PANGAEA BOOK

Bond
Children
across the World
on the Net





Founders



Yumiko Mori Co-Founder / Chairman

She earned a BA in Youth Development / Early Childhood Education, from Saint Mary's College of California, and attended, University of California Los Angeles. She worked at TOMY Toys as a developmental toy product manager, and her toys were awarded internationally. Afterwards, she became a visiting researcher at MIT Media Lab. She won an award of "Nikkei Woman of the Year 2006 for Career Creativity".

Our mission has been to create an environment where youths of the next generation can interact with each other from diverse cultures and nationalities. Eventually, these youths will be ambassadors of global citizenship in our world. When I was at MIT Media Lab, Mr. Bender, who was the director at the time, and Professor Mitch Resnick, who is well-known in the programming education space, became advisors and supported our grand vision of seeing youths foster bonds across the world. Coincidentally, when we were looking for communication tools that could allow youths across the world to communicate in spite of their language and cultural differences, Professor Noam Chomsky at MIT, gave us some advice about the communication tools with emojis. And, the first version of the PangaeaNet was developed. Next, we started to add the Language Grid to youths's activities, and eventually, the Pangaea evolved into the present "Gengorou".

Over the past 6 years, we have started a new initiative called Kyoto Intercultural Summer School for Youth (KISSY). Youths from various countries who speak different languages live together for a week in Kyoto and attend workshops for four days. Year 2019 was our 6th consecutive years of organizing KISSY. We could not have made this happen if we had missed even one of the supporters we had, such as those from Japan Expo Memorial Fund and KDDI Foundation, and Ishida and Matsubara Laboratory of Kyoto University that co-sponsored and many academic researches

conducted. It has been widely recognized that global development will not be sustainable without multicultural societies, and the United Nations has also been promoting the Sustainable Development Goals (SDGs) as an aspiration towards a sustainable society. In particular, under SDGs, there is "Global citizenship education" on Target 4.7. This dovetails Pangaea's mission, and KISSY is an annual flagship event to see "whether youths with different cultures, languages, religions, etc. can communicate, help each other, and solve problems." A lot of effort has been invested in KISSY, leading to the success, such as all my experience and knowledge of education, psychology, educational toy development, workshop development, all of ICT tool development from Takasaki for youths, and the best facilitators who have been working together.

The foundation of global citizen education using ICT (Internet) gives hopes to many adults. Pangaea youths grow with strengths and gentlenesses. "Do not do what others hate" - With the golden rule in mind, youths would put themselves in other people's shoes and be more aware of the importance of diversity. In order to attend Pangaea's program in Kenya, Kenyan youths walk to the Nairobi National Museum for more than an hour and a half. In spite of the duration, they get all excited and call their friends' names. Let us think together and help each other to make the world a better place. We have a lot of works ahead, Pangaeans and Pangaea kids!



Toshiyuki Takasaki, Ph.DCo-founder / Vice chairman

He obtained his Bachelor of Engineering in Precision Mechanical Engineering of the University of Tokyo, Master of Science in Environmental studies at Graduate School of Frontier Science of the University of Tokyo, and Ph.D in Informatics at Kyoto Univ. where he was selected as the Representative of Graduate School of Informatics at Degree Conferment Ceremony in Kyoto University in 2017. He won the Best Paper Award of Human Interface Society in 2018. He has been creating the whole information system of Pangaea with Pangaea tech volunteers as well as ICT education contents for both youth and adult staff as CTO. In MIT Media Lab, he was a Research Affiliate from SEGA in 2001 and Visiting Scientist of Project Pangaea from 2002 to 2004.

19 years have passed since the September 11, 2001 terrorist attacks, and 17 years have passed since the establishment of NPO Pangaea in 2003. Pangaea has been providing multicultural exchange opportunities for youths, who create the future world, to deepen mutual understanding using ICT. However, unfortunately, as of 2020, human beings still haven't stopped fighting and making wars. Einstein and Freud said, "The fights are human instinct and war is inevitable", as many other academic fields have interpreted. Now that science and technology have advanced, mankind has created, and holds weapons, that can destroy the entire earth over and over again in a shorter period of time and on a larger scale. But, humans have wisdom, and I have a faith. Humankind has the wisdom to imagine that "People on the other side also have feelings of not wanting someone important to get hurt", which is the wisdom of empathy. Pangaea promotes its wisdom to the world through activities supported by "Peace Engineering" under the simple rule of "Do not do what others would not like."

Pangaea Prospectus was written in November 2002 "Here we establish PANGAEA, recruit diverse and motivated participants, and cooperate with researchers and experts from around the world as non-profit organizations. We build and provide an environment, where youths around the world can expand *connections*, by researching and developing tools necessary for international communication and content, with which youths would want to participate voluntarily. The purpose of this program is to promote globally through appealing activities, and to deepen mutual understanding among many youths regardless of state, religion, culture, language, and gender, and to actively contribute to world peace from Japan."

The basis of Pangaea remains the same. Meanwhile, Pangaea's values and achievements have finally been synchronized with the world, including "GCED (Global Citizenship Education)" in the UN Agenda. Unfortunately, the advance of science and technology will upgrade the weapons of destruction. However, Pangaea will upgrade the wisdom of human beings by Peace Engineering furthermore!

