

# Media and Information Literacy under the Hong Kong Smart City Blueprint

香港智慧城市藍圖下的「傳媒資訊素養」

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# All Internet World

- AI and Big Data Era
- Internet of Things (物聯網)

# Smart Cities Initiative

- Cities around the world have benefited from the digital revolution



# Hong Kong Smart City Blueprint (2017)



- Photo source: Transport Department ([erp.gov.hk](http://erp.gov.hk))

# Top Ten Smart Cities

- The Smartest Cities in the World in 2018 (IESE Business School)
  - New York
  - London
  - Paris
  - Tokyo
  - Reykjavik, Iceland
  - Singapore
  - Seoul
  - Toronto
  - Hong Kong (9)
  - Amsterdam

# What is a Smart City?

- To make better use of information and communication technology to boost efficiency and quality of life in respect of security, health, recreation, community services and government to citizens interaction.
- The overarching mission of a smart city is to optimize city functions and drive economic growth while improving quality of life for its citizens using smart technology and data analysis.

# Vision of HK Smart City

- Embrace I & T to build a world-famed Smart Hong Kong characterized by a strong economy and high quality of living

# Smart City Model

- By Boyd Cohen (布特.高漢)
- Six Areas :
  - Smart Government
  - Smart Economy
  - Smart Environment
  - Smart Mobility
  - Smart Living
  - Smart People

# Smart People for Smart Cities

Bob Moritz (at Mobile World Congress):

- Very often the focus of smart city development is not on “people”
- It should be people-centric
  - Smart cities need smart people (智慧市民)
  - Citizens, innovators and new technologies: collaborative relationship

# Technologically Advanced Knowledge Society

- Information as means of production
- Knowledge workers – earn their living by mastering information and knowledge
- Learning how to handle media and information has become a must

# New Learning Mode

- Who is illiterate?
- People have not learnt how to learn  
(那些還未學會學習的人)
- Don't know how to handle information and seek knowledge
- Don't have the skills of information search, classification and evaluation...

- Ben Williamson – Future Curriculum
  - A wiki-world of learning
  - Curriculum is not seen as a core canon or central body of content
  - But is seen as “hyperlinked with networked digital media, popular culture and everyday interactions.”
- The future of schooling will be a network-based distributed system of learning
- A new competency is needed
  - Media and information literacy (MIL) is essential for self-learning and life-long learning

# MIL Cities

- To be truly sustainable, smart cities must also be MIL Cities (media and information literacy cities)
  - Competent, confident and responsible producers and users of information
  - Digital innovation
  - Online media connectivity
- To create such a smart community, people must acquire the competencies necessary to navigate the complex and permanently changing social network



First MIL City Celebrates  
**GLOBAL MEDIA  
AND INFORMATION  
LITERACY WEEK**  
24 - 31 October 2018



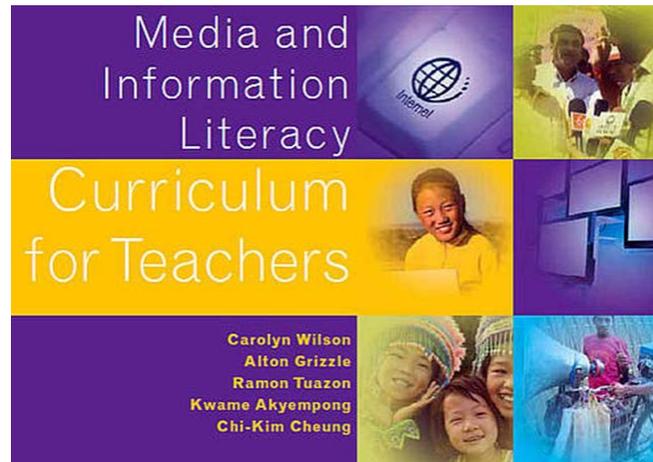
#GlobalMILWeek

United Nations  
Educational, Scientific and  
Cultural Organization

What is MIL?

