



E-Learning:

Leapfrogging skills development





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Notes and Acknowledgements

This publication was produced as part of the Knowledge Development Branch of the United Nations Conference on Trade and Development (UNCTAD).

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UNITED NATIONS PUBLICATION
UNCTAD/DTL/KDB/2016/2
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"E-LEARNING: LEAPFROGGING SKILLS DEVELOPMENT"

Innovative knowledge for inclusive and sustainable development

Bridging the trade capacity gap

Background

In the context of the United Conference on Trade and Development (UNCTAD) 14th Session organised in Nairobi, Kenya, on 21 July 2016, the Knowledge Development Branch (KDB) of UNCTAD's Division on Technology and Logistics organised a Side Event entitled: "E-learning: Leapfrogging Skills Development - Innovative knowledge for inclusive and sustainable development. Bridging the trade capacity gap"

The United Nations Conference on Trade and Development (UNCTAD) is a subsidiary organ of the United Nations General Assembly, established in 1964 to promote trade, investment, and development in developing countries. Headquartered in Geneva, UNCTAD has 194 member States as well as numerous intergovernmental and non-governmental organizations and other observers.

This quadrennial ministerial Conference (UNCTAD 14) is the highest decision-making body of UNCTAD. It is widely attended by stakeholders in development including Heads of State and Government, Ministers and representatives of governments, international institutions, non-governmental organizations, academic institutions and the private sector.

It sets UNCTAD's mandate and work priorities and, thanks to its design of formal and informal sessions, facilitates dialogue on the world's key and emerging issues affecting the global economy, discusses policy options and formulates global policy responses.

The Conference includes high-level round tables on key issues in the international economic debate. Informal thematic side events are also held with the aim to promote interactive discussions on development issues. The World Investment Forum and a Commodities Forum, which are an integral part of the Conference, bring together thousands of business and government representatives to advance developing countries' participation in these sectors.

Description

Trade capacity building is a critical element in the development debate as more attention must be paid to the integrated treatment of trade, finance, investment and technology, the interdependence between different policy areas, including macroeconomic management. These address the challenges posed by the ongoing processes of liberalization and globalization and the increasing integration of developing and LDC countries into the global economic system. It includes the increased awareness of the diverse policy and other conditions necessary for attaining competitiveness to participate effectively in the rapidly changing global economic environment. Bridging the trade capacity gap therefore provides decision makers with an adequate understanding of the development dimensions of ongoing negotiations.

Therefore, it is essential that developing countries build their own capacities as only they can then further develop the relevant skills and institutions for undertaking effective trade policies. The issue to take into consideration is how to support institutions and multi-stakeholders partnerships processes for intra-Government cohesion and consultations with trade actors including private sector and civil society. In that context the audience has examined the role of innovative knowledge strategies and Information and Communication Technology (ICT) to support sustainable and inclusive strategies in line with the Sustainable Development Goals (SDG).



The focus was on SDG 8: "Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all" and SDG 17: "Strengthen the means of implementation and revitalize the global partnership for sustainable development", in particular with the targets to enhance North-South, South-South and triangular regional and international cooperation on access to science, technology and innovation and enhance knowledge sharing.

Background documentations: UNCTAD Advisory Group reports 2013 and 2015



Event partners:

[Ecole Polytechnique Fédérale de Lausanne \(EPFL\), Switzerland](#)

The Swiss Federal Institute of Technology in Lausanne (in English) is a research institute/university located in Lausanne, Switzerland, that specialises in physical, life and information sciences as well as engineering. The institution has three core missions: education, research and technology transfer at the highest international level.



Association of Chartered Certified Accountants (ACCA),
Singapore



ACCA is the world's leading body for professional accountants, with over 110 years of experience, innovation and excellence. They champion opportunity within accountancy, demonstrate excellence through our qualifications, and act as a driving force within the accounting profession to constantly improve working practices.

BRCK Education Kenya



BRCK Education provides a holistic education technology solution that turns every classroom into a digital classroom. Our vision is to enable millions of children in schools across emerging markets to access digital educational tools for better learning.

Google Kenya Ltd



Google is an American multinational technology company specializing in Internet-related services and products that include online advertising technologies, search, cloud computing, and software

Special participation:



Youth Forum

UNCTAD Youth Forum took place from 19 to 21 July and was open to those that are interested in helping to shape the future they want and that are students or young professionals aged between 18 and 30, from all continents. It served as a discussion platform to hear the views and ideas of youth on education, more and better jobs and government accountability; topics that are of great concern to the Millennials' generation.