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All about PANGAEA

What is Pangaea?

The world today is divided by various differences such as country, ethnicity, culture, religion, and social situation. It seeks global citizens who accept diversity and collaborate together more than ever. Pangaea uses ICT, or Information and Communication Technologies, to develop a platform that enables youths who will lead the next generation to meet, communicate and connect each other, and operates a program that can be implemented

worldwide. Our goal is using ICT peacefully to make it possible for youths to "connect" with others, enjoy diversity, foster empathy, and lead a multicultural society. This is a worldwide practice of GCED, or Global Citizenship Education, which is included in the Goal 4.7 of SDGs, or Social Development Goals, set by the United Nations. Pangea provides GCED not only for youths but also adult staffs.

■ What Does Pangaea Do?

1. Pangaea Activity

This is an international understanding education program, where dozens of youths (9-15 years old) gather regularly at the locations of activities, and

each takes about 3 hours x 10 times (30 hours).



2. KISSY Kyoto Intercultural Summer School for Youths

This is a summer school program held in Kyoto where youths communicate in a multilingual environment using ICT, and live together for about a week.





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This is an international development project for a rural community in developing countries by Pangaea, where worldwide experts use ICT such as machine translation system to deliver to youths in the community practical knowledge for agriculture and living.



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Pangaea provides a training program for facilitators and technical staffs, who support youth activities in Pangaea. This is a well-developed practice of GCED (Global Citizenship Education).



■ Where? How Many People?

Pangaea was registered by the Tokyo Metropolitan Government as an NPO (Non-Profit Organization) in April 2003. Pangaea Activities

started at two elementary schools and two junior high schools in Shibuya, Tokyo in May 2004.

"Pangaea Activity" implementation (total number)

: Total 903 Youth Participants: Total 10,165

Facilitator Training

F Training Certification: Total 365 FL Training Certification: Total 31 TS Training Certification: Total 49

* F: Facilitator, FL: Facilitator Leader, TL: Tech Leader, TS: Tech Staff

Japan



Korea





Vietnam (YCM-Viet)



Bhutan (Planned)



Malaysia



Cambodia





Kenya

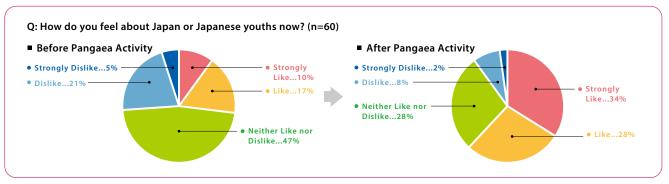
Georgia



■ Change in Attitudes of Participants

According to the results of survey conducted among Korean youths, those who answered that they "Like Strongly" or

"Somewhat Like" Japanese youths was 27% before Webcam activity, which went up to 62% after Pangaea activity.



The data is collected from Webcam activities held between Nov 2005 and Feb 2010.

ICT Tool

We carry our own research and development of Pangaea's original ICT Tools (software and services using information and communication technology), by collaborating with research institutions such as Kyoto University in order for youths around

the world to communicate each other in fair and democratic manner. Technical volunteers with advanced engineering skills have contributed greatly to the ICT Tool development.

Picton

Picton is a set of pictograms used in Pangaea Activities to communicate with each other beyond language barriers. Thoughts and ideas are expressed in combination of Picton. Picton was developed based on research about cultural interpretation, and more than 450 types have been developed currently. It is an important way for youths to communicate with each other on PangaeaNet and Webcam.



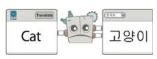
Giant Picton board

Machine Translation

In Pangaea, youths and staff can communicate using machine translation. The current machine translation technology is not perfect. Pangaea designs machine translation system by human-in-the-loop concept effectively. For example, Pangaea applies Back-translation in which a user can check the translation quality and correct

it by himself / herself, or Repair-translation which utilizes a combination of machine and human translation. In addition, the translation quality is improved by combining Pangaea's original bilingual dictionary for machine translation service.

Moreover, a multilingual platform technology called "Language Grid" is used for machine translation.



"Gengoro", the translation

PangaeaNet

PangaeaNet is a safe platform on the Internet, where youths can share their art works and send messages using Picton & Language Grid. There are 4 layers; "House, Village, Country and

Earth", and youths can go from "House" to the "Earth" with 4 clicks. For security reasons, youth uses one-time password every time to login to PangaeaNet.



Each youth has his or her own House

Webcam

Webcam connects multiple Pangaea Activity sites around the world, in real time. Youths in different places and time zones get connected and play. All youths get to play also as team members with counterpart rather than competing site vs. site as opponents. The game contents are built, as

where youths can earn points when they show empathy to opponents or consider their culture. By directly interacting through the Webcam, youths deepen mutual understanding and interests, and grow a stronger connection.



ujambo!" to Japan via Webcam

PANGAEA History



1 2001 / September 11 attacks Start of the concept of Pangaea at the MIT Media Lab



