



**Thematic Working Group 4**  
***Digital Equity and Intercultural Education***

**Summary Report and Action Agenda**

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**1. Introduction**

Digital equity is a social concern. As emphasized at EDUsummit 2011,

“Technology has transformed all aspects of society, including the teaching-learning process. It is critical that specific groups within our society not be excluded from the benefits of these new developments. Not only must digital equity continue as a priority goal of all nations, but efforts to move toward digital equity also must be mobilized, focused, and coordinated to prevent the development of a permanent underclass in global society.” (Resta, 2011)

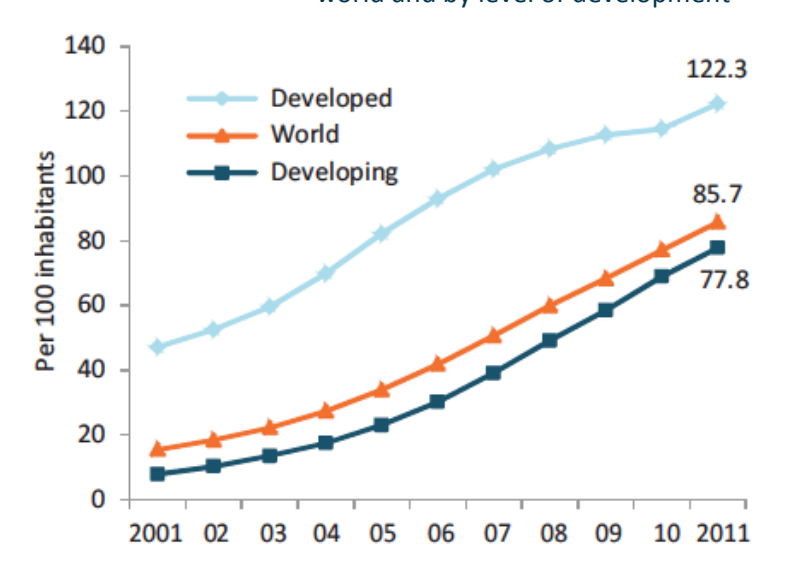
Digital equity involves more than access to a device and connectivity to the Internet. It also involves access to meaningful, high quality culturally relevant content in local languages and educators who know how to use digital tools and resources.

**2. Background: Setting up the stage**

In 2001, OECD defined the digital divide as differences between individuals, households, companies, or regions related to the access to and usage of ICT. Digital divides exist between countries, including between women and men, rural and urban areas (NTIA, 1995), young and old people (Becker, 2000; Fox & Madden, 2005), poor and rich people (Eamon, 2004), persons with or without disabilities, indigenous and “foreign” people, and ‘haves’ and ‘have nots’ (Resta, 2011; Warschauer, 2003; Warschauer, Knobel, & Stone, 2004), etc.

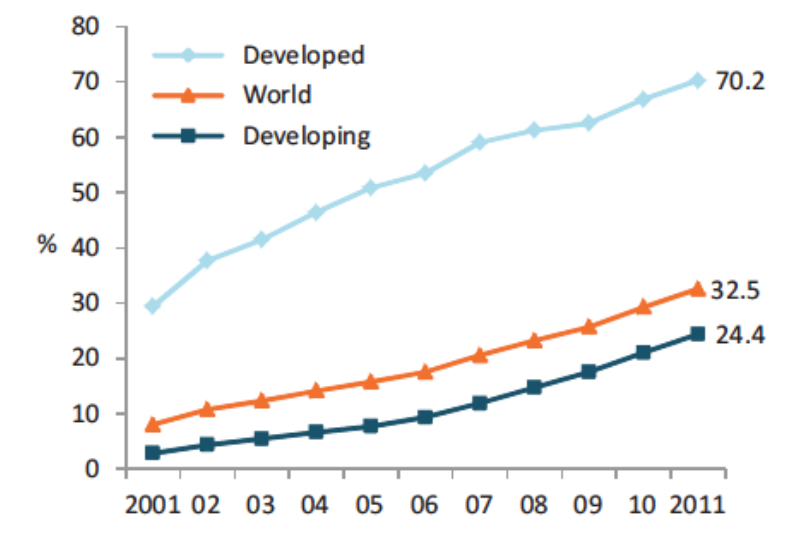
Although a very promising trend has been the rapid growth of mobile subscriptions in the developing world within the past decade (see Figure 1), there remain stark differences in use of the Internet between developed and developing countries (see Figure 2).

