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# infollutionZERO: Shaping Policy towards a Green Digital World

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The  of Education  
*Learning to Live Together*

**16<sup>th</sup> UNESCO-APEID INTERNATIONAL CONFERENCE**  
**21-23 November 2012, Bangkok, Thailand**

# The Power of ICT Education Policies

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*“The role of ICT in education is to support teaching and learning practices, enhancing the ways through which educators can nurture human potentials”*

- Provide a platform for sharing policy, experiences, good practices, and lessons;*
- Strengthen the network of ICT in Education stakeholders and policy makers in member states;*
- Raise awareness of some of the useful tools through participatory workshop sessions to help Member states build capacity in developing robust ICT policies;*
- Initiate focused reflection on key issues and concerns on ICT for education as well as future activities on the application of ICT to achieve education for all.*

infollution = information + pollution

## THE NEXT-GENERATION OF POLLUTION

Violent  
Video Game



Cyber-  
Bullying



Obscene  
Content



Viral  
Rumors



Technology  
Addiction



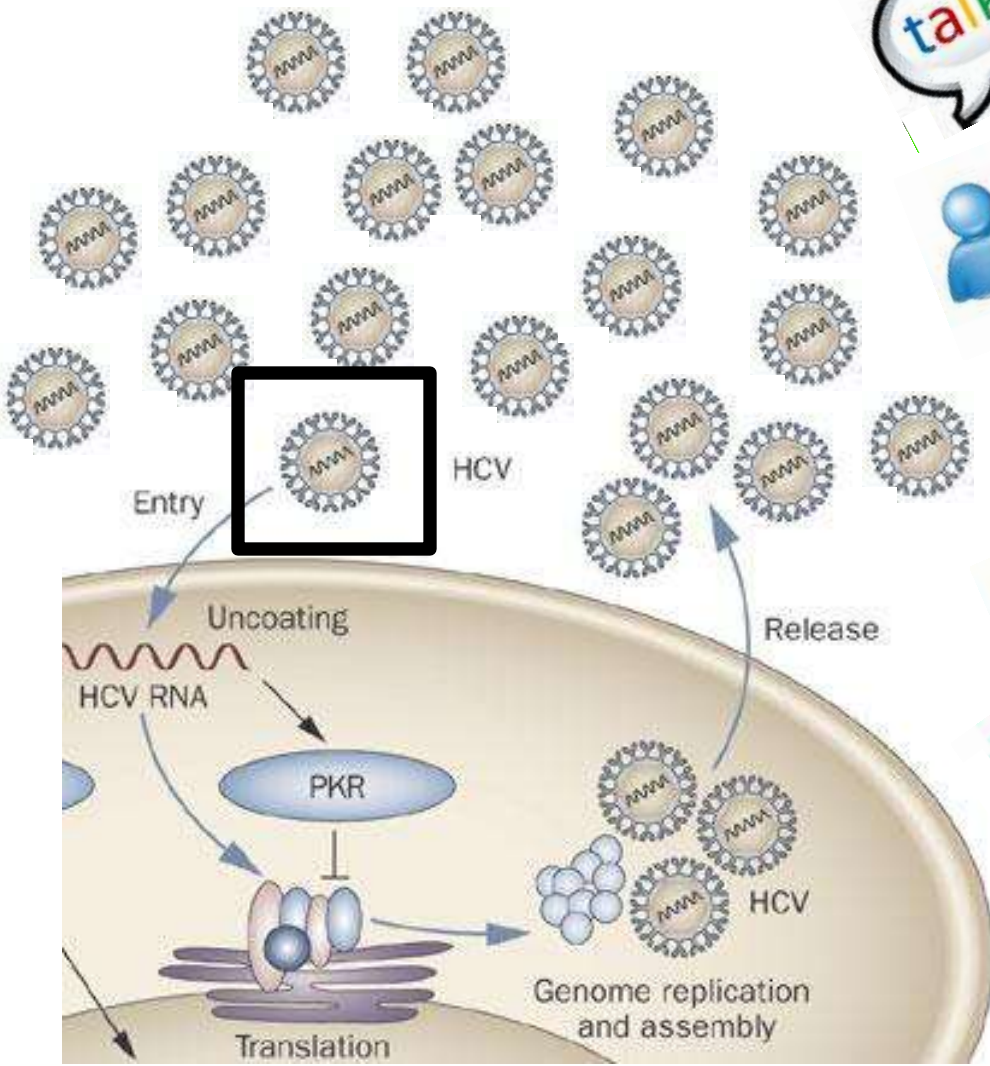
Privacy  
Invasion



# Example : Violent Video Game



# Proliferation of Harmful Things



Virus in the Body



Infollution



# Our infolluted digital world

**The New York Times** Published: September 29, 2010  
**Private Moment Made Public, Then a Fatal Jump**

**The Telegraph** 10:36AM BST 19 Jul 2012

Taiwan teenager died after playing computer game non-stop for 40 hours

 **The Korea Herald** 2012-09-03 19:49

**Online pedophile communities operate unchecked**

The recent kidnapping and rape of a 7-year-old girl has highlighted the danger of online communities of possible pedophiles running unchecked on the Internet.

 **GOOD MORNING AMERICA**

Nov. 19, 2007

**Parents: Cyber Bullying Led to Teen's Suicide**

# We urgently need solutions

Children start using the internet and video games from  
3 years old



# 100%

Use Swear words in their  
everyday language



# 90%

First exposed to obscene materials before the age of 12

# 60%

Cyber-bullied others on the  
internet

# 50%

Have played violent  
online games rated R

# 40%

Habitually post malicious  
comments

# 30%

Sexual crime offenders under 19

# 25%

Juvenile sexual crime offenders  
who imitated online porn

# 20%

Have spread false information or  
obscene material

# 15%

Addicted to the internet or  
online games



# Precious lives are lost every day



# Digital world is our world



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# Internet Regulatory Framework

# Importance of digital citizenship education

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*“The focus should be to work within teenagers’ cultural frame, encourage empathy and help young people understand when and where drama has serious consequences.*

*Interventions must focus on positive concepts like healthy relationships and digital citizenship rather than starting with the negative framing of bullying. The key is to help young people feel independently strong, confident and capable without first requiring them to see themselves as either an oppressed person or an oppressor.”*