3 2007 / Relocated headquarters to Kyoto



(5) 2009 / Started Pangaea Activity at Kyoto University

Registered by Tokyo Metropolitan Government as an NPO (Non-Profit Organization) Pangaea Cancellation of the flight UA93 three days before / **Developed PangaeaNet and Picton** Relocated headquarters to Kyoto Started Pangaea Activity at Kyoto University Started YMC-Viet Project Start of concept building at MIT Media Lab September 11 attacks / Started Pangaea Activity at four elementary and junior Started Pangaea Activity in Korea, Austria, and Kenya Started Pangaea Activity in Malaysia high schools in Shibuya, Tokyo 2 3 6 1 4 **(5**)



2 2005 / Developed PangaeaNet and Picton



4 2009 / Started Pangaea Activity in Malaysia



6 2010 / Started YMC-Viet Project



7 2013 / Started Pangaea Activity in National Museums of Kenya



② 2014 / Started KISSY (Kyoto Intercultural Summer School for Youths)



1 2018 / Started Facilitator training program at National Museums of Kenya in Nairobi and Kisumu

Academic journal paper of YMC, top-authored by Dr. Takasaki, received the Best Paper Award by Human Interface Society Conducted International Workshop for E4P in Nairobi, Kenya Started Facilitator training program at National Museums of Kenya in Nairobi and Kisumu with JICA funding Started Pangaea Activity at the University of Tokyo Started Pangaea Activity in Cambodia (Bright Future Kids and New Life Orphanage) Started Pangaea Activity in National Museums of Kenya Started Pangaea Activity in National Museums of Kenya

10



8 2013 / Started Pangaea Activity in Cambodia

8

9

7



1

00 2017 / Started Pangaea Activity at the University of Tokyo



Awarded The Japan Foundation Prizes for Global Citizenship

(12)

2019 / Awarded The Japan Foundation Prizes for Global Citizenship

PANGAEA Projects

1. Activity











There had been Pangaea Activities at 5er Haus (Public Youth Center) in Wien, Austria since 2006. Our first trial of Webcam between three countries of Japan, Korea and Austria, was held there.

KAZAKHSTAN

There were participants in KISSY from Kazakhstan in 2018. We are planning to start Pangaea in the coming year.

GEORGIA



Pangaea was invited to "The 4th Annual Conference of Educational Technologies" from Georgian Ministry of Education in December, 2017, and we started Pangaea Activities at a public school from 2018.

(FNYA



We have conducted Pangaea project in many places in Kenya since 2006. Pangaea was chosen as "International understanding education facilitator training project" from JICA Partnership Program in 2018.



from Bhutan in 2018. We are planning to start Pangaea in the coming year.



Regular activities had been conducted at the MIZY Center in Seoul from 2006 to 2017, and independent facilitator trainings had been available. It produced many great volunteers.





Pangaea's headquarter office is currently located in Kyoto. There have been monthly activities at Kyoto University and the University of Tokyo. There also had been activities conducted in elementary and high schools in Shibuya district in Tokyo, at Mie University, and also in companies in Chiba and Tokyo. Pangaea's headquarter office is currently located in Kyoto. There have been monthly activities at Kyoto University and the University of Tokyo. There also had been activities conducted at elementary and high schools in Shibuya district in Tokyo, at Mie University, and also at companies in Chiba and Tokyo.







CAMRODIA



New Life Center, an orphanage in the suburbs of Phnom Penh, and Bright Future Kids Home, have started Pangaea activities since 2013, and high school youths are receiving technical staff and facilitator training.





There were Pangaea activities conducted at the University Malaysia Sarawak (UNIMAS) base and Bario base in Borneo from 2008 to 2010. The Barrio base is a village in the jungle, where activities were conducted at the boarding school.



2. JICA

ICA (Japan International Cooperation Agency), Japan's ODA (Official Development Assistance) implementation organization, has a framework of citizen participation cooperation project called "Grassroots Technical Cooperation Project". Pangaea proposed "Facilitator training project at National Museums of Kenya in ICT intercultural understanding education aiming for prevention of ethnic conflicts", which has been accepted by JICA. The project term is planned from 2018 to 2021.

For many years, Pangaea has been active in various places in Kenya conducting pilot experiments to demonstrate the effectiveness of the program. We were able to confirm the effectiveness of the program through preliminary Activities using schools and conference facilities in Kenya. The first time we visited Kenya was in 2003. We visited a village in the city of Nairobi. When youths and villagers saw the Pangaea's concept and ideas on Takasaki's laptop computer, they instantly said "I really want to participate!" with a passion. Finally, we got a great partner at

the African hub in Kenya we had been looking for, the National Museum of Kenya (NMK). It started when people in Kenya UNESCO, the UNESCO hub in East Africa, delivered our story into NMK.

Kenya has many ethnic groups, and each has its own language and culture. It is a diverse society. English and Swahili are the official languages, and the society has developed remarkably in East Africa in the last 15 years. However, due to repeated large-scale demonstrations, terrorism, and riots, there are things that are worrisome for international trust and those who want to visit.

NMK is the place which is loved by people in Kenya, and where all youths visit once on a field trip. Until now, NMK has only been a place to display various artifact (anthropology, natural science, history, culture, etc.). However, Pangaea encourages people to use it not only as a museum just to display things but also as a public educational place which enables people to enjoy ethnic diversities and communicate by introducing workshops



National Museum of Kenya (In Nairobi)

for youths by collaborating with Pangaea.

