Cyber wellness (CW) involves an understanding of online behavior and keen awareness of how to inform and protect oneself in cyberspace. The focus of CW is on helping students to become responsible digital learners and citizens. Given the broad reach of the World Wide Web—and access to children which that provides—information and media literacy, and awareness of the potential dangers inherent in participating in that environment, has become increasingly important. Ensuring that young people develop a deep understanding of the importance of the need to take responsibility for their online safety (including how their online behavior and activity affects both oneself and others) and developing skills to critically assess online information, will be essential for improving CW moving forward.

Major challenges include considering:

1. **What information can be trusted; how to recognize and deal with fake news; what information should be posted online and what not; how to develop information literacy and media literacy? [Cathy and Toshinori and Audrey]**

Making a judgement about whether or not information obtained online is reliable is an advanced information literacy skill which most young people do not fully possess (Bartlett & Miller, 2011; Fraillon et al., 2014, cited in Ainley, 2018; Larson et al., 2018). Moreover, such skills are also more prevalent in countries where technology use is more developed and in students from higher socio-economic backgrounds, and those having more technology using experience—raising digital divide concerns (Selwyn, 2009; Ainley, 2018). Specific challenges to information literacy include fake news, echo chambers (accessing information that re-inforces views rather than challenges it) and political manipulation (using online data to target messages at population sub-groups) (Kimmons & Bellikov, 2018; Law et al., 2018). Teachers report that this can lead to students presenting work based on misinformation and propaganda (Bartlett & Miller, 2011).
It is argued that the development of young people’s information and media literacy skills, including critical thinking, is best approached in school contexts and by integrating such guidance throughout the school curriculum (Bartlett & Miller, 2011; Majid et al., 2016; Kimmons & Belikov, 2018). However, this requires all teachers to have appropriate knowledge of these skills and how best to teach them (Majid et al., 2016; Passey et al., 2018). Moreover, evidence suggests that even when policies mandate this approach, as is the case in Singapore, there can still be huge variation in students’ experiences and skill levels across different schools (Majid et al., 2016).

It is commonly recognized that social media is a place of ambiguity, which can be both a public sphere embracing free discourse and a closed community amplifying homogeneous opinions (Kahne, Middaugh, Lee & Feezell, 2011; Mihailidis & Viotty, 2017; Sunstein et al., 2018). This assumption serves as a starting point to frame our discussion of the risks of fake news and misinformation and how we (teachers, adults, citizens, etc.) can support younger generations so they are better able to recognize both the possibilities associated with this media source, as well as the risks that arise given its ambiguous nature. For example, Jang & Kim (2018) argue that media literacy education may potentially provide an alternative to media regulation to help individuals determine the reliability and validity of information on the web. Sunstein et al. (2018) point out that combining structural solutions to avoid exposure of individuals to fake news and empowering individuals to evaluate the fake news through media literacy education may be our best strategy to address the challenge.

For suggestions on the content of current media literacy education, the viewpoint that connect social media’s potential with the younger generation’s democratic participation is emphasised within several literatures. For example, Phang & Schaefer (2009) assert that media literacy education must address not only the creative production aspect, but the critical consumption aspect as well. Mihailidis & Viotty (2017) argue that critical media literacy is essential, based on the understanding of the ethical basis to empower media consumers not to fall into partisan attitude and mutual distrust, especially focusing on media critique and creation based on "common good". According to Kahne, Middaugh, Lee & Feezell (2011), young generation’s online participation is not always biased towards the echo chamber alone. Support from elder generations for their formation of critical media literacy will be the key to bring young people to more diverse speech and fosters political participation.

