

XXI Infopoverty World Conference

How to build a fairer and more inclusive Digital Society?

December 3, 2021

Hybrid meeting streamed on UN Webcast



Agenda

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Hybrid meeting

Opening Session

Institutional Greetings

Marco Romiti, *First Councillor for Economic Affairs, Permanent Mission of Italy to the United Nations*

H.E. Isa Ali Ibrahim (Pantami), *Nigerian Federal Minister of Communications and Digital Economy*

Pierpaolo Saporito, *President, OCCAM and Infopoverty Programme*

First Session A leap of civilization: building together a roadmap for the Next Digital Society

The emergency from Covid and climate change, as well as global instability, have deeply shocked the underpinnings of our society which, at the rendez-vous with globalization, calls for a redefinition of socioeconomic paradigms of our post-industrialization society. A global reset is in process: it is necessary to clarify its basic structural factors.

Daniela Rondinelli, *Member of the European Parliament, Commission on Employment and Social Affairs*

Neil Khor, *Special Advisor to the Executive Director, UN-Habitat*

Paola Pisano, *Professor of Economics, University of Torino and Former Minister for Technological Innovation and Digitalisation – Italy*

Vincenzo Paglia, *President, Pontifical Academy for Life – Vatican*

Anna Scavuzzo, *Deputy Mayor, City of Milan – Italy*

Imtiaz Dharker, *Queen's Gold Medal Poet and Chancellor, Newcastle University – United Kingdom*

Second Session Clean the planet, clean the web: how the virtual dimension can operate for tackling the new priorities

The virtual dimension is prevailing on the real one, determining vast effects on our daily life. Even the main socio-economical and governance structures are becoming obsolete, facing the challenges of the dramatic emergencies. Public and private institutions are massively mobilizing to find a sustainable solution empowered by new digital technologies. The acceleration of the innovation process imposes a strong integration among scientific disciplines and a stronger interaction between the experts.

Heidi Tworek, *Associate Professor, University of British Columbia – Canada*

Syed Munir Khasru, *Lead Author and Co-Chair, T20 Task Force on Digital Transformation – Bangladesh*

Rosanna Di Gioia, *Cyber & Digital Citizens Security Researcher, EU Joint Research Centre – Italy*

Claudia Abreu Lopes, *Research Fellow, United Nations University International Institute for Global Health – Malaysia*

Muhammad Khurram Khan, *Founder & CEO, Global Foundation for Cyber Studies and Research – USA & King Saud University – Saudi Arabia*

Emmanuel Amos, *Chief Software Architect, Programos – Nigeria*

Tony Ojobo, *CEO, African ICT Foundation – Nigeria*

Third Session Digital way to prosperity for rural communities

Bottom-up experiences, shared in the virtual world, entail a strong effect able to influence the behaviour of communities. A series of best practices in action will be presented in the fields of food security, telemedicine, e-learning, and e-governance, able to outline the approaches and values of new generations.

Giovanna Seddaiu, *EWA-BELT Project Coordinator, University of Sassari and Desertification Research Centre – Italy*

Noel Makete, *Centre Director Sericulture Research Centre, KALRO*

Bazoumana Koulibaly, *Senior Scientist, INERA*

Deodatus Kiriba, *Agricultural Research Officer, NM-AIST,*

Joseph Adjebeng-Danquah, *Senior Research Scientist, CSIR-SARI*

Alemayehu Chala, *Associate Professor, Hawassa University,*

Joseph Tholley, *Dean, Faculty of Agriculture and Food Sciences,*

University of Makeni

Nyakach, *Kenya*

Léo District, *Burkina Faso*

Aremeru, *Tanzania*

Talensi, *Ghana*

Hula, *Ethiopia*

Makeni, *Sierra Leone*

Toky Ravoavy, *Ligne Verte NGO – in connection from Toamasina Young Research Centre, Madagascar*

Fourth Session The journey towards a sustainable, fairer and more inclusive Digital Society

A tentative synthesis from the Civil Society will be discussed on how to enrich and implement the results and suggestions emerged during the G20 Summit and the COP26, to meet the needs and expectations of disadvantaged communities.

Nicol Turner-Lee, *Director, The Center for Technology Innovation at Brookings – USA*

Andrea Ciucci, *Coordinating Secretary, Pontifical Academy for Life – Vatican*

Benjamin Horton, *Project Lead, Common Futures Conversations, Chatham House – United Kingdom*

Hassan Ghazal, *President, Moroccan Association for Telemedicine and eHealth – Morocco*

Patrizio Civili, *Special Adviser to the Director-General, International Development Law Organization*

Roundtable Digital Society: New Generation voices

Where are we going? How can we make an impact for the future generations? The new Marconi, Edison, Ford, Einstein – those capable of producing new revolutionary syntheses – are perhaps already among us, working to create new paradigms for living in the Digital Age.