# Media and Information Literacy (MIL)

- MIL =  
Media Literacy + Information Literacy + ICT skills
- 傳媒資訊素養 =  
傳媒素養 + 資訊素養 + 資訊及傳播科技技能



- MIL is the ability to access, evaluate/understand, and use/create media and information in various forms in a critical and effective way (involves a set of competencies)
- Not only deal with media messages, but all kinds of information

- A media-and-information-literate person should be able to handle messages coming from different sources
- e.g., mass media, Internet, social media, libraries, museums, archives, databases, video games

# MIL Education

- Education for all
- Information for all
  - Digital use divide (數碼使用鴻溝)

# FIVE LAWS OF MEDIA AND INFORMATION LITERACY (MIL)

## LAW 3

Information, knowledge, and messages are not always value neutral, or always independent of biases. Any conceptualization, use and application of MIL should make this truth transparent and understandable to all citizens.

## LAW 2

Every citizen is a creator of information/knowledge and has a message. They must be empowered to access new information/knowledge and to express themselves. MIL is for all - women and men equally - and a nexus of human rights.



## LAW 4

Every citizen wants to know and understand new information, knowledge and messages as well as to communicate, even if she/he is not aware, admits or expresses that he/she does. Her/his rights must however never be compromised.

## LAW 1

Information, communication, libraries, media, technology, the Internet as well as other forms of information providers are for use in critical civic engagement and sustainable development. They are equal in stature and none is more relevant than the other or should be ever treated as such.

## LAW 5

Media and information literacy is not acquired at once. It is a lived and dynamic experience and process. It is complete when it includes knowledge, skills and attitudes, when it covers access, evaluation/assessment, use, production and communication of information, media and technology content.

# UNESCO's MIL Campaign

- UNESCO MIL documents
- Global Alliance for Partnerships on MIL (GAPMIL)
- Online MIL and Intercultural Dialogue Courses
- Online Multimedia MIL Teaching Resources Tool
- MIL and Intercultural Dialogue University Network
- Global MIL Week & Feature Conference (annually)
- MIL CLICKS (social media)

# Be a Smart City

- **Advanced technological Infrastructure**  
(高端的數碼科技基建)
- **STEM talent: Science, technology, engineering & mathematics)**  
(STEAM talent: + Art)  
(創科人才)
- **Literate citizens who can use digital technologies and wisely evaluate information – MIL literate (especially the children and young people: the pillars of future society)**  
(具備應用數碼科技素養的大眾市民 -- 「傳媒資訊素養」)

# The Role of MIL Education

## (傳媒資訊素養教育的角色)

- Training innovative knowledge workers
- Helping to learn how to learn – active learning & life-long learning
- Nurturing critical, wise and responsible media-and-information-literate citizens
  - Digital competence
  - Critical thinking competence
  - Capable of handling the impact of digital technologies
  - Creativity
  - Ethical use of technologies
- Achieve “digital well-being”(數碼幸福)
  - work, study, living
  - Well-lived in the digital world

# MIL City: Hong Kong



- Photo source: [blog.equinix.com](https://blog.equinix.com) (March 1, 2017)
- <https://blog.equinix.com/blog/2017/03/01/interconnection-oriented-architectures-ioa-will-be-the-backbone-of-smart-cities/>

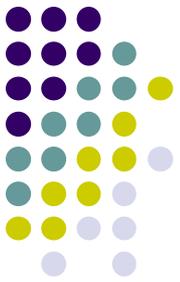
# Stakeholders/Partners

- Government
- Universities and schools
- NGOs
- Professional associations
- Parent groups
- Media
- IT companies
- Research institutes
- Citizens, students

# Launching MIL Education

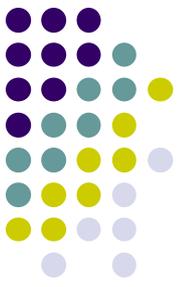
# MIL

- Three Components
- Access/Retrieval of Media and Information
- Evaluation/Understanding of Media and Information
- Use/Communication/Creation of Media and Information