Innovative practice

Several exemplars commonly emphasize the importance of critical media literacy to address challenges to media literacy and help the younger generation to become aware of limitations that implicitly constrain their cultural and political consciousness as they utilize social media for their daily purposes. For instance, Nagle (2018) presents core digital media literacy education concepts for preservice teachers including ethical and socio-political issues, security and risk conscious, and affordance perspective views. Further, Mcgrew, Ortega, Breakstone & Wineburg (2017) and Gallagher & Magid (2018) highlighted the importance of “horizontal reading,” which involves checking several news sources for a
given issue to ensure the accuracy of the information. This horizontal reading approach was originally introduced as way to evaluate traditional media sources, such as newspapers and TV news programs, however, the relative value of the approach is increasing with digital media.

2. **How we can make sure that children and youngsters feel safe in the digital world and that they can take such responsibility for their own use of technologies; how young people and others can recognize and deal with cyberbullying, predators, phishing and potential identity theft? [Cathy and Quinn]**

What threats do children face? The question is primordial, but the answer will always reflect the conditions of the era: ours being defined by upheavals caused by unprecedented growth of technology; both in its capabilities and in its societal role.

In the literature, authors have documented several sources of danger. Sexual abuse online has garnered much attention in the news media, yet Wolak, Finkelhor, Mitchell and Ybarra (2008) call for a better understanding of the underlying conditions which allow such crimes to take place. Apart from this, cyberbullying and suicide related to such bullying also affect children regardless of the level of awareness (Mark & Ratliffe, 2011; Cohen-Almagor, 2018). A survey of 2,670 American middle school and high school students conducted by Hinduja & Patchin (2019) found that students who reported being bullied or cyberbullied were more likely to have suicidal thoughts and attempts. However, the authors admit that, because of the complexity of the situation, it is still difficult to establish a clear link between cyberbulling and suicide among youths (Hinduja & Patchin, 2019). In a more general sense, a quantitative study of youths in 25 European countries conducted by Livingstone et al. (2012) found risks encountered by children to include receiving sexual messages, online contact with strangers, face to face meetings with such strangers, harmful content and misuse of personal data.

Awareness of these dangers is a concept studied by several researches. For example, a research study conducted by Edwards et al. (2018) focused on young children’s (4 to 5 years old) perception of the internet. The authors claimed that, since children of this age are now able to go online without parent support, they are susceptible to dangers ranging from “responding inadvertently to inducements for online or in-app purchases” to “experiencing inappropriate content” or “engaging in contact with unknown people”. It is young children’s proposed inability in contextualising or conceiving of these dangers that Edwards et al. (2018) highlight in their paper. On the other hand, the participants aged 8 to 18 from a mixed quantitative-qualitative study conducted by Zilka (2017), showed a “medium-high” level of awareness of internet dangers.

For many researchers, the reaction to these dangers is problematic. According to Facer (2012), the “anxiety” caused by widespread media exposure to online dangers often leads governments to adopt hasty solutions that end up trying to “control” young children rather than to guide them. One could draw a parallel between this kind of censorship and the act of “over-scaffolding” or “over-scripting” which may reduce natural interaction and
passive learning in literacy education (Vogel et al., 2017; Dillenbourg, 2002; Daniel et al., 2016). Hope (2008) provides a comprehensive description of the terminology used in the discourse of web dangers. By invoking the words “garbage”, “wasteful”, “corrupting” and “foul”, words that are often used to content that is harmful for children, the author claims that the word “pollution” accurately sums up the public’s attitude towards dangerous elements of the internet. Such attitudes may lead to practices of “over-blocking” through internet filters, implying a culture that is reactive rather than proactive, fearful rather than confident (Hope, 2008). In his study, Davies (2011) found that this kind of pessimistic attitude towards technology is not only prevalent among teachers and parents but also among the children themselves. So, although we might choose to understand this as an issue of adults over-parenting their children, the situation may be more complex (Davies, 2011).