JICA accepted the project to build a system to provide training programs independently for facilitators and technical staff who can implement Pangaea's "ICT intercultural understanding Education" and for sustainable activities from training by Yumi and Toshi in Africa.



Youths in the Kibera area



A Houses in Kisumu area



▲ School in Kisumu





Dr. Mzalendo N. Kibunja

Director General, National Museums Kenya. He holds a Ph.D and MA in Antholopology from Rutgers, The State University, New Jersey, USA and a BA in Archaeology & History from the University of Nairobi, Kenya. He was previously the Chairperson of the National Cohesion and Integration Commission (NCIC), a National Commission set up in 2009 to create and enhance unity and harmony among the Kenyan people after the division Kenya National elections of 2007.

Essay: As a former Chairman of National Cohesion and Integration Commission, any effort by anyone or any group towards peace building receives my unconditional support. I learnt about Pangaea through my staff member Mr. Mitei and immediately I like its activities. It is not only a way of providing Global Citizen Education and peace initiative but also provided a universal playground for youths around the world.

The National Museums of Kenya has always promoted coexistent among cultures through its various activities and exhibitions. One of the

activities has been organizing cultural festivals across the country to celebrate our cultural diversity. Apart from that, a few years ago we went international by organizing Nairobi international cultural festival in which cultures from across the world are showcased.

The National Museums of Kenya has vibrant public programmes which are offered throughout our museums. Our public activities are designed to offer instruction in an environment different from the school. We are very excited that we are partnering with Pangaea in this endeavor. The

support from JICA will enable us offer exciting programmes which will benefit youths, museum staffs, teachers, Volunteers and Interns. Tapping into the expertise and experience of Madam Yumiko, President of Pangaea, and Dr. Takasaki the ICT expert, NMK team will get skills transferred to them. Initially the ICT intercultural education programme will target Nairobi and Kisumu museums but we hope to extend to other museums. Their activities are service to humanity and we are sure that many souls will be touched and the people of the world will experience less intolerance to other cultures.

3. KISSY

angaea consistently aims to create a platform where youths around the world can feel connected, and KISSY (Kyoto Intercultural Summer School for Youths) is one of the innovative initiatives. Youths from Kenya, Korea, Georgia, Japan, etc. gather in Kyoto in this one week workshop-type of summer school. Since English is not essential, there is no common language among youths, and most youths use only their native language. Under such circumstances, KISSY conducts activities in units of teams configured with about seven youths from different nations and with different languages. Participating youths learn to communicate beyond languages, and



Multinational team consisting of 7 youths



▲ Collaboration work by team



▲ Enthusiastic team discussion in hotel at night



▲ Multilingual ICT tool that is compatible with Khmer

discuss issues democratically. The backbone of this activity is Pangaea's ICT technology.

This initiative of "Can we collaborate beyond cultural and national differences?" has been supported by Japan World Expo Memorial Fund of KANSAI/OSAKA 21st Century Association, and KDDI Foundation. This initiative has been highly evaluated, and the number of participating countries has been increasing every year due to this support. KISSY has been valued as "seeds of research" for the feed of "intercultural collaboration" from an academic point of view, and has been a source for academic papers. In addition, Ishida and Matsubara Laboratory of the Graduate School of Informatics, Kyoto University, and Yohei Murakami Laboratory in Ritsumeikan University have been great supporters and have contributed greatly in terms of research and technical cooperation.

One week (7 nights and 8 days) is enough time for youths to experience stages of approach, conflict and solution. Every time in the last six years, KISSY started with youths being nervous on the first day, and ended up with youths eventually crying and saying "I want to stay and spend more time with everybody", and giving hugs to each other on the last day. It seems that country, gender, and age do not matter in the end. Pangaea continues to say to these youths, "We want everyone to think and practice how to communicate with overcoming various barriers around the world." Although it was just one summer, we have witnessed the "changes" and growth in youths.

In 2015, the United Nations formulated the "SDGs (Sustainable Development Goals)" towards 2030. GCED (Global Citizenship Education) is listed in Target4.7 of the SDGs

Since the establishment of the SDGs, we have been invited many times to international conferences to present KISSY such as ICT Summit in Geneva, Switzerland. Also, we have got awarded The Japan Foundation Prizes for Global Citizenship. KISSY has gotten attention from various countries as a fore-front example of GCED using ICT.







▲ KISSY group photo at KISSY venue, Clock Tower Centennial Hall, Kyoto University

4.YMC (Youth Mediated Communication)

Community Support through Youth (YMC model)

MC model, or Youth Mediated Communication Model, is one of the supports for developing countries, and which is a revolutionary community development method delivering various knowledge through youth, instead of adults who have low literacy rate.

