



# **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  
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Proposal on cooperation with UNESCO – Qingdao Declaration:

# **Digital Citizenship Initiative For Inclusive, Equitable, Quality ICT education**

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***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

Source: Deep Shift – Technology Tipping Points and Societal Impact, Global Agenda Council on the Future of Software and Society, World Economic Forum, September 2015

# *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*

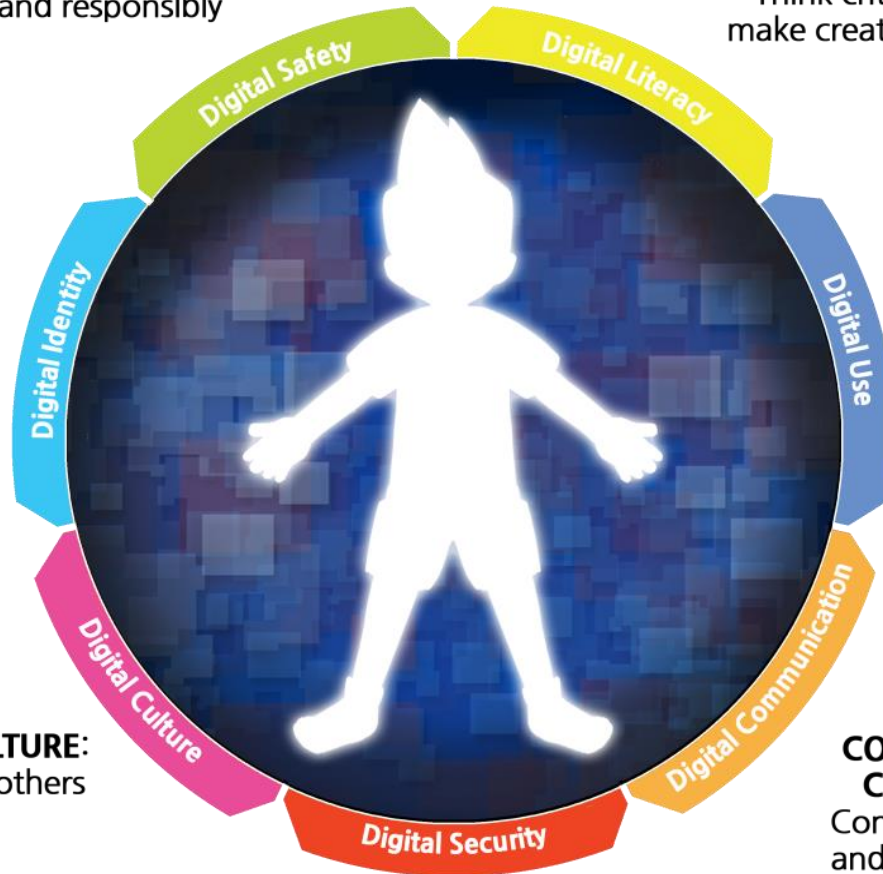
# Value-based Digital Citizenship

**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*

infollutinZERO

**EDUCATE**

*through online platform*