Agenda

8.00 – 08.05 a.m.

Opening

- Welcome address: Ms. Geneviève Féraud, Head KDB/DTL
- Outline of the meeting

8.00 – 08.50 a.m.

Presentations and discussions

Moderator

- Dr. Adrian Holzer, Research Associate, EPFL, Switzerland

Speakers

- Dr. Denis Gillet, Head of the React Goup, EPFL, Switzerland
- Mr. Reza Ali, Director of New Ventures ACCA, Singapore
- Mr. Michael M. Murungi, Public Policy & Government Relations Manager, East Africa, Google Kenya Ltd
- Ms. Nivi Sharma, BRCK Education, Kenya

08.50 – 09.00 a.m.

Closing of the meeting

- Summary of discussions and recommendations



Summary of the presentations

1. Ms. Geneviève Féraud welcomed the panel and participants to the side event and reminded the audience that UNCTAD member States constantly reaffirm the importance of knowledge development for developing countries. She indicated that this event was taking place not only in the context of UNCTAD 14, but in the continuation of the work of the Advisory Group of the Human Resources Development Section - TrainForTrade as well as the other programme namely the Course on Key Issues in the International Economic Agenda. She explained as well that in this context high-level experts were regularly invited to come and share with the Knowledge Development Branch of UNCTAD their insights on key issues of Knowledge Development, and provide guidance on how to address them. Ms. Féraud, then handed over the floor to Dr. Adrian Holzer, moderator.

2. Dr. Holzer, started with some housekeeping matters reminding the audience that there would be 4 speakers with a maximum of 10 minutes for each to present their subjects. He mentioned that the Q&A session would be taken at the end of the presentations. He then introduced the **SpeakUp** application developed by the EPFL and the University of Lausanne. This application enables participants to leave questions anonymously on an online platform, using personal hand held devices. For the event he introduced the SpeakUpBox, a version of

SpeakUp that only requires a connection to a local server with no cost implication (see annex). The process to use the SpeakUpBox was distributed to the participants (one-pager left on the tables).

3. Dr. Holzer made a substantive introduction indicating that knowledge development plays a key role for developing countries and proposed to approach it along three main perspectives:

(a) How can we link research and capacity building in order to face the challenges of economic development?

(b) What are the needs of developing countries in terms of knowledge development? And how can we respond to these needs?

(c) What are the challenges developing countries may face in policy formulation and what can be done to help them?

Dr. Holzer then invited the panellists to answer these questions.

Dr. Gillet

4. Dr. Gillet, Head of React Group, EPFL, Switzerland, took the floor to share his view on (a) how to link research and capacity building in order to face the challenges of economic development?

5. Referring to the statement of the Secretary General Ban Ki-moon made during the opening ceremony about aiming at a holistic approach to sustainable development, Dr. Gillet indicated that he was in favour of applying the same holistic approach to capacity building by relying in an integrated way on education & training, research, and innovation.

6. The type of research required for capacity building is what he calls enabling research. Enabling research is solution-oriented. It is not only about new discoveries. It is an attitude aiming at pushing further the limits of capacity building. It is relying on investigation and not only analysis, but also design processes supporting innovation. It is about identifying relevant challenges and looking for meaningful solutions.

7. Enabling research should be integrated in the local or regional context. This is true for many research domains ranging from education or knowledge management, to business & administration, through entrepreneurship. The research in these domains has to evolve continuously according to the needs, the policy, as well as the available technologies and infrastructures.

8. The 21st century education & training, research, and innovation relies on data, knowledge and practice sharing, which can only be implemented if digital skills are acquired by

all stakeholders, and if a rich digital ecosystem of infrastructures and services is available. Dr. Gillet made an analogy to the importance for capacity building, comparing the digital infrastructure to the electricity grid and data or knowledge access to electricity supply.

9. When digital skills and ecosystems are in place, it is possible to take advantage of a new way of carrying out research with more potential for disruption and impact. This new way of doing research is called Science 2.0 or open science. It is about win-win collaborative activities carried out between researchers bringing complementary competences, and belonging to different regions and disciplines. It is based on shared data, common investigation framework, and open publication schemes enabling fast review, acceptance, dissemination, and technology transfer.

10. Thanks to the digital skills and infrastructures, the brain drain can be reduced as local researchers do not need any more to emigrate to work with peers. The benefit is that the competences can be developed and kept where they are the most needed. In this framework, researchers operate as communities of interests or communities of practices combining regular face-to-face meetings and continuous online interaction.