Innovative practice

In light of these issues, several solutions have been proposed. Reflecting on their research of children’s “everyday conception” of the internet Edwards et al. (2018) proposed that educators should seek to understand and build-on what children already know about the World Wide Web. In their assessment of Estonian e-safety programmes, Lorenz, Kikkas & Laanpere (2012) asserted that schools needed to move beyond “technical” “regulation-based” solutions to more explicit comprehensive training; for example, teaching a child how to change his or her security settings, or what to do when one sees someone being cyberbullied (Lorenz, Kikkas & Laanpere, 2012). Facer (2012) hypothesizes that in order to develop a more comprehensive strategy, we must first reframe the discourse that surrounds it. Such a discourse starts with the recognition of (1) the media’s interest in fuelling parental anxiety, (2) the vast world of competing interests in which children navigate, (3) children’s identities beyond that of simply being innocent, and (4) issues encompassing adulthood as well as childhood. Ultimately there seems to be a fine balance to be struck between techno-paranoia and informed critical thinking (Davies, 2011), cultivating an attitude that is neither overly pessimistic nor overly optimistic toward technology.

Beyond broader suggestions for e-safety policies, authors have suggested more concrete practices. One particularly notable intervention was conducted by Vanderhoven & Schellens (2015), who presented a simulated social networking site (SNS) profile containing risky or dangerous indicators. Students answered questions pertaining to the simulated profile and compared it to their own SNS profiles. The effectiveness of this method highlights the importance of creating authentic learning contexts with regard to e-safety (Vanderhoven & Schellens, 2015). In his discussion on the use of technology for developing textual literacy, Thurlow (2009) proposes the use of specific websites designed for education. Websites such as The Learning Portal (2019) is just one example of websites that teach digital literacy and explain how to behave safely and responsibly on the internet. At the same time Daniel et al.’s warning of “over-scaffolding” implies a need to reflect on the degree to which we usher children to such websites (2016). Odobasi’s (2005) assertion that parental attitudes have a significant effect on children’s internet behavior suggests
that interventions carried about by Vanderhoven and Schellens (2015) as well as resources such as The Learning Portal (2019) should also be used for educating parents as well.

3. **How can public awareness of online children’s protection and cyber wellness (digital citizenship notion) be improved? [Dale and Remco]**

There is increasing recognition of the need for child-cyber wellness in our rapidly changing global society—given the risks inherent in allowing children to access and engage with the World Wide Web. To address this issue numerous government and private agencies have provided informational resources to help raise awareness of threats and concerns, and present strategies to help children avoid the potential hazards. For example, the US Department of Education offers *Seven Ways to Keep Kids Safe Online* through an informative website, and the US Department of Homeland Security offers resources and training materials that challenge children to *Stop, Think, Connect* and be more reflective and insightful about their online activity. Worldwide, numerous countries have developed informational resources to address the needs of their citizens (see [https://www.moe.gov.sg/education/programmes/social-and-emotional-learning/cyber-wellness](https://www.moe.gov.sg/education/programmes/social-and-emotional-learning/cyber-wellness) for Singapore’s effort), as well as more global efforts through the United Nations website on *Cybercrime: Protecting children from online abuse and exploitation*, and UNESCO’s multimedia educational materials.

Private organizations have also contributed to the materials and resources available to help raise parent and child awareness. In the US, organizations like KidsHealth, the National Cyber-Security Alliance, and the Family Online Safety Institute have all developed websites to distribute materials. While the resources provided by these government agencies and private organizations provide an important perspective, we will focus the ongoing efforts of the working group for this section on how this evolves in more formal educational settings.

4. **What kind of policies (at micro, meso, macro level) should be developed in order to promote cyber-wellness? [Roger and Nancy]**

In this section we will contextualize the conversation addressing policy development supportive to cyber wellness. Cyber wellness is an epiphenomenon of cyber or digital citizenship, in that it asks us to think about digital equity, digital citizenship and cyber wellness within the larger frame of a global socio-critical perspective or within the context of culture, politics and civil society (Ntebutse and Collins, 2018), and any conversation addressing these constructs needs to be situated within a geopolitical-sociological frame.