iZ HERO Lab

**Social Enterprise for Digital  
Citizenship Education, Singapore**

- Develop online platform and contents and offline school programs

**RESEARCH**

*on children's behaviors online*

Nanyang  
Technological  
University

**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



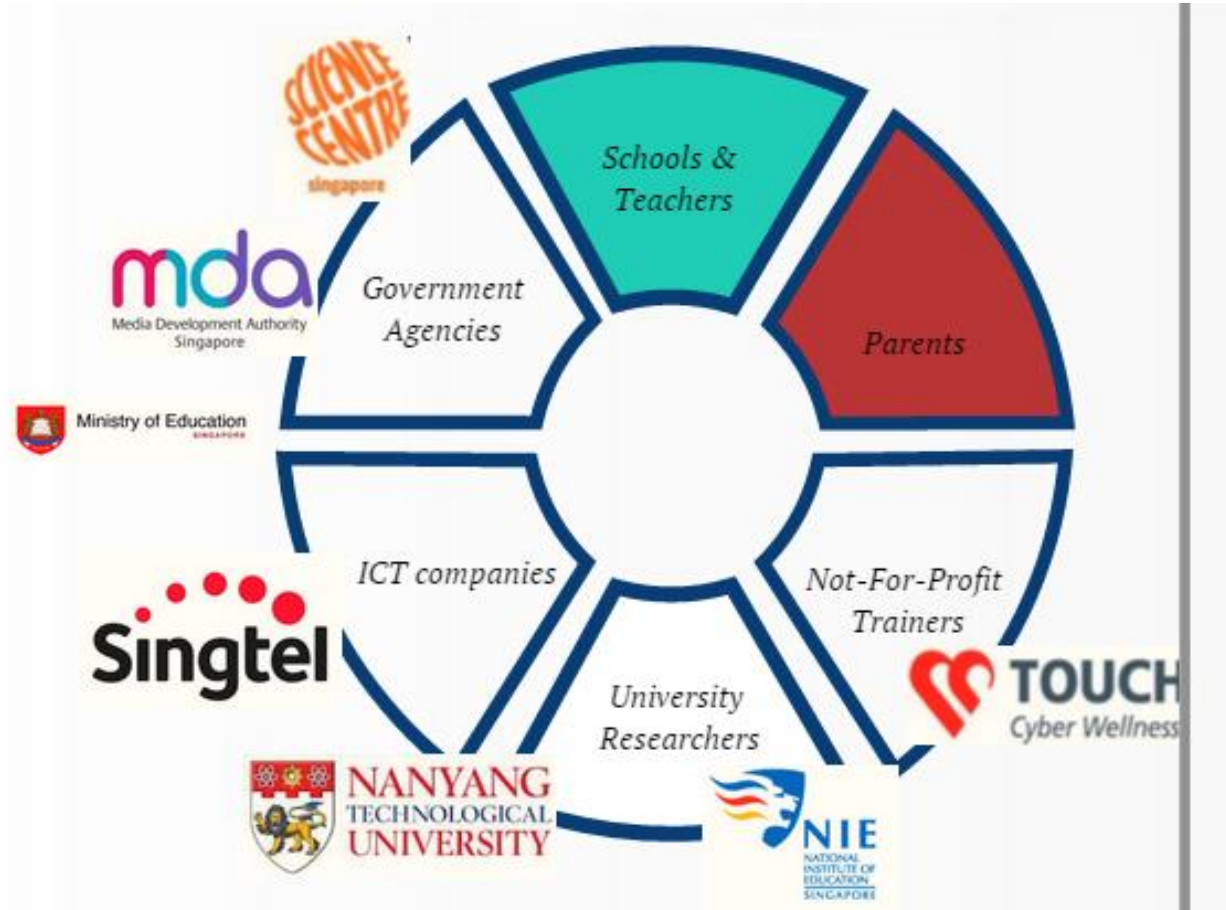
# The iZ HERO Has a World-Class Proven Full Suite of Products & Services

## *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](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/XuvqbnZSWq>

## Teachers Activities

### Teachers' Workshop



Teachers' Workshop  
<https://youtu.be/xZhNI3MtuCM>

## Family-School Activities

### Parents' Workshop



Parental workshop at ACS Primary School  
<https://www.youtube.com/watch?v=0-blAz75eA>