Figure 1: Mobile-cellular subscriptions, 2001-2011, world and by level of development



Source: ITU World Telecommunication/ICT Indicators database

Figure 2: Percentage of individuals using the Internet, 2001-2011, world and by level of development, penetration



Source: ITU World Telecommunication/ICT Indicators database.

As stressed by van Dijk, Hacker and Strover (2003), the digital divide is a complex and dynamic phenomenon, one that is multifaceted. DiMaggio and Hargittai (2001) suggested five dimensions along which inequalities may exist: 1) inequality in technical apparatus; 2) inequality in autonomy of use; 3) inequality in skill; 4) inequality in the availability of social support; and 5) variation in the purposes for which people use the technology. Researchers have inquired into these dimensions, but the task is cumbersome. Regarding dimension three, for instance, Reilly (2011) remarked that

“the ability to use digital media without grasping how it works contributes to its apparent ease of use as Dilger (2008) explains, this knowledge deficit deskills users, widening the divide

between the experts who have technological know-how and mere users who passively receive media as served, but cannot customize, troubleshoot, or participate in creating it" (p. 1).

As for dimension five, Wei and Zhang (2008) found out that network knowledge has an influence on the user's intentions when using the Internet.

We suggest adding a sixth dimension: Variation in the patterns of effective adoption. Effective adoption depends on skills and also on socio-cultural reorganization stressed van Dijk (2005) when pointing to a widening digital divide as he analyzed diverging trajectories of adoption.

Such observations have led to an emerging consensus among scholars says Hilbert (2011): The key question is not access to technology or connectivity but "how to extend the expected gains from new ICTs". Examples of recent international research/policy/practice initiatives that felt short of the initial promises are the One Laptop per Child (OLPC) initiatives in Peru (Trucano, 2010), Uruguay (Trucano, 2011) (See also Kraemer, Dedrick and Sharma, 2009; Nugroho, & Lonsdale, 2010; Severin & Capota (2011) and Gabon (Bibang-Assoumou, 2013). In the latter case, while electricity was a problem at times, it was the teachers' perception of the little margin the official curriculum was leaving them for letting students "experiment" with the XO that was the key obstacle.

What may ultimately have the greatest impact is the development of national policy which considers these factors and recognizes that the investments in these resources are essential for the nation's educational and economic development.

### **3. Issues/unresolved questions/concerns**

It is likely that digital equity will be a concern for a very long term to come. Hilbert (2011) argues that the digital divide is best defined in terms of a desired impact. He adds: "Since the impacts of ICT are diverse, the definitions of the digital divide are as well. Therefore, questions like "what is the best definition of the digital divide?" or "when is the digital divide closed?" do not make sense by themselves, but have to be formulated on the basis of a conditioning variable:

- Given the desired impact, who, with which characteristics, connects how to what?  
Or, normatively speaking:
- Given the desired impact, who, with which characteristics, should best be connected how to what?"

If there is one ICT impact that policy makers and educational researchers are looking for, it is learning outcomes. In our own conceptualization (Resta & Laferrière, 2008) the issue of access must be addressed in the following five different areas for optimizing the use of ICTs:

1. Access to hardware, software and connectivity to the Internet
2. Access to meaningful, high quality, culturally relevant content in local languages
3. Access to creating, sharing, and exchanging digital content
4. Access to educators who know how to use digital tools and resources
5. Access to high-quality research on the application of digital technologies to enhance learning

Intercultural education is viewed here as an avenue (see also Gorski, 2004) for, on the one hand, affirming local learning cultures and, on the other hand, crossing their boundaries. To provide incentives for local teacher educators to participate, for instance, in online communities of practice or knowledge building communities and create content (Hargittai & Walejko, 2008) could be an important step to take.