Pangaea developed and implemented the YMC system with a support of the Ministry of Agriculture and Rural Development of Vietnam as the advocate of the YMC model with Ubiquitous Alliance Project fund by Ministry of Internal Affairs and Communications of Japan in 2010. We conducted demonstration experiments in Binh Long Province in the Mekong basin, and cooperated with Ishida and Matsubara Laboratory, Department of Social informatics, Kyoto University from 2012 to 2014, with a funding of RISTEX, Ministry of Education, Culture, Sports, Science and Technology of Japan. Agricultural specialists in Japan provide a variety of rice cultivation knowledge (temperature, humidity, weather, plant height, leaf color, the presence or absence of disease and insects, answers to questions from parents, etc.) online through highly-literate youths to farmers in the area which has particularly low literacy rate in adult generation in Vietnam. Students gather from a local community center once or twice a week and interact with Japanese agricultural specialists through an online

Q&A bulletin board called YMC System using the Language Grid and Agricultural Grid system. In addition, Pangaea produces various analog tools that turn learning into play, such as cards conveying accurate information, and YMC passports serving as message memos, for youths to convey accurate information at home to parents and grandparents who are growing rice plants.

By using the YMC system, Binh Long Province reported that parent-child communication has been greatly improved through the agricultural knowledge, the amount of fertilizer and agriculture overly used has been reduced by 30%, and the yield has increased by approximately 10%.

Pangaea believes that the YMC model is effective not only for rice farming but also for delivering a variety of necessary information to any community. In the future, we will continue to promote YMC in Africa with experts in food safety and public health.

The journal paper "Intercultural Communication Environment to Support Agriculture Mediated by Youths in Developing Countries" got the Best Paper Award from Human Interface Society in 2018. It is an academic field-research on YMC project which was top authored by Toshiyuki Takasaki.



▲ YMC project in a rural area in southern Vietnam



 Family photo of farmers participating in the YMC project



A workshop on how to measure rice height



A workshop on how to take rice plants photos



Youths using the YMC system



Group photo of YMC Project members (Local youths and staffs)



1. Executive Advisers



Toru Ishida

Professor of School of Creative Science and Engineering, Waseda University. Graduated from Kyoto University in 1976. Admitted into Nippon Telegraph and Telephone Corporation in the same year. Experienced professor at Department of Social Informatics, Kvoto University, visiting/invited professor at Technical University, Munich, University of Maryland, Tsinghua University, Pierre-and Marie-Curie University, Shanghai Jiao Tong University, Hong Kong Baptist University, research professor of NTT Communication Science Laboratories, and a member of Science Council of Japan. Fellow of IEEE, IPSJ and IEICE. Specialty fields include artificial intelligence and social informatics. Projects include Digital City Kyoto, Language Grid and Kyoto University Design School.

There are not many people who understand instantly what it means to connect children around the world using IT. However, a few hours of Webcam activities changes the impression of Korean children on Japanese children. The prejudice influenced by adults disappears and turns into a relationship between children. What secrets are there in Pangaea Activities?

When you observe the Activity several times, you come up with various ideas. First, they create a team of children across Japan and Korea, and let them wear bandanas of the same color. It produces ingroup bias for remote teams.

Activities consist of several games against teams. "Matching game" is a game that guesses what other members recall from a specified color. The team that can imagine the culture and thoughts of the opponent becomes the winner. This is a training to build a common ground for mutual understanding.

"Nazoren" is a riddle game with machine translation. The side with the answer will give you a hint and let the answer come on the screen through internet. Since children communicate through machine translation, it is worrisome if children on the other side get the hint correctly. However, it becomes rewarding for children when they get the points overcoming communication difficulties. The game is built even considering the inaccuracy of machine translation.

Pangaea continues to create games like these, that are meant for children to show care for others, and provides a playground where children from all over the world become one. Pangaea is an unparalleled and amazing group.



Hiroyuki Morikawa

Professor at the Graduate School of Engineering (Information Network), the University of Tokyo, since 2006. He earned doctorate degree from Graduate School of Engineering, the University of Tokyo, in 1992. From the same, he experienced working as a visiting professor at the same University. His research is conducted with the aim of giving clear guidelines on the ideal state of an information network society and the vision of ICT to transform the future society.

Predicting the future is extremely difficult, but you can "create" the future. In order to "create" the future, it is necessary to have a strong "dream" or "thought" with a desire, confidence and belief. If there is no "dream" or "thought", you cannot take the first step. If you do not just give a trial in any way, nothing will start.

"Sense" is what develops "dreams" and "thoughts". In order to develop the "sense", you need to observe and feel the various events that are around us with a strong curiosity. There are a lot of interesting things in the world that you haven't noticed even in the field that is said to be "complete". There is always something to look for, and there is always something new that is not on the surface yet. It is important to feel these things and connect them to dreams and thoughts.

"If I had asked people what they wanted, they would have said faster horses" said Henry Ford. Those who have a strong feeling can create the future. The mind of dreams and imaginations of 10, 20, 50, and 100 years from now will trigger the breakthrough of tomorrow.

I have great expectations of Pangaea full of "dreams" and "thoughts"!



Mitchel Resnick

Mitchel Resnick, Professor of Learning Research at the MIT Media Lab, develops new technologies and activities to engage young people in creative learning experiences. His Lifelong Kindergarten research group developed ideas and technologies underlying the LEGO Mindstorms robotics kits and Scratch programming software, used by millions of young people around the world. He also co-founded the Computer Clubhouse project, an international network of 100 after-school learning centers where youth from low-income communities learn to express themselves creatively with new technologies. Resnick earned a BS in physics from Princeton, and an MS and PhD in computer science from MIT. He was awarded the McGraw Prize in Education in

Around the world, there are many efforts to use digital technologies to transform education and learning. Want to learn about a particular math or science concept? You can watch an online video. Want to learn more? Sign up for a MOOC (Massive Open Online Course).