According to the Task Force on Cyber Wellness, cyber wellness may be defined as "the positive well-being of Internet users and a healthy cyber-culture for the Internet community" (Putnam and Pulcher, 2007, p. 73). Implicit in this definition of cyber wellness is the recognition that there is a need for freedom to socialize virtually, to use e-learning platforms to obtain mental and physical health information and to participate freely in a
political process. It also requires a degree of cyber etiquette, responsibility and civility in the virtual public sphere. Searson, et al., (2015) defines global or digital citizenship as follows: "a person who develops the skills and knowledge to effectively use the Internet and other digital technology especially in order to participate responsibly in social and civic activities". Searson continues by adding digital communication and collaboration, etiquette, health and welfare, and respecting rights and acting responsibly as components of global digital citizenship. The challenge may well be in reaching consensus on a definition of “appropriate” and “responsible.”

Section 1: Geopolitical Macro level issues: global citizenship – cyber wellness – sovereignty

In 2016 the United Nations Department of Public information convention was held in Korea. The outcome of this convention was an initiative titled A Global Day of Education which emphasized education, learning and literacy as a means of supporting global development, peace and democratic practice. This initiative is in keeping with the United Nations sustainable developmental goals especially SDG 4, which emphasizes quality education for all and historically with article 19 of the 1948 United Nations Declaration of Human Rights which proclaimed:

“Everyone has the right to freedom of opinion and expression. This right includes freedom to hold opinions without interference and to seek receive and impart information and ideas through any media and regardless of frontiers” (Ash,2016, 26-27).

Attempting to place cyber wellness and or digital citizenship within a larger global and cosmopolitan context is attempting to situate these constructs in a matrix of intersecting and potentially conflicting variables. Again, citing Searson who touches on this topic: “Given the early development and burgeoning of digital technology use in Western society one must be sensitive to the critique that any notion of global digital citizenship and (cyber wellness) may be viewed largely as a Western construct, and potentially as part of an attempt to spread a Democratic liberal form of governance.” The rhetorical question that is often posed is can governance be democratic without freedom of speech may be reframed as: “Can an autocratic form of governance be autocratic with freedom of speech and expression?” This raises our first two ideological tensions: “Is cyber wellness, as part of the process of digital citizenship, a human right or privilege?” and secondly, “Where lies the constituent power to define, regulate and implement concepts of cyber wellness and digital citizenship?” This is perhaps exactly what Searson was obliquely placing on the table at an earlier EDU summit.

Searson asks a truly salient question, paraphrasing a bit, to what degree is the development of cyber wellness and cyber citizenship limited to nation – state identity and other structural factors. Perhaps, situating human rights as civil rights or privileges of citizenship can be viewed as the modern equivalent of feudal privilege, and inherited state that greatly enhances one’s life chances (Carens, 1987). Turner (1993) defines human rights as a sociological construct that has often been viewed as an essential supplement to institutional citizenship providing a guarantee to civil rights. This is partially true on the grounds that in a global or Cosmopolitan political system, human rights would function as a
more realistic and potentially more progressive structure, than the traditional sovereign based concept of citizenship. Turner (1993, 499-500), continues "human rights as a concept has been challenged. It is seen by many to be biased and Western; it provides Western powers with an opportunity to intervene in the Third World under the auspices of international organizations. The human rights movement has been criticized for adopting Western individualism as the underpinning for the modern exercise of rights ".

Countering the above position is the summarized and expressed view of Ignateff (1999) that the movement towards secular human rights has become the lingua Franca of global politics and the postmodern world. Much of what we are seeing in this statement is the implication that a new project of human rights is linked to the proposition that the nation – state can no longer serve as the unit of analysis for rights and that perhaps a post-national citizenship may emerge (Sommers and Roberts, 2008). The apparent decoupling of the legal frame addressing rights from the sovereign states suggests that territorial states are losing their power in our postmodern world.