11. As a good example of such a scheme Dr. Gillet presented the multimillion Go-Lab European research project aiming at developing inquiry learning with online labs in science and technology education & training; a project that he is coordinating at the technical level. It has 19 partners of 15 different European countries with background in technology and pedagogy, and representing research institutions, policy makers, as well as training communities. So, the approach in this project is holistic in the geographical, research and stakeholder dimensions. The top-down strategic vision is continuously nurtured, realigned, and adapted to the bottom-up requirements gathered from practitioners. More than the research outcomes, the value of such a project is the construction of a common understanding regarding the needs and the possible solutions, the construction of a common language and culture, and the sharing of resources and practices through multimodal interaction, open access platforms and distributed services. This is key to the consolidation of the European identity and to bring the research capacity of all countries at a common and higher level with solutions taking into account the large European diversity. From the beneficiary point of view, this project enables them to develop inquiry skills, which are about learning the way researchers do research, and entrepreneurs deliver innovation.

12. Capacity building should be seen as a life long journey through the acquisition of digital skills. If the basic traditional skills are reading, writing, and arithmetic, the corresponding digital skills are knowledge discovery (consuming, like reading), knowledge sharing (producing, like writing), and sense making or critical thinking (understanding, like arithmetic if considered as a process to describe problems and find solutions).

13. Dr. Gillet then discussed another example in the EPFL: in order to develop high level soft and digital skills among the next generation of engineers and entrepreneurs, EPFL has setup 3 years ago a new mandatory for all first year students. The core topics of the course are on global

issues to highlight the importance of a multidisciplinary approach to solving societal challenges. It is however not limited to that. The proposed activities are enabling the consolidation of soft and digital skills in action. Students have to identify, describe and solve a problem through teamwork with peers from different disciplines. As such, EPFL helps them to develop skills such as: interdisciplinary, collaboration, information literacy, critical thinking, creativity, inquiry, entrepreneurship, as well as oral and multimedia communication.

14. Dr. Gillet concluded his presentation by stating that capacity building should rely on a holistic approach to education & training, research, and innovation. These three pillars share the same requirements in terms of digital skills, infrastructures, and services. It is not only about supporting the construction of the knowledge society; it is about developing the sharing society to effectively support capacity building. This relies on citizen from the civil society, the public sector, and business, all equipped with the necessary digital competences and capacity to learn and to keep their knowledge up to date by themselves or with peers in communities of practices.

Mr. Reza Ali

15. At the invitation of the moderator, Dr. Holzer, Mr. Reza Ali, Director of New Ventures ACCA, Singapore then shared his vision on (b) the needs of developing countries in terms of knowledge development and the way to address these needs. Mr. Reza started by introducing ACCA and why ACCA-X was developed, mainly to build capacity in the area of financial literacy, accountancy and business skills.

16. According to Mr. Reza, there are 4 key areas for developing countries to consider in terms of knowledge development are (i) employability, (ii) data-led learning, (iii) capacity building for educators and (iv) partnerships.

(i) Employability: The key policy issue of our times is how to link education to employability; how do we increase efficiency and productivity. Mr. Reza recalled that during the UNCTAD 14 introductory session, UNCTAD's Secretary General Dr. Mukhisa Kituyi mentioned how employees in developing countries have an output that's only 10% of those in the EU. It is a global challenge affecting established economies like India (21% of management graduates are unable to find jobs), Japan, the EU and China (number of graduates increased from 1 million in 200 to 6 million in 2013). The reasons for this employability gap are: the mismatch in skills required by the industry and what they are being trained towards; the lack of clarity of skills needs and dialogue between educators and industry; and the education and training style. The focus is still on role learning that does not foster mental agility and innovative flair. This is why technology becomes an enabler. It allow for learners to reflect, plan and articulate knowledge. It embeds digital literacy skills, which is crucial. Learning and assessment becomes more authentic through digital learning and more closely aligned to workplace (example of ACCA-X).

E-Learning allows the opportunity to; establish a clear pedagogy; to cater to the different learning styles; to the right levels of assessment; to effective monitoring and management (through data) and to support a process of continuous improvement.

(ii) Data is another critical component to aid educators and learners. The data allows for identification of hot spots, areas for improvement and targeted support. In data-led learning, tutors also have the tools at their disposal to enhance learner management and be able to teach to scale.