Most of these efforts equate education with instruction. They assume that the best way to improve education is to develop better ways to deliver instruction to people. And, indeed, new technologies are making possible radically new ways to deliver instruction. Pretty soon, anyone anywhere will be able to watch instructional videos from the best lecturers in the world, without ever leaving their own home.

But there is a problem. Education involves much more than instruction. If you want to help people learn, it's not enough to tell them things, or show them things. The most important learning experiences come when people collaborate with one another on meaningful projects. It's not enough to provide people with lectures to watch. We need to provide them with opportunities to work on creative projects – such as building robots, conducting experiments, and designing simulations – and to share their experiences with one another.

That's the goal of my research group at the MIT Media Lab. With our Scratch software, for example, young people can program their own interactive stories, games, and animations – and then share their creations with others around the world. Young people have shared more than 3.5 million projects in the Scratch online community, and roughly a third of the projects are collaborative "remixes" in which one community member has modified or extended the work of another.

I have always felt a strong resonance with the Pangaea project, since its goals and spirit are very similar to those of my own research group. Yumi, Toshi, and others involved in Pangaea understand that instruction is just a small part of learning process. They are constantly developing new ways for young people to design, create, experiment, and explore – and to share and collaborate with other young people around the world. In the process, they are helping young people develop as creative thinkers.

We live in a world that is changing more rapidly than ever before. Today's youth will face a continual stream of new issues and challenges in the future. To thrive, they must learn to design innovative solutions to unexpected problems. Their success will be based on their ability to think and act creatively. Pangaea is helping prepare today's youth for life in tomorrow's society.



Walter Bender

Walter Bender is founder and executive director of Sugar Labs, amember project of the non-profit foundation Software Freedom Conservancy. Sugar Labs develops educational software used by more than three-million children in more than forty countries. In 2006, Bender co-founded the One Laptop per Child, a non-profit association with Nicholas Negroponte and Seymour Papert. As director of the MIT Media Laboratory, Bender led a team of researchers in fields as varied as tangible media to affective computing to lifelong kindergarten. In 1992, Bender founded the MIT News in the Future consortium, which launched the era of digital news.

Bender received his undergraduate degree from Harvard University in 1977 and a masters degree from MIT in 1980, where he founded the Electronic Publishing research group. He was a founding member of the MIT Media Lab, where he was a Senior Scientist and holder of the Alexander W Dreyfoos Chair. Bender has served on numerous boards and committees, including IBM's mobile computing advisory board and the GNOME technical advisory board. He has held visiting faculty

appointments at international universities, including the University of Tampere, and continues to serve on university research advisory boards and on occasion teaches at Hult and MIT Sloan business schools. Bender He has written a book, Leaning to Change the World, on social entrepreneurship.

In the mid 1980s, Dr. John H. Martin, developer of IBM's Writing to Read program, said that the theory behind his program was that "children learn best to read by being taught to write".[1]

Two decades later, we created the Sugar Learning Platform. In our user interface, we used very few words. Our rationale was not based on a thesis that too many words in the interface would make it difficult for young (preliterate) children to use our software. Nor was it based on an assumption that children have a preference for pictures rather than words. Since literacy is one of our goals, we aspire to a user experience where the learner encounters a rich vocabulary. So why did we opt to use few words? One motivation was pragmatic; our project supports internationalization: more words means more work for our translators. But that is work that only happens once per language, so it is a tractable problem. Our primary reason for using few words is that we are not interested in our words; in the spirit of "Writing to Read", we are interested in the words of the learner. So we design for expression, not by the Sugar developers, but by our end users.

An often overlooked attribute of the Writing to Read program was its emphasis on peer learning. Students were encouraged to learn from each other, engaging in peer editing and review. This is another sensibility that we incorporated into Sugar. Collaboration with other learners is not just something that happens when you are connected to "the Cloud"; rather, it is a first-order feature of the Sugar desktop. Learning with Sugar is not a solitary activity: it is characterized by an active, ongoing dialog among its users.

Pangaea has also espoused these lessons: central to the Pangaea experience is learners being expressive with language in a collaborative setting. There is an intrinsic motivation to learn in a setting where you engage your peers in a discussion about the things you are passionate about. Building on top of these principles is an explicit effort to bring together learners from different cultures. Pangaea users don't just learn "reading" through "writing", but also that all of us share a common set of core attributes: the need to be expressive, to be social, and to be both a learner and a teacher. Powerful stuff. Congratulations on your accomplishments over the past ten years. In the years to come, I hope that more children have the opportunity experience Pangaea.

[1] Gail Parshall, IBM's Writing to Read Program: One Teacher's Experience, Language Arts Journal of Michigan, Volume 3, Issue 2 (1987).



Yoko Nishida

Representative Director, Institute of Next Generation Social System

She participated in launching a non-profit policy think tank from 1997-2013. She was a director of steering committee and publicity, and a managing Director of "Japan Family Life Research Association". She set the trend in Japan of "Life-Work balance" and "Men's Child Rearing", and the word trend of "Ikumen" which means men who help their wives with child-rearing and other domestic duties in Japanese.

