



Pay with a (Group) Selfie (PGS) project

*Khalifa University of Science, Technology and
Research (ISRC) -
Preparation of the experimentation phase*

Summary

- An overview of the project
- Software specification
 - The android option
 - The User experience
- Objectives of the experimentation
- Environment of the experimentation
 - Activities
 - Actors
- Scenarios of the experimentation
 - Full experimentation
 - Simulation on the campus
- Elements available for the experimentation
- Supporting environment for the experimentation

An overview of the project

- Ubiquitous usage of information and communication technologies for different activities in everyday life
- According to ITU, Mobile-cellular telephone subscriptions are 7 216 millions in 2015, 78 % of them in developing countries (http://www.itu.int/en/ITU-D/Statistics/Documents/statistics/2016/ITU_Key_2005-2016_ICT_data.xls)
- Network coverage is still an issue in many places of the developing countries
- Approach techniques of easy understanding and application, even for uncultured people
- Security of the system ensured by exploiting visual cryptography schemes

Software specification

- The android option
 - As of Q2 2016, Android represents over 86% of market share and together with iOS (13%) dominates the market (<http://www.gartner.com/newsroom/id/3415117>)
 - Remaining 1% include Microsoft's Windows Phone, Blackberry, etc.
- The User experience
 - Targeted audience :
 - people leaving in areas where network coverage is a concern
 - non-IT-savvy or even illiterate
 - Two assumptions:
 - taking photos using smartphones will create the same magic as traditional photos
 - the omnipresence of electronic gadgets have already educated people in using similar interfaces
 - The application must:
 - Be usable “naturally”, without the need to spend hours navigating through guidelines
 - Guide the user, assisting him in discovering functionalities easily
 - Authentication if possible using picture, fingerprints, eye retina, voice, etc.
 - Almost “zero text entering”

Objectives of the experimentation

- Examination of the practicability of the concept
- Testing of the functionalities / Validation of the lab experimentation
- Evaluation of the performances of the software
- Evaluation of the accuracy of the channels of communication
- Observation of the actual usage
- Observation of unpredicted or unexpected results
- Requirements:
 - 15 days of experimentation
 - 10 sellers
 - 1500 transactions

Environment of the experimentation

- Actual products transfer will not be performed at this stage
- All software should have been installed on sellers, brokers and banks devices
- Software to be pushed on buyer's device upon acceptance to participate in the experimentation, options are:
 - Using any publicly available store like Android Apps on Google Play, but this means
 - Internet is available
 - The buyer is knowledgeable enough to install apps
 - Someone from our team or from the "bank" is seating nearby and installs the application on the buyer device
 - The seller's device is configured to be able to push the app to the buyer's device, but there are issues of trust
- **Activities / Businesses**
 - Detail trade in small markets around the capital city: vegetables, poultry, fish, etc.
 - Small shops: airtime, grocery, canning, etc.
 - Motorbike rides
 - Illicit trade of petroleum products from Nigeria: this is a very large business, covering the whole country and involving many actors: wholesalers, resellers, retailers
- **Actors**
 - Actual buyers, wholesalers, resellers, retailers
 - Brokers
 - Bank

Scenarios of the experimentation

- **Full experimentation**
 - All actors are available and willing to participate
 - Brokers will buffer transactions and offload them later at the banks
 - Most importantly, banks accept to enter the experimentation and
 - generate ledger of transactions
 - perform actual money transfer for some few transactions; deduction from one account and deposit on another account
- **Semi full experimentation**
 - There is no bank available
 - The desktop module will be run at IMSP campus at Dangbo
- **Full simulation on the campus**
 - No actual business have accepted to enter the experimentation
 - Students on the campus will perform role plays of seller, buyer and broker
 - Business will be comprised of trade of used books, or bikes, or cellphones, or jackets, etc.

Elements available for the experimentation

- Android module for the seller
- Android module for the buyer
- Android module for the broker
- Java desktop module for the bank
- Equipments
 - 10 smartphones for sellers
 - 5 tablets for brokers
 - 2 laptops for bank applications

Supporting environment for the experimentation

- Overall supervision by the IMSP team
 - Engaging actors:
 - marketing the idea, advocating
 - selecting places, sellers and brokers
 - Daily feedback
- Documentation system in order to record voices, images, videos in order to produce a documentary film
- Options for Cameramen, Lighting riggers, Writers, Researchers, Editors, Audio recorders/editors, Technical consultants are:
 - Hiring a team of professionals
 - Engaging students from a Institut Supérieur des Métiers de l'Audiovisuel (ISMA)

Chronogram

Activities	Time periods					
	Up to 30 September	1 st Oct – 7 th Oct	8 th Oct – 14 th Oct	15 th Oct – 21 st Oct	22 nd Oct – 28 th Oct	29 th Oct – 4 th Nov
Fine tuning the codes	■					
Acquisition of equipments	■					
Engaging banks and telcos	■	■				
Engaging local communities		■	■			
Engaging the film documentary team		■	■			
Selecting sellers and brokers			■			
Actual experimentation				■	■	
Early analysis of the results						■
Assembling the film documentary						■



Thank you!

