

1. PURPOSE OF THE DOCUMENT AND DESIGNING CRITERIA

Based on my the information, which that is available to me about the project, it seems that, in general, the goal is to develop the Indonesian-Papua New Guinean people in all areas. **The most efficient way for this goal is informatics**, which means that the individual has access to a telecommunication device with internet connection (online screen). It grants rapid development such groups or individuals to ensuring "the information faucets opening"– depending on their thirst.

Thus, the present document is intended only to gather thoughts and arguments for further discussion; besides of an introduction. My aim is to attract the attention towards these devices, and to give greater emphasis on them, in the early planning stage of the project. If the topic catches further interest, please illuminate more guidelines to further develop the present thoughts, according to the desired goals. Currently, I concentrated on the rapid and spectacular improvements of the adapting country, and next to that, this can be an exemplary initiative with positive public relations – without taking Indonesia & Papua into an internal "cultureshock".

One exciting possibility would be - among others - based on the resulting ICT document, invite researchers and international organizations to add their own experiences and knowledge of different areas of science. Since, in this society we find a relatively intact area, without the benefits and disadvantages of the western-type mindset, this is an exciting opportunity to develop and measure new kinds of social structures and agreements here, at the same time. With reasonable creativity and with good intentions, one can establish a precedent like cooperation and outstanding results in this project, with the help of cutting edge information technology!

In such a situation, with infocommunication devices, a lot of positive effects can be summarized:

- Language teaching, communication, and integration to the globalized world
- Pedagogy, didactics, knowledge transfer,
- Telemedicine, e-medicine, quality of life development,
- lifestyle guidance, connecting cultures,

furthermore, as a collateral effect: multidisciplinary research and in-depth examination of the social development; the undiscovered flora and fauna of the archipelago; and the rapid mapping of anthropological characteristics of the cultures with the help of IT.

Of course, all these positive effects are determined by the development of life situations and the possibilities of local people, as the most important priority.



2. DEVELOPMENT OF SOCIETIES

SOLUTION = CAPITAL + TECHNOLOGY + KNOWLEDGE TRANSFER

TECHNOLOGY = Infrastructure + Internet + ICT devices + Know-how

KNOWLEDGE TRANSFER = Strategy + Language Knowledge + Pedagogy + PR

Collateral methods: Telemedicine, Disaster Recovery, Family Protection

Today's rational thinker can find numerous causes for the why's of developing societies. The widening social gap is only one of these causes: the wide diverge of the levels of society carry danger, especially for people of the developing regions. This can be helped with the developing of the life- and knowledge quality. Because of this I am going to concentrate on the how's by discussing the previously mentioned main pillars:

Language Knowledge: for knowledge transfer, the first step is to ensure communication, so the primary goal must be to learn English in a short time. One of the best examples is the English as a Second Language (ESL) initiation, one of the most popular, open to the public and free online English learning source, their involvement into the project is an excellent opportunity.

Teaching, Training, Knowledge Transfer: courses for children and adults that build knowledge from the bottom according to the developing everyday needs of local people. Numerous international organizations deal with the pooling of teachers, integrating this with a family protecting lifestyle development, can **start numerous charity butterfly effects**. It is important to highlight, that it will only work effectively if the project considers the distinctiveness of local religion and culture. The project should not result in overwriting the habits of the inhabitants, but build a bridge to global world with the help of modern devices.

The importance of the global organizations is easy to see - among others - in the question of external PR. A successfully accomplished society development in this region is an interesting externality for the Western society: as the example of positive philanthropy and the economic development retroacting.

A further argument for the early calling in of information technology is the role of connected households in the field of disaster recovery and telemedicine (**improve trust in technology**), and the system usage statistics together with questionnaires placed in the system provide quick monitoring for the further development of the project.

These characteristics can be applied to other developing regions, especially Africa.

3. PAPUA MEETS WITH THE 21st CENTURY'S TECHNOLOGY

„Omne ignotum pro magnifico”

The Dutch social psychologist Geert Hofstede made his research in 1994, in 53 countries, with the participation of 120.000 people. The research, although 17 years old, looks into the given country's deep-rooted, fundamental features to reveal drive of the usual thinking. This is what I have largely taken into account when considering the further described, multi-functional ICT device, because this project is a long-term process in the society.