I would like to spread "Pangaea" to children around the world.

Although children have different experiences and environments, such as countries, regions, cultures, languages, and economies, by participating in "Pangaea" in each country, they can build friendships and enhance the five senses through many experiences. Children learn about each other, communicate and work together on projects using full imaginations. Children begin to act having thoughts, such as "I want to be able to speak foreign languages" and "I want to know more about my friend's country". The experience of having enjoyed a different culture in childhood will be their treasure. That would help them to respect and accept the differences in others without prejudging or discriminating. Being able to recognize and appreciate the uniqueness and originality on people from other cultures is an important factor for a problem solving process. Pangaean children can be expected to play an active role like "Ryozanpaku team" by utilizing different personalities and accepting differences in cultures and backgrounds. It is expected in research and initiatives to address the challenges of modern society, such as worsening global destruction, the limits of economic growth, financial risk, scientific and technological risks, poverty, inequality, terrorism and con-

Pangaea's project of developing children with no prejudice and no discrimination would be essential for the world peace in 20, 50, 100 years.

2. Pangaeans



Kimberly Rose

From 2001 to 2018 Kimberly Rose was Executive Director of Viewpoints Research Institute in Los Angeles, California, a NPO that she co-founded with Dr. Alan Kay to undertake research and development in education, new media, and technology. Kim is now semi-retired and happily living in Kyoto where she consults on English language issues for individuals and international business development, relations, and marketing for local companies. She has taken an active interest in Pangaea's activities and development since its inception, and has supported Pangaea as a volunteer in various capacities.

Pangaea is an impressive, barrier-breaking organization that continues to develop exciting activities for young people around the globe. One of the most impressive of Pangaea's programs is "KISSY", the Kyoto Intercultural Summer School for Youths, a week-long intensive program designed and developed by Pangaea. Currently KISSY brings together youths from several countries including Japan, South Korea, Cambodia, Georgia, and Kenya. KISSY encourages these children to connect deeply as they spend a week living together and engaging in collaborative projects. These projects are specially designed to help the students develop planning, communication, and social skills. Breaking barriers of language and culture, KISSY enables the youths to learn together and individually on many levels, and to begin to understand their differences and similarities. At the end of their week together each participant's life has been changed profoundly by this unique and memorable experience. The experience is not only enriching for the children who participate, but also for the older youth who serve as "team leaders" for the week.

We must continue to support the organization not only to allow the KISSY program to grow but also to enable Pangaea Kyoto to train staff to open more Pangaea centers around the world — to bring these life-changing experiences to thousands more children around the globe, ultimately making our planet a better and safer place.



Keiko Okamura

She lives in Tsu, Mie. Her two children had participated Pangaea Activity at Mie University, and have been participating at Kyoto University.

There is only one rule in Pangea, which is "Do not do what others would not like". However, this rule of "Do not do what others would not like" seems simple, yet very difficult. There are all kinds of people in the world, and each have different "likes" and "dislikes". When I asked my child how he builds a relationship with a new person he meets in school, he said that he would try to know what kind of person he/she is, and figure out what would this person "like" and "dislike". After having this talk, I had realized that this way of thinking has been developed through Pangaea activities. Pangaean children develop the skills to empathize with others and connect, instead of forcing their opinions on others. I hope that Pangea, which continues such activities and around the world, will spread around the world not only the ancient supercontinent Pangaea but also as Pangaea activities.



Teoh Ming Kwang

Teoh Ming Kwang is a Singaporean who is working at Enterprise Singapore, an economic government agency championing enterprise development. Ming Kwang works with key stakeholders, such as MNCs, SMEs, startups, multilateral organisations, government agencies, foundations, venture capitalists and research institutions to drive open innovation activities. He is particularly interested in developing sustainable business models and localised technologies and solutions to address global issues, especially in developing countries. In his free time, he is a Pangae advocating global citizenship values. He has been a Pangaean volunteer since 2016 when he was a undergraduate majored in Global Studies at the National University of Singapore.

What is Pangaea? Many of my friends often asked. Factually, Pangaea is a Japanese non-profit organization, which capitalizes youth-mediated communication tools to advocate global citizenship values, founded by Yumiko Mori in 2001. However, the facts are not the complete story of what Pangaea really is. Pangaea is an aspiration that our children from different parts of the world are inculcated with similar dreams and worldviews of building bridges, not walls in our globally connected world. Pangaea is a living proof that diversity is a strength. I have seen amazing collaborations between children from Kenya, Cambodia, Austria, Japan, and South Korea in Pangaea through the innovative use of ICT. However, ICT is merely a hardware that enables global communication between cultures. More importantly, Pangaea develops children's software, that is their empathetic intelligence and cultural sensitivity in living as one. While these children may have different mother tongues, a smile speaks them all. In Pangaea, there are no language barriers to empathy and global peace values. While adults are increasingly divided along political, socio-economic, and ideological cleavages on the global arena, children are playing together despite their skin colour and language barriers in the Pangaea community. I often say that sometimes children, ironically, are the best teachers for adults. In today's world, we as adults should join Pangaea's community and learn from the children. The world needs peace, not hostility. I urge more international communities and organisations to join Pangaea in our aspiration to build a better world for our children. Pangaea is a global investment in the future of our collective peace and prosperity. Pangaea is peace.



