Measurement strategy and action plan for SDG Target 4.4

Proposal by GAML Task Force 4.4

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GAML4/14

SDG Target 4.4:

by 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship

According to its terms of reference, the Task Force will support the production of outputs that mirror those prepared by other task forces, notably 4.1, with respect to digital literacy skills, at least initially. It is proposed that the Task Force would engage toward two of these outputs **in 2017/18**.

1. There is currently no globally agreed definition of ICT and digital literacy skills, although there are:

- examples of competence frameworks, at the national or cross-national level (e.g. European Commission's Digital Competence Framework for Citizens, DigComp 2.0)

- examples of assessment frameworks of ICT and digital literacy skills at national (e.g. Chile SIMCETIC or France B2i) or cross-national level (e.g. IEA ICILS or OECD PIAAC problem solving domain); note that only PIAAC is targeted at the adult population, which is the focus of target 4.4

In that direction, the Task Force will:

- consult existing national and cross-national competence and assessment frameworks of ICT and digital literacy skills

- consider recommending to the GAML Secretariat the commissioning of a study that would synthesize the literature, identify any major gaps, and propose a definition as basis for a **global content framework of ICT and digital literacy skills**

The development of the content framework will need to address two major challenges:

- Existing cross-country school-level assessments of digital literacy skills show very large disparities between students in richer and poorer countries. This raises the question whether the gap reflects partly the degree of *access to computers at home and school*. However, the choice of themes in assessments appears also vulnerable to the criticism of cultural bias. To extend coverage to low and middle income countries, it is essential to develop context-appropriate items.

- A global tool to assess progress in digital literacy will need to address *rapid technological changes over time* and incorporate changes in patterns of ICT use. For example, the introduction of tablets and smartphones has resulted in new ICT applications and ways of working digitally. Assessment of skills needs to incorporate such developments without losing comparability over time.

2. At the same time, in order to further inform the development of a global content framework, the Task Force will use its networking and convening capacity to:

- identify more assessments of ICT and digital literacy skills;

- review the content of the UIS Catalogue of Learning Assessments tool to see how it could be amended or adapted for the case of ICT and digital literacy skills assessments;

- consider logistical issues that differentiate the administration of this tool, notably that:

- o not only ministries of education but also other government and non-government providers are responsible – and many tools are in fact proprietary;
- o there is less standardization in the skills assessed (compared with reading and maths);
- o there is less standardization in the modes of assessment; and
- o the age groups covered are very diverse (indeed there is more experience with assessments for those below age 15, which falls outside the scope of Target 4.4).
- consider recommending to the GAML Secretariat the commissioning of developing and rolling out at a pilot stage a **catalogue of assessments of ICT and digital literacy skills**

The following table suggests that once these two tasks have been completed:

- the mapping of assessments against the global content framework could begin **in 2018/19**
- the development of tools to evaluate the quality of assessments could begin **in 2019/20**

Finally, two other long-term issues specific to Target 4.4 that may affect the focus of the Task Force.

- Other potential skill domains for work (e.g. financial literacy, non-cognitive skills) could be considered and new members with expertise in these areas would be needed.
- Closer collaboration with the Task Force 4.6 on adult literacy and numeracy could be considered to be framed within an overall umbrella of skills for work related to youth and adults.

Proposed GAML Task Force 4.4 measurement strategy

	National	Cross-national	Global reporting Standard expected GAML outputs	TF activities		
				2017/18	2018/19	2019/20
Relevance	What is being assessed?					
Assessment frameworks	**Australia** National Assessment Program – ICT Literacy Years 6 & 10 (NAP-ICT) **Chile** Habilidades TIC para el aprendizaje (SIMCETIC) **France** Cadre de référence des compétences numériques Brevet informatique et internet (B2i)	**IEA** International Computer and Information Literacy Study (ICILS) **OECD** Programme for the International Assessment of Adult Competencies: Problem solving in technology rich environments (PIAAC) **ECDL Foundation** International Computer Driving License (link)	Has a learning assessment taken place? ▶ Catalogue of learning assessments	X		
Competence frameworks	**France** Platform to self-assess adult digital skills (Pix) **Wales, United Kingdom** Digital Competence Framework (DCF)	**European Commission** Digital Competence Framework for Citizens (DigComp 2.0) **LSE / Twente / Oii** Measuring digital skills (link)	What is the least common denominator? ▶ Global content framework How do different assessment frameworks map against the global content framework? ▶ Content coding scheme ▶ Evaluation of content alignment	X	X X	
Implementation	Who is being assessed and how?					
Technical standards • sample, coverage etc. • modality, security etc.			Are the assessments technically robust? ▶ Evaluation of data quality			X
Interpretation	What do results mean?					
• reporting scale • performance levels • benchmarks		European Union Digital Economy and Society Index (DESI) Dimension 2: Human capital / digital skills (note)	How does learning improve? ▶ Learning progression A score that is attached to each learning level ▶ Reporting scale What level should learners achieve on that scale? ▶ Minimum proficiency level			X X X