	Distance of Power	Individualism	Appearance of masculine	Avoidance of insecurity	Long-term orientation
USA	Low	High	High	Low	Low
Germany	Low	High	High	Medium	Medium
Japan	Medium	Medium	High	High	High
Hong-Kong	High	Low	High	Low	High
Indonesia	High	Low	Medium	Low	Low
West-Africa	High	Low	Medium	Medium	Low

Considering this, and then going further along to strengthen the knowledge transfer effect, beyond the deployed ICT devices in homes, the following solutions are also well applicable:

1. **Setting up Science Centers:** the Palace of Wonders is a well-known science center in Hungary. These centers aim to describe science, technology and knowledge in a playful, entertaining way, with different kinds of installations in a public space. Highly efficient and versatile method of social development for all communities.
2. **"Magic Windows" on the streets:** protected from vandalism and environmental influences portal-like 4-metres-diameter displays placed directly on the sidewalk level. This window is connected with another magic window via webcam of another location. The cameras transmit real-time video broadcast to the other side of the windows, thus giving the impression as if we could walk over onto the other side. By these installations, the "power of technology" is immediately understandable to the man of street, when taking a look at these playful devices. It is an exciting innovation and novelty by a relatively low investment, and with a very positive public relations dividend, especially if a large-scale campaign raises its awareness: "Adopt a twin-city from Indonesia" – in this way, other locations can also be connected to this multi-cultural program.
3. **Exploring parallels between the religion, the ancient culture & the modern world:** a modern approach to build design-installations that inspire people to understand the possibilities in cutting edge technology. Without words, it creates inspiring ideas and new viewpoints in the visitor's mind in a way that the method contains locally familiar features and habits and deploying them in a modern shape. A special emphasis should be taken on such features and practices that exist in the modern world too. The method is based on building bridge between the cultures.

4. AN EFFECTIVE SOLUTION: MULTI-FUNCTIONAL TELECOMMUNICATION DEVICES INTO EVERY LIVINGROOM AND COMMUNITY SPACES

a. HARDWARE AND SOFTWARE CONSIDERATIONS

b. INTERNET AND INFRASTRUCTURAL NEEDS

c. INTEGRATING KNOWLEDGE AND A USER-FRIENDLY SOLUTION

I imagined devices in the homes and everyday public areas that are constructed in the same way: a well-selected digital board (large interactive digital screen) that provides access to the Internet. Extremely simple and comprehensive, easy to learn and to train its using.

Criteria for choosing the hardware with increased consideration of local specialities: the electric consumption of the device, heavy-duty design, durable construction, and endures high humidity. Should be easy to install, considering the lack of service background, must have remote management capabilities, easy operation.

In all other respects, the project's infrastructure needs are available if the building has electricity and has internet connection in any way (wired or wireless).

A screen's internet bandwidth needs are well covered with an average mobile internet nowadays, accurate data can be specified when the specific local attributes and software abilities are known.

Applying custom communications software to the screen: it is the most important that the software should be simple, its user-friendly interface should help the local population on a daily basis. A good example of the interface is the success of the iPhone cell phone thanks to its easy-to-learn and unified interface.

The software of the touchscreen (or simplified, usual buttoned device) should provide the following main functions, in a simple way:

- Learning English and other languages
- Telemedicine with brand-new remote diagnostic tools
- All other training and education courses
- The presence of international organizations (virtual family-support function)
- Informing and disaster recovery
- E-home control solutions for the building, if exists

If we imagine the software development as a unique solution, and enough time is available for the development (quick estimation of cca. 15-18 months), two other major software modules can be considered:

1. The control functions of organizations and individuals on the other side of the screen-connection:

- Registration system aiding the first contact and the subsequent communication
- Logging module able to measure the quantity and quality of performed tasks
- User-friendly solutions for the preparation and maintaining everyday work
- Integration of automated data systems for instant information, from weather data to the news of personal interests

2. The coordinating management group's monitoring and administration tools:

- Module for the registration, administration, and performance monitoring of the participants
- Management module for contents available from the system: images, sounds, videos, multimedia, e-learning materials, etc.
- Statistics and reports for future decision-making

After the launch of the system, the software of course, requires continuous improvement. With time and better understanding of the needs and user habits, it will make an excellent social developing tool.



The original thoughts were applied in **Digitalteacher.hu virtual classroom & portal system**, made individually by the Enterprise Limited, this is how we got the inspiration of this document. The basic idea of DigitalTeacher is originally to solve the educational needs and problems of Central and Eastern European societies, both in nonprofit- and for-profit ways. Although the original system is effective in communities where the use of the Internet is already widespread, the system's main idea and concepts could serve necessities well in the current project too, so I will summarize them briefly:

- Community building from teachers, with numerous motivations
- Telework-interface with "virtual classrooms"
- Free to organize working plans, individual schedules
- WEB2: the community develops, qualifies and ranks the content itself
- Advertising the importance of pedagogy in the life- and knowledge quality of the "adults of the future" (mass of additional long-term effects)
- According to individual preferences, everybody can have their best training

- The portal helps users to gather in one place, to give the learning session and to account the incomes and expends (building marketplace from teachers and students)
- The project will further strengthen the strong, but helps the disadvantaged and file-closers to gain
- The project is to mediate the presence of positive values in our country

The DigitalTeacher Project relies on widespread involvement of mobile devices, to connect into it from almost any life situation. This also offers interesting possibilities in the Indonesian archipelago.