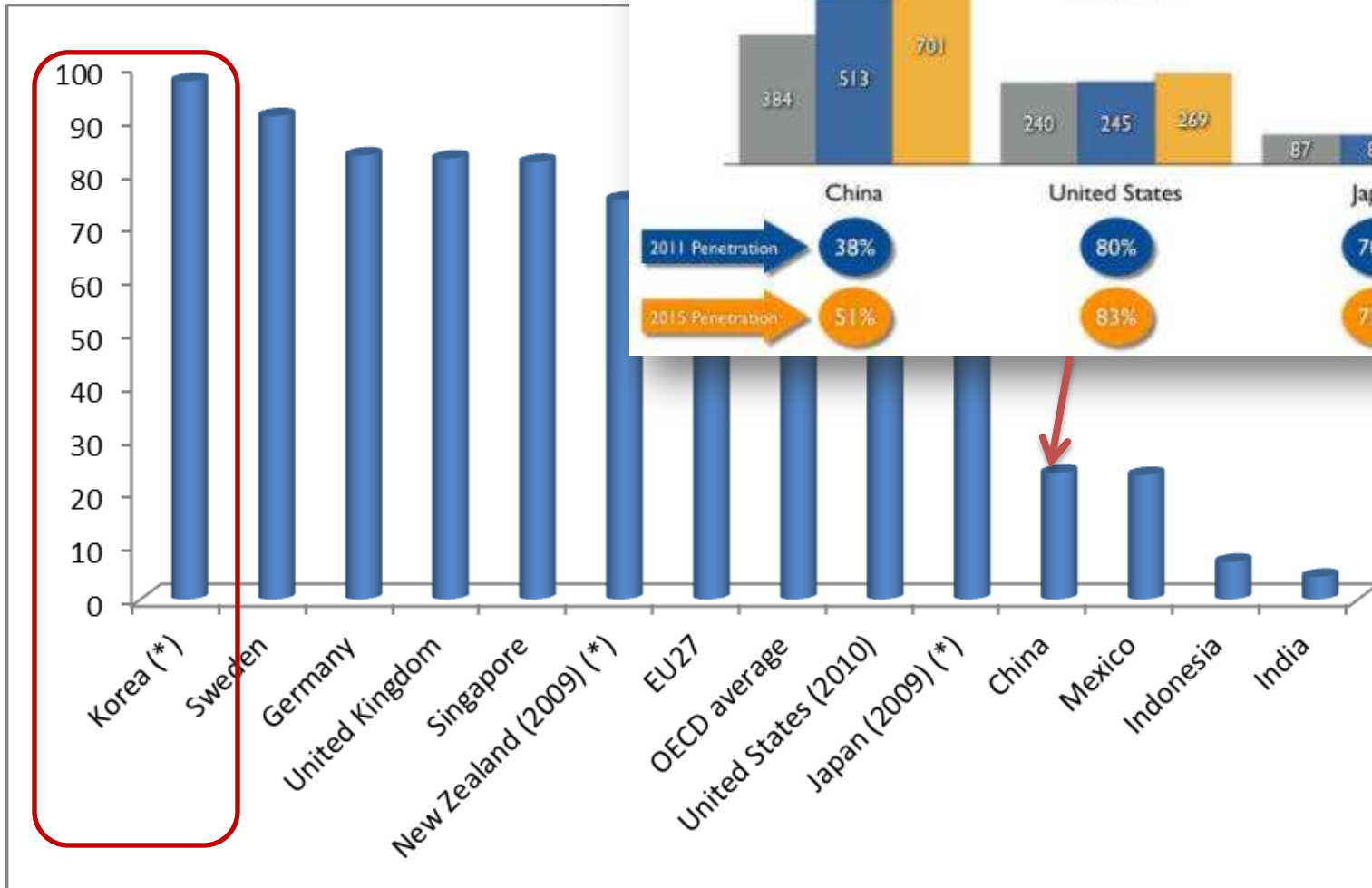
-Microsoft Research, 2011

[www.nytimes.com](http://www.nytimes.com)

