



Ministry of
Education and Culture

EDUCATOR **Inspiration** from the frontiers

Presenting information technology,
breaking through boundaries



Educator inspiration from the frontiers

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breaking through boundaries

ICT Center, Ministry of Education and Culture
2018

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“Education

should encourage and enlighten
students and not be a burden.
A good education could stimulate
students’ self-actualization”

Prof. Dr. Muhadjir Effendy
Minister of Education and Culture

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Chief of ICT Center
Ministry of education and culture

Gogot Suharwoto, Ph.D

My greatest gratitude goes to our God, The Almighty and my great appreciation is for the book release. It tells stories of dedication and determination of educators around Indonesia. It is about educators who break through their constraints by dealing with challenges and barriers they experience. They are the heroes for our future generation. Their inspiring stories encourage our youths to face the future enthusiastically.

This book is dedicated to inspire and spread the spirit. No matter what program is provided by the Government, there needs to be a transformation and escort in order to be right on target. Internet relief fund program in USO (Universal Service Obligation) is designed to transform education in Indonesia with the initial idea of providing ICT around the country. The program provides internet facilities to schools in the innermost of Indonesia which grouped in schools' category of 3T (forefront, outermost and disadvantaged) regions. 3T regions are on the priority for infrastructure and human resources developments in strategic program of President of Indonesia, Joko Widodo, Vice President, H. Jusuf Kalla, and the Cabinet. The program aims to fill technology and educational media hiatus in Indonesia. USO program, also called Universal Service Compulsory contribution (KKPU), is a joint program from Ministry of Education and Culture

(MoEC) and Ministry of Communication and Informatics. It is stated in Minister of Communication

and informatics Regulation, no 32 year 2018 that the program is funded by non-tax revenue (PNBP) from telecommunication providers. The regulation also explains that, the program is managed by Directorate General of Post and Information Ministry of Communication and Informatics. The program deals with underdeveloped, remote, pioneering, forefront areas, and some other areas with no access of communication service.

In 2015, the first stage of USO had built internet network and connected 365 schools in Indonesia. The monitoring and evaluation results administered by ICT Center of Ministry of Communication and Technology showed that ICT manager and teachers still had low skills in network management and applying the internet connection to support learning system.

From the program, 3T regions schools are expected to have internet access which support learning processes. Providing additional internet facilities for education transformation would improve students' achievement, develop their skills and enhance their horizon. It is a digital technology transformation for education: enlighten our future generation.

Internet relief fund program stories reveals educators who could apply technology for education transformation. They fight resourcefully to overcome constrains, and limitations and they also inspired and

nurtured their students. In the right hands, technology can be an inspiration, it is not merely tools.

Stories of teachers in this book aims to encourage us to get a maximum usage of technology. If digital technology and educational media are operated by inspiring teachers, I would argue that we will have a brighter future and our young generation would create extraordinary inventions beyond limitations. Certainly, it will be achieved through motivation, hard work and dedication for education.

Jakarta, October 2018

Inspiring Technology Acceleration

M. Hasan Chabibie, S.T, M.Si

I was interested to read “the Art of War” by Tsun Zu (400-320 BC) during my study in high school. The book discussed stories and art of war in the warring states period in ancient China and it is still relevant as a reference for policymakers. My curiosity was likely inspired by hadith “Pursue knowledge even if you have to go as far as China” which encourages me to have a deeper understanding of the country known by Dragon from the East.

Villagers besieged the city is one of the strategies of war. It explains that if we would like to conquer a kingdom, we need to conquer its surroundings. Therefore, the development of villages and border areas must be given precedence over cities and it will lead to villages besieging the cities. The concept is highly relevant for accelerating disadvantaged areas development to pursue urban progress.

Data released by Ministry of Villages, Development of Disadvantaged Areas and Transmigration states that there are 183 disadvantaged areas across Indonesia, more than 30% of the entire cities and regions. It is a challenge for local policymakers to remove their regions from the list. To respond existing condition, point 3 of Nawacita Concept from Working Cabinet states that “Build Indonesia from the suburbs by strengthening areas

and villages under unitary state framework.” Of course this being a fairly strong foundation for policy makers to design the right program. Some infrastructure programs funded by government can be a starting point. The strategy tried to reverse longstanding conception which places borders as our backyard. Nowadays, borders are viewed as front yard where our state is ‘vis a vis’ with our neighboring countries and our oceans are not regarded as separating lines, but they unite our island country.

The fastest and highly efficient way to connect outermost and border areas is using information technology. The writer noted that Minister of Education and Culture (2014-2016) in some of his speech said that “In Urban area, Technology is luxury. Whereas in borders, it is basic needs.” Technology had transformed from luxury needs into basic needs to bridge the gap among regions. Easy access and affordable devices support the strategic role of technology as cultural enlightened.

The question is what is the relation between Tsun Zu theory and technology?

Although the concept of the village surrounded the city is more synonymous with the Chinese cultural revolution in a period of war, there are patterns that can be taken. While Mao’s cultural revolution in the use of a network of villages to besieged the city, we can use information network as knowledge sources to accelerate education.

Each region had its knowledge archives in written and oral forms. A reliable knowledge management can

use it to fuel substance of education. Discussion and sharing of knowledge would be easier with a better connection and there will be no more information and knowledge gap as disadvantaged areas characteristics. The remaining problem is the extent of standard and competence could be aligned with learning content standard.

At this point, ICT Center Ministry of Education and Culture (MoEC) and local education stakeholders could play active and effective roles, have technical expertise, and the ability to digitalize content (video, multimedia, web). These special characteristics of ICT Center can be exploited. At the same time, effective online learning design is required to convey information into a correct target for an appropriate competence.

Uwes Chaeruman, a learning design expert, said to the writer in some occasions that if we want to design an effective online learning, we need to pay an extra attention into interactivity problems. Learning is interaction and experience processes; therefore, all communication line should be optimised. It is important to avoid technology like a body without soul in which educator and students only face screens with no dialogue among them.

Another important point in developing online learning is the combination of synchronous and asynchronous patterns which is well-designed by educators. The synergy of both patterns can be a learning rhythm which is experienced by students. The readiness content and learning activities are crucial to

boost adrenaline because the limitations of face to face interaction. Therefore, the advantages of a variety of media should be maximized to help understanding and bridge minimum communication.

Students' support and civil effect, which are currently regarded as "stumbling blocks" in the management of online-based learning, need to be addressed wisely. Strategies that had been designed meticulously should not be messed up by the lack of assistant and minimum gratefulness. In this regard, the writer remembers a proverb by Nurcholis Majid (1939-2005), "Great vision and mission need a great nutrition."

If only some of the tips mentioned above are well-applied, the writer would said optimistically that information and knowledge that we supply to the students could meet standard ideal content. As a result, there will be no more quality difference between accepted materials for students in Jakarta and other big cities, and students who live in the periphery and borderland. Finally, teachers and other education stakeholders would only be required to escort and ensure that learning processes can be accomplished and correspond with expected competence.

Thomas L. Friedman, a journalist of The New York Times, said in his book 'The World is Flat', (2015) that the world is no longer round, and every person has equal opportunities for he connects with internet. Geographical boundaries have been lifted, and we need to believe that everyone can make changes. For the reasons mentioned

above, digital technology has become competition space with many possibilities for human resources development, business and, last but not least, education.

Technology access for education

How is technology for education in our country? Digital technology growth in Indonesia have been a challenge for our country future. Indonesia is a slumbering digital technology giant in Asia. It has more than 250 million inhabitants, an enormous potential market and promising resources. Data released by E-Marketer, a digital marketing research institution, estimates that in 2018, active smartphone users in Indonesia will be more than 100 million. The number will place the four biggest active smartphone users in the world after China, India, and America.

Nowadays, there are 574 active smartphone users in China. As a result, China is placed second in the biggest smartphone users after America. Data released by iResearch states that online sale in the Bamboo Curtains country reaches 8 percent from total retail. In 2015, online sales reach 10 percent. In China, Alibaba is one of the biggest corporations in the world among Google, Facebook, and Amazon.

Based on the data from Internetlivestats, Indonesia is around 17 percent whereas India is around 19 percent. Market penetration in Indonesia is left far behind from southern east Asian countries such as Vietnam (43 percent), Philippine (39 percent), Malaysia (40 percent), and Singapore (81 percent).

Online sales percentage record also showed that Indonesia is left far behind neighboring countries. In 2014, Globalweb Index released survey findings which stated that Indonesia citizens percentage for online purchasing is 16 percent whereas the percentage for India is 14 percent. Indonesia is left far behind Singapore which achieved 46 percent.

Nevertheless, Indonesia is a potential market for digital acceleration. Some big investors have been eyeing Indonesia as a market and a partner in developing digital media. Techlist, cited by Technasia, revealed that there are 93 percents of southern east companies received funding in the first quarter of 2015 and 24 of them are start-up companies from Indonesia.

Data released by International Data Corporation (IDC) showed that data growth reached twofold every other year. Based on the data, IDC estimated that there would be more or less 44 trillion GB digital data in 2020. The data also gave estimation that 60 percent of digital data originated from developed countries will swap with developing countries data from 2013 to 2020.

GDP Venture data showed 83 million Indonesian citizens are connected to the internet in 2014. 54 million of them use mobile to access the internet. The data had significant increase for 120% from the previous year.

Indonesian government issued Government Law no 82 year 2012 on Electronics System and Transaction Organization in which one of the article obliged public

service electronic system to put data center and disaster recovery center in Indonesia for law enforcement, protection and State sovereignty enforcement over citizen data.

How about Indonesian education in relation with digital technology? Indonesian digital technology revolution changed ecosystem and tradition and encouraged acceleration in various fields. If Internet technology in education is well-managed, it will encourage human resources development in education. Internet technology would generate innovation in education, especially in learning media.

However, there are infrastructure gaps in internet access usage in education between schools located in 3T (forefront, outermost and disadvantaged) regions and schools in the cities. Infrastructure transformation is required for education development in borderland, thus, there will be equal learning media and technology access among learners to enhance their horizon, to attempt soft skills upgrading, and to explore the world. Using internet wisely, younger generation could develop a vast imagination. Their imaginative intelligence will be honed continuously. Not only those who live in the cities, but also students who learn in the outermost and borderland.

USO (Universal Service Obligation) program or Universal Service Obligation Contribution (KKPU) is a strategic program to bridge digital divide among schools around Indonesia. It is a joint program between Ministry of Education and Culture (MoEC) and Ministry of

Communication and Informatics. ICT Center of Ministry of Education and Culture is appointed to execute the program. It assists the program and maximizes resources and infrastructure. The program, started in 2015, is the bearer of new hope to get information technology access for schools in outermost and borderland or schools located in 3T (Forefront, outermost and disadvantaged) regions.

To assist technology acceleration, it is essential to improve human resources qualities. Inspiring educators could be role models to develop enlightening technology. Learning media without interaction, enthusiasm and soul that accompanies will be a wasteful technology which may kill intelligent. For these reasons, mentoring teachers who could use technology effectively and maximize it for education are inevitable. Last but not least, Technology is a tool or a medium, and its main purpose and final goal is human intelligent and technology application in education. Intelligent learners and inspiring educators will evolve technology as a tool to create something. They create their work from technology, and they do not merely use technology for consumption purposes and act as passive users. Therefore, education with technology acceleration support is essential for our younger generation intelligent development.

Let us work together to build Indonesia with enlightening technology. Let us build Indonesia from villages and outermost areas for its future development. Let us use technology as villages encircling cities and

optimize 'nformation oxygen' to improve our education quality standard. Rawe rawe rantas malang malang putung (Strive onward, no matter what). May God bless all of our efforts.

Foreword

Authors team

“Children live and grow corresponding with their nature. Educator could only take care and guide them to create their nature” – Ki Hadjar Dewantara

Our greatest gratitude to God the Almighty for the release of “Educator Inspiration from the frontiers.” The book is aimed to be an information bridge to assist educators struggling in Indonesian borderland. They devoted their life to educate our younger generations.

In the middle of the limitations of the facilities and the lack of access, educators continue to work hard with passion and perseverance to devote themselves. The stories of educators in this book are a small part of the puzzle into a beautiful painting about education in this country. They maintained their devotion for the good of the country and for Indonesian citizens who live in the outermost and the border areas of Indonesia. The stories are uplifting, struggling, and adventure stories.

From the stories of educators, optimist young people and perfect future are born. From their struggle and hard work, young generation from outermost area or 3T (forefront, outermost and disadvantaged) regions grows and work hard to pursue their dreams. Innovative stories of teachers who have inadequate education facilities and internet access with all its problems are important to learn from. The stories give us evidence that there is still

a long way to go for education in our country.

The teachers in these stories gave their best effort to make the most of existing potential from Internet facilities in USO program managed by ICT Center of Ministry of Education and Culture. They asked their students to access information technology although they only had limited access to electricity and had to face with natural conditions and other obstacles. They assisted students to browse in virtual world with limited facilities. They are our country heroes who need to be acknowledged and appreciated. Teaching is not only their profession but also their dedication for our country.

Our special gratitude to Minister of Education and Culture, Prof. Dr. Muhajir Effendy, Ministry of Education and Culture General Secretary, Didik Suhardi, and the Board Directors of ICT Center Ministry of Education and Culture: Eka Khristiyanta P, M. Hasan Chabibie, M.Si, Aries Setio Nugroho, S.Kom. and all team members from Ministry of Communication and Informatics for our partnership in USO (Universal Service Obligation) program.

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All of our cooperation hopefully becomes a wonderful step and is recorded as civilization adventure to build Indonesia future from education. Recording team work in this documentative narration may become our appreciation to all educators in this country.

Authors team.

「**“Whatever is done**
by someone should be beneficial
for himself, beneficial for his country,
and beneficial for the world”

Ki Hadjar Dewantara (1889-1959)」

Chapter

I

Introduction

Indonesian citizens in the borders experience crisis of identity. They are forced to have two options and their love and loyalty to the country are tested. In the inland of Kalimantan near with Malaysia Border, inland of Papua and NTT, Indonesian people have fallen behind in some areas such as: information access, education, and infrastructure development. This is a fact compared to its counterparts in big cities with competitive systems and international standard infrastructures.

It is sensible that Indonesia borders are prone areas because of the tiny amount of love to the country. Moreover, lagging in education field makes Indonesian citizens at the border feel backwardness as citizens. Responding to this, it is interesting to know what have been done by Ministry of Education and Culture (MoEC) in recent years. MoEC and Indonesian National Armed Forces (TNI) have a joint agreement to expand education services in the borders, outermost, remote, disadvantaged, conflict, post-conflict and disaster areas.

The agreement areas include early childhood, non formal, elementary, junior and senior high schools, higher education, disabilities education, language, research and development, and human resources development educations.

Moreover, the government had announced

officially Nusamus Merauke University, Borneo Tarakan University, Bangka Belitung University, Bangka Belitung Polytechnic, and Batam Polytechnic. The government also announced Negeri Nusa Utara Polytechnic in Tahuna, Sangihe Archipelago Regency, North Sulawesi Province as a public institution. The Polytechnic is not only an education institution but also a diplomacy channel between Indonesia and Philippine.

Indonesian diversity, inherited from Indonesian ancestors' civilization, has a huge prospect to get a better understanding of cultural diversity and natural wealth with local technology built upon local wisdom. As a result, education will not make a radical transformation of Indonesian inhabitants' identity. All these years, equal education standard is applied in relation to its outcome while equal access and infrastructure are neglected. In fact, inequality is stood out and it affects the process.

Another reason for loss of identity and love as Indonesian citizens is the difference of space and time between central government and local government, especially in education and development equality. Michael Saltman showed in *Land and Territoriality* (2002) crisis of identities among citizens in relation with their nationalism. Rapport and Dawson in *Migrants of identity* (1998,4-5) also reveals that human identity in borderlands is moving around the context of recognizing space.

Therefore, space concept in social milieu of citizens is cultural and political space.

Understanding political space is influenced by education and infrastructure access and equality of political agenda. On the other hand, cultural space concerns with how residents at the borderland maintain their culture identity under the raid of nationalism indecision and new identity offers from other countries. If government has shown his concern on higher education on the borders, it is the time to encourage innovation from elementary school teachers in the borders and innermost areas. Education quality improvement in the borders would strengthen our national defense system in the outermost areas through education and culture.