Screenshot of the DigitalTeacher.hu main page

About telemedicine in a couple of words: constructed in a deliberate way, the DigitalTeacher.hu portal system can be easily adapted for other intellectual occupations. It results in interesting synergies beyond the realm of profit. The Enterprise Limited's development plans also include a "Digital Doctor" portal that is connected to a self-branded, telemedicine-specialized hardware product family (eg: e-stethoscopes, e-thermometers, blood pressure gauges, level-analysts, etc.). It grants remote and easy diagnoses. These diagnoses can be easily set up from the distance by the patients themselves, and the diagnoses can be collected in a central database, if needed.

The telemedicine could be a **strong element of developing mutual trust** in this project, so we could use it as an important element in the area of Indonesia and Papua New-Guinea, similarly to the detailed methodology.

5. REFERENCES

TED TALKS:

Charles Leadbeater: Education innovation in the slums

http://www.ted.com/stalks/lang/en/charles_leadbeater_on_education.html

Sir Ken Robinson: Bring on the learning revolution!

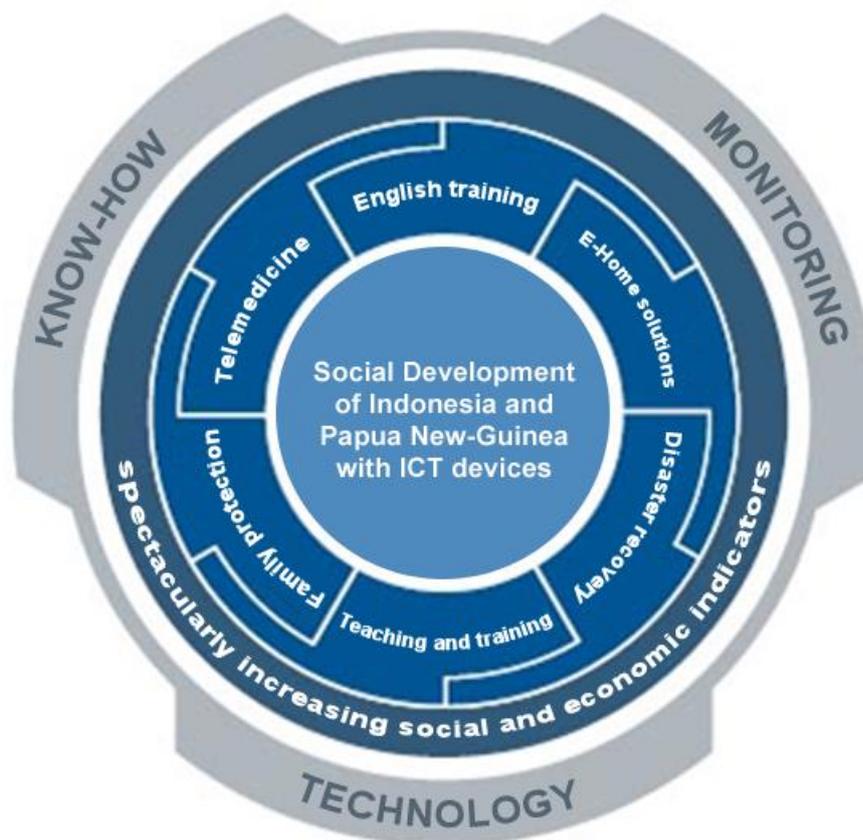
http://www.ted.com/talks/lang/eng/sir_ken_robinson_bring_on_the_revolution.html

SugataMitra: The child-driven education

http://www.ted.com/talks/lang/eng/sugata_mitra_the_child_driven_education.html

CIA World Factbook Indonesia & Papua New-Guinea:

<https://www.cia.gov/library/publications/the-world-factbook/geos/pp.html>



Yours sincerely:

Krisztián Berg
IT specialist, innovator

www.EnterpriseInformatika.hu | www.SoccerSoftwares.com

E-mail: krisztian.berg@sympatia.hu

Phone: +36 70 377 1444

Tata, 2011. December 21.