MODERATOR: Maria Chiara Scipioni, *Chargée de Mission, OCCAM – Italy*

Erin McCluskey, *Founder, Ocean Plastic Leadership Network (affiliated to the UN) – USA*

Irene Okike Mmam, *WSA National Nominee – Nigeria*

Roberta Bosu, *Global Sustainability Project Leader, Avery Dennison – The Netherlands*

Abishek Kumar, *CEO, Lung Foundation – India*

Michel Alimasi, *Social Impact Strategist – United Kingdom*

Final Declaration

The Participants to the 21st Infopoverty World Conference,

Thanking

Marco Romiti, First Counsellor, Permanent Mission of Italy to the UN; H.E. Isa Ali Ibrahim (Pantami), Nigerian Federal Minister of Communications and Digital Economy; Pierpaolo Saporito, President of OCCAM and Infopoverty Programme; Hon. Daniela Rondinelli, Member of the European Parliament; Prof. Paola Pisano, Former Minister for Technological Innovation and Digitalisation; Archbishop Vincenzo Paglia, President of the Pontifical Academy for Life; Anna Scavuzzo, Vice Major of Milan; Imtiaz Dharker, poet; Prof. Heidi Tworek; Mr Syed Munir Khasru; Dr Rosanna Di Gioia; Dr Claudia Abreu Lopes; Mr Muhammad Khurram Khan; Mr Emmanuel Amos; President Tony Ojobo; Prof. Giovanna Seddaiu, EWA-BELT Coordinator; Dr Noel Makete; Dr Bazoumana Koulibaly; Dr Deodatus Kiriba; Dr Joseph Adjebeng-Danquah; Prof. Alemayehu Chala; Prof. Joseph Tholley; Mr Toky Ravoavy; Dr Nicol Turner-Lee; Rev. Andrea Ciucci; Mr Benjamin Horton; Dr Hassan Ghazal; Mr Patrizio Civili; Ms Erin McCluskey; Ms Irene Okike Mmam; Ms Roberta Bosu; Mr Abishek Kumar; and Mr Michel Alimasi.

convene on the following

1. This year, we can ideally say that the digital revolution has seen its **entelekia** blossom, thanks also to the pandemic that has demonstrated the fragility and inadequacy of the existing institutional structures in addressing the concomitant environmental, economic, and social crises.
2. Only the ICTs – Information Communication Technologies – are able to provide solutions to these emergencies, with smart working, e-commerce, and e-learning transforming essential functions from a physical nature to a virtual one.
3. New paradigms have emerged thanks to global connectivity, a unifying language, that has allowed the overcoming of the space-time constraints in the new virtual territories that have opened, making us aware that we are **one human community**.
4. Virtual territories have surfaced, created mostly by private instances, soon populated by immense masses interconnected through forms of interactive communication that have never been experienced in history.
5. But now that we have started to get to know these new virtual territories, in which we have taken refuge from the risks of reality, we need to ask ourselves: are they safe and reliable? Who governs them? What underlies them? What purpose does their being have? But, most importantly, how can this phenomenon now underway determine the creation of a new digital society?
6. **The conference** dealt with these issues with the competence of its prestigious participants and by elaborating some apt suggestions to establish a feasible scenario, while still being aware of the fragmentation of the puzzle being played.
7. Being the most complex operating virtual organism, the Web is based on matrices created for the most part by private companies, who have quickly become the main owners, financial superpowers acting with ever-increasing liberty in savage far-west-like territories. In order to safeguard such an environment, the need for a **Regulator** strongly emerges, one able to ensure respect for human rights, the enhancement of cultural identities, and a standardization that avoids any discrimination and is inclusive of all social components beginning with the most disadvantaged. Further, this Regulator must be able to provide services to those in need in terms of affordability and sustainability for all. A Regulator which, we hope, the gathering of Nations can establish, and equip with adequate instruments.
8. The mechanisms that create the digital world are substantially hinged on **algorithms**, the crucial elements of platforms. These algorithms are created often without too many concerns about security, affordability, compliance, insofar they are not fraudulent or virus generators. It is recommended to urgently qualify the

informatic operators in a formal **professional Order**, as in other sensitive professions, such as the medical or architectural ones, so they are bound to **ethical** principles, in order to avoid the current risks at the root and to guarantee a clean web at source.