# Households with

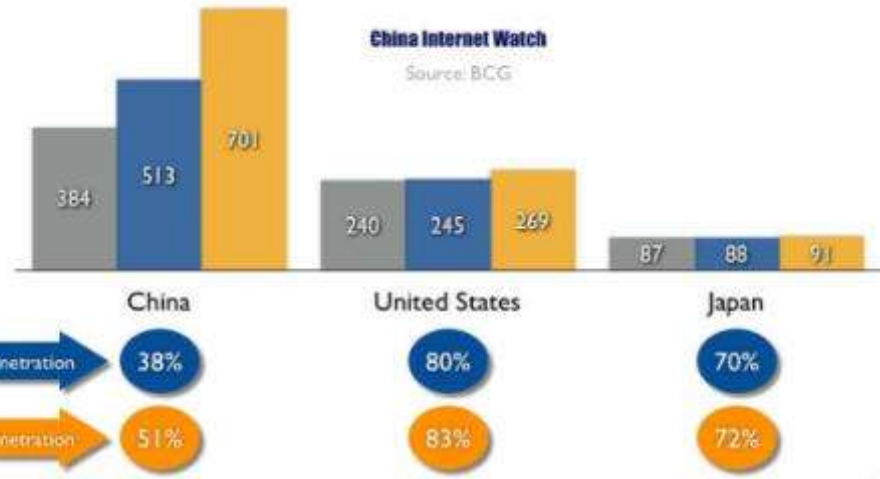
Percentage of all households

Source: OECD



## China Will Have Nearly Twice the Number of Internet Users as the U.S. and Japan

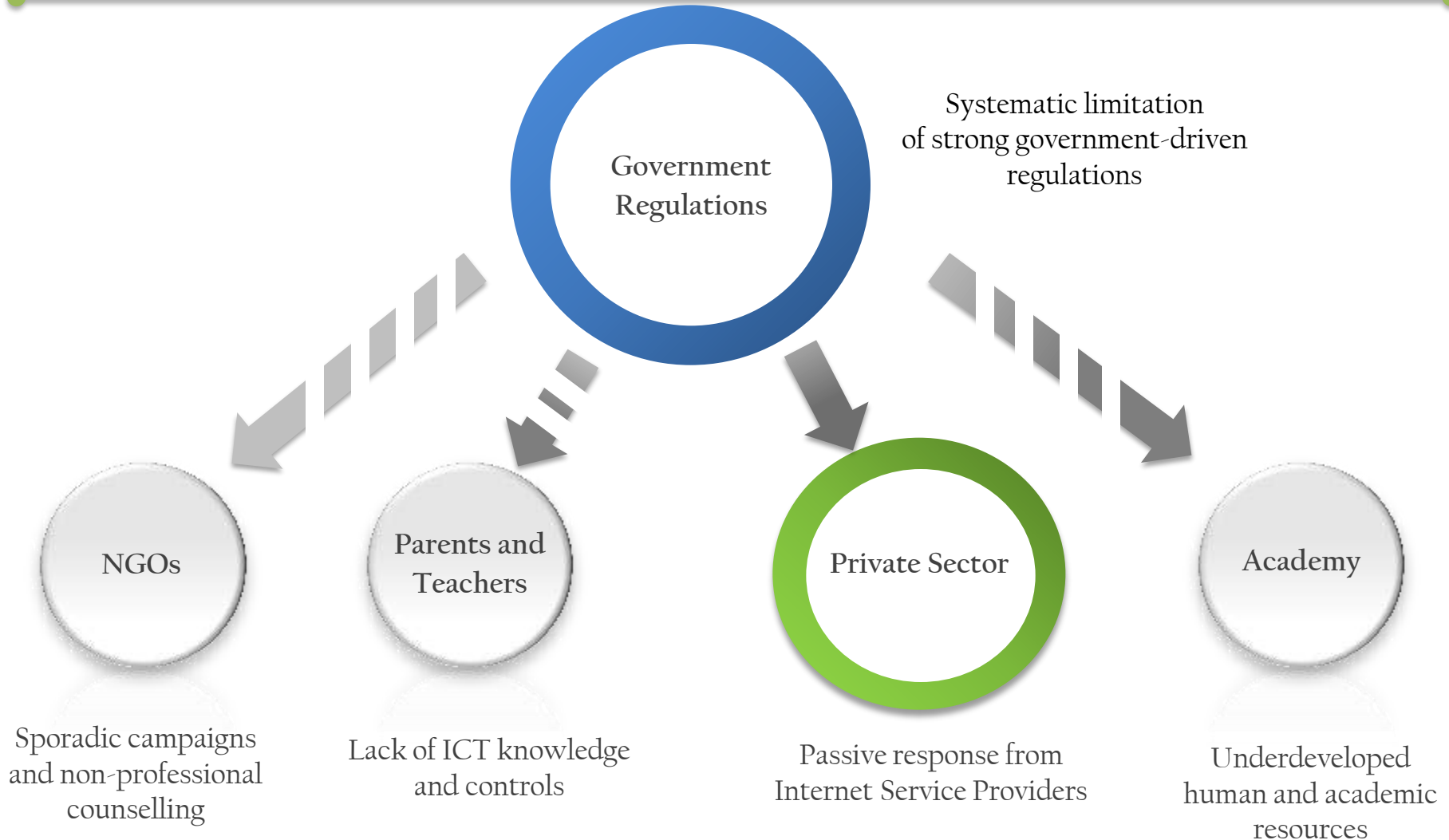
2009 2011 2015e



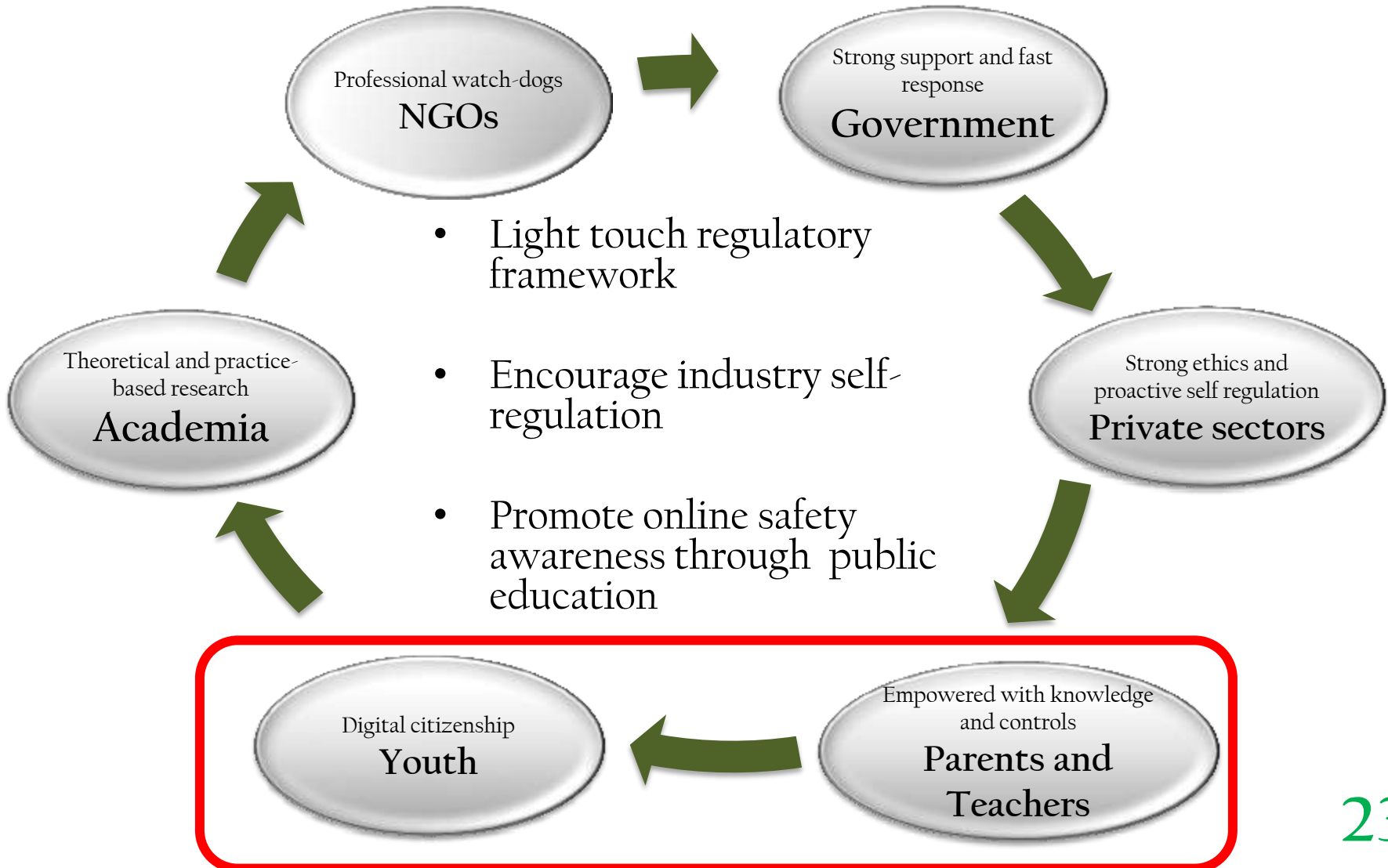
# Case Study: Overview of Internet-related Government Regulations in South Korea

Ministry	Policies	Year	Impacts
Ministry of the Gender Equality & Family	Cyber Ethic Index	2005	+ ) New quantitative measure for youth protection from cyber dangers - ) Failed due to lack of ISP participation
	Online Game Shut-down Law	2011	+ ) Initiative to reduce internet/video game addiction among youth - ) Not successful due to resistance from game industry and game consumers - ) Not effective due to lack of technical and systematic regulation - ) Reverse discrimination against foreign game companies
Ministry of Culture, Sports and Tourism	Selective Online Game Shut-down Law	2012	- ) Abolished by the Constitutional Court - ) Not effective and has raised privacy concerns
Korean Communications Commission	Limited Personal Identification Law (Internet Real name usage law)	2011	+ ) Imposes corporate social responsibility on large ISP companies - ) No regulation towards small and medium size ISPs
	Youth Protection Officer Law	2001	- ) Conflicts with Freedom of Speech - ) Criticized as abuse by government authorities
	Cyber Insults Restriction Law	2008	- ) Not effective.
	Prohibited Language Law	2004	+ ) Gov. seeks to filter inappropriate contents - ) Conflict with Freedom of Speech
	Mobile App Regulation	In plans	