## Public Campaigns

### Public Events

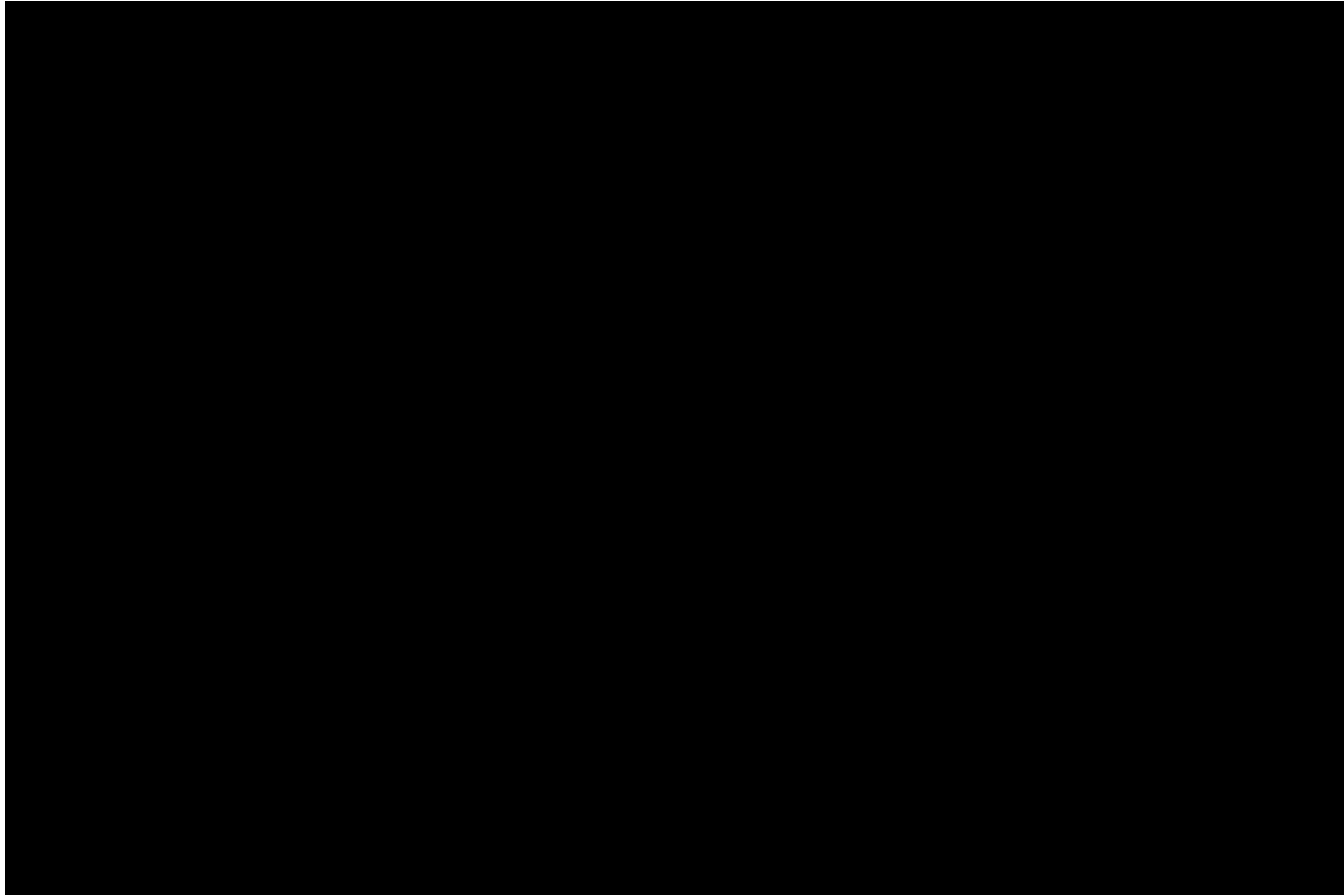




# 2011 iZ HERO 1

Digital Citizenship Interactive Exhibition in S. Korea





# 2013 iZ HERO 2

Multimedia Learning Experience / Research in Singapore



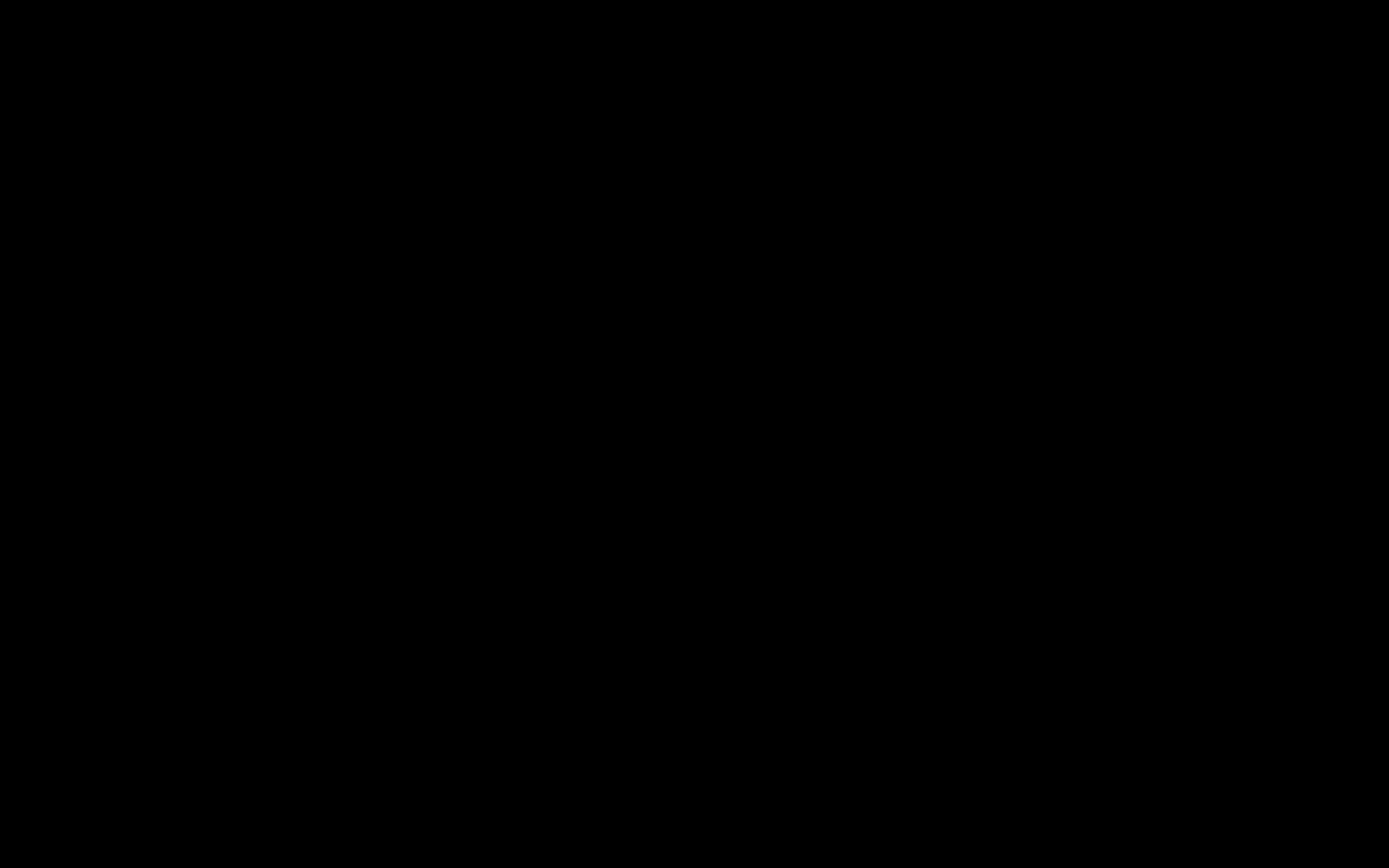
## Fostering Digital Citizenship through Safe and Responsible Use of ICT (March 2014)



## 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**

**SOCIAL INNOVATION MAPPING**  
ENTREPRENEURIAL PATTERNS FOR THE FUTURE OF LEARNING

**RE-IMAGINE LEARNING CHALLENGE**

**BARRIER 4**  
"Whole-child" development is under-represented in current digital development and learning solutions. As a result, digital tools can be overly focused on cognitive, technical, and social and emotional learning.