"It would seem that the emergence of human rights based on consensus implies that global cosmopolitan law trumps sovereign constitutive power. The cosmopolitan view of human rights, enforced by international humanitarian interventions, is perhaps an attempt to conceptualize and implement this new global order. Not only may there very well be a new global movement supportive of human rights but implicit is a far greater change that the Westphalian sovereignty paradigm of international relationships, with its principles of sovereign immunity, domestic jurisdiction, and non-intervention, has been displaced by a new principal of the unassailability of human rights; Globalization of human rights leading to a universal humanism, (Cohen, 2004, 8-9).

To summarize section 1, the first issue to be addressed under policy can be stated simply: should cyber wellness as a component of digital citizenship be subsumed under the umbrella of civil rights or human rights and secondarily does the constituent power to develop the substantive policies addressing cyber wellness and cyber citizenship lie within the domain of a new international cosmopolitan order or sovereign location bounded states.

Section 2: Philosophical – Ethical – Cultural factors and their impact on policy development; meso- level challenge or the role of multiple ideological surround models in policy creation

Each of us uses multiple ideological surround models (ISM) to craft our understanding of the world and our place within it. Observations and or behaviors made or performed within the adherence to our ideological surround models will be viewed as normative and appropriate within the boundaries of our specific ideological surround. Advocates of different ISMs may lack a common standard of evaluation that enables them to agree with us as to what is appropriate and rational behavior in the virtual public sphere. The task is to move beyond this postmodern relativistic stance, and toward a common and agreed to ethos of cyber wellness and digital citizenship.
Quoting Oxley (2010;1)) in her article, *Developing an Ethical and Responsible Online Culture*, "responsible and ethical use of the Internet is not something that teenagers in particular, considered to be important and serious consequences are beginning to emerge as a result of careless and offensive online behavior. Teachers and teacher librarians have a duty of care to make students aware of the potentially devastating effects of thoughtless, inappropriate or malicious online behavior and to guide them into making wise choices when interacting in a digital world'.

Kim and Choi (2018,156) add that netiquette is “an emphasis on ethical aspects which means responsible behavior in the online environment, simultaneously with the ability to support and achieve social justice”.

Who amongst us would disagree with Oxley or Kim and Choi? However, it I unlikely that attempts to reach consensus on the meaning of thoughtlessness, inappropriate and malicious behavior, and social justice would be fruitful. As international relations theorists observe, when it comes to the search for consensus on global norms of almost any type, truth or meaning can play a secondary role to specific intent. In the quest for a global human rights norm, addressing cyber wellness, that would develop etiquette in three of the key and related actions of cyber wellness (to seek – receive – and impart information) a multiplicity of powers, public and private interests, intersect and compete with each other to determine whose ideological surround model will have constitutive power and be top dog. In an attempt to focus and limit this conversation we offer thoughts on two constructs that are core to the challenge of developing a cyber wellness policy all can abide by: civility and openness.

We take civility to be more than manners in a conventional sense. The Oxford English dictionary states that civility is behavior or speech appropriate to civil interactions and the minimum degree of courtesy required in a social situation. Quoting Ash (2016,209): "Civility is a cool virtue. It does not demand warmth or friendship. It just asks that you stay in the same space and keep talking". Civility in respect to the beliefs and views of others is inseparable from the ideas of tolerance and toleration. Tolerance makes differences possible differences make toleration necessary (Walzer, 1997). Again Ash (2016:214): “an attitude of tolerance underpinning a policy of toleration is always a difficult balancing act. Tolerance asked us to position ourselves somewhere between wholehearted acceptance and unrestrained opposition. To go too far in tolerating those who are themselves programmatically intolerant (dictatorship) we will end up destroying the foundations of tolerance. Karl Popper (1966,295) calls this the paradox of tolerance: "unlimited tolerance must lead to the disappearance of tolerance."

Openness about all kinds of human diversity is a vital component of civility. One cannot express themselves unless one is able to identify differences with others. Openness is simply the willingness to hear another’s position or opinion in opposition to our own. Openness without civility may induce the opposite of what we intend; chaos and anarchy.

It would appear to be obvious that what is required for the development of a cyber wellness norm to be universally acceptable is that as far as humanly possible, external constraints need to be replaced with self- restraint. This then leads us to the third section
which addresses educational approaches to developmental and psychological components of cyber wellness.