In relation with human resources development for educators in the borders, especially in information technology, MoEC through ICT Center attempts to improve human resources and infrastructure. Even though the program has already run in some innermost and outermost areas, there are interesting facts of innovations conducted by educators. Strategy to formulate innovation and educators' struggle to teach deserve to become inspirations for other educators and younger generation because they need to know the educators' dedication in the borders. It is the aim of compiling "Inspiration from the borders" book: digging out innovation, spreading inspiration!

Chapter

II

「“Education

is what remains after one
has forgotten what one has learned in **school**”

Albert Einstein (1879-1955)」

Rovina Timisela, Profile 1

A formidable woman in the innermost Papua

In the morning, dozens of children lined up in front of classroom. They discussed with each other, Interspersed with jokes and giggle. Not all the children wore uniform and only some of them wore shoes in Minyambaw District, Manokwari, West Papua. It is located on the upper slope of Arfak Mountains.

The children worked hard in the midst of limited education facilities. They kept learning in this condition. On the upper slope of Arfak Mountains, they put all their wishes to get a better life. Children of Arfak Mountains hang their expectation for a better Indonesia although they only had limited teachers and their location is far from the nearest city.

They are a witness how the face of education in arfak mountain range, West Papua. Arfak Mountains is a mountainous region which spread from bird head in Papua Island. The region is 2.950 m above sea level height. Based on its height classification, the region represents three forest ecosystems (1) low rainforest, (2) foot of mountain rainforest, and (3) slope rainforest. There are more or less 110 mammals with 44 recorded species, 320 aves species in Arfak Mountains region. Some of them are endemic animals in this region such as Arfak bird

of paradise (Astrapia Nigra), West Parotia (Parotia Sefilata), and Namdur Polos (Amblyornis Inomatus).

It could be imagined how limited access turn into motivation for children's of Arfak Mountain. Road access to the upper slope was very difficult. There was only a rent truck which explores mountains and narrow roads from Manokwari to the summit of Arfak. It took 4 hours to cover more than 60 kilometers from the city with slope roads, narrow roads, and steep hills with deep ravines.

The road to the summit of Arfak is rocky and settling mud roads. In the rainy season, vehicles choose to pull over to minimize accidents. It is often heard the news that some vehicles are trapped in deep mud or even slipped to deep ravine.

Fighters Educators

In the midst of limitation, the teachers of Minyambaw senior high schools remained eager to serve. There were 61 students from grade X to XII in the school. There were 5 teachers who taught everyday, and they also had to take turns from cleaning the rooms to tidying administration. Amid these limitations, Rovina Timiseka were assigned to teach in the school. She taught Information and Computer Engineering (ICT), Geography, and sociology. Rovina, born in 3 January 1986, was a formidable teacher. She tried to share inspirations amidst limitations.

"I first taught geography and sociology. Because



Picture 1. Learning activities in outermost area using the computer.

there are no teachers who teach ICT, I was assigned to teach it” said Rovina. She admitted that it was initially very hard to teach children in the innermost Papua, however, as the time goes by, she loves it. She looked very proud and happy. She was very happy to teach the children in the innermost Papua both inside and outside classrooms.

“When we were short of teachers, we were asked to teach other lessons” Rovida explained. In the innermost and borders area, teachers are required to be alert with all condition, and they also required to solve problems and limitations. Far location from downtown and limited



Picture 2. Computer introduction activities to the students in outermost area.

facilities are challenges they must conquer daily.

On the slopes of Arfak mountains with isolated information access, Revina felt it was difficult to teach. She determined to give encouragement to her students with the use of nature as learning resources.

Then, the government provided aid in USO program managed by ICT Center Ministry of Education and Culture, in the form of internet facility. The school received aid program by the end of 2015. "We were assisted to find information. Here, it is easy to access with internet facility," Revina stated. She was very pleased because Papua

children could learn from exploring information on the internet. Their horizon opened widely, and their imagination developed, imagining how information and education access could change their way of life.

However, Internet is related to habit, related to the way of thinking. Revina tried to teach her students, to make them have a bravery to explore. "I often need to wait the students to come. But, they sometimes feel ashamed or doesn't want to come. Therefore, they rarely come to the computer laboratory to learn internet" she said. She kept inviting students to learn how to use computer, make the most of existing facility. "But there are some children who started to learn, they want to find any information, can open google, open internet from this room," she said happily.

"The problems may be lack of facilities. Computers have not complete yet. There is only a laptop for 61 students: Grade X is 20 students, Grade XI 21 students, and Grade XII is 26 students. Moreover, the laptop is sometimes used by curriculum staff for administration work. Thus, we need to take turn," Revina explained.

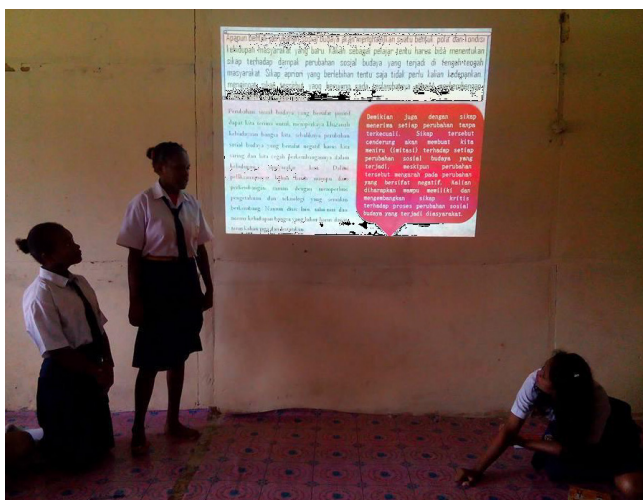
Internet access at the school could not have maximum utilization due to limited electricity. The electricity sometimes went out during the day.

When the writer came to the school, electricity connection was disrupted for more than a month. It

was caused by broken electricity pipes and cables which connected to school. If they used generator, the fuel cost was too costly. It will require more or less 200 thousand to activate generator for an hour.

Educating to inspire

Students explored a wider world under the guidance of Revina Timisela using available internet facilities. They usually read literature, short stories, and also recognize Indonesian culture from surfing in cyberspace.



Picture 3. The students present their ideas more easily with computer.

Limited education access did not discourage the children and lament their fate in innermost Indonesia. Their expressions indicate their enthusiasm, readiness to work hard and fight for a

better education future.

There are 61 students in Minyambaw senior high school, and they are from Arfak Mountain slopes. They need to walk for tens of kilometers and it takes 1 to 2 hours for school. When it was a rainy season, the access was blocked, and the students could not go to school. "Those who live faraway usually stayed with their relatives around here. When it is a weekend, they usually returned home."

Revina Timisela and her fellow educators in Minyambaw did not give up. They actively taught and coped with minimum facilities problems. With this spirit, the teachers introduced internet technology and digital media used to achieve a better education. For grade XII students, they used internet to hunt for education scholarship in higher education.

"Some students continue their study in Malang East Java, Sumatera, and Kalimantan." Revina explained. Some of them got scholarship from Papua government. Those who excel and eager to learn were sent to several famous campuses in Java, Kalimantan, and Sumatera. Hopefully, after they finish their study, they want to return home, build their hometown, teach, and build education and their society.

Revina Timisela told that she always inflamed her students' enthusiasm when she taught. She tried to inspire them so that they get a brighter future. "I told them how I struggled during my study in the university. Most of the teachers are from

similar condition since they came from a simple family. We study from school to university, we were accepted as Civil Servant to become teachers. This is what we told to the children that learning must be with hard work. Tried our best with limited equipment and facilities” she explained.

Enthusiasm was radiated from Papua children. Ovni Dowansiwa, grade XII student, believed that she will study in the university until she graduates. Ovni, born in 1998, is an example of Papua children who will become a pillar for the future of this region. “I want to keep learning so that I can be useful for my family. I want to do something for Papua and Indonesia,” she explained.

With natural conditions far from the city, Revina Timisela maintained the flame of Papua children spirit. “In this area, most of the parents work in forestry plantations. I said, “Look at your parents! They work hard from early morning to afternoon and sometimes to evening so that their children can go to school, to study,” Revina said, telling how to share inspiration.

A figure like Revina Timisela is part of education reality in our country. In the midst of access and learning tools limitations, they share inspiration enthusiastically. They are the actual education powerhouse and volunteer who stand Indonesian borders with knowledge, with inspiration.

“**They have to be better**
from their previous generations. They must
be ready to compete with students from other
schools. Although with limited facilities.
The students, I believe, have equal ability”

Revina TImisela

Lenguing Ajang: Profile 2

A teacher in Malaysia border

The inspirational figure in this story is Lenguing Ajang. She is a wife of Long Penaneh village chief, Long Aparu sub district. Lenguing is Administration manager in Long Apari 01 junior high school. She was known as a friendly and caring teacher by her students.

Although she only had limited proficiency of Indonesian language with stuttering intonation, she tried hard to teach Indonesian language, our language of unity. "in the borderland, we usually used Dayak language. We rarely speak Indonesian in our daily activities. However, it is a compulsory to use Indonesian language in the school" said Leunging

The biggest obstacle experienced by Leunging was not only how to teach Indonesian language and make it easy to understand, but also how to access the latest curriculum from Education Agency. It was highly difficult for schools in the borders to access the latest curriculum data from the Agency. Moreover, it also felt like difficult to have internet access which could make information technology systems easier to assist learning.

These were the obstacles she had to face.



Picture 4. Introduced computers for learning in the outermost areas.

However, she never complained and losing his enthusiasm to teach her students in his region, in the borderland.

Lenguing also felt that textbooks are not complete yet and it makes students learn in makeshift facilities. “if we go to a regional city, in Samarinda, we look for available books, however, it is quite difficult to go there,” said Lenguing. Limited textbooks and latest curriculum system are everyday situation for Lenguing and her students. Education condition in the borders was heartbreaking. Persistent people and inspirational teachers like Lenguing made education institutions in the borders can anticipate, recognize limitation, and solve how to give a qualified education.

The numbers of teachers in the borderland were also limited and it could be claimed that there

was inappropriate ratio of teachers and students. Lenguing could not easily go whenever there was an invitation or family business, she had to make a tight schedule among the few teachers who teach. "There is only very few teachers in the borderland, we cannot go around easily if it is not weekend or a holiday" said Lenguing

Information technology infrastructure was another problem for Lenguing. She did not have easy access to find learning materials and data to support learning system in her school. Moreover, she could not find alternative learning from the internet as it happened in schools near big cities. For Lenguing, internet access is a luxury.

"Never mind the internet, the telephone network is up and down. It what happens in the borderland. Although we are in short supply, our students are enthusiast to learn," explained Lenguing.

To overcome limited income, Lenguing seek way to utilize natural resources in the neighborhood. She looked for alternative income so that she did not depend on a small amount of teacher's salary. Her salary was not enough to finance her family. However, she did not give up, she found idea to utilize handicraft. "I make handicrafts from rattan. I look for it in the forest and I make it into handicrafts. I sold the final product and the price is good," explain Lenguing.



Picture 5. The students more easily to get knowledge with internet.

Lenguing admitted that her side work income from utilizing rattan for handicrafts could be used for additional income. “it could give additional income for household needs outside teacher’s salary,” said Lenguing passionately. Lenguing story is a reflection for teachers in the borders. How they cope with limited condition, lack of information access, and limited internet technology. However, Lenguing never gave up. She teaches with dedication, with her soul calls.

For Lenguing, as written in the media, teaching and educating children in her neighborhood are happiness. She had a great expectation for her alumni to reach education as high as possible, they do not merely graduate from senior high schools but can study to the next level. Lenguing wished that her students graduate from higher education, become a graduate or master, and can return to

devote themselves to their homeland, in villages around the borderland.

“After they have graduated, although not all, some of them will devote themselves in their villages. I have a high expectation for those who were in the cities,” Leunging wished that her students, who have graduated, could give some energy and minds for education and social development of their village residents.

“When they are successful, they will contribute to their villages in the borderland,” wished Lenguing,

Lenguing story is a story of silence, a story of limitations. Under limited capital and never-ending obstacles, she was never desperate. Internet access limitation is dealt with various ways to ensure that her students can learn to the maximum. She understood teaching as an invitation of the heart and interpreting teacher’s way of life as a soul call. Inside Lenguing, inspiration and hope are embedded for education future of this country, especially in the borderland.

Lenguing Ajang is a reflection for some teachers in Indonesia borderland who are able to deal with various obstacles and challenges. When there is hope, there is energy. Lenguing Ajang would keep inspire her students, the younger generation who becomes hope of our nation in the borderland.

“.....in the borderland.

Although we are in short supply,
our students are enthusiast to learn...”

Lenguing Ajang

Ambresius Murjani : Profile 3

A Devotion at International Borders of Indonesia

For Ambresius Murjani, passion and perseverance are important factor for those who want to educate in international borders area. He acknowledges the absence of human resource, especially in the field of education and health care, and intended to fill it. "That is what I want, and I have started it for the past several years. Some of those borders kids now pursue their degree in STKIP (College in Teacher Training and Education) as well as Nurse Academy," Murjani explained. Murjani belongs to the small number of borders youth who is a eager to fight for the betterment of his society. He tirelessly empowered communication amongst society through education. His effort moved the youths in that area to pursue the higher education so that they eventually could give back to their society.

In 2012, 50 people of Ketungau Hulu pursued their education in STKIP (College in Teacher Training and Education) in Sintang, Kabupaten Sintang.

They study hard so that one day they can come back to the place they were born to teach the people who live there. Some of them even went to some

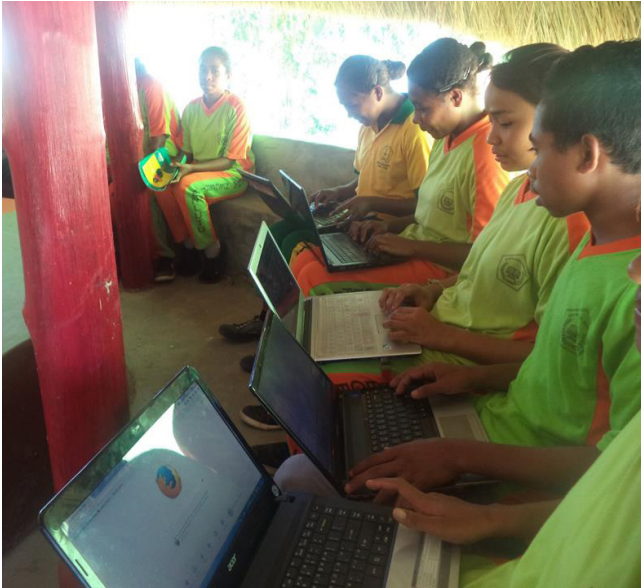
Nurses Academy in East Java.

Ambresius Murjani inflamed the torch of inspiration for the youth of Sintang. He encouraged the people of Sintang, especially the youth to work and study hard. For Murjani – that’s how people called him- education and health care were the main obstacles for the people living in border area.

About fifty years ago, people of Sintang saw Malaysia as their inspiration and orientation. This was a common idea for those who live in international borders between Indonesia and Malaysia. It was easier for people of Sintang to get access to daily needs logistic supply, education and health care from Malaysia than Indonesia. Those who live in border area always face this irony.

In order to change this perspective, Ambresius Murjani was thinking to empower his own people. He thought that he could not expect any more help from the Indonesian government or depended on the teacher or health workers from Java or some big cities in Kalimantan.

He thought that it was the time for youth of Sintang to develop their own region, especially in the field of education and health care. Murjani hoped that the youth could pursue their own higher education so that one day they could become a teacher or a nurse. This was his vision in the effort to develop his own society. “Just like me myself. In 2007 I pursued my bachelor’s degree in Universitas



Picture 6. The students get learn more easily with internet.

Kapuas (in Sintang) and finished in 2012. As long as this University is accredited, there is still hope for me to become a PNS (Civil Servant). Why bother choosing other faraway Universities?”, Mujani explained. Although he recommended the youth to choose the closest University, he did not forbid those who prefer to study outside West Kalimantan or even in Java.

Ambresius Murjani is a young man who cares about education. He was the coordinator of KIMTAS or Kelompok Informasi Masyarakat Perbatasan (Information Group of Borderland People Society), for Sintang region. His small body and white skin were the characteristics of Dayak ethnic group who



Picture 7. The students in outermost area, look happy to reach goals

live around Kalimantan. Murjani was born on 8 April 1971. He was the first child of nine. His father is Mochtarpius (65) and his mother is Nipah (63).

His concern on education for borderland people are a good example for other teachers. He worked so hard and devoted himself to educate the kids in the borderland area. He was also passionate on the development of the technology.

It was proven by his willingness to maintain supporting tools that helped him to teach by using technology as the media. Murjani utilized communication radios own by the community to maintain communication with his fellow borderland people.

