible set of Actions which can be carried out.

Table 1. Targets-Actions links.

Target	Action
Government	* "Tutorial" meetings * Partecipation to events organized by public institutions
Research community	* Publications on Journals and Conferences * High-profile magazines * Competition organizations * Sharing data sets * Social networks (LinkedIn and Mendeley in particular) * Web plug-in with online research products * Awards for joung researchers to significant scientific contribution to the state-of-the-art
Public and private companies	* Competition organization * Tutorial workshops and meetings * Social networks (LinkedIn and Youtube especially) * Participation to international expo (posters, brochure, proof-of-concept presentation) * Newspapers, magazines and high-profile Internet publications * Attractive web-page * Tabula Rasa newsletter
End-users	* Scientific entertainment television * News segments, Magazine, Newspaper * Social networks (Facebook and Youtube in particular) * "Tutorial" workshops on "security awareness of biometric systems" * Attractive web-page

5. Current or planned dissemination activities

In the following, we briefly report some dissemination activity which Tabula Rasa partners, jointly or independently each others, are conducting.

UNICA (WP5 Leader)

- (Current) Co-organization of the Second International Fingerprint Liveness Detection Competition (LivDet2011), with Clarkson University (USA), Biomedical Signal Processing Laboratory, leaded by Prof. Stephanie Schuckers. This competition will be hosted by the International Joint Conference on Biometrics which will be held in Washington DC (USA), Oct., 11-13, 2011. LivDet2011 website is http://prag.diee.unica.it/pra/node/1089
- (Planned) Submission of papers to IJCB, and ICIAP (International Conference on Image Analysis and Processing) conferences, and to PR and JDCF journals.

IDIAP (Project Leader)

- (Current) Organizing of the International Competition on Counter Measures to 2D Facial Spoofing Attacks, hosted by the International Joint Conference on Biometrics which will be held in Washington DC (USA), Oct., 11-13, 2011. Competition website is available by clicking at the voice "Evaluations" of the Tabula Rasa website.
- (Planned) Submission of papers to ICPR, ICCV, CVPR, FG, IJCB, BTAS conferences

UOULU

- (Planned) Coverage in Finnish TV, Press releases in different Finnish new papers
- (Planned) Lecturing tutorials at FG2011 & CVPR 2011, Organizing workshops at CVPR2011 & ICCV 2011
- (Done) Lectured an invited presentation at Hatutus 2010 Autumn Seminar and Meeting, M/S Baltic Princess (Tallink), Finland, November 26th, 2010. Prof. Pietikäinen discussed Computer Vision in Human-Computer Interaction in which the Tabula Rasa project was also briefly introduced.

UAM

- (Done) Submission of papers to SPIE BTHI 2011
- (Planned) Submission of papers to IJCB 2011, ICCST 2011, ICDAR 2011 conferences
- (Planned) Participation to Summer School on Biometrics (http://biometrics.uniss.it/)

EURECOM

- (Planned) Submission to international conferences as ISCA Interspeech, IEEE ICASSP, Eusipco, IJCB, and journals as IEEE Transactions on ASLP, Computer Speech and Language, IFS. Minimum number of papers to be accepted is planned to be four.

- (Planned) Contribution to poster and brochure preparation.

CASIA

- (Done) Handbook of Face Recognition, Springer – Now in press and to be displayed at International Conferences such as CVPR, IJCB 2011
- (Planned) Programme committee in several international conferences as FG, IJCB, AVSS.
- (Planned) VIS-NIR-3D heterogeneous face database
- (Planned) Adding a download section at the CASIA-CBSR web site of the project

USOU

- (Planned) Submission of papers at IJCB
- (Done) Prof. Nixon has given a talk on "Recent Advances in Biometrics", Biometrics Seminar 27th January 2011 At UK Payments, 2 Thomas More Square, London E1W 1YN Recent Advances in Biometrics, Departmental Seminar 28th Feb, University of Aberystwy.
- (Done) Video on gait spoofing for the program "Planet Earth" of Discovery Channel (Canada).

BIO

- (Done) Presentation of Tabula Rasa at CeBIT (Hannover)
- (Planned) Presentations of Tabula Rasa at IDWorld (3-4, April, 2011, Abu Dhabi), CERTES in Asia (29-31, March, 2011, Hong Kong).

CSSC

- (Planned) Introductory Talk on Tabula Rasa at next meeting RISE project (http://www.riseproject.eu/)

6. Deadlines for a first evaluation of the dissemination activities

In this Section, we suggest a set of specific actions with related deadlines in order to give a first concrete evaluation of the dissemination activities of Tabula Rasa partners. Table 2 summarizes some possible proposals. We put in brackets the possible leader of each activity.

Table 2. Actions and deadlines for a preliminary evaluation of Tabula Rasa dissemination activities.

Target	Action	Deadline
Government	Deciding the event to organize/participate in order to invite institutions	April, 15th, 2011 (next TR meeting?) (IDIAP)
Research community	First list of submitted/accepted papers to conferences/journals. In particular, which scientific communities are the targets.	June, 15th, 2011 (UNICA, with contributions of all partners)
	Creation of specific Tabula Rasa account on LinedIn and Mendeley.	April, 15th, 2011 (it can be done immediately) (UNICA)
	Proposal of web plug-in with online research products	June, 15th, 2011 (IDIAP)
	Deciding about an award for joung researchers to significant scientific contribution to the state-of-the-art on spoof detection	June, 15th, 2011 (to be discussed) (IDIAP)
Public and private companies	Competition organization disseminated (es. Face/fingerprint liveness detection) on magazines, for example, Biometric Technology Today	May, 15th, 2011 (UNICA, UAM)
	Video-presentation of Tabula Rasa project to be published on	May, 15th, 2011 (IDIAP)

	Youtube and LinkedIn	
	Preparation of brochure and posters specific for Tabula Rasa	May, 15th, 2011 (EURECOM)
	Tabula Rasa newsletter online	May, 15th, 2011 (IDIAP)
	List of expo where Tabula Rasa has been presented and eventual feedback from interested people	June, 15th, 2011 (Biometry)
End-users	Day-event devoted to biometrics and "spoofing" biometrics with demos from several Tabula Rasa Partners (deciding how, when, and where)	April, 15th, 2011 (to discuss at next Tabula Rasa meetings?) (IDIAP-UNICA)
	Tabula Rasa account on Facebook and Youtube	April, 15th, 2011 (UNICA)
	Improving the attractiveness of current web-page for end-users	May, 15th, 2011 (IDIAP)