(iii) Concerning capacity building for educators, a key policy area for policy makers is to provide the right levels of support to educators as they embed e-Learning. It is a large shift away from strictly face-to-face traditional transmitting style. Learning, training and support needs to be given to help educators adapt to e-Learning. This is where blended learning comes in and gives educators the assurance that they are not redundant, but that their role needs to be reconfigured in the classroom and that they have better guidance for students.

(iv) Partnerships are the most effective way for countries to develop effective e-Learning solutions to meet their needs. Development of very high quality e/digital learning can be resource intensive and investment-heavy affair- from pedagogy to course development. Sometimes the level of investment necessary can become a deterrent.

17. Mr. Reza concluded that there is a current mismatch between the skill set and the skills needed. The education and training offered should cater to the learning needs to ensure the authenticity of learning. Data and learning should focus on the identification of the challenges as well as the needs. Capacity building should be keen on the training and support of educators to facilitate blended learning. The role of the educators would also need to be reconfigured to facilitate this.

Mr. Michael Murungi

18. Mr. Michael M. Murungi, Public Policy & Government Relations Manager, East Africa, Google Inc., focused his speech on (c) the challenges faced by developing countries in terms of policy formulation and the way to help them.

19. Mr. Murungi described the growing impact of the web in Africa. According to a 2015 research, 74% of people in Nigeria, Kenya and South Africa prefer to use digital tools to perform tasks, 69% said the Internet is the first place they go to for information. Africa is coming online fast with a prediction of half a billion Internet users by 2020. In the period 2013-2020, Internet will contribute \$300bn in GDP in Africa and a similar amount in productivity gains. E-Commerce will grow from almost zero to over \$75bn, according to McKinsey. This opens up

huge opportunities for African businesses and young digital entrepreneurs. Young people with the right skills can build businesses, create jobs and boost economic growth across the continent.

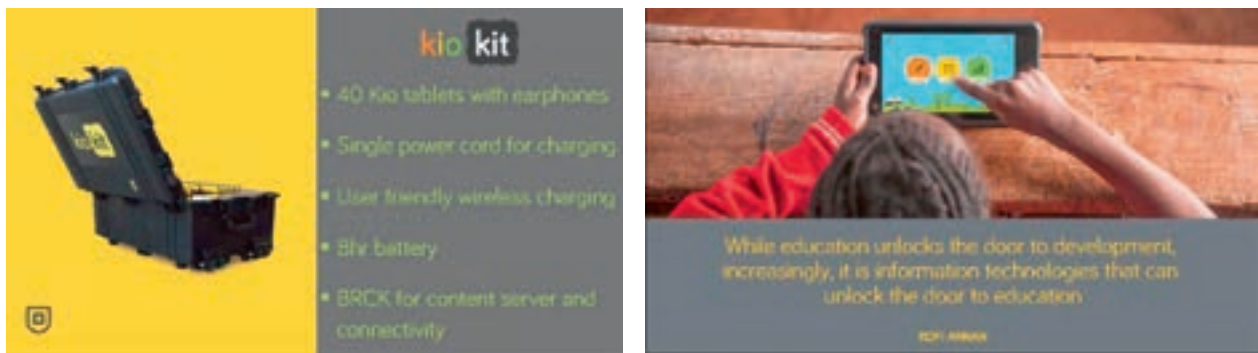
20. Mr. Murungi alerted the audience on the challenge which is the education system. Many universities, colleges are confident they have prepared their students for success in the workforce. However, many business leaders state that today's graduates do not have the skills and competencies that their businesses need. A shift in the education system is required from passive to active learning; from time spent to outcome based monitoring; from book to research driven activities; from teacher at centre to teacher as facilitator; from isolated learning to collaborative learning; from rote to holistic learning to include character, soft skills and life skills. Digital literacy is rarely part of the national curriculum. In most cases, Information Communication Technologies (ICT) are an option class. Digital learning infrastructures are still very limited. Teachers need to be trained with 21st century skills and instruction methods.

21. The solution presented by Mr. Murungi is to transform education policy and practice. The classroom needs to be rethought and an entrepreneurial mind-set developed into the mind of learners, instead of looking-for-a-job mind-set. The school would act as an incubator space like in Silicon Valley. Mr. Murungi insisted on the need to enhance the following 21st century skills: leadership, creativity, collaboration, problem solving, purpose, communication, work and life integration, community, ownership, organizational ability, interpersonal skills, analytical skills, entrepreneurial skills, emotional intelligence, accountability, respect. It is on this new template of an education system that the introduction of ICTs would bring the greatest value. Learning methods would be changed as well as the school culture transformed by: access to a broad range of online educational content; greater collaboration between students and between schools and business through improved remote communication; solving real world practical problems-rather than abstract ones; professional development of teachers through e-learning; incubator spaces in schools where students launch businesses or social enterprises, etc.