When the communication radio was out of order, he himself would fix it up. Most of the time, he could

drive hundreds kilometer and spent hours only to visit several other communities only to have a chat, discuss, or just fix the broken tools up.

Murjani was the coordinator of KIMTAS. The Ministry of Communication and Informatics assigned him to manage the information around the borderland area. In his opinion, communication tools given by the government is adequate enough to be used. Murjani and his friends maximized use of KIMTAS so that people of Sintang and those who live at the borders of West Kalimantan can be connected to each other.

KIMTAS had some facilities that could help to manage information and development of the technology that eventually helped them to educate the people. Some of the facilities were five sets of parabolas, television, and a small diesel-radiator from the Indonesian government. On 2006, he got another five sets of parabolas, television, and a big diesel-radiator from the government of West Kalimantan.

After that, he got more. On 2010, he got a set of Pusat Layanan Internet Kecamatan / PLIK (Centre of Internet in Subdistrict Area) but it was managed by other party. KIMTAS also got radio transmitter from the ministry of information and technology. Its name was Radio Komunitas Swara Perbatasan (KSP) / The Voice from the Borders Radio FM 107.8 Mz. After that, on 2012 KIMTAS got a set of Internet Car.

For Murjani, helping others to gain access to information and technology was a beautiful struggle. He made use of the technology to increase the quality of education as well as capturing moment that could potentially increase nationalism of the people. In his hands, KIMTAS had a big role to make the borderland people keep informed. On the Independence Day at August 17, KIMTAS spread the information to the borderland people to celebrate their love to the nation. The same thing happened at May 20. For the people of West Kalimantan, it was a historical day as that was the day of eradication of Pasukan Gerilya Rakyat Sarawak and Pasukan Rakyat Kalimantan Utara (PGRS-Paraku) / Sarawak People's Guerrilla Force and North Kalimantan People's Army (SPGF-NKPA) on 1966-1976. People celebrated that event at the same day with Gawai Dayak. It was a day when people held a ritual and festival to celebrate the harvest period. In this festival, people gathered and offered their food to each other so that everyone could eat. After 1967, Gawai Dayak was commemorated with Indonesian National Awakening Day at 20 May each year. For Murjani, any effort to increase the quality of education, information technology and nationalism growth is his form of devotion.

Murjani, along with several of his friends, were the living proof of how we can help developing the borderland area. He was the teacher and the activist who inspire the youth who live in the Indonesia international borders area.

「**“Ambresius
Murjani**

asked the people of Sintang,
especially younger generation, to
work and study hard.

For Murjani, Education and health
are the main obstacle for inhabitants
in the border.”

」

Suparjo : Profile 4

Education Hero at an International Border of Indonesia

Everyone has their own destiny. No one knows where it will bring us. That is what Suparjo believes, an education hero at an international border of Indonesia. He was born in Kuningan, Landak, West Kalimantan, and now devotes his life to make a better education transformation at his own land of birth. He was a unique man. He was the hidden gem amongst less educated people in his place. Suparjo who was born on 9 November 1980 consistently and dedicately try to provide free education for the borderland people despite the limited facility and resources. This limitation did not make him give up. He kept doing the community outreach for people around him to study hard regardless the limited access they had.

His effort to move his people to study might give us goosebumps. He felt that there was a big gap in the access of education between those who live in big city and those who live in the borderland. This gap was the problem that should be fixed. We can bridge the gap by giving access to information and knowledge. Building this bridge was the purpose of his activism.



Gb8. The students learning to use internet.

The village where he was born was 70 kilometers from Ngabang city, the capital city of Landak Regency, West Kalimantan. The road access to this place was challenging, could be worse in rainy season. The road was narrow, muddy, and there were potholes everywhere. We could imagine how hard it was to increase the quality of education in borderland area with limited access to transportation. Mountainous land contour, hills, and steep climb made it even harder to get there. It would be hard for any transportation means to get there as the place was surrounded by cliffs. That was why improving the quality of the education there was challenging.

In that challenging environment, Suparjo did not give up. It even encouraged him more to educate. His effort was an act of humanism to build the civilization. This was the story of our education

hero that live in borderland area.

There were not many schools available in Kuningan village, it even there was almost none, until the year of 2000. But, he was one of the luckiest as he still got the education, even though it was so limited. He successfully graduated from the elementary school but only capable to finish his junior high school through Paket B (national junior high school equivalency test). For those with limited access to education, junior high school level education was a luxury. "The only thing I can give to them is my knowledge. I don't have anything else. That elementary and junior high school education was the only thing that I can give", Suparjo explained, as reported by the media. Those only limited education he had been the only thing that drove him to move forward. He taught and inspired the youth simultaneously. With some of his friends in 2005, Suparjo built a small bamboo cottage that works as a classroom.

It was 3x4 meters that would become wet when it rains due to the roof-leaking and become hot when the sun shines. Despite this challenging environment, Suparjo taught the kids for reading, writing, and math.

Education Volunteer

Kuningan village, Landak Regency, West Kalimantan, was the portrayal of remote area with



Picture 9. Internet access of USO program, the cooperation Ministry of communication and Informatics, with pustekkom, Ministry of education and culture.

no good access to education. This was the area where the Indonesia national hero eradicated Pasukan Gerilya Rakyat Serawak (PGRS) / Sarawak People's Guerrilla Force on 1968-1974. Besides, there was also Pasukan Rakyat Kalimantan Utara (Paraku) / North Kalimantan People's Army who was the separatist in Kalimantan (La Ode Ida, 111, Matanasi, 46).

At the moment, people became the guide and helped the national hero of Indonesia in maintaining the national sovereignty. But, after defeating PGRSI and Paraku, people in this area seem to be left behind. It seemed like the government did not give enough access to education and development. The people lived by their own custom and tradition to maintain the prosperity. People were afraid to dream big as they knew they did not have decent

education access.

The effort of Suparjo and his friends finally were acknowledged by the government. In 2008, the government established Kuningan village elementary school, the name later changed into SDN 34 (Elementary School) Kuningan. The government built 3 classrooms for students on the grade 1 to 4. Due to it limited classes, students should come into class in shift. 07.00 – 11.00 for grade 1 to 3, while those who are in grade 4 to 6 came at afternoon to evening. The government also added 3 PNS teachers (civil servant teachers) to teach there.

Suparjo and the people of Kuningan village thought that the assistance and the new teachers would help to solve the problem. In fact, that was not happening. The teachers only came to the schools once a month or even only at the exam period. The far distance between the teachers' house and the challenging access to the area were the causes. On the other hand, the students were passionate to study at the moment.

Suparjo could not only sit and watch. He sacrificed his time and thought to fill the education gap. Suparjo taught from morning till the evening, and even gave after class learning for those who would face the national exam. He really hoped that

these kids could get a brighter future than him.

“My only goal was for them to be as good as Indonesian kids at the other regions or islands. I hoped they have adequate classroom facilities, professional teachers, and educational funds from abroad”. Suparjo said.

He need to stop being the pepper and cocoa farmers, even if they were the main source of income of people who live there, in order to teach full time. It was because in every harvest period, the money would come to them. They sold Cocoa and pepper to Entikong, Sanggau, a location at the Indonesia-Malaysia international borderland. The money they got from selling those commodities would give them around tens of millions for in every harvest period. Suparjo handed over his farm to his family. He only thought to educate the youth at Kuningan village.

When people at his village started to talk bad things due to his own limited knowledge, he kept moving, he kept devoted his life for education. In his long-term vision, gave youth the knowledge was a great infestation for their brighter future.

「“I only have one
intention,

Children of my hamlet will have a better future
like other Indonesian children
in developed islands”

Suparjo」

Gabriel Sori : Profile 5

Lit up the candle in the middle of darkness

If we look upon his face, we would see a face of a hero and a vision of an adventurer. Gabriel Sori, an educator at the cost of Nusa Tenggara, devoted his life to inspire the kids from the East of Nusantara, in East Flores. He would not give up just because of the limited facility and the wild nature. For him, to teach was to devote, to teach was to do the adventure. He taught with full of his heart.

“I was born at Lamatou village, North Flores, 10 July 1981,” he recalled his past. Gabriel Sori was the portrayal of Flores people who keep learning and gave his life to the young generation.

Based on what he said, he had a very inspirational teacher at the past that always made him to study hard. Based on that inspiration he got, he started to teach at junior high school level himself.

“I studied at SDN Lamatouw, then I continued my study at SMPK St Isidorus, Lowolata. After finishing it, then I continued my study at SMA PGRI at Larantuka. Then, I pursued my bachelor’s degree at Sekolah Tinggi Manajemen Komputer at Tanjungbunga” he explained. His educational journey was not easy. The challenge came from

the natural condition and limited facility in Flores. But, he kept going with his life. Having finished his bachelor's degree, he was offered the opportunity to teach at SMAN 1 Tanjungbunga, East Flores. "at the moment, when I was going for walk, I met with one of my senior high school teachers. They asked me where I pursue my bachelor's degree and have I graduated. When I answered that I have been graduated from STIKOM, they offered me to teach at SMA Tanjungbunga. They asked me to make an application letter to the school", he said. A week later, the representative of the school asked him to come over. Afterwards, he was accepted to teach there after undergoing an interview.

Tanjungbunga was the easternmost area of Flores Island. To get there from Larantuka, we will need 2.5 hours of road trip. Tanjungbunga was the borderland area of Indonesia. It was an exotic place but unfortunately it was lack of educational facility.

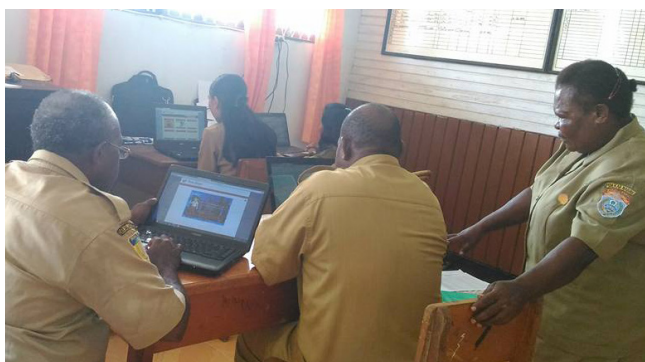
In this area, you could find several tourism spots, such as Nopin Jaga natural reserve, Batu Payung, Kewuta Beach, Tenga Dora beach and Kelambu Bay. Even though it has beautiful scenery, Tanjungbunga was so susceptible to starvation. In this area, the rat attacked would result in crops failure. On 2011, people from the 16 villages experienced crops failure in Tanjungbunga because their crops were attacked by the rats. It forced them to leave their farm and fields. "We have been experienced rats attacked



Picture 10. Internet access and computer networks more easily to learning.

before, but we could anticipate it at the moment. This year, the rats were way too many as hunting and poisoned them would not be enough. But, the rats could avoid the poison. We experienced a great starvation as the crops provided nothing,” Hans Kelen, the village chief of Tanjungbunga explained.

The beautiful scenery with picturesque nature could not be the guarantee of its people prosperity. In Tanjung bunga, at the easternmost of Flores Island, access to information and education transmission was so limited. But, in the school where Gabriel Sori teach, SMA Tanjungbunga, was lucky enough as they got the internet facility in the form of USO from ICT Center Ministry of Education and Culture. Through this facility, gradually, students were guided by Gabriel Sori to see the world. By accessing the internet, they can broad their horizon and imagination.



Picture 11. Internet, more easily for teachers to support the teaching.

“The distance from the city to the place where I teach was 28 kilometers. This school was in the coast. At our school, the majority of the students were Muslim.” Sori explained. Studying by the beach and in the middle of the people housing was the portrayal of how people of East Flores accessed their education.” We haven’t got fence in our school. Sometimes the pets from the surrounding people the would enter our class and we were bothered by them,” he said.

Learning facilities aids from USO helped the students in SMA Tanjungbunga to access the information accurately. But, there were another obstacles faced by the students; minimum access to electricity and inadequate number of computers. Even in 2015, we experienced total blackout. To be able to use computers, we used diesel-generator and the price was very expensive.

Education Challenge

Gabriel Sori acknowledged another obstacle he faced, it was the lack of teaching and learning media. To solve that problem, he created some innovations to help the students. “My challenge was the learning media. We have limited books here. Learning media for TIK subjects also limited. Besides, we don’t have many teachers who understand about TIK,” he explained.

He used existing learning facilities in the school. Different with ordinary computer labs we easily found in big cities schools, he only used an LCD projector unit. “So far, I taught TIK by using LCD”, he explained. “We only had 30 computers unit. Since there were more than 30 students in class, most of



Picture 12. Internet as a source of information in learning process for students.

the time one computer can be operated by 5 to 6 students.

Because of this, it was very hard for us to manage and teach the students appropriately. But still, I could see them learning in class passionately.”

Gabriel Sori did not only provide technological innovations to students, but also maintained their spirit so that they can be a better person. Despite its limited facility, Gabriel Sori had to use his creativity and imagination to teach his students. “I recorded videos about various school activity using hand phone. After that, ask the students to watch it. It followed by lecturing and then individual activity, such as making story.” His students were interested in that teaching method.

He invited the students to maximally the use of gadget as media of learning. He believed that students can be creative if they accustomed to use their imagination. “In the class, in my Microsoft excel class, I asked the students to make tables and if they know how to do it they should browse the internet. That way they could explore things and learned by their self.”, he explained.

Every time he taught, Gabriel Sori preferred to assist the students by giving them examples, not just the theory. He also flamed the spirit of his students up so that they were willing to work hard and understood the meaning of life. “I drove them

to move forward by giving them examples that they easily understand. For example, a story about how to install a computer system. When we installed the windows, I teach them from start to the end. I told them that if we were known how to operate the computers, it would help us find other jobs and opportunities. They would be happy hearing that," he explained.

Gabriel Sori, one of the teachers who inspired his students. He introduced the technology to his students, as well as light up their soul. For him, flaming up the passion and the spirit of the students was more important than teaching them the theory or technology. But, with the right guidance, Gabriel Sori could apply the development of the technology as the educational inspiration for the students, the kids with bright future from the easternmost of Flores island.

「**“I encourage**
them so that the children get excited,
I sometimes tell them examples of stories
which is easily understood by them”

Gabriel Sori」

Jumadin : Profile 6

Education Keeper in Borderland Area.

The story of educator in the borderland area inspired people. The teachers were not only teaching as their profession, but also teaching as a means of devotion. They flamed up the light of inspirations despite the limited facility, governments' support inadequate distribution and the wildlife nature on the surroundings. In the middle of this poor conditions, the educators on the borderland kept flame the inspiration up. They are the educational hero.

Jumadin was a hero of education. He taught in public senior high school North Gorontalo that was located at the suburb of North Gorontalo. He kept teaching despite limited facility. He did not want his students to give up just because the limited access they got. "The school where I teach has just been established for 3 years. If you rode motorcycle here, you would find rocky road along the way. You should go under 20 kilometers per hour." Jumadin believed that it needed 70 kilometers from the capital city to his school.

Jumadin told that due to the limited facility, he should maximize what he got. Besides, he should also make innovations along the way. "Currently, we



Picture 13. Introduction the importance internet for teachers as a source of information in teaching activities.

still implemented traditional teaching method. We only use blackboard. We had some modern tools, but we still cannot use them maximally”, he said.

Luckily, the school where I teach got the internet facility from USO program that managed by ICT Center MoEC. Through this program, SMAN 9 Gorontalo Utara was included in the schools who received the facility since it is located in 3T (forefront, outermost and disadvantaged) regions.

Even though it was a new school, the government directly helped this school. even if it was not much, this school vastly developed only in three years’ time.

“Now we have 6 classrooms. One for the school principal and the teachers. But, with only 3 years, we don’t have supporting facility like computer lab, for example”, Jumadin explained. He thought that, this limited facility forced him to think on how to

make all the students got the same chance to try it. “we only have 2 computers and it was borrowed from the teachers of this school”.

Borderland education

“I was born in Tolinggula, Gorontalo, North Sulawesi. It was in North Gorontalo region, in Gorontalo province”. After the area expansion, Gorontalo move from North Sulawesi province to Gorontalo province.

“I was studied in Tolingga Pantai Elementary school, State Islamic Senior high school Limboto, and Vocational school 1 Limboto. I got my bachelor’s degree in economic education from State university of Gorontalo in 2006-2011”, Jumadin told us.