**SOLUTION EXAMPLE:**  
As a result of this, iZ HERO has been created. It is a fun, interactive, and engaging digital tool that is designed to be used by children aged 6-13 years old. It is designed to be used by children aged 6-13 years old. It is designed to be used by children aged 6-13 years old.

**IMPACT:**  
iZ HERO is a digital tool that is designed to be used by children aged 6-13 years old. It is designed to be used by children aged 6-13 years old. It is designed to be used by children aged 6-13 years old.

# 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 (SDGs)*
- \* *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



Singtel



LG U+

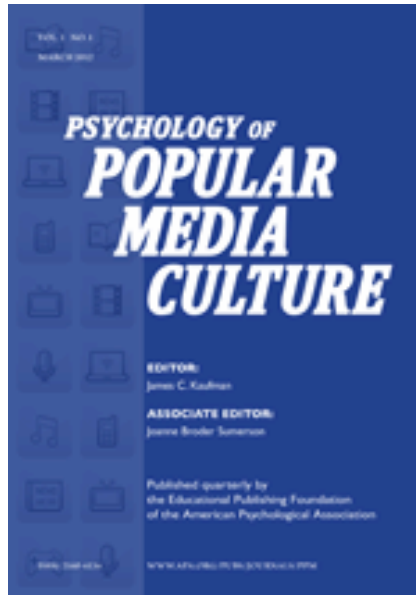
# Quality learning

## *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.
- Awarded the 2012 UNESCO Prize for use of ICT in Education, and the 2013 UNESCO Award for Educational Innovation.
- 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.