22. Mr. Murangi shared with the participants the experience of Google into the Africa Digital Skills Initiative. In April 2016: Google pledged to train 1 million young people in Africa in digital skills within one year. This will be done by developing partnerships across Africa, expanding existing programs, developing new curricula to familiarize the youth with the opportunities available with the web. The focus will be to enable the trainees to better understand the digital space, the use of online tools for research and social sharing, the online advertising and basic tools on which they can build further knowledge, find jobs and/or create their own businesses. The main actors in this initiative will include training institutions, youth organizations and other partners.

Ms. Nivi Sharma

23. Ms Nivi Sharma, President of BRCK Education, Kenya, started by sharing her experience as an African entrepreneur starting with a company she co-founded called e-Limu, digitalizing content for Kenyans. She also made reference to Nairobi's innovation hub for the technology community in Kenya, called the ***iHub_** that helps by connecting people, supporting start-ups, and surfacing information. She then presented the work conducted by her company BRCK in the field of education and knowledge. She introduced to the audience to the **kio kit** designed and engineered in Kenya ***iHub_**. The kit is a full pack including hardware, software, connectivity and content that can be used in the most remote places to bring digital content to the people. It can also serve as a local hotspot. She noted that most of the time, imported solutions were simply not working in Africa. Hence the need to develop products and services in Africa for Africa taking into consideration the local constraints like electricity shortage, very dusty environment, high temperatures and humidity.



24. Ms. Sharma made reference to a study conducted on primary school students in Kenya that went through 48 lessons, but not a single child raised their hands to ask questions. So that led to asking how the technology can help in making it more interactive and valuable for both the students and the teachers. Ms. Sharma was keen on the concept of digital literacy, responsible digital skills citizens and how to use technology from different places in the world to the local environment, in particular in Africa. Her last intervention was to highlight the importance of research in the field of learning patterns and measurements and the appropriate technology.

Intervention from the floor:

25. Ms. Blessing Oluwatosin Ajimoti, Office for ICT Innovation and Entrepreneurship (OIIE), National Information Technology Development Agency (NITDA), from the UN Major Group for Children & Youth, and a participant of the Youth Forum, made the following intervention. The OIIE works towards enabling an innovation and entrepreneurship ecosystem in Nigeria through programmes, policies and initiatives for inclusive socioeconomic development, national growth and competitiveness. Ms. Ajimoti, reminded the audience that closing the gaps between education and jobs, especially through skill building and appropriate use of technologies,

has been central to the discussions at the Youth Forum. The second World Youth Skills Day since its adoption by the General Assembly in December 2014 was celebrated on 15 July 2016, coinciding with the first celebration since the adoption of the 2030 Agenda last fall.

26. The world today is home to the largest generation of youth in its history, with 90% of young people living in developing countries and with estimates suggesting that labour markets will need to add 600 million new jobs by 2026 to accommodate changing global demographics. In February 2016, the UN launched its Global Initiative on Decent Jobs for Youth - to scale-up action to create new opportunities for quality employment in the global economy and assist young people in developing the skills. The SDG target 4.4 calls for a substantial increase in the number of youth and adults who have relevant skills - including technical and vocational skills - in order to encourage employment and entrepreneurship.

27. Ms. Ajimoti asked the panellists how to effectively build the capacity of the youth by ensuring the skills they develop are in line with community needs and associated learning that creates livelihoods, rather than solely basing it off on private sector demands or those of the rapidly changing job market.

28. Finally, Ms. Ajimoti made the following recommendations:

- More efforts are needed to balance the provision of formal and informal skills in the education system, which provides young students with many different types of skills sets, that enhance the quality of their lives and the community, preserve the environment, and create livelihoods
- We also need to address the commitment towards meaningful life-long learning opportunities that all young people should have access to, especially the ones belonging to marginalized groups
- These learning opportunities should include new and appropriate technologies, indigenous knowledge, life skills and local skill gaps, both through formal and informal avenues, including peer learning
- We want to raise concern over the fact that the formal measurement of youth unemployment in the 2030 Agenda only counts young people between the ages of 15-24. Many young people have not even finished their education by then and development of E-skills through ICTs is a fluid asset that can be harnessed at any point. This leaves behind a sizable population of young people
- There must be enhanced discourse on identifying community needs and associated skill building that creates livelihoods, rather than solely basing it off on private sector demands. Skills are for life and create a desirable society.