At first, he didn’t want to be a teacher. He wanted to be a businessman. But, the life chose different path. His deepest heart wanted him to be



Picture 14. Installation of the internet make teaching and learning more easily.

a teacher. "I was accidentally becoming a teacher. At that moment, I wanted to be a businessman. But, since my academic experience was in the world of education, I chose to be a teacher."

At first, Jumadin taught in MTS (Islamic junior high school) Tolingguka on April 2011. Then move to SMAN 9 North Gorontalo. "I actually teach Economy but being asked to teach TIK as well". He acknowledged that teaching TIK was more than teaching technical terms to students. Moreover, he also gave them inspiration so that students knew how to use internet appropriately. Jumadin realized that internet was just a tool to ease people. So, the fundamental aspect that need to be build was students' conscious and willingness.

In using the internet at his school, they still implemented the available facility. "we only used what we have. Moreover, this year was the first year we got help from the government for wi-fi access facility. It was in May 2016. Initially we only had one computer."

The internet access in SMAN 9 was not yet maximal. In this school, we didn't have enough electricity supply, so we could not use internet as we wish. "in our place, the voltage of the electricity supply would be going down. We could not use it 24 hours"

"the biggest challenge was that our school was still new, we need to manage it better. Besides,



Picture 15. Internet more easily for teachers in teaching and learning

the electricity only works well in the morning and afternoon. The laptop used here were also borrowed from the teachers. These were the only laptop used by the students”, Jumadin said.

Living in a remote area and far from big cities didn't make him and his fellow teachers gave up. He still taught passionately and kept inspire his students. “the background of the students are mostly from the poor family. Their parents are fisherman or traditional mine worker”, said Jumadi.

There were 129 students (data from 2016) in this school. from this number, we also had 17 teachers. What he hoped from a school which has more than 100 students, “I hope, we got more computer facilities. While it may be limited, but

we still grateful. Also, we hope we could get more laboratories. So, that we can maximally use the facility in this school”

For Jumadin, great teachers were those who inspire the students. Hard work and inspiration would help in revealing students’ potential. “When I teach, I always try to inspire my students. I kept remind them of the purpose of their study, I try to touch their emotion and their daily activities”. Because of its challenging access to go to school, students need to get here by taking road path for tens hours. Some of them even slept over at school.”

He added, students had to understand the nature of their environment, the wild life, and their family. “I teach them to stay kind-hearted and appreciate what their parents had done to them”. Jumadin explained, in 2016 a few students have successfully completed. Some of them continued their study at Universitas Gorontalo / Gorontalo University, others even got a scholarship from the local government to study at Institut Pertanian Bogor (IPB) / Bogor Institute of Agriculture.

Jumadin told us that internet gave him a positive impact. He acknowledged that internet facility at his school helped his students to explore the world. “For those who applied to the university, they could find any information related with the university. For instance, if they want to apply to IPB, they didn’t need to go to IPB. Internet was enough”, he said.

Jumadin was an inspirational teacher. He did his best to teach his students despite the limited facilities. He kept his students' spirit up so that they believe they will reach their dream for a better future. He influences his students to always work hard.

「**“When I teach,**
I always try to inspire my students.
I kept remind them of the purpose of
their study, I try to touch their emotion
and their daily activities”

Jumadin」

Jerry Suuda Profile 7

Keeps the Hope Alive at Talaud Beach

Being a teacher in Nusantara border area requires high fighting spirit and work ethic. To face the challenges, it needs both physical and mental strength. Amidst all the limitations, Jerry Suuda had been devoting himself to teaching in Essang, Talaud Islands, North Sulawesi.

Talaud Islands is the outermost region of North Sulawesi Province. Talaud Islands Regency was administratively established in 2000, as the expansion of Sangihe and Talaud Islands Regency. Considering the Law No. 8/2002, Talaud Islands Regency is officially assigned as a separate regency with the capital city is in Melonguane. It is the outermost place of Indonesia at the northernmost point of the region which is directly bordering to Davao el-Sur, Philippines.

Geographically, Talaud Islands is between $04^{\circ} 40' - 05^{\circ}40' \text{ NL}$ and $126^{\circ} 20' - 127^{\circ}00' \text{ EL}$. The Central Statistics Agency records that Talaud Regency is a maritime area that has a sea area of 37,800 km² and land area of 1,251 km². In other words, its sea area is more than 95 percent. Thus, Talaud Islands Regency becomes a miniature of

Nusantara marine area in which its people depend on marine life.

The Talaud area also includes underdeveloped areas. The index released by the Ministry of Villages and Transmigration shows that it has 48 underdeveloped villages, 72 developing villages and only 17 developed villages (12 percent). With limited transportation access and a remote geographical location, Talaud Islands experiences faltered access to education.

The One Who Keeps the Hope

Despite being in the middle of an isolated area from the city crowd, Jerry Suuda was proud of his service as a teacher. He wanted his students to achieve success through education. Even with limited equipment, Jerry hoped that the students he taught get the light of knowledge.

Limited access to education in this area was enlightened with internet facilities program from USO ICT Center of the Ministry of Education and Culture. By implementing this program, the schools in 3T (forefront, outermost and disadvantaged) regions got aid in the form of internet facilities. It made Jerry felt challenged to encourage the children to shine brighter.

“To be honest, our school has only one computer for internet program. Even, it is also used for technical needs of education personnel. Meanwhile,



Picture 16. The teachers, practice of using the internet in order to teaching and learning more easily.

students rarely use the internet program because of limited equipment,” he explained. However, the internet network at SMPN 4 Essang was also used by the surrounding community using their laptops.

Jerry admitted if the internet facilities could be used optimally, it would make it easier for students to study. “The latest information cannot be accessed by students, as well as practices for science or social studies. I imagine, if they can use the internet, it will facilitate them finding learning sources or information related to science, or about culture and social related to social studies. However, it cannot be done because it is practically very limited,” he explained.



Picture 17 Learning activities using internet at school in outermost area.

He imagined that if all students could access the internet, it would increase students' imagination and knowledge. He explained that students can learn to use the internet to support learning activities. "Students can find out what the museum looks like; it can be learned through the internet," Jerry hoped. Meanwhile, in SMPN 4 Essang, the internet had only been used by teachers as teaching material and education.

He hoped that the government through the Ministry of Education and Culture can pay attention to schools in 3T regions for learning facility aids. "It is very important for us. How students can progress if the learning facilities are very limited. If it is charged to parents, to buy learning facilities, it will be very difficult even if it is a private property. It is because of the economic level and the parents' income which are below the standard," Jerry said,

recounting the environmental conditions around his school.

In his explanation, people in Talaud Islands were generally farmers and fishermen. However, most of them work in the informal sector. “Their parents work as farmers and fishermen. However, most are in informal sector. They don’t have a permanent livelihood,” Jerry explained.

SMPN 4 Essang was far from the capital of the regency and the city center. It was located in the northernmost part of Indonesia. It clearly became a challenge for accelerating education and economic development. “Indeed, our area is geographically in the region border. There are also SM3T teachers who come to our area. However, it has very limited access. The access of the capital city of the province to our school is very difficult. It uses ship for one night as the means of transportation. Not to mention, it is around 90 kilometers away from the capital city of the regency to the villages in our area. In fact, the road is not feasible, not paved,” Jerry said.

Having graduated from the elementary school in Awit, Jerry studied at SMPN 1 Beo. Then, he studied at SMK 1 Tahuna, Sangihe. Afterwards, he continued his study at University of Manado in Tondano majoring on Economic Education. After graduating from college in 2008, he devoted himself as a teacher at SMPN 4 Essang Talaud. What Jerry told

is an important lesson for all of us how to manage education in the border area.

The story of Jerry a consistent to teach and inspire students to be an important for all of us. Even in limited circumstances, Jerry didn't step back to learning and teaching. Jerry, teacher and inspiration from the coast of the Talaud Islands, the northern region of Indonesia.

「**“I imagined**
that if I could access internet, it
will make learning easier”

Jerry Suuda」

Ervan Yopi Profile 8

Sharpening the Heart from the Frontier
Area of Indonesia

It is not easy to be a teacher in the frontier area of Indonesia. With limited facilities and learning media, Ervan Yopi underwent his service. He kept moving to teach and got socialized with the community. Ervan was teaching in a remote area in East Sumba, East Nusa Tenggara.

For Ervan, teaching is happiness. He is happy with what he is doing right now. Ervan felt that teaching in the frontier area is a valuable experience and difficult to forget. He got the real-life experience by feeling the pulse of the people in Pindu Rohuni village, Tabundung sub-district, East Sumba, East Nusa Tenggara.

Ervan felt the essence of life from the honesty and warmth of the people around the school where he is teaching. People were happy to have Ervan who dedicated to educate their children. When he was sick, Ervan felt that he was part of the community, because he was taken care and helped until he recovered.

“I have been carried by eight people who crossed the river during the rainy season,” he said.

He recounted that once he got malaria when he taught a few months in the Pindu Hurani hamlet. He admitted that the natural conditions were full of challenges making teaching activities must be in full enthusiasm. The condition of the river where he teaches often flooded. In fact, in the rainy season, the river was difficult to pass because the water was as high as an adult's chest with very heavy stream. There was no bridge to cross to the other end of the river exist.

When he was sick, Ervan felt the warmth of the local people. He was helped and treated by the people, to fasten the recovery. They really wanted Ervan to be able to immediately teach their children. He was taken by them to seek treatment at the Community Health Center in Tabundung Regency. It was about 20 kilometers from the school where he is teaching. Although it was relatively close, it took a long time because it passed through the damaged road, crossed the river and went up and down the hills. The difficult transportation access became a barrier for treatment when Ervan was sick.

Ervan seemed to blend with the heartbeat of the people of Pindu Hurani, Tabundung, East Sumba. He often helped them to work, worked together and organized traditional ceremonies. Ervan was happy when he spoke with local people. He could feel the heartbeat of life and the friendliness of the culture and traditions of the people in this village.



Picture 18. Now, Internet reaching to outermost area.

In the midst of limited facilities, Ervan was passionate about teaching. “Here, I am trained to be patient and independent.” At this school, Ervan occupied one empty room. This empty room was used as bedroom and kitchen. He did almost all the activities at school.

“If it rains, the river water overflows. However, they have to cross the river, don’t they?” said Ervan lamenting the condition. He felt sad when it rained. The rainy season was at its peak, the rivers got flood. Rainwater flowed profusely flooding the river. In the midst of this condition, students found it difficult to come to school. They did not dare to fight the swift river, to cross. In addition, students also had to walk for tens of kilos on the muddy streets to get to school.

Teaching in the midst of limitations was part of Ervan's dedications. As an educator, he felt happy when he saw his students got benefits from what he conveyed. He slowly provided enlightenment and inspiration to students to continue learning and studying. For him, one of the most exciting things was seeing children are eager to learn. Long distances, difficult access to transportation and the threat of malaria that comes every time, did not prevent him from continuing to teach.

Ervan Yopi had lit his star in East Sumba. He educated to inspire, to spread enthusiasm to all children of the country.

「“Here,
I am trained
to be patient and independent”

Ervan Yopi」

Amiroh Adnan Profile 9

Keeps the ideas in the teacher's media

The development of massive digital technology and social media has become an opportunity as well as a challenge for the world of education. In the midst of this revolution, only few teachers are able to seize educational innovation opportunities from the social media. Indeed, in some conditions, social media is considered as an obstacle to education and learning disruption.

It led Amiroh Adnan, an energetic educator who is concerned with the development of ICT, to look for solutions to the use of social media. Then, she changed the education system in his school to the social media and information technology approaches. If social media was initially considered disruptive, internet technology and digital innovation have become the hallmarks of learning in his school.

She is a teacher at SMK Negeri 3 Jombang. She was born in Gresik, on January 27th, 1977. She began her career as a teacher in 1999 and has been certified as a professional educator in 2012. She is interested in developing an IT-based learning media, both web and mobile. Prior to teaching at SMK Negeri 3 Jombang, she taught at Darul Ulum RSBI

High School Jombang, as a teacher of ICT subject.

In the field of information technology development, her touch and perseverance have been recognized by the world of education at the national level. She received various awards in the development of learning media from the national and international institutions. Now, she enjoys her perseverance in media development learning. She is usually invited as a speaker and facilitator in the field of learning technology.

Her perseverance in developing learning technology has led her to success. She was awarded as the First Winner of Microsoft Office Sway - 21st Century Learning Design by Sampoerna University, in collaboration with Microsoft (2015). In addition, she also won the award of The Winner of Microsoft Innovative Educator Expert (MIEE) by Microsoft (2015). She also received an award as the 2012 National New Era Teacher Special Award Winner by ACER Guraru (2012), as well as several other awards.

For her, the service in the field of education went through a long process. She is used to sharing ideas with his family, especially with her husband who is the social activist. She also often has dialogues with fellow educators, both within the school and through discussion forums, as well as social media.

In the beginning, Amiroh claimed to have been challenged when she was assigned by the principal



Picture 19. Activity teaching learning use computers and the internet.

to be responsible for ICT. Moreover, SMK N 3 Jombang was the pioneer in ICT development. “SMK N 3 Jombang is the oldest technology-based SMK in Jombang. It is one of the favorite schools, as well as an ICT center in this city,” she said.

Furthermore, Amiroh felt that the world of education must be connected with the current development. Schools must be the vanguard to innovate with technology. “As a technology-based school, it certainly supports the use of information and communication technology, both for learning activities and School Management Information Systems, especially related to the academic field and student affairs,” she explained.



Picture 20. Internet for process learning

Amiroh admitted that, at first, she got a very heavy task, i.e. as a person in charge of ICT and SIM. From this mandate, she had work hard to build an information system which is useful for schools, both for the needs of students and teachers. She also admitted that if the information system is not managed properly, the benefits will not be maximized. In other words, it can disrupt the learning processes.

“The rapid use of social media certainly cannot be separated from my observations. Almost all students and teachers at this school have and use this media for communication with other students/teachers,” she explained in a note in the teacher media. She acknowledges that social media is often seen as an obstacle for learning. If you are not observant about the benefits of social media, educators tend to only

consider technological development as a nuisance. “In the beginning, social media, at our school, was used to engage in interaction/communication that was not very useful and supporting the learning processes. So, frankly, a little annoying,” she said.

From this context, Amiroh wanted to provide solutions and changed the perspective of educators about social media. She tried to share some tricks about using social media with optimization of social media features, especially on Facebook. She initiated ‘F-Learning’ which set important features on Facebook for learning media. She wanted social media, as the biological children of the technological revolution, to go hand in hand with the development of education. “This was what inspired me to anticipate the media that can be utilized while helping the learning process. By socializing technical use to my fellow teachers and students. Alhamdulillah, their response

was good, and decreasing the perception of social media that was previously bad, and more acceptable,” explained Amiroh.

Amiroh hoped the teachers can change their perspectives on social media and digital technology. She admitted that the world of education had developed along with technological innovation. She acknowledged that, in the midst of such rapid technological development, the creativity of an educator became very important.

“Nowadays, information technology is always evolving. The world of education has changed. The conditions and environment of our students have also changed. Creativity of teacher in teaching and learning process have a very important role and are needed to improve the quality of our students’ learning outcomes,” she explained. She is an inspiring educator. She utilizes technological developments with innovation and creativity.

Amiroh saw that in the midst of a technological revolution and social media, the world of education must respond quickly and creatively. “Creating does not have to use ICT. Thus, do not stop to learn, create and innovate. All forms of creativity can be created and used, provided that they can support the achievement of improving student learning achievement properly,” she hoped to the education community in this country.

Teachers must see Amiroh as an inspiring educator. If, so far, information technology and social media were considered as barriers to learning, it is not what she thought. She succeeded in utilizing social media and technological developments to produce useful works. From her sincerity and creativity, she had got various international awards.

Mental and perspectives changes in the use of information technology had been exemplified by Amiroh. She maintained the creativity and ideas in the media interaction of the teachers in this country.

「**“Nowadays,**
information technology is always
evolving. The world of education has
changed. The conditions and environment
of our students have also changed.
Creativity of teacher in teaching and
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role and are needed to improve
the quality of our students’
learning outcomes,”

Amiroh Adnan



Fransiskus Tenau Profile 10

Building a Digital Ecosystem for Education

There is no success without challenges. There is no success without hard work. Those become the guideline for educators in the border and the inland areas to continue working. Being an educator in the inland area, which is far from access and infrastructure, certainly complicates the learning process.

In the midst of limited facilities, Fransiskus Tenau attempts to devote himself to providing the best for education. He is an educator who encourages the growth of learning media improvements and using technology in the inland area of Papua.

