Digital Citizenship Initiative For Inclusive, Equitable, Quality ICT education

Laureates‘ Seminar of UNESCO King Hamad Bin Isa Al-Khalifa Prize for the Use of ICTs in Education
13 January 2016, UNESCO HQ, Paris
Proposal on cooperation with UNESCO – Qingdao Declaration:
Digital Citizenship Initiative For Inclusive, Equitable, Quality ICT education

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Founder, iZ HERO Lab, Singapore
Nanyang Technological University
What Is The Most Needed Education For Children in The Digital Age?
Tipping points expected to occur by 2025

• 1 trillion sensors connected to the Internet
• 80% of people with a digital presence on the internet
• 90% of population using smartphones
• 90% of population with regular access to the internet

Infollution = information + pollution

Cyber-Bullying  Violent Video Game  Obscene Content  Viral Rumors  Technology Addiction  Privacy Invasion
“The Fourth Industrial (and digital) revolution will transform everything we are used to, and create a completely new context for our lives...

When everything changes, we stick to what will not be changed, what will be constant... that are our VALUES and IDENTITY”

Professor Klaus Schwab, Founder & Executive Chairman of the World Economic Forum
Maximize the Potentials & Minimize the Risks
for every digital native child in the digital era
Value-based Digital Citizenship

**CYBER-WELLNESS:**
Use digital media safely and responsibly

**DIGITAL THINKING:**
Think critically and make creatively online

**INNOVATOR DNA:**
Develop on/offline identity with integrity

**SELF-MANAGEMENT:**
Balance online and offline realities

**CHANGE-MAKER CULTURE:**
Stand up for self and others

**COMMUNICATION & COLLABORATION:**
Connect with empathy and collaborate openly

**SECURITY RESILIENCE:**
Defend digital privacy and security
Not-for-profit foundation, Korea

- Raise public awareness of digital citizenship
- Monitor infollution in society
- Suggest related public policies

**PROTECT**
from cyber dangers

infollutionZERO

**EDUCATE**
through online platform

iZ HERO Lab

**RESEARCH**
on children’s behaviors online

Nanyang Technological University

Social Enterprise for Digital Citizenship Education, Singapore

- Develop online platform and contents and offline school programs

University partner for research, Singapore

- Research to test the efficacy of iZ HERO program and to understand children’s online behaviors
Critical Issue to Achieve Inclusive, Equitable, Quality ICT education

Generational ICT knowledge gap increasing the exposure of digital risks of children

→ Even more pronounced in poorer and rural areas - The 2/3 of the world’s almost 3-billion Internet users are from the developing world, the numbers are growing rapidly, and many users are young (ITU, 2014)

Lack of empowering digital citizenship and quality education resource for social-economically disadvantaged community.
Transformative Digital Citizenship Initiative for Children 6-12 Years of Old

• Target audiences: Children, Parents, Teachers
• Target region: Asia Pacific Countries
Mission

To empower kids with core values and essential skills to become digital citizens in the digital era.
The iZ HERO Has a World-Class Proven Full Suite of Products & Services

Online and offline holistic programmes

- Won awards from UNESCO twice!
- Backed by high-level academic research.
- Proved that the iZ HERO education programme is scientifically effective in positively changing children’s attitudes toward cyber risks.
- Developed the world’s first digital citizenship exhibition.
iZ HERO work together with all stakeholders for YOUR CHILDREN
Online Tool

iZHERO.net (Web-game)

What is iZHERO.net?
https://www.youtube.com/watch?v=PrZL6_GZ11M

Nation-wide Initiative

Nation-wide Cyber Wellness Challenge

2015 Safer Internet Day – The Inaugural iZ HERO Challenge Grand Finale
https://www.youtube.com/watch?v=VFpsRMU5qs8

Offline Tool

Assembly Talk & School Roadshow

Assembly Talks and Roadshows
https://www.youtube.com/watch?v=AAh5U1XilZs

Exhibition

Singapore Science Centre

Teachers’ Workshop
https://youtu.be/xZhNi3MtuCM
**Student Activities**

**Student Ambassadors**

*Student ambassadors at Rivervale Primary*
https://youtu.be/Xuvqbn2SWqc

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**Teachers Activities**

**Teachers’ Workshop**

*Teachers’ Workshop*
https://youtu.be/xzhNl3MtUCM

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**Family-School Activities**

**Parents’ Workshop**

*Parental workshop at ACS Primary School*
https://www.youtube.com/watch?v=0-blAs275eA

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**Public Campaigns**

**Public Events**
2011 iZ HERO 1
Digital Citizenship Interactive Exhibition in S. Korea
2013 iZ HERO 2
Multimedia Learning Experience / Research in Singapore
Fostering Digital Citizenship through Safe and Responsible Use of ICT (March 2014)

UNESCO Experts’ Meeting Organized by UNESCO, infollutionZERO, NTU, Intel (March 2014)
- Drafting UNESCO policy guidelines
- Launching iZ HERO Alliance
2014, iZ HERO Challenge
Nation-Wide Cyber Wellness Initiative in Singapore
2015, iZ HERO

International Digital Citizenship Initiative
Singapore, Korea, and other Asia Pacific countries
International recognition by global and national key opinion leaders

iZ HERO does OUTSTANDING work in promotion digital citizenship for children and parents!