29. Ms. Geneviève Féraud and the panellists then took a few questions from the floor: She indicated that given the large number of participants and the time constraints it would not be possible to answer all questions but that the Secretariat could be contacted directly for further information. She then handed back the floor to the moderator for his conclusion.

Moderator's conclusion:

30. The moderator, Dr. Holzer, thanked the speakers for having shared with the audience their experience and knowledge in a very interesting way. He took the opportunity of the few remaining minutes to summarize the main points of the discussions.

- First, it appears that UNCTAD should indeed continue to develop knowledge and support synergies between research and capacity building in its field. It was noted that there are many ways to do it, including through partnerships, and that it should fully reflect the important role of innovation in capacity-building.
- It was indicated that ICT can help to answer the needs of developing countries in many ways, including e-learning, networking and competence building and UNCTAD should further pursue its efforts in this domain.
- Finally, the speakers have stressed the challenges that developing countries may face in policy formation and emphasized the importance of training in policy making in the field of trade and development. Here again, UNCTAD should continue and develop its activities in this domain.
- The UNCTAD programs mentioned at the beginning of the side event, TrainForTrade and the Course on Key Issues on the International Economic Agenda, are dedicated to help developing countries reach these goals, and the panellists are encouraging UNCTAD to continue in this direction.

Team and panellists:



The organization of this event by the Knowledge Development Branch was made possible thanks to the support of Staff Members of the Human Resource Development TrainForTrade Section, Mr. Mark Assaf and Mr. Dominique Chantrel, and the help of Ms. Joyce Wachuka Wanjuu assistant from the Kenyan team of organisers.

Closing Statement

“E-LEARNING: LEAPFROGGING SKILLS DEVELOPMENT”

innovative knowledge for inclusive and sustainable development
bridging the trade capacity gap”

Representatives of member States gathered in Nairobi on 21 July 2016 in the context of UNCTAD’s 14th Conference. In relation to the Side Event on “*e-learning: leapfrogging skills development*”, the participants and panellists:

- *Commend* the UNCTAD Secretariat for the organization of this Side Event on ‘e-learning: leapfrogging skills development’ which discussed innovative digital responses that can be used in developing and transition countries to develop and share knowledge
- *Take note* of the work done by UNCTAD to assist developing countries to build their own capacities as only they can then further develop the relevant skills and institutions for undertaking effective trade policies
- *Express their appreciation* for the kind availability of the representatives of Public sector, universities and private sector to come and share their practices on how to better examine the role of innovative knowledge strategies and Information and Communication Technology (ICT) to support sustainable and inclusive strategies in line with the Sustainable Development Goals (SDG)
- *Praise* the initiatives of actors in the field of e-learning and blended learning for promoting technological solutions and best practices to enhance knowledge sharing and capacity building
- *Stress* the importance of UNCTAD choice to setup long term assistance, in particular the Course on Key Issues on the International Economic Agenda and TrainForTrade, as a tool to facilitate access to pedagogical materials, deliver training and facilitate knowledge sharing and capacity building

Recommendations of the UNCTAD's Side Event

The participants and panellists *recommend* that the UNCTAD Secretariat:

- *Continue* to strengthen its actions aimed at enhancing developing and transition economies ' knowledge capacities for policy orientation in the field of sustainable trade and development
- *Continue* to provide training for policymakers on the integrated treatment of trade, investment, finance and technology for development.
- *Recognise* the importance of allocating adequate resources to the development of technical cooperation projects on e-learning, blended learning, training and capacity building, using innovative technologies and approaches on a lifelong perspective
- *Reinforce* commitments and efforts that address the need for responsible digital literacy for future generations
- *Develop* partnerships for effective e-learning, blended learning and capacity building, and *examine* ways to link education with employability and address 21st century industry needs
- *Take advantage of* ICT to answer the needs of developing and transition economies through e-learning, blended learning, networking and capacity building
- *Further develop* multidisciplinary approaches, including research on the impact of e-learning and blended learning interventions
- *Promote and develop* technologies and capacities to facilitate communication, knowledge and best practices sharing between participants and stakeholders of UNCTAD projects and programmes



Speakers' bio:

Reza Ali

Director of New Ventures

Association of Chartered Certified Accountants (ACCA), Singapore



As Director of New Ventures, Mr. Reza Ali is responsible for the overall delivery of ACCA-X, ACCA's (the Association of Chartered Certified Accountants) pilot initiative to provide digital learning to students. Prior to his current role, Reza worked across a number of different roles within ACCA and was previously the Head of Emerging Markets Asia, where he led ACCA's developments across a number of markets including South Korea, Indonesia, Myanmar, Vietnam and Brunei and ASEAN (Association of South East Asian Nations). He was also part of ACCA's Strategy team to support the development of ACCA's strategy to 2020. Reza was previously an auditor at PricewaterhouseCoopers (PwC) within the Assurance and Business Advisory Services (ABAS) in London and later became the Head of Finance and Operations at a brokerage firm in Singapore that dealt primarily with government agencies in the South Asian subcontinent. Reza graduated with a First Class (Honours) in Business Studies and Finance from Lancaster University where he was the recipient of the Philip Andrews Memorial Prize for Economics. He is also an ACCA member. Reza speaks regularly to ACCA's key stakeholders on key economic trends, learning and technology, sustainability, climate change, International Financial Reporting Standards (IFRS), accounting and policy updates and sustainability matters. He also wrote a booklet in 2008 entitled "Sustainability Reporting Handbook for Singaporean Companies" to encourage sustainability reporting within corporate Singapore. Reza's other interests include farming Tamil Nadu, South India where he is from and blogs regularly.

Geneviève Féraud

Head of the Knowledge Development Branch

UNCTAD, Switzerland



Dr. Geneviève Féraud is the Head of the Knowledge Development Branch of UNCTAD. She joined the United Nations in 2003 as Deputy Director, Programmes, of the United Nations System Staff College, became the Head of the ICT and E-Business Branch of UNCTAD in 2004, and was appointed to her current position in 2007. Before joining the UN, Geneviève Féraud started her career in 1981 with IBM, and then held several leading positions with private companies in the field of information systems. She then received her PhD on the strategic management of information systems in 1995 in the University of Aix-Marseille, France, and

holds two post-doc degrees: the International Teachers Programme (Henley Management College and London Business School) and the French Certification to lead Ph.D. candidates. Having become a tenured academic, she then conducted her research and teaching assignments in several European and American universities, including as Visiting Faculty in the Harvard Business School. She led numerous executive development programs and developed at the same time an extensive international consulting activity with large-size European and American companies, including The Coca-Cola Company (USA), Volvo (S), Adam Opel AG (G), General Motors (G, USA), Honeywell (USA), Siemens (B, NL), Novo Nordisk (DK), Akzo Nobel (NL), among others. Geneviève has authored numerous publications on strategy, technology and leadership in leading academic research journals, as well as a book on technology strategies, published in 2009 by Economica, the leading French academic publisher.

Denis Gillet

Head of the React Group

Swiss Federal Institute of Technology in Lausanne (EPFL), Switzerland



Dr. (Prof.) Denis Gillet is a faculty member at the Swiss Federal Institute of Technology in Lausanne (EPFL) where he leads the React multi-disciplinary research group. His current research interests include Digital Education, Knowledge Management and Cyber Physical Systems. In 1992 he was appointed as Research Fellow at the Information Systems Laboratory of Stanford University in the United States. During the academic year 2005-2006 he was on sabbatical leave as Visiting Scholar at the Faculty of Engineering, Chinese University of Hong Kong. Between 2011 and 2013, he was Guest Professor at the School of Software Engineering, Tongji University, to act as an expert on smart cities. Denis Gillet is affiliated at EPFL with the Center for Digital Education and the Transportation Center. He is currently the technical coordinator of the 13M€Go-Lab European project on inquiry learning with online labs at school. Finally, Dr. Denis Gillet also leads various collaborative research projects dealing with agile knowledge management and competence development in the humanitarian field.

Adrian Holzer

Research Associate

Swiss Federal Institute of Technology in Lausanne (EPFL), Switzerland



Dr. Adrian Holzer is currently research associate and a lecturer at the Swiss Federal Institute of Technology in Lausanne (EPFL) in the Coordination & Interaction Systems Group (REACT). In

2009, he obtained his PhD in Information Systems at the University of Lausanne, Switzerland. He then received a grant from the Swiss SNF to work as postdoctoral fellow at Polytechnique Montreal in the Mobile Computing and Networking Research Laboratory (LARIM) from 2010 to 2011. His research and teaching activities focus on mobile social media interaction in the learning and humanitarian contexts. Furthermore leads the design of the SpeakUp app for classroom interaction and is actively involved in the design of the Graasp platform for knowledge sharing in and across organisations.