# Case Study: Limitation of Internet-related Government Regulations in South Korea



# Building Green Digital Culture through collaborative effort of multiple stake-holders



# Case study: Integrated approach for “Cyber Wellness” education in Singapore

## Inter-Ministry Cyber Wellness Steering Committee (ICSC)

- Ministry of Information, Communications and the Arts (MICA)
- Ministry of Education (MOE)
- Ministry of Community Development, Youth and Sports (MCYS)
- Ministry of Defence (MINDEF)
- Ministry of Home Affairs (MHA)
- Infocomm Development Authority (IDA)
- Media Development Authority (MDA)

\$10 million for 2009-2013



4-year longitudinal study to understand students’ cyber behaviours, evaluate training programs



Professional counselling and cyberwellness training programs



Holistic digital citizenship Intervention program



MOE Cyberwellness school programs and web portal



# infollutionZERO (iZ): Main Activities

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- Awareness : Green Digital Campaign
- Education : iZ HERO Project  
Bridge Digital Divide
- Research: Infollution index  
Infollution cost/benefit  
Green digital culture



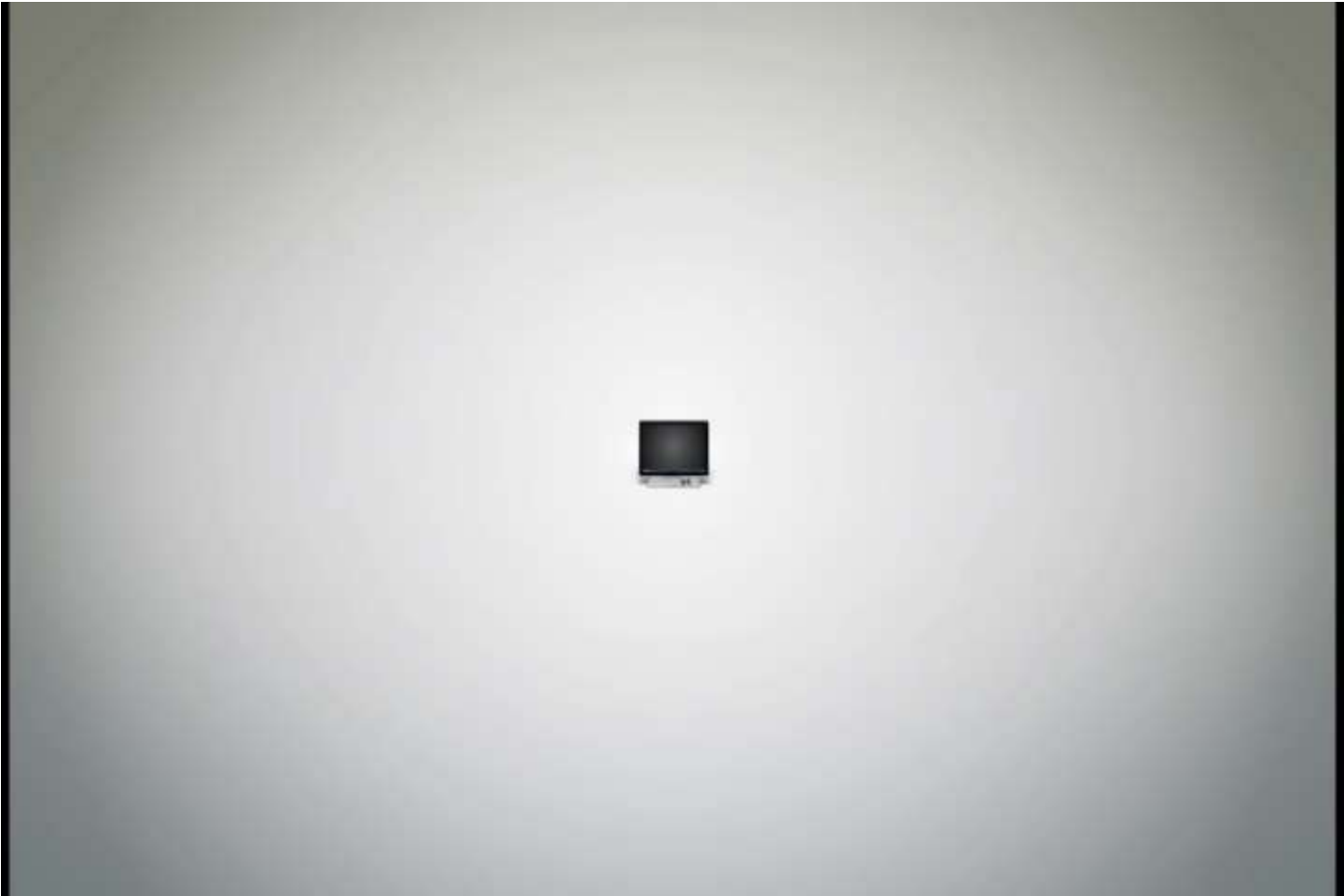


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HyundaiCard



# Innovative ITC Education Platform to Empower Children with 21st Century Digital Leadership!

2011. 1<sup>st</sup> Generation, KOREA

2013. 2<sup>nd</sup> Generation, SINGAPORE



- National Science Museum,
- Nationwide tour by KISA



## Traditional Media

- Comic Book
- Parental Guide Book
- Peer mentoring program

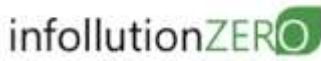
## New Media

- Digital Interactive Exhibition @ Singapore Science Centre
- Web Game

## Research

- NIE Experimental study

Organizers:



Sponsors:



Inter-Ministry CyberWellness Steering Committee  
(ICSC)

# infollutionZERO Media Coverage

Mentioned over 70 times by mass media outlets in Korea in 2011

**chosun.com**

네이버서 선정적 뉴스 사라진다

연합뉴스 | 박대한 | 2011.04.17 07:03

사회 ▾

사람들

정보공해 막는 '인폴루션 제로' 운동 박유현씨 "음란·폭력 물에 찌드는 아이들 구합시다"

**mk 뉴스**

1) 중앙일보

"악플·음란물 없는 무공해 사이버 세상을"