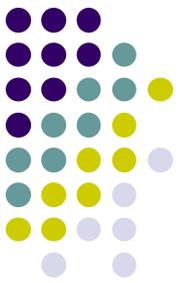
**Table 1: MIL Component One – Access of Media and Information**

Access/ Retrieval of Media and Information	
Access	<ul style="list-style-type: none"><li>- ICT skills: the technical skills needed to use digital technologies and social media</li><li>- Information search skills</li><li>- Aggregation and curation skills</li><li>- Transmedia navigation skills</li></ul>
Attention Management	<ul style="list-style-type: none"><li>- Goal awareness: keep track of the goal and focus on highest priority</li><li>- Mindful use of the social media: distraction resistance and time consciousness</li></ul>



**Table 2: MIL Component Two – Evaluation and Understanding of Media and Information**

Evaluation/ Understanding of Media and Information	
Understanding	<ul style="list-style-type: none"> <li>- Recognizes the impacts of media and information on individual and society</li> <li>- Recognizes that media and information have social, economic, political and cultural implications</li> <li>- Understands the format, institution and audience of media and information</li> <li>- Appreciates media and information content and format in an aesthetic way</li> </ul>
Evaluation and Assessment	<ul style="list-style-type: none"> <li>- Evaluates relevancy, currency, reliability, completeness, accuracy and quality of media and information</li> <li>- Questions in what ways socio-cultural context, political forces, ownership, professional routines, regulations and technologies shape media and information content</li> <li>- Critical thinking skill</li> <li>- Transdisciplinary and systemic analytical skill: multiple perspective and ability to make connections between ideas</li> <li>- Cognitive load management: ability to discriminate and filter information for importance</li> <li>- <b>Verification and triangulation skill</b> (particularly for rumor)</li> <li>- <b>Photo and video evaluation skills</b></li> <li>- <b>Algorithm analysis</b></li> </ul>
Organization and Synthesis	<ul style="list-style-type: none"> <li>- Knowledge management</li> <li>- Art of abandonment</li> </ul>



**Table 3: MIL Component Three – Use and Create Media and Information**

Use/Communication/Create Media and Information	
Communication, Use and Participation	<ul style="list-style-type: none"> <li>- Networked communication skills: effective communication and information sharing</li> <li>- Virtual community management</li> <li>- Crowdsourcing techniques</li> <li>- Virtual partnership building</li> <li>- Network smart: understand network structure and boundaries</li> <li>- Online relationship enhancement and networking building</li> <li>- Reflective thinking skill</li> <li>- Ethical use of media and information (No cyber-bullying &amp; hate speech)</li> <li>- Awareness of one’s digital footprints</li> <li>- Privacy and security practice</li> <li>- Information application in everyday life</li> <li>- Be aware of invisible audiences</li> <li>- Impression management</li> </ul>
Creation and Problem Solving	<ul style="list-style-type: none"> <li>- Media and information production skills</li> <li>- Creativity and design mindset</li> <li>- Innovative problem solving skill</li> <li>- Collaboration skill: collective knowledge construction</li> <li>- Spreadability intelligence</li> </ul>
Monitoring and Influence	<ul style="list-style-type: none"> <li>- Criticism and monitoring of media and information</li> <li>- Interacting with bodies that regulate media and information to shape media and information policies</li> </ul>

- Highlight 1:  
Nurturing a critical mind

# Critical Minds for Critical Times

- Flooded with information
- Post-truth Era

Post-truth: “ the circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief.”