Michael Murungi

Policy and Government Relations Manager for East Africa
Google, Kenya



Mr. Michael M. Murungi, Google's Policy and Government Relations Manager for East Africa. Previously, he was the CEO of Kenya's National Council for Law Reporting, where he worked on providing access to public legal information and the adoption of open access policies for government information. As an ICT legal expert, he participated at local and regional levels in the formulation of appropriate laws and policies for cyberspace and contributed to the International Encyclopaedia of Cyberlaw.

Nivi Sharma

President
BRCK Education, Kenya



Ms. Nivi Sharma is the President of BRCK Education (education.BRCK.com) and a co-founder of eLimu (e-Limu.org). She is a thought leader in Education Technology for emerging markets. As a social entrepreneur, volunteer and technophile, she has dedicated her career to education and is passionate about digital access and community initiatives that foster learning through fun. She is also a 2014 East Africa Acumen fellow.

UNCTAD related programmes

TrainForTrade: "Strengthening knowledge and skills through innovative approaches for sustainable economic development".

TrainForTrade provides tailor-made technical assistance to developing countries. It develops local capacities, empowering countries to reap the benefits of international trade. It also promotes South-South cooperation and national ownership.

Main goals:

- Build sustainable networks of knowledge to promote transparency and good practices
- Encourage development-oriented trade policy to reduce poverty
- Promote Information Communication Technology solutions and innovative thinking to enhance capacities of international trade players

<https://tft.unctad.org>

Paragraph 166: Course on Key Issues on the International Economic Agenda

UNCTAD's flagship course addresses the analytical and policy challenges that policy makers, Geneva-based delegates and other stakeholders from developing and transition economies face in promoting inclusive and sustainable growth and development. Managing these challenges helps their countries to integrate into the rapidly globalizing economy in ways that are beneficial for all countries. The course is based on UNCTAD's development perspective and focuses on the linkages between trade, finance, investment, technology, logistics and macroeconomic policies in the context of major economic trends and debates in multilateral for a.

<http://p166.unctad.org/>

Organizers' contacts:

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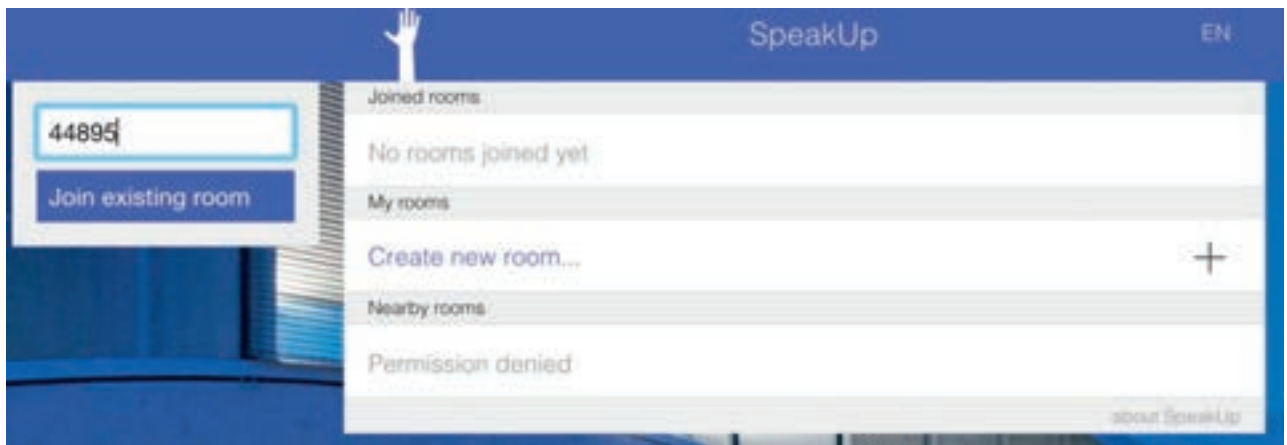
Annex

SpeakUpBox is an app encouraging speaker-audience interaction. With **no login**, SpeakUp allows to create or enter a shared chat room where people can **write and rate messages anonymously**. With the **SpeakUpBox**, all the power of SpeakUp is available locally with **no cloud connection**.

Indeed, all data is strictly confined to the box. For more details contact: adrian.holzer@epfl.ch.

How to use the SpeakUpBox

- 1 - Connect to the **SpeakUp WiFi** (password: **speakuplocal**)
- 2 - Open a browser on **<http://speakup.info>**, or open the SpeakUp app (on iOS or Android)
- 3 - Join the UNCTAD'14 room number **44895**



- 4 - Post questions and comments and rate them