Fransiskus Tenau was a Gust Senior High School graduate (YPPK Agustinus High School, Sorong). He then studied at the University of Manado (Unima). After college, he helped teach at SMP 1 Aifat, Maybrat Regency. Francis also served as staff at the Office of Electronic Data Management in Maybrat Regency, as head of the Telecommunications and Information Network Section.

Maybrat district is a new district, as a result of the expansion of the Regency South Sorong. In this Regency, there are 41 sub-districts, 259 villages

and 2 urban communities. This area cannot be separated from the history of acculturation with Nieuw Guinea, in which through the Round Table Commission agreement, in Den Haag, forming the same government unit, i.e. "het Gouvernement van Nieuw Guinea." From this policy, it developed in the process of government under the Unitary State of the Republic of Indonesia, once Indonesia proclaimed its independence.

Regional expansion in Papua occurs in several stages. At last, in 2009, through Law No. 13/2009, Maybrat Regency was officially formed. This region has only been 7 years into the Regency, which previously became part of South Sorong Regency.

In this region, the main problem faced by the community is the availability of electricity supply. Regent of Maybrat, Karel Murafer, as noted by the Ministry of Energy and Mineral Resources website, revealed that electricity supply is a major problem for Maybrat Regency. "The fundamental problems for Maybrat regency and other isolated areas are electrical facilities," he explained. The Regent told that Maybrat regency was challenged by the problem of electricity availability with only 3 sub-districts from 41 sub-districts that had received electricity.

This regency was one of the areas that received the pilot project of the Bright Indonesia Program. From ESDM data, this program focused on 6

provinces: Papua, West Papua, North Maluku, East Nusa Tenggara, and West Nusa Tenggara. In 2016, funds were allocated around 411 billion rupiah to build electricity with a capacity of 9.4 MW in six provinces.

In this area, the Ministry of Energy and Mineral Resources built a Micro Hydro Power Plant above the Soan river which water discharge had never subsided, even in the dry season. In this region, two units of hydro-powered power plants with a capacity of 280 kwp were built. Two units of generating machinery had distributed electricity to 174 houses in Ayamaru Jaya District, namely: Temel, Sosian, Soan and Warbo. In Maybrat Regency, Solar Power Plant was built in Aifa Barat District (Detik, 04/21/2016).

For Fransiskus, being an educator, who actively developed learning media, had been challenged by the lack of facilities. Moreover, in Maybrat Regency, the classic problem of limited electricity supply was a crucial problem. However, the problem of electricity availability was slowly overcome by building solar power plant supported by the government.

Fransiskus was grateful that his school received internet facilities from the USO-ICT Center program of the Ministry of Education and Culture. "Thank you to BP3TI Ministry of Communication and Informatics and ICT Center Ministry of Education



Picture 21. Service device for internet access at the school in outermost area.

and Culture. Finally, our School, SMP Negeri 1 Aifat, North Aifat District received aid from the KPU/USO Program for internet access,” he explained.

He said that this program was very helpful to maximize education and learning programs in his school. “Before it was available, school operators and Education Service Operators had to travel overland around 205 km to Sorong City only to Synchronize Dapodik Data. Thank you to the Vendor, PT. PSN, for installing this device,” he explained.

He also supported the distribution of USO program by proposing aid programs for other schools, namely: (1) SMP Negeri 1 East Aifat, Maybrat Regency, West Papua, (2) SMP Negeri 1 Mare, Maybrat Regency, West Papua, (3) SMP Negeri 2 Ayamaru, Kambuaya, Maybrat Regency, West Papua, (4) SMP Negeri 2 Aifat, Susumuk, Maybrat

Regency, West Papua, (5) SMP YPK Jitmau, Maybrat Regency, West Papua, (6) SMP N 1 Aifat, Kumurkek, Maybrat Regency, West Papua, (7) SMA Negeri 1 Aitinyo, Maybrat Regency, West Papua, (8) SMA Negeri 1 Ayamaru, Maybrat Regency, West Papua, (9) SMK N Ayamaru, Maybrat Regency, West Papua.

He stated that the internet facility program for schools, USO program, was very significant for equitable access to technology for learning, especially in Papua which required a touch of accelerating education and infrastructure development. Fransiskus hoped that in the region where he taught and served, an internet technology-based digital media ecosystem would be established. It could be a student's learning space. It is a hope, and the fire from the border.

「**“Before
USO program,**

**operators of school or operator
on duty education have to travel overland
around 205 kilometres to the Sorong City only
to synchronize the data Dapodik
(main student Data) ”**

Francis Tenu」

Sholehudin Profile 11

Across Border Wanderer in Papua

How does the story of a teacher at the border of the country go? The story of teachers who fight to go beyond limitations by optimizing makeshift facilities and natural potentials becomes the witness of how Indonesia is supported by pillars of hope. Yes, the teachers who work hard and devote themselves to educate the children are the hope for better future of the country.

The story of Sholehudin is in this dedication circle. He taught at SMPN 1 Jair, Merauke, Papua. Being in a region far from the capital of Indonesia surely became a challenge. Sholehudin did not make the tough challenge as a teacher in Papua as an obstacle, he worked by inviting his students to go forward, think positively, and take important lessons from the nature.

Sholehuddin studied in the Capital City of Jakarta. He graduated from Universitas Negeri Jakarta (UNJ), a university that produces teachers of the country. Previously, Sholehudin spent his youth in Jember, he studied at SMA Muhammadiyah Jember, East Java. In Merauke, Sholehudin was assigned to teach at a school a bit far away from the city. However, he remained excited, worked hard, and invited teacher

community around him to keep working. Living in Merauke, a region far from Java Island, became a life challenge for Sholehudin. As a staff devoting himself in Papua, Sholehudin also longed for his big family, for his hometown. However, the spirit of to devote himself, educate wholeheartedly, making Sholehudin into educators who inspire.

Merauke is a regency in Papua Province. The region is the easternmost regency in Indonesia. The historical record states that Merauke was touched by a government staff of Dutch East Indies on February 12, 1902. In the region, there are two native tribes, namely Marind Anim and Sohoers. In the past, in Merauke it was famous for people headhunting, a tribal tradition connected to life and existence competition between tribes in Papua region.

During the Dutch occupation, Merauke became a transit zone for republicans who wanted to go to Boven Digul. After Irian was integrated with the government in 1963, the region became the administrative capital city. Merauke regency is the easternmost region of Indonesia that becomes the border of the unity of the Unitary State of the Republic of Indonesia. In the region, the population is not so dense with area of approximately 45,071 km².

Data from the civil registry of the 2012 show that Merauke inhabited 246.852 people, with a number of Heads of families 115.359



Picture 22. The teacher who use computer and internet make the teaching and learning activities more interesting.

Inspiring Digital Media

Sholehudin is a teacher who likes challenges. He worked hard to prove that success can be achieved with positive mind despite the blocking challenges. For him, teachers have to be ready with teaching strategies so that the students are not bored. "Teachers have to provide fun and interesting learning models. One of the ways, teachers can prepare a learning model using PowerPoint especially at schools referred by the government to implement Curriculum 2013," he said. Sholehudin hoped that teachers were able to implement the curriculum policy optimally, of course with hard work and teaching consistency.

When teach, Sholehudin frequently gave motivation to his students. He wanted to build the



Picture 23. Students become more easily make the task of using computer and internet.

souls and mental of young generation in Papua. Mental building is important so that the managed infrastructures and given facilities in the land of Papua are not in vain. “Get rid of feeling better than others, I am better than him, I am smarter than him, I am greater than him, I am more handsome or more beautiful than him, I am more powerful than him, and other comparatives, because it will generate arrogant feeling. Remember there is a sky above the sky,” he said. Sholehudin reflected his mind and conscience to be a useful person at the same time pleasing the people around him.

He invited his friends, fellow teachers, and also his students to give something important for life. How? with a work useful for the environment and the people. “Let’s work according to our respective

skills that are useful for many people,” he invited to give motivation. From the work produced, with devotion and dedication given, Sholehudin succeeded in inviting the children of Papua who study at SMPN 1 Jair to optimize their potentials for a brighter future.

For him, being a teacher is a devotion, not merely a profession. Sholehudin thought that it was important for teachers to build the students’ character and moral. “The duty of a teacher is not only to usher the students to get a diploma or certificate, but also to be able to change a character of students from a bad character into a good character,” he expressed.

He was grateful that SMPN 1 Jair got internet facility aid through USO program organized by the



Gb 24. The School ceremonies, teach nationalism and be proud of Indonesia.

ICT Center of Ministry of Education and Culture. With the aid program, the teachers and students at SMPN 1 Jair could connect to information development. A lot of conveniences obtained by the teacher community and students at the school. Sholehudin admitted that he was happy when his students can use the computer and internet facility available at school optimally to increase the potentials. He told that the children of Papua he taught slowly adapted to the technology advancement, started to actively use internet facility. In terms of intelligence, the children of Papua were not less smart than the children in other regions. However, the distribution of educational facilities and learning systems had not fully supported the education institutions in the region. "Slowly they are able to present a discussion using PowerPoint," he told about his students who started to get accustomed to computer facility at school.

According to Sholehudin, the internet facility program from the ICT Center of Ministry of Education and Culture was very useful to improve the work productivity and time efficiency in management of education. "Previously the operator of SMPN 1 Jair Papua when he was working on online data, he had to go to the Regency, now he just needed to sit on his place thanks to the USO internet facility aid from the ICT Center of Ministry of Education and Culture," he explained. Sholehudin did not forget to express his gratitude to the institution providing the internet

facility aid program. “Thank you, ICT Center, I hope that the schools in the inland of Papua get more attention from the government,” he expressed. Sholehudin strived for the best for his students, for a brighter future of young generation of Papua.

He is an inspiring teacher who moves with positive mind and real work for children of the nation. “There is a sky above the sky, we should not feel smarter, more intelligent, and other comparatives. Let’s study together to be better, so that our life becomes useful for other people,” he hoped. Sholehudin devoted himself for the future of young generation of Papua. He explored the eastern inland of Papua, an across-border teacher inspiring young generation.

「“Get rid of feeling better

than others, I am better than him,
I am smarter than him, I am greater than him,
I am more handsome or more beautiful than him,
I am more powerful than him, and other
comparatives, because it will generate arrogant
feeling. Remember there is a sky above the sky,”

Sholehudin」

Rahmah Profile 12

Internet to educate Acehnese children

Her face emits a light of hospitality. She easily smiles and shares happiness. Not mistaken, Rahmah. Just like her name, she spreads hospitality to her friends and students. Being a teacher in an inland of Indonesia did not make Rahmah lose her spirit. Instead, she intended to educate the children in her hometown, the land of Aceh.

Rahmah was born in Gayo, Bener Meriah Regency, Aceh. Since childhood, she studied in her hometown. After that, she continued to SMPN 1 Pintu Rame and lived her adolescence in the region, at SMAN 1 Pintu Rame. Next, she moved to Bireun, Aceh, to study. She was accepted as a student at Al-Muslim University, Matang Glumpang 2, Aceh.

As a Bachelor of Mathematics, Rahmah worked with the education world and calculation formula. Having completed her study, she taught at SMAN 2 Pintu Rame, Gayo. At the school, she taught Mathematics, in accordance with her skills. However, she also taught ICT because there was no other teacher who was able to manage the subject. Rahmah taught 70 students divided into 3 learning groups.

To inspire Gayonese children

Gayo is Rahmah's hometown. She strove devoted himself to educate the children in his homeland. In the area of her residence, the majority was tribal Gayo, natives Aceh which is famous as the coffee farmers. Gayo tribe inhabits the central part of Aceh. The traditional region of Gayonese people are located around Bener Meriah Regency, Central Aceh and Gayo Lues. Gayonese people also inhabits a part of Southeast Aceh, Aceh Tamiang, and East Aceh region. Gayo tribe is related to Batak Karo tribe of North Sumatera. The languages of the two tribes are almost the same, included in "Northwest Sumatera Barrier Islands" group from Austronesia language family. Gayonese people live in small communities called as "kampong". Each kampong is led by an elder called as 'gecik'. Some communities form a "kemukiman" led by an elder called as mukim. Currently, there are some names for customary elders representing Gayonese people, namely gecik, wakil gecik, imem, and scholar groups representing Gayonese people.

In Gayo, it is famous for its culture and customs. Gayonese people, or generally Acehnese people, have a tradition of Saman dance. The dance becomes the identity of Acehnese people that tells about their sociocultural and spiritual life. Besides that, in Gayo there are also some dances, such as Bines Dance, Guel Dance, Munalu Dance, Sebuku/Pepongoten, Guru Didong, and Melangken (the art of speech



Picture 25. Students at the school of the border, to access the internet from the USO program.

based on customs). The identity of Gayonese people lies on the culture with rich art treasure (Eades, 2005; Wiradnyana, 2011, Aris Ananta, 2007).

In Gayo region, it is also famous for coffee plantation. The coffee plantation of Gayonese people have been planted since the period of Dutch colonialism. The entrepreneurs and government officials of Dutch East Indies considered the land in Gayo productive and fertile for plantation that supported the export of agricultural materials at that time. Therefore, Gayonese coffee became one of the best coffees in the world that supplied the export of coffee of Dutch East Indies, even until now when Indonesia has been independent for 70 years.

Gayonese coffee becomes an important pillar of Indonesian coffee, which becomes the fourth biggest exporter of coffee in the world. Cultivation

of coffee affects the sociocultural life of Gayonese people (Mawardi, 2008).

Despite living in coffee plantation area, Gayonese people are still far from technology access. The school where Rahmah taught had just started to be touched by information technology in 2015. Through USO program that is a collaboration of Ministry of Education and Culture and Ministry of Communication and Informatics, the program gave internet facilities to schools throughout Indonesia.

For Rahmah, the school was indeed far from the city, from Aceh. However, she did not lose her spirit to keep teaching her students although she had to fight hard to present inspiring technology. “The distance between Aceh city and my school is about 100 kilometres,” Rahmah explained. With such distance, there were many obstacles for education development, both in learning administration and in infrastructure access for learning.

With such limitation, Rahmah wanted technology to become a bridge that connected her students to the broad outside world. She taught her students how to use internet productively and efficiently. Smart and healthy internet is a keyword to build a brighter future.

「**“I taught
my students
how to use internet
productively and efficiently.
Smart and healthy internet is a
keyword to build
a brighter future.”**

Rahmah」

Martunis Profile 13

Ignite the Spirit of Young Generation in Siberut

Becoming a teacher in a remote region, even the outermost island of Indonesia, is a challenge. Martunis lives his life as a teacher in Siberut Island. He devotes himself to educate the young generation on the island frequently hit by tsunami. Siberut Island is located in Mentawai region, Sumatera Barat.

Martunis kept the hope in the midst of natural condition that often takes casualties. He lived his childhood in Siberut, a region far from the city center of West Sumatera Province. Martunis was born in Saligumai Siberut Tengah, Mentawai Islands, on November 15, 1978. He got educated on this island. In his childhood, he studied at SDN Saliguma, continued his study at SMPN 1 Siberut Selatan. Martunis lived his adolescence in Siberut Selatan when he studied at SMAN 1 Siberut Selatan. For higher education, there was no other choice for Martunis than to leave Siberut Island, the island he was familiar with in every second of his life. For higher education, he went to West Sumatera. He studies at STKIP PGRI of West Sumatera and graduated in 2006.

Having completed his study, Martunis taught at SMA 1 Pagai Utara Selatan, Sikakap, Mentawai, West Sumatera. Sikakap region, which is far from the city center and frequently hit by earthquake, made the region to be far from technology access. Martunis, together with his brother in arms, did not give up when teaching in a location with minimum information access and stagnant electricity supply.

“In our region, the biggest obstacle is electricity supply. The electricity supply from PLN frequently stops. Usually it is blackout for 20 hours in a day, the electricity is only available for 4 to 5 hours. From 4 in the morning to 12 at noon it is blackout,” Martunis said. It can be imagined that teaching at a school far from technology access and electricity supply became a tough challenge. Martunis did not stay silent, he strived to give the best for the school, moved to educate his students.

Trapped in Earthquake and Tsunami

Siberut is located in Mentawai Islands Regency, located in West Sumatera Province. The area of the island is about 4,030 km² inhabited by approximately 35,000 people (data of year 2001). Siberut Island is located approximately 150 kilometers from the western part of Sumatera. The native community of the island is Mentawai tribe that passes down exotic traditions in Sumatera region.