9. The current mechanisms of proliferation and data management need to be oriented not towards the existing speculative use, but rather towards those social instances that only democratic institutions can guarantee. Therefore, maximum rigour about **Privacy** is suggested, hitherto little protected because of the IT sophisms put in place by marketing strategies, oriented to the sale of products and not of services for a generalized well-being.
10. The innovations triggered by the advent of the blockchain, which eliminates traditional controls, shakes the structure on which the entire global financial system rests upon, one already weakened by the huge gap between GDP and Futures values. The **dematerialization of money**, together with the advent of cryptocurrencies, is changing the entire financial system, currently entangled in huge debts. This breakdown necessarily imposes new strategies to **incentivize mass circulation** rather than the accumulation by a few, in order to activate latent human resources, not only material, by simplifying access and procedures.
11. In the existing pandemic situation, it is a duty and a necessity to ensure widespread telemedicine, at present hampered by obsolete practices; as well as training, linked to a post-industrial vision; job creation in terms of new meanings of prosumer; food security, to avoid situations of famine; and other e-services for development. If adequately set-up and operative, these processes will guarantee the most successful best practices, so that they can be implemented by capable and prominent institutions (governments, communities, NGOs or other) on a wide scale, establishing a kind of **Bank of e-Best Practices** for promoting and sharing solutions of e-welfare for all, thus sustaining the core mission of the conference.
12. The criterion of sustainability must be extended, from the social one, where poverty is linked to the index of tolerable wealth, quality of life and social stability, to the sustainable capacity of a community in order to preserve its identity. Such a criterion is also valid for climate change, related to clean energies and the necessary product innovations tending to energetic self-sufficiency or low voltage and consumption motors, and could be applied in all aspects of governance; establishing **homogeneous criteria of sustainability** in all the fields means improving their performances on the expected outcomes.
13. Scientific research in **Artificial Intelligence** is leading to a sort of gold rush to find the ideal formula that can rationalize every action on the world as a whole: a Promethean project of automation and robotization, in which the human factor becomes negligible. This process must be democratically governed at the highest levels with an extensive knowledge and data sharing, openness to copyleft so that decisions could be inspired by primary human values. Neurological-computation science, if not human-rights oriented, could degenerate in a nefarious instrument of power. We therefore make our suggestion to establish an **ethical mechanism** able to supervise and orient the Artificial Intelligence evolution, which can correctly lead this process. The innovations triggered by the advent of the blockchain, which eliminates traditional controls, risks shaking the structure on which the entire global financial system rests upon.
14. To avoid such perils and to open a new era of prosperity, thanks to the correct use of digital, we join the Secretary General of the United Nations, Mr. **Gutierrez**, in supporting the creation of a large proactive **Alliance** with all the main social, public and private stakeholders of the transition process, in order to overcome together the current dramatic situation and create a win-win strategy in favour of human development on our planet.
15. In light of the results achieved on such challenging topics, the 21st Infopoverty World Conference intends to strengthen the efforts already underway between eminent public and private institutions with further studies and meetings, launching a **consultation structure** open to various qualified contributions, and thus reaching the next Infopoverty Conference in 2022 with an increasingly operational definition of the **roadmap** that leads to the construction of *a fairer, and more inclusive Digital Society*.

Opening session

Marco Romiti, *First Councillor for Economic Affairs, Permanent Mission of Italy to the United Nations*

“The Digital revolution is an opportunity to foster an inclusive digital society [...]. The elaboration of a roadmap is particularly useful for the definition and implementation of common actions that can complement our progress towards a fairer society, and a more sustainable world, that is in line with the 2030 agenda. We believe in the importance of implementing the human center and inclusive 3 application of digital technologies, increasing the digital access, and promoting digital solutions for all, while considering the additional barriers of vulnerable and underrepresented groups, especially those living in remote and rural areas”.

H.E. Isa Ali Ibrahim (Pantami) *Nigerian Federal Minister of Communications and Digital Economy*

“It is important to underline that a common mission should be the rise of new ideas in the field of technology, which eventually increased productivity. The people's forum needs to be taken into account to foster innovative development collaboration and cooperation in the advancement of an international dialogue”.

Pierpaolo Saporito, *President of OCCAM and Infopoverty Programme*, presented the General Introduction, the Observatory's Report which explores the process of how a fairer and more inclusive Digital Society could be built, as stated at Grand Conversation.

Methodologically speaking, assuming **Game Theory** as a model to analyse the great complexities inherent to the current processes leading the transitions from the real world to the virtual one, a game simulation was presented where the cards in the deck represent the different *factors of change*. Among others: **Human Community**, unified by languages and connectivity; **New Paradigms**, based on the cancellation of time and space in the web, global connectivity, transition from atom to bit; **Poverty** and the necessity to adapt the Index of Social Sustainability as well as new strategies for redistribution and re-appropriation of resources in view of bridging the gap; **Money** in the process of de-materialization where the virtual value surpasses the real value; **Algorithms**, the bricks for building the new society to be adequately designed; **Platforms**, the settlements where actions are stored; **Security**, the basis for legality; **Homo Digitalis** born from the Digital Revolution and changing the hierarchy of powers from the bottom; **Climate change** and the urgency of clean energy transforming the settings of production; **Knowledge Sharing**, the precondition for an Open Society; **Data**, the blood of transformation to be preserved; **e-services** to guarantee e-welfare for all; **TLC infrastructure** to assure connectivity; **Artificial Intelligence** where the scripts become deterministic forms of decision; **Regulatory instance** to safely rationalise the Far West inhabiting the digital world and tamed by international guidance under the UN.