# Proven Scientific Efficacy Of Our Approach



*Published on **Psychology of Popular Media Culture, 2015**  
“iZ HERO Adventure: Evaluating the Effectiveness of a  
Peer-Mentoring and Transmedia Cyberwellness Program for  
Children”*

*- By Albert Kienfje Liau, Yuhyun Park, Douglas A. Gentile,  
Dashalini P. Katna, Celestine Hana A. Tan, and Angeline  
Khoo*

- 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

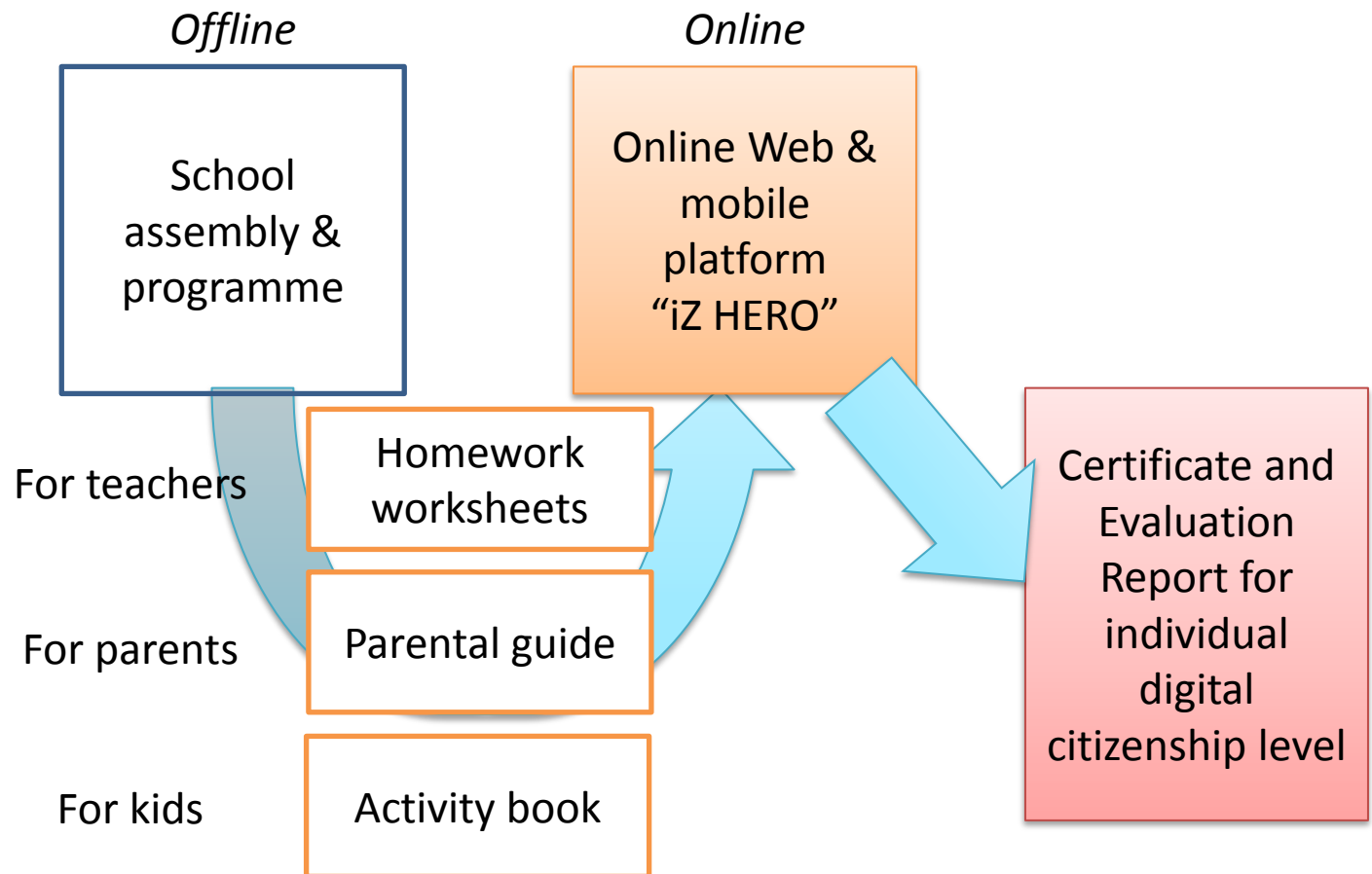
Personalized learning of seven dimensions of digital citizenship in a fun way.