Siberut Island neighbors with Karamenjet and



Picture 26. Socializing the use of Internet in school outermost and border areas

Masokut Island, located in Selat Bungalaut region in the southern part of the island. In 2004, Siberut was seriously destroyed by earthquake hitting Indian Ocean region next to Sumatera Island.

Siberut is a region frequently hit by earthquake and tsunami. In 2004, the island was hit by tsunami taking many casualties. In the waters of Sumatera, it is recorded that some tsunamis hit the life of the people. It is recorded that tsunami hit in 1979, 1833, 1926, 2000, and 2004. In 2010, Mentawai Islands was hit by an earthquake with magnitude of 7.7 Richter scale (RR) that happened at almost the same time of eruption of Merapi volcano and flash flood in Wasior. Tsunami in the waters of Mentawai with height of 3-10 meters took up to 400 casualties.

In the midst of such limitation, Martunis kept



Picture 27 Internet reaches out to schools outermost and border area

his spirit and dreams. He maintains his students' dreams to achieve higher education despite the far distance from the city center and difficulty to access information technology. Fortunately, the school where Martunis teaches, SMA 1 Pagai Utara Selatan, Sikakap, got internet facility aid from USO (Universal Service Obligation) joint program of Ministry of Education and Culture and Ministry of Communication and Informatics for utilization of technology for schools throughout Indonesia.

The school where Martunis devoted himself is a high school that educated approximately 600 students. "There are 600 students at our school, divided into 22 learning groups," he explained. Of that many students, not all get adequate technology access. "There are 15 units of ICT devices at the school where I teach," he explained. Limitation of tools does not make the students complain, instead

they are eager to keep learning.

Martunis and his colleagues did not just stand by. Although he did not have ICT education background, Martunis is excited to master this field. "I learn ICT self-taught," he admitted. He was appointed to teach ICT because there was no teacher with education background of this subject. Martunis motivated himself to be able to teach ICT to give benefits to his students.

Martunis strived to ignite the spirit of his students. He built souls, not only delivered theory. For Martunis, technology had to be balanced with correct perspective and thinking. Therefore, the technology and learning media used became a creation and pumped students' creativity.

"I always ask my students to think forward, motivate them to continue to higher education, to not stop at high school," Martunis expressed. Teaching at a school far away from the city center, in islands frequently hit by earthquake and tsunami, brought apprehension. However, the apprehension changed into a flaming hope. For Martunis, a hope for better life by working hard and learning smartly became the main way. Martunis hoped that the future of his students would be better because the opportunity they get is the same as the other students in other regions. This is because the technology access and internet-based learning media they received from government aid program spurred to work harder.

“Besides that, I also tell inspirational stories to the students. The purpose is that the students become excited to learn and willing to work hard for the future,” Martunis explained. He maintained the flame of his students’ spirit. Although it is located in the outermost region of Indonesia, in islands threatened by earthquake and tsunami, there are still people like Martunis who ignite the hope and spirit of students. There is no other purpose, only for brighter future and happiness of the students.

「**“I learn**

ICT on my own.

**I always ask my students
to think forward, motivate
them to continue to higher
education, to not stop
at high school”**

Martunis」

Yulia Kuartago Vera Profile 14

Exploring the World through Internet

Being a teacher in a remote area in Indonesia is like an art. For Yulia, it was an art of caring the life, keeping up other people's spirit, and inspiring others. She felt alive whenever she teaches only by seeing the light of spirit in her students' face. Putting smile in her students' face was her way to felt peace in life despite the limitation she faced.

For Yulia, it was an anomaly for her since she was born in a big city but devoted her life teaching in remote area. She was born on April 12, 1983 in Semarang. Semarang was one of the biggest cities in Java, and it was the capital city of Central Java. Yulia spent her elementary school period in SD (Elementary school) Pandean Lemper, Semarang. Then, she continued to study at SMP (junior high school) Santo Yoris, Semarang and SMA (senior high school) Kanisius Petang, Surakarta. When she was at Surakarta, she felt the culture shifting from fast-paced and bold life in Semarang to Surakarta which was calmer and slower. Yulia graduated from SMA at 2000, just in time with the coming of new millennium.

After spending her life at SMA, Yulia continued to pursue her degree at STIKES Santo Pignatelli Surakarta. She was majoring in Accountant, which became one of the best major in this college.

Graduating in 2004, she faced the more challenges in her life. She wanted to use her knowledge in real life. Based on the consideration from her parents, Yulia went to the land of Gods, Bali. There, she made use of her skill and knowledge. Besides, Yulia's parents also lived in Bali.

In Bali, Julia got a job in the tourism sector. the island of gods does offer the exoticism, either natural or economic potential. This island became one of the top tourism destinations in South East Asia, as millions of tourists have been visited this island to enjoy its beauty. In Bali, Yulia worked as a receptionist at Hotel Bhayangkari.

We will never know whom we married with. In Bali, Yulia met her future husband. Yulia married with a Moluccans who later brought her along to Maluku. After a while, Yulia left her job on Bali to start a new adventure in her husband birthplace in Maluku.

As a skilled labour, it was not hard for her to find a new job. Now, she chose to teach, something that she always dreamt since in her college time. "In Maluku, there was SMP Negeri 1 Wertamrian which offered me to teach TIK subject (computer and technology)", Yulia said. As a teacher in a remote area, Yulia understood the obstacle she may face. She should be able to teach a subject that actually was not her expertise. She intended to learn more about TIK, a subject that was related with communication and information. Basically, she had already understood the basic of computer lesson



Picture 28. The students in the outermost area are enjoying internet access at school.

she got from college. Moreover, her previous work in Bali forced her to interact with computers. But, her spirit was not aligning well with the fund deficit her school faced.

“The school principal told us; beaches of funding issue they have, they talk a break from teaching. In the middle of my break, SMAN Wertamrian offered me that TIK teacher job”, Yulia explained.

In her new school SMAN Amfutu, Wertamrian, in West Southeast Maluku, Yulia sharpener her spirit up. She wanted her students to have high motivation and passion even though they did not have adequate learning facilities. We have 147 students that are divided into 6 groups of students.

The location in which she taught located in a place with high salinity. "It was on the mountain, facing the sea. Equipment made from iron was not really suitable here. It will rust easily", Yulia explained. She recalled when the first time they got USO aid from the government, the teachers and the principle were little worried since we understand that stuffs made from iron was not fit well with this environment. "When we got USO, my heart was pounding fast. We had an obstacle in the form of location. We were afraid that the equipment would be soon broken", Yulia told us.

In SMAN Ampufu, computer and internet facility is not something new. 6 years ago, in 2010, we got help in the form of computer and internet access. But, they were not last longer since they implemented contracted system. At the moment, Vice President Dr. Boediono visited several schools in remote areas to check the condition of the educational facility there.

"When we discussed with Mr Boediono about this school, one of the student asked him. At the moment, the vice president made a promise that if there was a student who was brave enough to ask question, the school would be facilitated with the internet". The bravery of that students brought blessing for us. Besides, that was a proof that students from South East Maluku had the same spirit and passion with those who study in the big cities.

"The internet facility that we got implemented

a cooperation system with a company. So, the contract said that we could use it for a year. So, we happened to use internet for a year. But, the operation system we used was Linux. It was a bit hard for students”, Yulia explained. After that, the next computer and internet facilities help we got from USO program. We got it because of the hard work of our administration officer and a bit of luck.



Picture 29. The internet USO is very useful for teachers and students.

Yulia told us, some teachers and people around here asking “how we could get USO computers?” They amazed with the fact that our school was chosen to get that help. We explained that we got it since the result of our DAPODIK data fulfilment was

good. So, our request to get the computers can be processed". She explained proudly.

But, getting the computer and internet access from USO raised a new problem for us, the teachers. "Because of the salinity in our school was high, the principles proposed the idea to relocate the computers into a new location. This year, we planned to move them to a location that was far from the sea. It was near the national main road"

In West Southeast Maluku, electricity was the main obstacle. Several regions on the east of Indonesia experienced the same things: the slowed down supply of electricity. "Yes, we got 24 hours electricity, but most of the time we suddenly got blackout. It made some of my electrical equipment I brought from Java were broken", Yulia explained. She added that sudden blackout she experienced made her electrical equipment were broken. "I have 2 computers, both of them were broken. Same things happened to some of the computers here because its unstable electricity supply and the salinity of the place was high", Yulia described.

For Yulia and teachers at SMAN Ampufu, computers and internet from USO were so helpful to encourage students. "Our students became so active. Then, the teachers often gave them assignments in which they can find the answer on the internet. Even though they did not have any assignment, they still loved to use the internet. For example, in TIK assignments, they got web topology assignments. They find about it by themselves on the internet and

then they draw it”, Yulia explained. The help they got in the form of internet and USO made the students in the deep of west southeast Maluku could catch up with what their friends from the big cities got. This was the window of the world that was opened by the internet.

Another advantage was that it made the students became more creative and able to create something with the help of internet. “Yesterday, we got a visit from national television, especially from their cultural department. We find references from the internet and YouTube about the traditional cultural dance of our places. So, the advantage was so big to help students develop their creativity. We mixed it up with previous move that we already had. The dance became better and sweeter”, Yulia recalled proudly.

USO also helps influence the system and administration management in our school. Stabil internet access help the teachers to be more concentrate to understand the national policy, especially the ones related with accreditation and DAPODIK system. “For the school, we went through several accreditation tests. So, at first, we didn’t know about how the accreditation system works. We tried to find out how the system works by using internet. We learned from the internet. Anything was available on the internet,” Yulia explained. Extreme natural environment and the far distance the students had to take to go to school made these children in west southeast Maluku became strong



Picture 30. Internet access for students in the border and outermost area.

children. They have more passion and spirit to overcome the obstacle in nature and in life.

“Students who lives farthest from school need to take hundreds of kilometers just to go to school. So, they find foster who lives close to the school. The distance between the school and the capital city of the province was about 2 days 3 nights. The cost was 280 thousand rupiahs and would be 300 thousand rupiahs in Ied ul-Fitri and Ied al-Adha. Some students live in Tanimbar islands, they must use the ship to go to school,” Yulia told us. Their effort to go school could be a good memory for the students. The help from USO could guarantee the access of information for the students. It bridged the gap of knowledge that always became the main problem.

“In Maluku, knowledgeable and smart people

tend to keep their knowledge only for themselves. Thank God I came from Java, so I always spread the knowledge to my friends, my teachers colleague and students", Yulia said. Teaching learning process also influenced by the tradition and culture of the people. Yulia felt lucky that she grew up in competitive and fair educational environment. It drove her to devote herself in teaching.

Yulia explained that, at first, the students don't know about computers. There is no teacher who is able and willing to share, it makes students in schools do not get an adequate computer lessons. "it used to be, they can not use Microsoft word and Microsoft excel. When I came here, I taught them some basic technical about computers, including power point. Now, they can already. So, the USO program that provides internet and computers affect how students study ", remember Yulia.

For Yulia, lighting up the torch of spirit and inspiration in the heart of the youth in west southeast Maluku needed a great deal of effort. She enjoyed her effort and devotion as a teacher who always inspire students.

When she taught, Yulia gave inspiration to her students. "When you go to college, it will be different from senior high. When you are in college, you have to find what is needed in college by yourself. So, keep up your spirit," Yulia while her eyes glistened with tears. She remembered her effort to kept study until she graduated from college.

By knowing the inspirational stories, students of SMAN Ampufu would never give up catching their dreams. “Most of our students hope to continue pursuing higher degree to go to the university. Whether it is in the ITB or State University of Yogyakarta (UNY). Internet was so helpful for our students to find any relevant information about college. Even they registered themselves in university by online”. Yulia explained.

For Yulia, it was her pleasure when she saw her students to have the spirit to catch their dreams. Pursuing studies in university is a privileged for students who live in remote area in Indonesia. But, this privileged was not so easy to get since get it with the help of internet facilities provided by USO. Students in west southeast Maluku try to explore the world with their dreams and passion. Those students never give up and always light their spirit up; those students who live their challenging life every day.

「**"It used to be,**
they can not use Microsoft word
and Microsoft excel. When I came
here, I taught them some basic
technical about computers,
including power point. Now,
they can already. So, the USO
program that provides internet and
computers affect
how students study "

Yulia Kwartago Vera

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Yunawati Profile 15

A Hope Guardian at Indonesia Gate

Despite its closeness with Jakarta, Indonesian Capital city, Lebak Regency, Banten is an anomaly. Economy and education sectors in the region are far left behind from its surrounding. Lebak reminds us on Max Havelar narration about how economy and education conditions for residents in the periphery areas. *“Max Havelar of de koffij-veilinger der Nederlandsche Handel-Maatschappij”* story was written by Multatuli, released in 1860.

Amidst limitations of Lebak, Yunawati devoted herself. She was a teacher who had spirit to teach and shape her students' characters. She was born in Lebak in 15 October 1976, started her study in Muara Ciujung 3 Elementary school, then, she goes to study in SMPN (Public Junior High School) 2 Rangkasbitung and SMAN (Public Senior High School) 2 Rangkasbitung . Having graduated from senior high school, Yunawati did not want to work directly. She determined to study in Institut Pertanian Bogor (Bogor Agriculture Institute) (IPB). In the institute, her major was Fishery Product Technology. She graduated in 2002.

Based on her language communication and stories, she was a caring person who love to teach

her community to become more skilled people. She did not want to keep knowledge which she acquired in the university as a privilege. She wanted to share. Therefore, she joined in education community as a teacher. Her initial career as an educator was at SMA 1 Cimarga Lebak, an honorary teacher. She became a teacher in the school from 2003-2012. In

2013, he moved to teach at SMK N (Vocasional high School) 01 Warung gunung to escort a new school was established by the Government. The school was founded in the year 2012 and inaugurated in early 2013.

The school where Yuliawati taught located quite near to Rangkasbitung downtown. More or less 15 kilometers. However, the condition in the region is vastly contrasted with Jakarta, Indonesian Capital City, which distance is not too far from Rangkasbitung.

In SMKN 01 Warung Gunung, there are 254 students for 9 classrooms. There are 3 classrooms for grade X, 3 classrooms for grade XI and 3 classrooms for grade XII. The school provided two main majors: Marketing and Fishery Agribusiness. "Marketing major existed since its early establishen in 2010 while Fishery Agribusiness major was founded in 2013" said Yuna.

Yunawati taught ICT as a dedication so that students could have information and computer skills. Despite her background as a biology teacher,



Picture 31. The process of teaching and learning using the internet use are very useful for teachers and students in the outermost area.

she trained her skills in ICT lesson. She believed that it would be better she taught it rather than no one taught it. She learned ICT basics by herself with materials she acquired from internet.

“In our school, no one has an ICT background. I am a biology teacher and I teach production. I also help teach ICT to students.” explained Yunawati.

SMKN 01 Waru Gunung received computers and internet access aid from the USO program in 2015. The program, provided by Ministry of Communication and Informatics and Ministry of Education and Culture, is for internet access aid in 3T Regions. “In our school, the utilization of ISO is not maximum yet. It was operated for a short period before the access was blocked. We had consulted it to ICT team. So, there are problems in the networks

and satellite. Moreover, only few people can operate it," said Yunawati.

Facing obstacles, Yunawati not staying silent. She anticipated by buying internet quota with a certain pulse. "we often use it with personal quota. Except for DAPODIK, "She stated. Yunawati do not want to give up with the situation. According to her, the internet access issues need to be resolved immediately. because, if it is delayed, the student can not feel the acceleration of education.

"Our students were introduced to internet access early. They had a good response, students are eager to learn. Thus, those who did not know internet before learn with enthusiasm," told Yuna. She added that internet access is very useful for teachers and students. "So, Internet is sometimes used to find learning resources. Maybe, only some teachers assign them for teaching," explained Yuna.

"In my lesson, fisheries production, I ask students to watch a video on YouTube. Thus, I teach them how to manage fish seed, how to take care of the fish, how to inoculate fish "Yunawati understand how to use internet access for learning activities that inspire. The Internet is becoming a bridge of knowledge for students

For Yunawati, the biggest obstacle in teaching her students is internet access and her students' family conditions. "The problem is because we are such a small school, therefore, sometimes in learning,

we issued fund on our own. So, we find internet connection using our own budget, using internet quota.” The option of using internet with personal quota is a solution amidst limitation. Yunawati did not want her students only to be spectators amidst fast education acceleration.