(在形成民意的過程中，訴諸情感與個人信念比客觀事實更重要。)

(選資訊時，取合乎他們信念的結論。)

- Fake news
- Misinformation
- Hidden advertisements
- Alternative facts
- Propaganda
- Hate speech

- Dangerous consequences of fake news:
  - India: more than dozen of people were killed (child trafficking, organ harvesting ???)
  - Japan: Taiwan's representative in Osaka committed suicide
  - Indonesia: a dam was due to collapse???
  - Myanmar: Rohingya people lost their lives
  - Taiwan: misinformation affected election?
  - Hong Kong: rumors during Umbrella Movement

# The Emergence of the False News Trend

- Everyone can produce information and publish it without any review
- Social networking sites “spreadability” function + content farms + politician’s hiding their ads to influence public opinion  
(chatbots; click farms)

- Photo source: SCMP (Feb. 5, 2018)
- <https://www.scmp.com/business/article/2132071/video-click-farms-phantom-users-flood-chinas-us50-billion-online>



- Netizen's pre-existing position → echo-chamber effects

- Counter measures:
  - Government legislation and criminalized the delivery of false news (undermine freedom of speech?)
  - Self-regulation of IT companies
  - News agencies: set up verification teams
  - MIL education

# Tips for Spotting False News

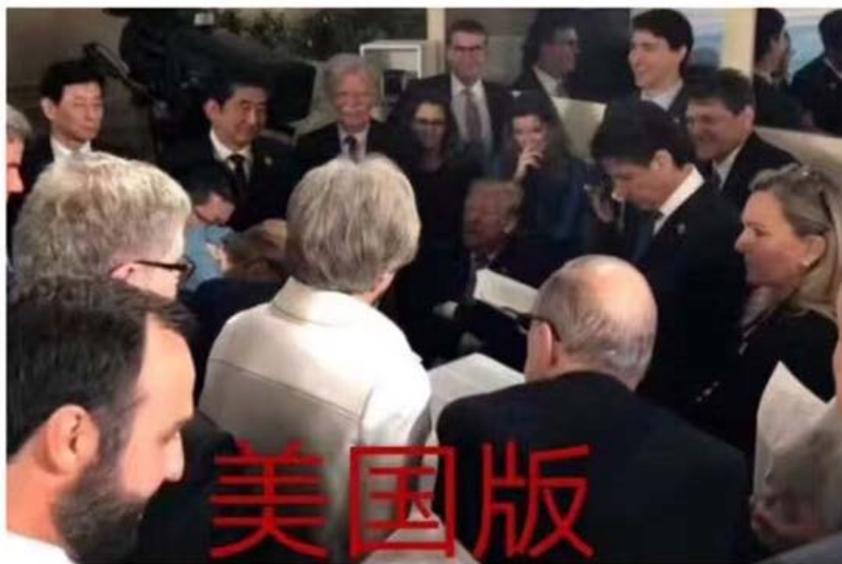
- ◆ Be skeptical of headlines  
(標題黨)
  - ◆ Look closely at the URL  
("https")
  - ◆ Investigate the source  
(beware of content farms)
  - ◆ Watch for unusual formatting (grammatical mistakes and poor layout)
  - ◆ Consider the photos
  - ◆ Inspect the dates
  - ◆ Check the evidence
  - ◆ Look at other reports
  - ◆ Is the story a joke?
  - ◆ Any hidden ads or political propaganda? Selling goods, service or policy?
  - ◆ Some stories are intentionally false
- {Evaluate and verify before sharing}

# Seeing is not Believing

- French cave rescue years ago, not Thailand cave rescue



- Source: Orange News (Dec.11, 2018)  
<http://www.orangenews.hk/news/system/2018/12/11/010105545.shtml>



官民合力清障 水電路漸修復

# 萬眾齊心 全城抗災

WEN WEI PO

報明

昨文過半備 政黨責未顯停工  
上班無路爆民怨 運署今晨通幹道

今日全生

月滿心悠 舍仁生

日蘋果

A1 頭條

港府拒帶頭停工  
林鄭謊言連狂轟

# 「擺市民條命較飛」

信報

財經新聞

Hong Kong Economic Journal

# 東鐵風劫半癱瘓 上班大混亂

山竹反轉香江 政府善後無方

癱瘓交通 行車返工

# 全城怒火

東方日報

通爐大圍站 巴士幾癱瘓

# 上班大災難



網民「二次創作」  
蘋果日報

- (Photo Source: Apple Daily)