Ms Irina Bokova, UNESCO Director-General

Within the iZ HERO exhibition, educational information on cyber wellness for parents is available and provides opportunities for parents to learn alongside their children.

Ms sim Ann, Senior Parliamentary secretary for Education and communications and Information, Singapore

“While traditional approaches to digital risk education focus on instructive methods of adolescents, iZ HERO prioritizes prevention, rather than intervention within the 6-13 year old age group. The programme provides an integrated multimedia play & learn experience. It aims to provide an engaging, safe and fun environment for children and their families. In so doing, the goal is to empower young children with responsible digital citizenship and character development through participate in a wide range of online and offline activities.”

– The LEGO Foundation
Recognition by teachers and educators

“The 2014 iZ HERO Challenge was a very novel idea. It was very relevant and informative, and we can get to impart values too.“

Mr Loy Kah Tai
Rivervale Primary School

“Our pupils really enjoyed the activities. I’m really looking forward to more participation and more involvement.“

Mdm Nur Hafizaa Halim Sah
Greendale Primary School

“It’s been a wonderful platform to engage people and I believe this is a good way to interest students in learning about cyber wellness. I think it’s a very novel way to share cyber wellness values with the children.“

Mr Tan Boon Leng
Catholic High School (Primary)

“The 2014 iZ HERO Challenge was something that the children have never encountered before. I’m very impressed and amazed by the students’ participation.“

Mdm Mazlenny Mosran
Naval Base Primary School
Proposal on cooperation with UNESCO under the framework of Qingdao Declaration

* Unleash the full potential of ICT for education and for achieving the Sustainable Development Goals (SGDs)

* Reaffirm the new vision of Education 2030 declared in Incheon, Republic of Korea
Open educational resources and open solutions

http://Izhero.net, Mobile App

2015iZHEROAdV5.mov
Quality learning

*iZ HERO is built by experts*

- Developed by academic partners from the Nanyang Technological University as well as the National Institute of Education in Singapore.


- Renowned educational partners such as Dr. Angeline Khoo and Dr. Douglas Gentile (Iowa State University) are involved in the 2016 program development to extend iZ HERO research capabilities.
In comparison to the control group, after the intervention, the experimental group had:

- safer attitudes towards offline meetings
- safer attitudes towards playing games instead of doing homework
- safer attitudes towards cyberbullying and offline meetings

The finding of improvement in attitudes is significant given the lack of studies supporting changes in attitudes.
Online learning innovations:
Understanding online student’s behavior and learning through big-data

Our Unique Research-Based Learning Process

Play & Learn
Personalized learning of seven dimensions of digital citizenship in a fun way.

Evaluate Through Big-Data Analytics
Evaluate children’s online knowledge, attitudes and behaviors through research.
Quality assurance and recognition of online learning & Monitoring and evaluation

Offline

School assembly & programme

For teachers
For parents
For kids

Online

Online Web & mobile platform “iZ HERO”

Homework worksheets
Parental guide
Activity book

Certificate and Evaluation Report for individual digital citizenship level
Accountability and partnership

**iZ HERO – Multi-Stakeholder Collaboration**

90% of Singaporean primary schools
Easy to plug & play in other countries

**Example: Korea**

1. **iZ HERO Challenge & School Programmes**
   - **Singapore:** Singtel, TOUCH Cyber Wellness
   - **Korea:** daumkakao, Blue Tree Chungyedan

2. **Korean version iZHERO.net**

3. **iZ HERO Efficacy Research**
   - Pre-to-post surveys of all students who participated in iZ HERO Digital Leadership School programmes to evaluate the effectiveness of the programme

**iZ HERO Challenge**
An international award winning cyberwellness programme to encourage children to master respect and empathy online.

**iZHERO.NET**
A Play-and-Learn Virtual World
Control Place for Learning

**School Programmes**
Raise Awareness of Digital Leadership

**E-Counselling**
To test the Efficacy of the Programmes in Changing Children’s Online Perceptions and Attitudes

**Exhibition**
More Fun and in-Depth Learning for Children
UNESCO Global Digital Citizenship Initiative for achieving SGD

We can start from TODAY
UNESCO Global Digital Citizenship Initiative
For Young Children (Primary School Students)

**iZ HERO**
Providing open source online platform, resources, and teachers’ training
Utilizing in UNESCO
Teachers’ training and outreach resources
Research collaboration with UNESCO

**Singtel, LG Group**
Providing funding and strategic partnership
Global initiative with ICT companies
Including in the agenda of UNESCO International Meetings

**NTU, NIE, Korea University, Stanford Univ, etc**
Big-data research on monitoring and evaluating children’s behaviors

**Korean and Singapore Governments and Schools**
Providing school networks, policies and related resources
Being aware of cyber-bullying
Having respect for self and others online
Having courage to stand up for others online
Being savvy enough to protect their own privacy
Having empathy and critical thinking in online communication
Being able to exercise self-control in using digital devices
Having healthy online relationship with parents and teachers
Fun and intuitive learning for young children before they actively engage in the digital world

# Cyber bullying
# Online identity
# Up-stander
# Privacy, #Cyber-security
# Empathy, #Online communication
# Online grooming
# Family media use
# Screen time
# Game addiction