Children of Warung Gunung, Lebah also constrained with minimum family budgeting. “Children in our school, their parents came from



Picture 32. With computers and internet make students in the outermost, forefront, and disadvantaged area (3T) get more knowledge.

middle to low economy income family. Most of them are rice farmers, manage rice fields and gardens. So, for them, let alone buying computer or ICT utilities, to pay me, they feel difficult. Thus, it is difficult for

them to pay tuition fees simply because they do not have money.” explained Yunawati.

For children whose background are low finance condition, their priority is learning diligently. Amidst these limitations, education world face challenges. “Moreover, for fishery major, we, teachers, are very difficult to propagandize it,” stated Yuna. In the midst of bitterness, Yuna did not stop to move forward. She continued to fight for her children to continue their study. She never stopped to motivate them that the best future investment is education.



Picture 33. Installation of equipment to access internet at school in outermost and disadvantaged area.

"Though, promised with free scholarships or tuition, it is very difficult to get the students. So, very expensive equipment and practical for fishing.

Moreover, the need to buy a laptop, "Yunawati explains. Although it looks like he's complaining. Yunawati never stops. He continued to fight for his school, SMK N 01 Gunung Waru, to be a comfortable study room for her students.

Yunawati strategy is activating internet access by buying internet quota using personal funds. Internet utilization program via USO is still disturbed in signal systems. She never complained, she worked with her unique dedication and methods. "When I teach, I often invite my students to browse the internet. Therefore, I often brought them to enter laboratory to practice or working on related quizzes with the lesson. For instance, there are 20 questions, so the marking would be out directly. So, the children are very happy to browse and answer the questions with internet facility.

Amidst economy and access limitation challenges, Yunawati never stop to give her best to her students. Yunawati also commissioned by the head of school to build relationships with factories and institutions that can provide jobs. "Incidentally, I usually promote working opportunities to the students in the school. I used to have public speaking in front of children to motivate them. For example, how is the current condition of fishery business, we need to have enthusiasm and ready to work," explained Yuna.

As educator in SMK, Yunawati wanted her students to have competences ready to use.

Motivations of personal character, life challenges and competences are part of inspirations she delivered. "What is implanted, students have creation and expertise. In addition, we also had work relations with some existing companies such as GIANT. Then, in Serang we had agreements with Ramayana, offices and companies, BPJS (Indonesian Health Insurance System) office. The main point is they had marketing department. While for business and fishery products major, we had agreement with fishery halls," she said. Yunawati was an extraordinary educator. She kept moving, stepping forward, and giving her best for her students so that they could be a solid pillar for their family and neighboring.

Computer facilities and internet access aid form USO program had become a blessing for Yuna and her colleagues in SMKN Warung Gunung. "We wish to maximize networking and utilization of USO aid program. If it's already at the maximum, there will be many benefits for students. In addition, we also hope this assistance continues, not halted," Yuna wished.

Yunawaty is an education portray in Lebak, Banten, who are restricted with limitations. Lebak area is an anomaly because its location is quite near to Jakarta, the capital city, but education access gap is opened wide.

「**“Incidentally,**

**I usually promote working opportunities to
the students in the school.**

**I used to have public speaking in front of
children to motivate them.**

**For example, how is the current condition of
fishery business, we need to have enthusiasm
and ready to work,”**

Yunawati」

Rina Hariyati Profile 16

Education Story in The Land of Indonesian' Merchant to Malaysia

Being a teacher in the borderland area was challenging. At Merantai archipelago, which was bordered with Pahang, Malaysia, Rina Hariyati found her place of devotion. She became a teacher in SMPN 01 Tebingtinggi Barat, Kabupaten Kepulauan Meranti (State junior high school 01 west Tebungtinggi, Kabupaten Meranti islands).

She was born in Padangpanjang, 8 of April 1981. Rina didn't feel that she would be destined to teach or become a teacher. she studied at SD (Elementary school) 005 Bukit Jin, Dumai, in Riau province. After that, she spent her teenage life in SMPN 03 Bukit Jin and SMU (senior high school) in Lancang Kuning, Dumai. Graduating from senior high school, she continued her degree in Riau University, in Agriculture Faculty and graduated in 2004.

Having graduated, Rina pursued her career as lecturer assistant at the college in which she was graduated. "At that moment, I haven't taught yet, I was a lecturer assistant", Rina explained. Not so long after that, she enrolled to be a teacher. "Fortunately, the place where I lived was being given the creation of a new district, as a new regency. It used to be only

Bengkalis Regency, and now we have Kepulauan Meranti Regency as well”.

“I enrolled in CPNS (Civil servant national entry test) on 2009 and accepted in 2010 as civil servant candidate, and in 2011 I became civil servant,” Rina told us. Meranti Island Regency, was the proliferation region that officially announced at 16 of January 2009.

As stated in Law number 12 year 2009, Meranti Island Regency was officially announced as a creation of a new district from Bengkalis Regency. The width of the area was 3707.84 km², that consists of Tebing tinggi Island, Gadang Island, Merbabu Island, Ransang island, Topang island, Manggung island, Panjang island, Jadi island, Tiga island, Buru island, Paning island, Dedap island, Barembang island and Burung island.

Rinawati explained that it is needed to cross the river using ferry twice from the capital city of the province to her school. “If you want to go to Pekanbaru from this school, you have to take ferry for about 40 minutes. After that, you take bus for 2 hours. Next, you take another ferry to Belawan for about 50 minutes. That is how you can reach Pekanbaru”, she told us.

In her new teaching place, Rina taught IPA (Science lesson). She also got a teaching certificate to ease her to get administrative requirement to



Picture 34. socializing the internet at school in the outermost and disadvantaged area for teachers in teaching and learning activities.

teach. Her status as agriculture faculty graduates forced her to take a new training as a teacher. She was comfortable to teach IPA. But. The limited numbers of teachers make her to be ready with additional responsibility. She taught ICT lesson so that her students could get the basic knowledge of computer and informatics science.

“Since we didn’t have an ICT teacher, so they asked me to teach ICT. For junior high school students, the ICT lesson was still basic. So, with a little of learning, I still could be able to teach them”, Rina explained.

At SMPN Tebingtinggi Barat, there were 7 study groups. Each of them had 25 students. So, there were about 180 students. This school became one



Picture 35. Students at the school of the outermost regions, enjoying internet access.

of the schools which received USO aid.

“USO program started in 2015. USO program was beneficial for us. Besides, we got new additional computer facilities that were given by educational department of our local government. We got these computers in the last three months ago. But, before that we had already got other set of computers from the national government. Some of the computers had their system broken”, Rina explained. Internet and computer facilities program from USO (Universal Service Obligation) was one of the efforts to give free internet access for several schools in 3T (forefront, outermost, and disadvantaged) regions.

However, the help of a computer and internet access are not maximized because some were damaged. Worse, there was no staff who were able to

repair the computer. "Is there senior teachers who teach ICT? The fact is, no one is able to improve the internet and computers whenwhen they are broken. That was our main obstacle", Rinawati explained.

"Other than that, there was another obstacle in the form of internet connection lost that could happen any time. When students use the computers to access the internet, suddenly the connection was lost. This was happened all the times. Students want to use the internet, but they should face the reality of how bad the connection was", Rina said. Internet connection lost that always happened was our main problem.

For Rinawati, these obstacles would not stop her. She and her teacher colleagues kept moving so that her students could enjoy the internet access. "Then, a help from the province government came in the form of 18 computer units. But, only one internet was connected. So, we must use LAN. This less optimal internet connection was another obstacle that we should face", Rina explained.

Computer facilities at school also make it susceptible from a theft. "In our place, because there are a lot of computers, it makes our place susceptible from theft. We should pay someone to keep an eye on these computers and internet facilities. So get safer". Rina also explained that internet facilities near the school yard were also guarded so that it would last longer.

Computer and internet access facility from USO program was blessing for students and people around SMPN 01 Tebingtinggi Barat, Kabupaten Kepulauan Meranti. "Students were so happy with this internet facility. It was because when I teach, I used computers most of the time. It makes the learning became easier. After we got computers that connected to the internet, students were so happy. They could find any learning materials from the internet", She said.

The introduction of technology and internet access was a challenge for Rinawati and other teachers in her school. Some of her students were still shy and afraid to use the computer. They were afraid that they will break the computers. Meanwhile, we still didn't have someone who can repair it. "The students also had various response towards the computer and internet. Not all of them were able to use computer. Approximately 50 percent of the students knew how to operate computer and internet. While the rest of them still learning on how to use them. Some of them were even afraid to touch mouse as they were afraid it will be broken if they touch it"

Rina added, "at first we were worried that if people around us use the computer facility as well, we would break the rule. But, it was actually allowed". There were 18 computers in her school. They were donations from the province government." Because



Picture 36. internet access at the school of the outermost and disadvantaged area are ready to use

we already had computers, we temporarily used science laboratory as a computer laboratory. We didn't have enough space, so we use it for a computer laboratory", she explained.

Rina explained that computer facilities from USO were giving much contribution for education acceleration for SMPN 01 Tebingtinggi Barat. "I teach IPA, I asked students to learn through computer and internet often. For example, search materials and articles about pollution. For our students, computer and internet were so helpful in their learning. me myself teach science education and TIK", Rina

explained.

She explained that her students liked to use computer so that they wouldn't get bored easily. They were enthusiastic to explore the materials with the help of internet and computers at the school. "Science education was at the least school hours, students get bored. What the students wanted was learning science by using internet and computer laboratory. Students were happy and didn't get bored. Even when the school hours were finished, most of time still wanted to stay at computer laboratory. They didn't want to go home. They continued their activities in the lab. So, the students were encouraged to study", she explained.

"There were so many rich people in this area, or those who used to be rich. Here, rupiah didn't apply and less well-known but ringgit. At the moment, it is easy to earn money here. Most of them went trading or sold stuffs to Malaysia, because it was located just across the island. If you wanted to go to Pahang Island, we only needed 2 hours by boat. People called it "Smokel", selling woods, daily needs, or result of their harvest to get money." It was so easy to get money that people around here didn't care anymore with their formal education.

"But, it becomes hard because the rules were different. So, some people didn't have proper formal education. I told this issue so many times while I am in class. It would be harmful for them if they

don't stop it. My students should go to school and continue their education," Rinawati explained. "I told my students to study hard and continue their education"

For Rina, teaching at the borderland area of Indonesia was a challenge as well as idealism and commitment. She wanted the youth around her school to not get complacent easily by their past success. She would always try hard to inspire her students so that they would feel that education was a long-term investment for people who live in international borderland area between Indonesia and Malaysia. And of course, she hopes in the future that her students will become spectator in their own countries and not be simply a prosperity labor in their own nation.

“Students were so happy

with this internet facility.

It was because when I teach,

I used computers most of the time.

It makes the learning became easier.

After we got computers that connected

to the internet,

students were so happy.”

Rina Hariyati

Lani Afriyani Profile 17

Internet to Inspire Our Students

As a teacher, Lani Afriyani never imagines living a life like today. Previously, she was a researcher supporting the work of NGO and social organizations. Currently, she is surrounded by students who hope for a brighter future.

Lani was born on April 18, 1978, in Parigi Mutong, Palu. She started her education at SD (Elementary School) Inpres Bumi. Sagu 02. Then she continued her study at SMP Negeri 03 Palu and SMA Palu. Having graduated from high school, Lani continued her study at Tadulako University. She studied chemistry at the Department of Chemistry and graduated in 2005.

For her, becoming a teacher did not happen suddenly. After completing her study, Lani worked on humanity projects for some NGO networks. "At that time, I did not directly teach. After completing my study, I worked as a researcher. I took part in surveys of some institutions. The program was from the Population and Policy Study Center (PSKK) of UGM, then there was one from the Department of Economy of UGM. Therefrom I got familiar with the world of research and NGO," Lani explained.

After working as a surveyor and getting involved in some programs of NGO for a long time, Lani decided to devote herself as a teacher. "I started to teach at a Senior High School as an honorary staff in Poso. After that, I took civil servant test in Poso in 2011 and was accepted as a teacher at SMKN 1 Poso Pesisir," she expressed.

SMKN 01 Poso Pesisir, where Lani taught, is one of big schools. Although it is located in suburban area, it has many students, the transportation access is also good. However, at the school there is no internet access since long time ago. "At our school, there are approximately 300 students. The transportation access is good, but there is no internet network," Lani explained. The concern made the teachers struggle to find help, to find contact and network for internet aid program.

"Then, one of the teachers concerns about the condition of the school. Because there are many students at our school but there is no information access to outside. In our region, there is no internet network at all." The limitation of internet access made our school feel to be in a remote area. Internet access is the heart that distributes blood in form of information and knowledge. This is the beginning of the teachers' complaint at Lani's school. They, despite the high spirit, are obstructed by the limitation of information access.

Lany told, the aid program from Ministry of



Picture 37. Internet practice at school of the outermost and disadvantaged area

Communication and Informatics was approved. The internet aid finally reached the school. It took rather long time. “I do not know how long after that, the internet facility came. Even, it was so long that the teacher who requested for the aid had moved to another school,” she expressed.

The internet facility aid program in USO program made the students at SMKN 01 Poso Pesisir excited to learn. They became more diligent because there was a big window of world. “After the USO aid is here, the students’ learning interest is extraordinary. When there was no internet, the students frequently asked to go home before the school ended. It has to be understood that it is a rural area,” she said. She further said that the teachers were also helped by the internet facility program from USO.

“It was difficult for the teachers to teach because

there were no books, there were no learning media facilities either. So, it was difficult for the teachers to develop the learning. Currently, when the computer and internet facilities are available, the students do not want to go home. The teachers are also helped because of the availability of facilities,” she explained.

At the school, the students’ enthusiasm



Picture 38. The teachers from the school in borders area, discussions on ICT and internet access

increased. Internet facility accelerated the learning process and improved the learning quality. However, the limitation of bandwidth forced the teachers to brainstorm so that all students got equal portion of access. “However, the bandwidth is limited,

so we have to divide the portion. We have to wait for others. When a teacher is teaching using the internet, the other teachers have to wait so that the internet goes smoothly. The one using the internet for learning has to be prioritized,” Lani said.

Working as a teacher in a region far from the city center made Lani grateful for the availability of internet aid from USO. Her students whose houses were far from the school looked for dorms or foster parents. However, they tried to find foster parents so that they could stay near the school. There are also dorms around the school because there were many students. “The students whose houses are far go home by public transportation, here we call it taxi,” Lani told.

Lani initially taught Chemistry subject. By the principal, she was asked to help as the operator of educational basic data,” she said. “The duty of an operator is actually easier compared to teaching ICT or CNE (Computer and Network Engineering) at our school. There is also KKPI subject. It is available for each department, so there is no teacher specifically to teach ICT.”

For Lani, teaching Chemistry and ICT at a school in remote area that has internet facility is a luxury. She also told that the electricity supply there was relatively good. “Alhamdulillah, in this region, the electricity supply is secured. The school is a high school of engineering, so the electricity supply is

available. So far the regional government supports a lot," she explained. Lani truly utilizes the internet to improve the education program. The students at SMKN 01 Poso Pesisir are helped, with Lani's persistence and hospitality, to spread inspiration for education access. By using internet as media to obtain positive learning and information, Lani takes part in igniting her students' flame of spirit.

"Usually I look for material from the internet, use PowerPoint. Usually I give tasks to students, I send assignments via email. We ask them to find some animations related to the subject," she expressed. Lani also told that she could review the struggle of the teachers, tell about her hard work when she was studying. "Usually I tell about how I can be like this now. How I struggled. We cannot suddenly become a teacher," Lani explained. At SMKN 01 Poso Pesisir, there are 60 computers as learning facilities. At the school, there is also a computer laboratory that serves as a learning room for the students.

From creative lessons and inspirational stories she told, Lani feels that her students at the school feel excited to come after the future. "Our students become excited to learn more diligently to continue their study. We tell the students. The teachers can be like this, previously we were students too. Long ago, we had to walk to school, so it is the same. They become excited to learn more diligently," she expressed. From the spirit, the future of students

in Poso Pesisir becomes brighter. They find their passion, Eureka in learning, with the help of the internet.

Lani hoped that more schools get internet facility through USO. She thought that if many schools enjoyed the internet, especially those in the remote areas of Indonesia, there would be more teachers and students to be able to learn more effectively. The gate to the world and learning opportunity were open more broadly.

“We hope that more schools receive USO aid. Also, that other schools get access to the aid,” Lani requested. For sincere teachers like Lani, internet access is the window of world, the bridge that keeps inviting the children of the nation to come after a brighter future.

「“Our students

become excited to learn more
diligently to continue their study.

We tell the students.

The teachers can be like this,
previously we were students too.

Long ago, we had to walk to school, so
it is the same.