Our second challenge for the EDU summit: how does one develop an agreed to policy of cyber wellness that is teachable and navigates the channel between relativism and the human right to seek-receive-impart information in a self-monitored and civil virtual public sphere.

Section 3: Cyber Wellness – Digital Citizenship and Education

Under the umbrella of developing a culture of civility and equality for the Internet, journal articles abound advising us on how and what to teach students to develop good digital citizenship and healthy cyber wellness; Law, Chow and King (2018), Cooney, Nugent and Howard (2018) and Bowen and Campbell (2018). With regard to Internet culture, Sweidler (1986) claims that culture itself does not create ends and goals but rather provides us with the tools (cultural bound) that are necessary to obtain our ends and life goals. In light of this theoretical perspective we likely know what we want to teach our children regarding digital citizenship and cyber wellness. The task before us is to create a process that guarantees all students can both freely enter and participate in any discussion and do so equally, and that this process is viewed as essential to a student’s development in our global society. The technical and educational tools are already available in virtual schooling programs whereby classrooms from opposite sides of our global can have an opportunity to develop relationships, viewpoints and conversations in a virtually safe place. The third challenge for our conversation is to develop sustainability and capacity to ensure that a virtual global educational process is integrated as part of a student’s ongoing educational experience.

Challenges to be Addressed:

1. The first issue to be addressed under policy can be stated simply: should cyber wellness as a component of digital citizenship be subsumed under the umbrella of civil rights or human rights and secondarily does the constituent power to develop the substantive policies addressing cyber wellness and cyber citizenship lye within the domain of a new international cosmopolitan order or sovereign location bounded states.

2. Our second challenge for the EDU summit: how does one develop an agreed to policy of cyber wellness that is teachable and navigates the channel between relativism and the human right to seek-receive-impart information in a self-monitored and civil virtual public sphere.

3. The third challenge for our conversation is to develop sustainability and capacity to ensure that a virtual global educational process is integrated as part of a student’s ongoing educational experience.

5. What activities and practices can promote and develop young people’s CW? How could and should school curricula be changed? [Sakamoto and Nancy]
It appears that a lot of practices of cyber-wellness education are being conducted in the world, but there are, unexpectedly, a small number of research articles in which innovative practices are conducted and their effects are well evaluated, although studies on the theories and frameworks of cyber-wellness education are often found. This probably implies that the innovative practices that researchers are interested in may be rarely conducted in the field.

The limited research that has been conducted in this area has addressed issues like growing students’ global digital citizenship through online international communication. For example, Larson et al. (2018) have found the sixth graders of USA and Ireland heightened levels of global awareness and diverse perspectives through their activities of online literature circle. In addition, Fauville et al. (2016) had high school students of the world use a carbon footprint calculator and discuss the results of each country through online international communication, and consequently found that they had shift of focus between local and global perspectives (Kumpulainen et al., 2018). As for this topic, other studies such as Pederson et al. (2018), Engel et al. (2016), and Truong-White et al. (2015) can also be found.

Secondly, as to cyber-bullying, there are many studies in which actual practices are conducted and their effects are evaluated. Hutson et al. (2018) have conducted a systematic review on these studies and found decreasing effects on cyberbullying and cyber-victimization were shown for nine and ten prevention programs out of seventeen, respectively. NoTrap (3rd edition) (Palladino et al., 2016) and ViSC Social Competence Program (Gradinger et al., 2016) were those which were shown to have long-lasting effects on both cyberbullying and cyber-victimization.

Thirdly, a practice with new technology can be found. Matsuda et al. (2012) have developed three-dimensional virtual reality materials which provided students with analytical problems and feedback according to their ability to understand cyber-ethical codes and shown the effects of use of the materials. Although there is such a study, it seems that practices with new technology and service are unexpectedly infrequent, considering there are a lot of cutting-edge technologies in the society.

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