# Verifying the Photos

Online tools that help to verify the authenticity of a photo:

- TinEye

<https://www.tineye.com/>

- Google Search by Image

<https://www.google.com/intl/es419/insidesearch/features/images/searchbyimage.html>

- How to Use Google Reverse Image Search to Fact Check Images

<https://www.youtube.com/watch?v=p5e9wTdAulA>

# The Use of Big Data

- Jo Morrison (Program Director, Digital Innovation)  
Martino Tran (Assistant Professor, UBC)  
Maarit Makinen (Researcher, U of Tampere, Finland)
- A managerial/ ethical issue: information collection  
(智慧城市運動是收集數據)
- How data are collected and used? Facebook/Google  
(如何保證這些數據被善用?)
- Those issues can only be addressed by citizens who are digitally literate. Not be “receiving citizens.” The role of “citizen’s agency”  
(不成為「被動公民」，純粹是「受方」，接受安排及服務。)

# Facial Recognition and Privacy

- Social credit system



(photo source: NYT)

# MIL CLICKERS ARE

WISE ONLINE AND OFFLINE USERS OF INFORMATION



Thinking critically before posting and sharing

Believing in self-empowerment that contributes to peace

Sharing their knowledge about MIL with others

Pursuing creativity and self-expression

Engaging in intercultural dialogue

Committed to dialogue that does not spread hate

Respecting the privacy of others

Using ethical judgments in sharing content

Promoting gender equality through MIL



#MILCLICKS #TrustinMediaSEE

- Highlight 2:  
Maintain mental health while engaging  
with the new media

# The Twin Rise of Smartphone and Social Media

- Have smartphones destroyed a generation?



- Photo source: The Atlantic.com (Sept 2017 Issue)
- <https://www.theatlantic.com/magazine/archive/2017/09/has-the-smartphone-destroyed-a-generation/534198/>

# Social Media Use Research in HK

Background:

- Jean M. Twenge:
  - Twin rise of smartphone and social media  
(手機及社交媒體雙劍合璧)
- Children's Commissioner for England
  - *Life in Likes*
  - Children unprepared for social media “cliff edge” as they start secondary school

# Findings

- 94% : go online with smartphones
- 93%: engage in social media
- Enjoy the social media; but there are risks
- 68% primary and secondary students feel tired  
(經常在綫感疲累)
- 高小→初中→高中
  - More negative emotion (負面情緒愈來愈多)
  - More cyber-bullying (網上欺凌也愈來愈普遍)
  - Less parental guidance (家長輔導愈來愈少)
  - Instagram (愈高班更多用)

- Impact on mental health :
  - 精神疲累 (feel tired: constantly online)
  - 缺乏睡眠 (lack of sleep – affect immune system)
  - 焦慮錯過訊息 (FOMO: fear of missing out)
  - 網上比較 (online comparison)
  - 忙碌於網上形象經營 (busy with impression management)
  - 沮喪拿不夠「讚好」 (not enough “likes”)

- Yuval Noah Harari (Israeli Historian)
- *21 Lessons for the 21<sup>st</sup> Century*
- (如何面對浩瀚信息？如何保持情緒平衡？如何擁抱未知素？如何認識自己而不被演算法操控？)
  - “How should you act when you are flooded by enormous amounts of information and there is no way you can absorb and analyze it all?”
  - “You will need a lot of mental flexibility and great reserves of emotional balance.”
  - “Teaching kids to embrace the unknown and to keep their mental balance
  - “Getting to know your operating system, who you are , and what you want from life.”
  - “If the algorithms indeed understand what’s happening within you better than you understand it, authority will shift to them.”

# MIL & Smart Healthy Next Generation

- Building HK smart city; Building HK MIL city
- Partnership: government + civic society
- Schools have a big role to play
- Goal: Digital Well-being

- Alice LEE

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Thank You!