Kenji Takase

He is a guitarist. He works as a system engineer for a medical translation company after working for a bowling alley. He was impressed with Pangaea's activities when he was seeking a technology to create peace, and participated as a technology development volunteer.

The 5W1H the world needs most now

Technology continues to advance, but the war does not end. I am sure that everyone knows that we need to have a tool called "communication" instead of "weapon" and find ways to accept diversity and coexist.

What do we need to do? Pangaea Activity is one of the answers. Make friends all over the world using the forefront technology that takes out barriers of differences in language, race, religion, age, etc. It's a place where you can learn how to respect each other under just one rule, "Do not do what others do not like".

To friends all over the world who wish for world peace. Let's think together the 5W1H that is most needed in the world.

When? - Now

Where? – Anywhere in the world

Who? – Anybody that wishes for world peace

What? - Start concrete actions

Why? – To make changes in the world

How? – Come to Pangaea

Let's plant the seeds of peace with the children for the future!

3. Board Members



Seishi Ninomiya

Pangaea Board Member
Professor at the University of Tokyo Graduate
School of Agricultural and Life Sciences.
Emeritus professor at the University of Tokyo. Born
in Tokyo, he researches in the area between
agronomics and computer science. He is involved in
YMC project, and is seriously concerned about the
future of food for human.

"Children are amazing!"

People playing key roles of the country lie and cheat. They try to destroy evidence to go along with lies. Moreover, these types of people are trying to build "new morals". These are situations that I do not want to face to anymore. Guns are used everywhere today. It is concerning how children are feeling about these adults. I do not want children to think "It is just how the world is". However, when I interact with children at Pangaea Activity, I get hope. I just love to see bright children with great imagination. They are our hope and treasure. Pangaea is amazing for supporting children with great hopes. I hope that Pangaea continues to help children to keep hopes for adults under a definite rule, "Do not do what others would not like."



Yukimitsu Sanada

Pangaea Board Member Professor of Business Research, Business department, Aichi-Shukutoku University. Asian Financial Specialist. He has a great career in the field of international finance, such as Bank of Tokyo Ltd, Bank of Tokyo-Mistubishi Ltd, and Dresdner Bank AG. Pangaea is a great "Communication Tool for Global Citizens" founded by Chairman Mori and Vice Chairman Takasaki. We human beings cannot live alone, and are the kinds with collective behaviors. Needless to say, languages play a major role as a communication tool in the group.

However, there are many different languages existing in the world, and the language barrier thus exists. Therefore, it is not possible to communicate with everybody in the world as a whole.

Since English is a common language, there are advantages and disadvantages between those who are native speakers of English and those who are not.

Nowadays, I commonly hear parents say "You should learn more English which is a common language."

Although some say things like "There won't be language barriers anymore as the automatic translation technology advances", but how precise is the automatic translation? There would still be some concerns and questions for precision such as "How much subtle expression can it translate?"

Pangaea created a tool, "communication tool for global citizens", which has been valued with expectations, especially for the world under such a circumstance within where "the logics of man with a power are given priority." I hope that Pangaea's communication tools, which are useful for global citizens, will be spread everywhere under a solid organizational management.



Naoko Hattori

Pangaea Board Member
Vice president of Socio Engine Associates CO., Ltd.
Before that, at an ad agency and a relevant think
tank, she was in charge of social communication in
the field of global communication, environment,
energy, urban problem. Currently, she is working on
research and producing social business enterprise
for citizens, universities, companies and the
government. She has achievements in the fields of
learning environment / education, scientific literacy,
risk communication, etc., and there are progress
projects.

In the 21st century, conflicts are continuously occurring all over the world. The Pangaea activity began in hopes that conflicts would disappear. How long does it take for humans to accept others with differences and coexist?

Pangaeans connect beyond race, gender and age, with the basic idea of "Everyone can be different and appreciate the differences." If you can bond with trust, you should nurture it.

Of course, there are times when you cannot overcome the boundaries, but don't grieve or regret, just let it be with patience. If you stay patient, you will get a better idea of how to act next. The path of "Pangaea" is not easy, but I hope it will bring hope for the future.



Ayako Edahiro

Pangaea Board Member She is a Pangaea board member since 2013. She is interested in Human Resources at international companies and creating environment where people can maximize their potentials. She is a teacher at Omote Senke (School of Tea Ceremony). I am Ayako Edahiro, a Pangaea board member. I look forward to spending a few days in Kyoto every summer as a helper of Pangaea's summer school KISSY. The reason I want to participate KISSY every summer, even giving up my holidays, is because the children are very inspirational.

Children team up across nations and work for a creative activity. There is no child who has a doubt or a negative attitude towards completing this project. Making the work does not mean it is an easy job. It is the content that children design, having multiple tasks that are complex, but gets put all together in the end. I get worried by such a complicated process as I work as an interpreter. However, children still look forward to be working on the project and participate.

Moreover, in the discussion, I am amazed because there are serious opinions expressed through translation tools, such as "I think that racism is not allowed." I believe that if adults can discuss about social issues as they face them, and challenge such unknown things positively, the society will change greatly. Let's keep going and spread across the world!