***Play & Learn***

***Evaluate Through Big-Data Analytics***

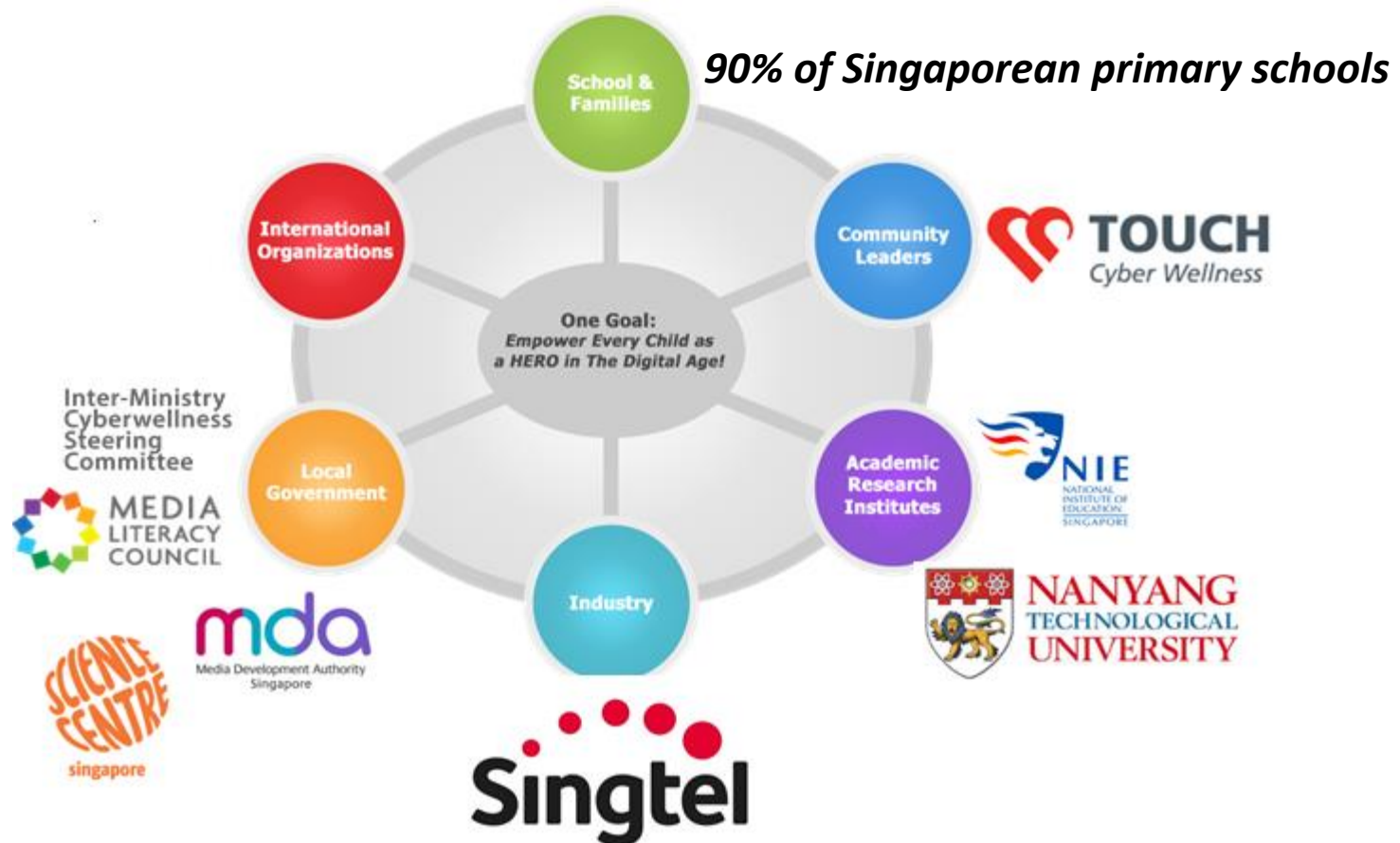
Evaluate children's online knowledge, attitudes and behaviors through research