They become excited
to learn more diligently,”

Lani Afriyani

Abdul Halim Profile 18

Curriculum Instructor in remote area of Buton

His calm face reflects his maturity. He has piercing eyes, not ruthlessness, but resoluteness. He likes to smile kindly to his students, to people who speak to him. Living in remote area of Butan, Abdul Halim must work hard to teach his students. The existing internet facility he felt had helped him, USO aid program.

Halim is usually called hope keeper in remote area of Buton. Amidst the limitation, Abdul Halim actively motivated his students, taught creativity in the midst of various limitations. With the enthusiasm, he pumped inspirations for his students. So that, they can become illumination for Buton areas, become enthusiasm keeper for future generations.

Abdul Halim was born in 30 June 1981 in Lampo Balano Southern East Sulawesi. He currently worked as a teacher in SMPN 01 Kapontori, Buton Regency, Soutehern East Sulawesi. In the school, he had to struggle so that what were practiced in the school could inspire the students.

Since childhood, Abdul Halim was accustomed to limitations. He started his study in SDN (public elementary school) Lasusodo or what is currently

called by SD 07 Lawa. Next, he continued his study in SMPN Lasusodo (currently SMP 01 Lawa). He then spent his juvenile period in SMAN Dora. Afterwards, Halim wanted to continue his study and his desire to be a teacher. He studied in STAIN (Public Islamic Higher Institution) Kendari majoring in Islamic Education. In the institution, he was educated to be a religious educator. He graduated in 2005.

Having graduated, Halim honed his teaching knowledge and skills in some schools. He was happy and enjoy his profession as a teacher. Even though he had to work hard because it is not balanced with his living needs, Halim remains grateful and passionate. He was satisfied and happy when he saw his student smile, a smile which reflects the future of his homeland.

“Having graduated, I interned at SMP 03 Lawa. I also interned in Islamic Junior High School and Islamic Elementary School in this area,” he explained. He regarded teaching as an intern teacher in several schools as a learning experience. He enjoyed it to hone sensitivity and add brotherhood.

In 2006, Halim was accepted to work as a teacher in SMPN Kapontori. “I taught in SMPN Kopontori since 2006. I taught Islamic Education and Skill lessons,” he said

SMPN Kopontori is located in remote areas, far from downtown. To reach it, it took a struggle in



Picture 39. The teachers do a trial use the internet to support the teaching and learning process.

transportation because it has minimum amount of passing vehicles. Halim told that in the school where he taught, there are 72 students divided into three classrooms. "Our area is a remote area. It took 120 kilometers from Buton using land vehicles. In our area, there are regular vehicle. But once we are late, we need to find it by ourselves. There are an early morning and afternoon shifts," Halim explained. He told that due to the difficulty to find vehicles, economy activities were unstable. Population traffic was not high because minimal money circulation. People in remote areas had their logic and life rhythm.

With internet facilities aid in USO program, Halim and teachers of SMPN 1 Kapontori were greatly helped to improve teaching qualities. He

told about USO internet aid program was received his school in 2016 that, “USO program is very important for us, it provides lots of advantages. For example, helps student to have access for their lessons. Because we are in a remote area, it is difficult to have access handbooks. With internet aid in program, we are helped a lot to improve learning qualities,” he explained.

Internet facilities program also made Halim and teachers to have access with the latest information about education policy. The implementation of 2013 curriculum also became a concern among teachers in SMPN 01 Kapontari. They were not left far behind from other school.” We also got additional information, we did not feel left out information. Like recently, we implemented 2013 Curriculum (K-13). We got lots of information from the internet. From this experience, I was appointed as regency level instructor,” He told. Abdul Halim learned and taught diligently. He used internet not only for teaching quality improvement, but also absorbing new information in relation with information technology improvement.

Internet blessings also had impact on organizing teacher training. “Our school was appointed by the Department to organize “Internet bersama” (Internet Together) with PMP application program for SMP and SMA in Buton regency for East Areas. So, the program was centralized in our school, in SMPN



Picture 40. The students at school of the outermost and disadvantaged area, ready for learning with using the internet.

04 Kopontori,” he revealed. Stories of education development program, as told by Halim, could be executed with support from internet facilities. USO program, for teachers and students of SMPN 01 Kopontari, brought a significant contribution.

“Alhamdulillah, nowadays all the lessons in Buton Regency are recommended to find handbooks and supporting materials for teachers and students via the internet. So, we find ebooks in Rumah Belajar site. It is recommended to access the site. All teachers advise their students to go online and access handbooks and supporting materials,” explained Abdul Halim. Rumah Belajar site is a referral site prepared by Ministry of Education and Culture to make it easy for the teacher to search



Picture 41. Repair the installation of internet access, at school in the border area.

for materials and it could also be accessed to help students getting additional references to enrich learning.

Halim told that teachers in his school maximized internet to teaching capacity and learning quality improvements. “The teachers instruct the students to learn, to maximize internet utilization to find learning materials. So, in our school, all teachers use the technology. It is not only ICT teachers but also all teachers use internet facilities from the USO program,” explained Halim. He said that there is a significant shift in teaching paradigm from before and after internet facilities program via USO.

“Students’ tendency is they are more excited to online learning rather than conventional learning such as lecturing and noting. The problem is, in our school, internet connection becomes slow if it is use simultaneously. Electricity in our school is not

scheduled when it will go off, sometimes it suddenly goes off from PLN (Public Electricity Company)," he complained. In some innermost areas of Indonesia, electricity access is a major obstacle. If there is electricity access, the possibility of access disruption is very high. Natural conditions and weather factors influenced these conditions.

Abdul Halim became a role teacher in SMPN 01 Kopontori. The school where he taught is also a role model school for others due to its learning facilities acceleration. Halim success to be an instructor of K-13 could not be separated from technology acceleration in his school, in addition to his discipline and active learning to learn new things from internet.

How did Abdul Halim spread inspiration for his students? He confessed that he encouraged them to learn enthusiastically. "From me personally, I motivate them to keep learning. Even though we are in a remote area, Thanks God we can also get information. Our learning materials today is equal with learning materials of your friends in more developed areas," he said.

He said that his students were enthusiastic to learn because technology improvement factors. So, internet technology and USO aid could double their motivation. "I see that our students compared to before USO program were less motivated. Nowadays, with internet facilities via USO program, they are

more motivated to learn. After school-time, they stormed into laboratory. In fact, the ones who used to go home directly, they do not want to go home. They like to keep studying using internet,” he said.

Halim was grateful that technology acceleration could make the school where he taught could catch up its underdevelopment although it was in a remote area. For instance, in the 2013 Curriculum implementation, he could accelerate his students “because K-13 is technology based, we were helped with internet facilities program via USO. So, if we want to seek information, we can easily find it from sites that are provided,” said Halim.

As an educator, Abdul Halim feels that the USO is helpful both technical as well as inspiring. He felt that the help of the internet is such a blessing, which coincided with a passion for teaching.

“I hope training program supporting the USO, can help teachers to develop ICT. We hope that schools in other areas could get internet facilities in USO program. In Buton, there are only 2 schools who received the program. In fact, there are still many schools in remote areas which required similar programs,” he explained. Abdul Halim wishes are hopes of teachers who taught inspiring. Teachers who turned on hope and maintained a fire of enthusiasm for their students.

“USO program

is very important for us, it provides lots of advantages. For example, helps student to have access for their lessons. Because we are in a remote area, it is difficult to have access handbooks. With internet aid in program, we are helped a lot to improve learning qualities,”

Abdul Halim

「“The internet
access

from the USO funds has a capacity of
bandwidth averaged 2 Mbps.

Internet access can be used to support
teaching and learning as well as beneficial to
the surrounding community "

Rudiantara,
Minister of Communication and Informatics」

Chapter

III

Closure

Digital ecosystem in education transformation in Indonesia

*“The whole purpose of education is to turn
to mirrors into windows” – Sidney J Harris.*

Sidney J Harris expression can be an important lesson for all of us that education purpose is to turn mirrors into windows. Stories presented in the book can become mirrors and open windows for all of us, how education in this country still requires support from all parties.

Stories of struggles for education volunteers become important stories that we need to feel, especially from education transformation and innovation to strategies to maximize information technology in the form of internet devices. Not just reading but diving into meanings behind events. Not only invites us to contemplate, but will become a driving force for us to see directly, build and find the best education for the citizens of this country.

Technology revolution has an impact to learning system, to digital media strategy for education. Technological developments in the world have a significant impact on all sectors of life, from business to social life. Education sector also got a significant impact with the changing of learning media which

adopts information technology and digital media. The improvement is in line with digital technology revolution in the world

Digital media and internet technology users experience a significant increase. In this year, based on Internet Data Corporation (IDC) data, there are 3.1 billion devices connected with the internet in Asia Pacific, and it will increase to 8.6 billion in 2020. From this potential data, a telecommunication provider, affiliated with Indonesian BUMN (Indonesian State Owned Enterprises), prepares Indonesian Living Smart City which functions to accelerate information technology implementation (Smart City). It aims to local governments throughout Indonesia to present smart governance. The concepts are Smart Government, Smart Education, Smart Healthcare, Smart Security, Smart Transportation, Smart Environment, and Smart Citizen.

What is the condition in Indonesia? Ministry of Communication and Informatics note indicates that trend of internet use continues to increase every year. In 2013, there are 74 million internet users, and It increases to 111 million in 2014. The data continues to rise with an escalation of 50 percent of the population, or around 125 million citizens around 2015 to 2016.

Meanwhile, in education field, the Ministry of Education shows data that there are 117.277

schools of 234.919 total schools from elementary to high schools have connected with internet in the middle of 2014 (Kompas, 17/3/2015). From the data, the number of teachers who maximize internet functions and digital media development is still far from ideal standard. From 3 million teachers of the country, there are only 10.000 masters, who have information and communication technology education access. There are only 90.000 teachers who use internet actively and registered in the data in the mid of 2015. In terms of technology access distribution, there is only adequate internet access in Java and Sumatera. In other areas, especially East Indonesia, it is currently only in internet access acceleration process.

Trend of internet use is in line with the data about the progressiveness of digital media users in this country. Indonesian Internet Service User Association (APJII) research shows that internet users in the country in 2014 are 88 million users. Java and Bali regions are the biggest users and it is followed by other regions. Sumatera Island region records 18.5 million users, Kalimantan has 4.2 million users, Sulawesi has 7.3 million, and Papua achieves 5.9 million users.

Trends in the use of the Internet to answer human needs and development of life, gave rise to the concept of Internet of Things (IoT). The concept is an application of internet used to make

human life easier. Internet of Things is a concept serves to expand the benefits of continuous internet connectivity, using a remote control, to share data and some other interests. In addition, the innovation is also beneficial to connect with the physical world used. In its operation, IoT connects with hardware and software via the internet. The devices are connected with computers, laptops, smartphones, vehicles, fridges, washing machines, microwaves, and air conditioners. Of course, the development becomes an important innovation of human life.

The Millennial Generation Learning Media

Based on the development of the internet in the world, we, of course, should reflect the conditions of our country. Students who are in school are mostly categorized as near the millennium generation technology. They are the future leaders of the country in education, business and political sectors. The generation, who are in school or college, had a unique tendency, influenced by digital technology development.

The millennial generation are demographic group after X generation. The generation was born in 1980's to 2000's. Thus, they are the younger generation currently aged 15 to 35. Studies about this generation have been done a lot in some countries. In America, a survey released by Boston Consulting Group (BSG) and University of

Berkeley (2011) took an important issue “American Millennials: Deciphering the Enigma Generation.” In 2010, Pew Research Center also released a similar study, “Millennials: A Potrait of Generation Next.” What is so special about this generation? They are the generation that is unique, especially in the use of technology and fondness for pop music. The life of this generation are inseparable from the development of internet technologies, gadgets and entertainment become mandatory consumption of this generation.”

The millennial generation have a view of like with its unique characteristics. Pew Research survey shows that there is only 69 percent of the millennial generation who recycle papers, plastics, or used glass. The result is much lower than X generation concerns with 77 percent and boomer generation concerns with 72 percent. In campaigns on purchasing environmentally friendly products, the millennial generation only occupies 53 percent, lower than its predecessors, and in campaigns on purchasing organic food, the generation only get 36 percent, lower than Y generation with 38 percent.

For comparison, Data published by World Economic Forum and Global Shapers Annual Survey (2016) shows that the millennial generation are still connected with global issues such as climate change, conflicts, natural disasters and other crises. However, the percentage is no more than 50 percent.

It is also showed in the survey that climate change and other natural disasters occupy 45.2 percent of the total amount. The survey is gathered from 26,000 millennial aged 18-35 in 181 countries.

The millennial generation has concerns with global war conflict 38.5 percent. From the data, the millennial generation in Eurasia is 45.3 percent while 50.3 percent from the Middle East and North Africa. On the issue of global religious conflict, the millennial generation's concerns that 33.8 percent. Based on the response, 45.1 percent of the millennial generation are notes ' awareness in the Middle East and North Africa. South Asia had a 41.1 percent and 41.8 percent of Eurasia has, as well as in Europe a number of 38.8 percent.

For public policy issues, especially on political freedom and world stability, the millennial generation tend to have low awareness. The generation only has 15.5 percent awareness. Around 19 percent of millennial community in East and Pacific Asia felt disturbed by the lack of political freedom and world stability.

From the millennial generation, we can predict directions and the future of our country in global competition. Thus, the millennial generation of this country, especially those in innermost and border areas, need to get enlightenment in education and technology access.

In this context, internet facilities aid program in Universal Service Obligation (USO) becomes bridge which connects potentials golden generation of this country with global space via internet connection and digital media. Internet access facilities program in USO is a joint program between Ministry of Education and Culture and Ministry of Communication and Informatics from 2015 to 2016. It is an actual example on how technology and information acceleration could be solutions for the loss of education access.

In the USO program, there are two scopes. First, ICT infrastructure supply which includes network provision for fiber optic, satellite network, base transceiver station, government network, data center, passive infrastructure, access to wi-fi public service, data recovery center, and/or broadcasting infrastructure.

Second, ICT ecosystem supply include public service application for local government, provision of content incubator centers, provision of ecosystems broadband, provision of KPU telecommunication and information financing, provision and e-Government application development, e-Education, e-Health, e-Logistics and e-Procurement, providing National Domain Name Servers, provision of Public Key Infrastructure / Root Certification Authority, financing development of Domestic Information and Communication Technology industry, community

training and capacity building in the field of Information and Communication Technology, and/or providing incentives for monitoring and evaluation KPU telecommunication and information provision program.

From the internet facilities program in USO program, it can be seen how the internet is very significant to improve learning media and change learners' mindsets. The role of teachers as educators is very important to maximize technology functions and internet access for learning. This book, in all the narratives, tried to portray the hard work of education volunteers who had struggle and devote themselves to the improvement of the nation's young generation.

In the innermost of Indonesia, from Aceh to Papua, from Talaud to Sumba, the teachers rushed to spread inspirations. They lit a small candle amidst the darkness of the area they served. The teachers, with all their limitations, tried to find strategy and innovation so that the spirit of their students does not die. Maintaining this fire of enthusiasm is the main goal of the teachers. Teach for serve, serve to teach

The teachers in 3T (forefront, outermost, and disadvantaged) regions are education fighters who need to be respected and acknowledged. The teachers who fight amidst limitation make Indonesia's national pillars to stay strong. They are

the bridge which connects disconnected accesses. The teachers spread inspirations so that Indonesian children can have dreams. So that the students are brave to pursue their dreams for the good of the country.

Teachers in border and innermost areas are heroes for the future generation of this country.

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ICT Center

EDUCATOR **Inspiration** from the frontiers

Presenting information technology,
breaking through boundaries

The struggle of educators in the outermost, forefront, and disadvantaged (3T) regions all over Indonesia is a reflection for the devotion of the heart, which is loyalty to educate this nation generation. Creativity over the limitations is an inspiration to all of us.

Educators, whose stories are recorded in this book, dedicated their energy and time to educate Indonesian children. Those who live in outermost areas from Sabang to Merauke, and Manado to Flores, is a shiny reflection over the challenges of education and social of this nation generation.

The educators' stories in this book are like a drop of water that can fulfill students and teachers' thirst. They inspire the people.

With limited internet access and the geographical-social challenges, the teachers inspire the generation – the students – on how to use information technology creatively and innovatively.

“

If the information absorbed
by our children is good information for education,
it will make our students to be good ”

Rudiantara

Minister of Communication and Informatics

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Ministry of
Education and Culture