미국 유명 그래피티 작가 크리스 엘리스 - 박유현 인폴루션 대표 뜻 모아

[테마진단] 스마트폰 1000만 시대와 인폴루션

**국민일보** **쑤키뉴스**

NGO '인폴루션제로' 장립, 유해 콘텐츠 차단 목표... 2월 100만 IZ약속 캠페인

KBS NEWS

그래피티 거장이 그린 "깨끗한 인터넷 세상"

**mk 뉴스**

"인터넷에 넘치는 폭력물 어릴때부터 접근 막아야"

박유현 인폴루션제로 대표

**SBS 뉴스** [뉴스속으로] '그런 디지털 환경 운동'이란?

트위터의 원조 DAZE가 韓 IT세대에게 낙서로 전한 '메시지'

# Research: Cost and Benefits of the Korean Online Gaming Industry

Korean Game Industry Statistics		Cost/Benefit Ratio
Social Cost due to Heavy Users	\$5.8 Billion	
Economic Benefits from Heavy Users	\$2.7 Billion	218.60%

- Benefits are calculated with average values based on Service industry coefficients and Communication and Broadcast segment coefficients.
- Revenue of game industry and number of game users from '2011 White Paper on Korean Games' (Lee, 2011). This data is released from 'Korea Creative Content Agency' in 2011.
- Production and value-added inducement coefficients obtained from '2009 Inter-industry relation table' (BOK, 2011).

# SPECIAL THANKS TO

## iZ Educational Advisory Board

**Dr Park Yuhyun:** *Original Developer of iZ HERO Project*  
CEO & Co-founder of infollutionZERO & Asia Director, President's Office, NTU

**Dr Angeline Khoo:** *PI of CyberWellness Research*  
Associate Professor, Psychological Studies Academic Group, National Institute of Education (NIE)

**Dr Albert Liau Kien Fie:** *Expert in social-emotional development of children*  
Assistant Professor, Psychological Studies Academic Group, NIE

**Dr. Jay Won Lee:** *Expert in Market Valuation for Game Industry*  
Assistant Professor, Graduate School of Finance, KAIST

**Dr Douglas A. Gentile :** *Director of Research, National Institute of Media and the Family, USA*  
Associate Professor, Department of Psychology, Iowa State University, USA

**Dr Nam-Joon Cho:** *Founder of infollutionZERO*  
Nanyang Associate Professor, NTU

**Dr Kim Nayoung:** *Game Designer of iZ HERO Project*  
Assistant Professor, Dept. of Game and Digital Media, Hong-ik University

## iZ Key Partners:

### Internet Service Provider Code-of-Conduct



### Academic Research



### Digital Literacy Initiative



### Green Digital Campaign