# Quality assurance and recognition of online learning & Monitoring and evaluation



# Accountability and partnership

## *iz HERO – Multi-Stakeholder Collaboration*



# Easy to plug & play in other countries

## Example: Korea

### IZ HERO Challenge & School Programmes

1

Singapore:		
Korea:		
	Sponsors	Partners

### Korean version iZHERO.net

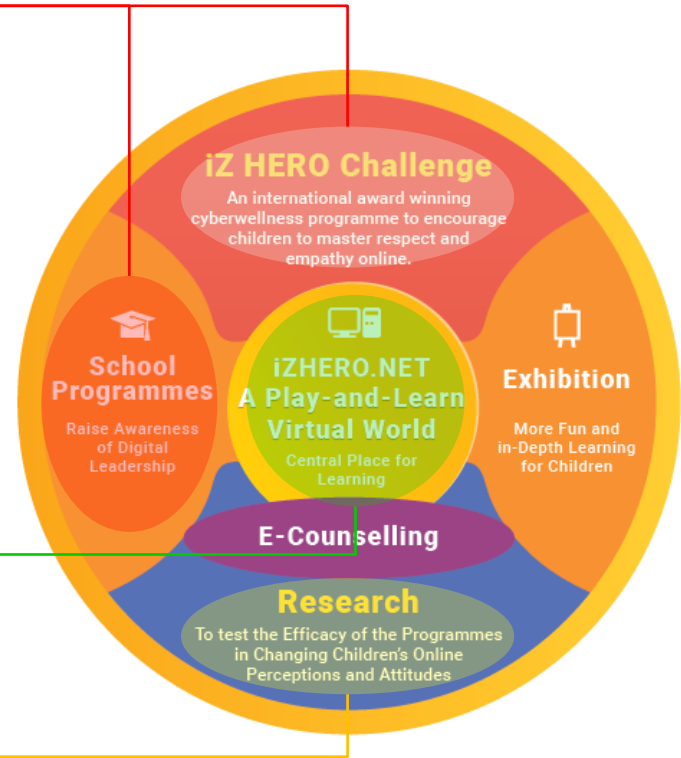
2



### IZ HERO Efficacy Research

3

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

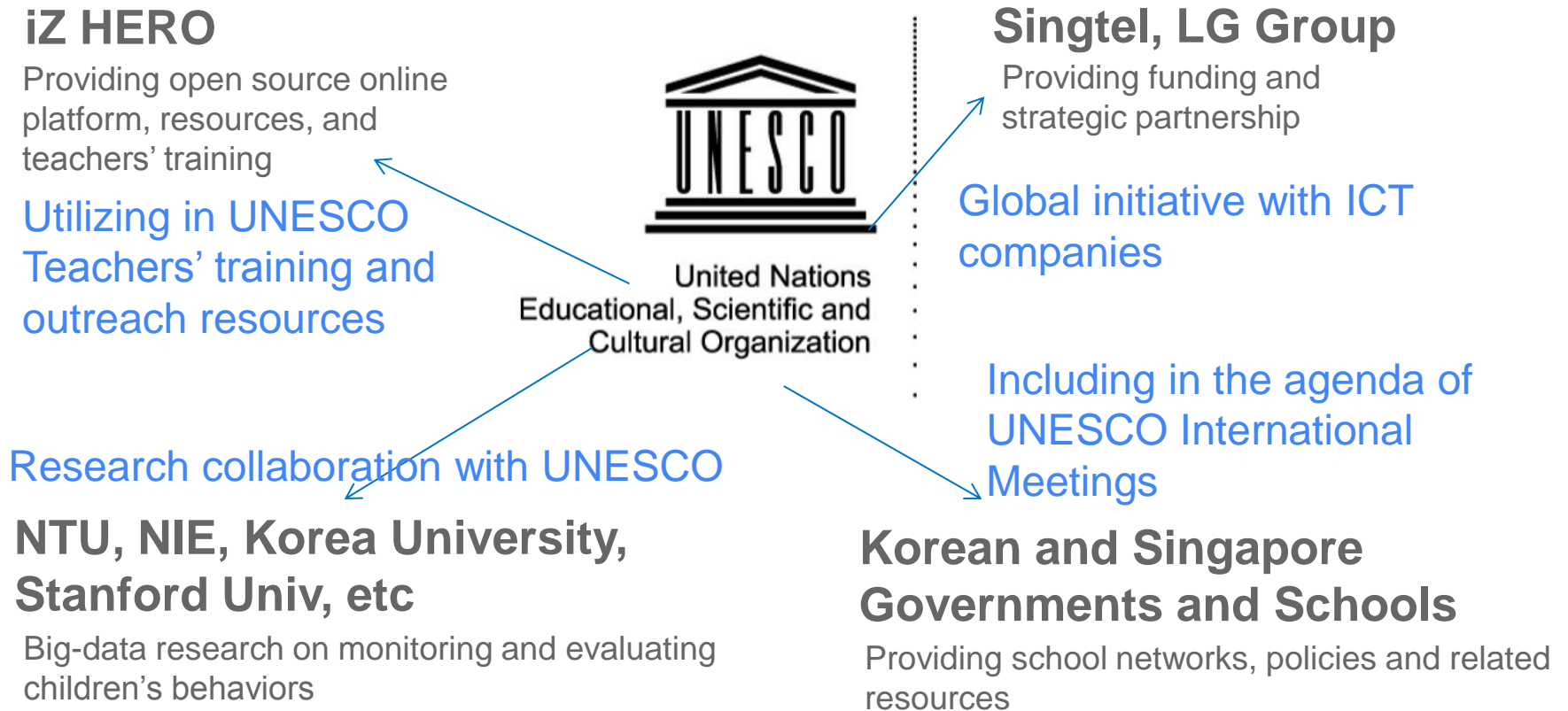