#### 4. Recommendations

As Working Group 4 considered the issues, unresolved questions and concerns similar to those mentioned above, it came to retain the four following actions:

- I. To develop a conceptual framework and lexicons for digital equity and intercultural education
- II. To create a knowledge database of research results and best practices from specific cases concerning digital equity and intercultural education, and prepare digests of most relevant research findings
- III. To evaluate pilot implementations using frameworks available on the database
- IV. To train educators in developing a habit of mind in use of the database

#### 5. Action Plans

*I. To develop a conceptual framework and lexicons for digital equity and intercultural education*

- **Socio-cognitive dimension.** Digital equity (DE) and intercultural education (IE) lack a conceptual framework capable of identifying common terms, and link their respective principles and particular circumstances. A first action is to put together a paper that would integrate both components and a common lexicon, to be placed on the collaborative platform that the design group would retain.
- **Technology dimension.** Although there is a broad array of social media tools available, it would be important to identify social media tools whose affordances may best support inter-cultural collaboration. Tools to support the translation and development of multilingual culturally responsive and digital equity content by local and international groups is also a critical requirement.

*II. To create a knowledge database of research results and best practices from specific cases concerning digital equity and intercultural education, and prepare digests of most relevant research findings*

- **Socio-cognitive dimension.** Such a database does not exist. Neither do we have digests of research findings and best practices. It is recommended that a process be established to gather research results and integrate them into a digest. The digests would be modeled after those developed in the medical profession that point practitioners to the best known practices and the underlying research that affirm the use of these practices. See <http://search.ebscohost.com/login.aspx?authtype=uid&user=s4866916trial&password=trial&group=trial&profile=dynamed>.
- The Digital Opportunity Consortium, for example, has an agreement with EBSCO to host such a digest on digital equity and multicultural education strategies and resources and eventually other digests on best practices in important dimensions of educational practice, at no cost at [www.digitalopportunityforall.org/library.html](http://www.digitalopportunityforall.org/library.html) (password = EBSCO)
- The development of the database would include research vignettes, and different values would be ascribed to methodological approaches. This action would require work with ministries of education to co-create curriculum that integrates technology-supported intercultural communications and collaborations. Another need would be to develop local, national and international partnerships, linking this effort, for instance, with UNESCO's initiatives to support indigenous knowledge, languages and cultures.

- **Technology dimension.** UNESCO and/or Organization of American States (OAS) could promote use of and contributions to the platform. Both organizations have the visibility, and capacity to facilitate sustained access to the platform. In the immediate future, there is a need for a planning team to draft a concept paper for the development of the DEIP platform.

*III. To evaluate pilot implementations using frameworks available on the database*

- **Socio-cognitive dimension.** To achieve this goal requires the implementation of aspects of the concept paper by participating sites. This may include a social network for teacher educators and K-12 educators to locate cross-cultural partners to collaborate, co-design and co-teach on topics of shared interest, as well as to seek support for the collaborations. Concrete cases from teacher educators working in the areas of digital equity and inter-cultural education could also be made available. Of particular interest would be professional development that helps prepare teachers with an array of pedagogical strategies and tools to foster digital inclusion (e.g., strategies for reaching a mix of students with digital access and backgrounds) during class time and afterschool (e.g., community centers). Such implementations would be evaluated using the common conceptual framework, to assist teachers in development of pedagogical strategies and resources to support the integration of intercultural education into their own teaching.
- **Technology dimension.** Resources would be made available by mobile devices.

*IV. To train educators in developing a habit of mind in use of the database*

- Although medical doctors are trained to develop a “habit of mind” to seek the best and most current research related to a medical problem they are attempting to solve, educators, similarly need to develop a habit of mind to seek the best research related to their educational problems. It is recommended that an international “habit of mind” initiative be established to equip future and current educators with the understanding of why and how to use online research databases to rapidly locate best practices key to their student learning priorities.

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