# **UNESCO Global Digital Citizenship Initiative for achieving SGDs**

## **We can start from TODAY**

# UNESCO Global Digital Citizenship Initiative For Young Children (Primary School Students)





R.E.S.P.E.C.T.

iZHERO.NET

# 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

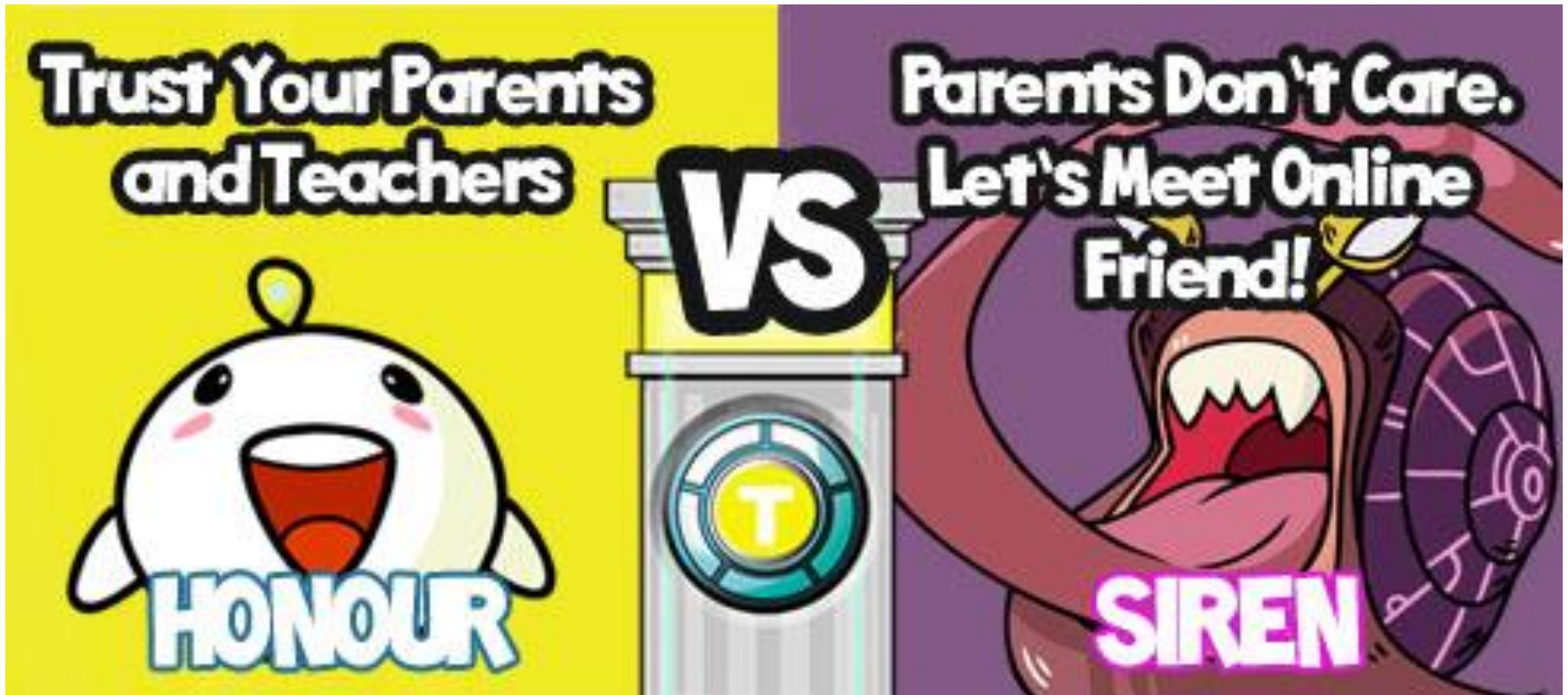




# Being able to exercise self-control in using digital devices



Having healthy online relationship with  
parents and teachers



# ***Fun and intuitive*** learning for young children before they actively engage in the digital world