All these factors of change combined result in a **vector field** where it is possible to understand and evaluate both the singular *trends* given by the direction that each factor intrinsically chooses to follow, and the ongoing *polarization* induced by strong external events, such as wars, health, social and economic crises, ideologies (etc.). Once we recognize the vector nature of each card/factor, we can analyze the mutual dynamic *interferences* and the way the whole field develops trends, and then identify and evaluate the *indices* of transition and the related direction. We should remember that the Industrial Revolution led to great destructive clashes. For avoiding the same results, the digital revolution must necessarily consider fundamental human rights and sustainability values so to avoid total destruction. Finally, the decision-making process can be activated with a clear vision of the perspectives.

On these methodological premises, the discussion was opened.

First session

“A leap of civilization: building together a roadmap for the Next Digital Society”

Daniela Rondinelli, *Member of the European Parliament, Commission on Employment and Social Affairs*

“[...] The new digital society is not the consequence of a randomized process, raising crucial question concerning governance, as well as its long-term effects of one on our choices on the future of mankind, and of the planet. The definition and implementation of a new development *paradigma* has become the main priority for all the chancelleries of the main global players. To be driver of the change in the global scenario, European Union started to face one by one all the loopholes that break today internal integration process. The symmetric crisis generated by the pandemic pushed the 27 member states to experience a new and deeper form of cooperation, based on to 2 principles: Nobody can be left behind, and nobody can help itself alone. On this basis, the European Union created the new generation-EU, aimed at reshaping a greener, more digital, and more resilient continent in line with the SDGs of the United Nations. [...] My wish as a European policy maker, is that this spirit will be remembered by the next generations as the age of courage and not the age of waiting. I'm fully convinced that conferences like this can contribute to just for these individual efforts into a collective vision”.

Paola Pisano, *Professor of Economics, University of Torino and Former Minister for Technological Innovation and Digitalisation*

“We have to work together for an inclusive and digital economy and society creating the right infrastructure, developing human and institutional capacity and protect human rights, the technological challenges brought upon by Covid-19 have been tremendous. Italy can play a major role in the summary cable connectivity between Europe and other countries. Thanks to our geographical position in the middle of the Mediterranean, we connect Europe to Africa vertically and east to west horizontally. And we also have the strongest practice in fiber manufacture and fiber deployment thanks to our national organizations. [...] Understanding the mapping assistant digital training initiative to assess gaps in defining formal routing solution is important. For these reasons, the public administration is defining a huge plan of public administration for upskilling and reskilling competence, thanks to a technological platform.”

Vincenzo Paglia, *President, Pontifical Academy for Life – Vatican*

“While humanity has already lived through many periods of radical transformation, we are faced today with a technological innovation that is particularly disruptive, both in space, which is ever faster, and it is pervasiveness, as it directly touches the life of not only individuals, but all society as well. I am referring to emergent, and convergent technologies that allow us to intervene deeply within a living matter, acting on the molecular basis of the human body. We cannot avoid our responsibility for preventing disastrous outcomes. How can we stop humanity from becoming merrily technological and instead humanize the technology? How, can we avoid being controlled by an Algocracy by the power of data and algorithms? Should be develop a vision of a society, and of the future of our planet where humans are the masters, and no slaves. I think it is important to avoid giving doctrinal or authoritarian power or government or private business interests. But this avoidance is possible only if ethics is given a role, not only when a product is built and in the box. Rather, ethics, should be present all during the whole process of research and development. We need an ethics that influences the criteria that underlie both Algorithm Design, and the responsibilities of those who participate in the various stages of algorithm formulation. The goal is the new era of artificial intelligence, is to ensure skilled and chaired over some of the processes that govern the interaction between humans and machines. At this point, data, become all important. [...] We must never forget that behind every bite collected, there are really people, real people. We can't forget that the data we collect and feed into artificial constructs of places are lived by real human beings.”

Anna Scavuzzo, *Vice Mayor, City of Milan – Italy*

“[...] What we need are policies that cover food losses and distribute them to people in need, a very complex logistics system that exploits and upscale the projects locally, and to spread the good practices among cities. It's very important for us to have a very pragmatic approach and technology and digitalization can help us in that pilot project, together with scaling up with huge numbers.”

Imtiaz Dharker, *Queen's Gold Medal Poet and Chancellor, Newcastle University*

She close the session by reading the poem *Blessing*: “*The skin cracks like a pod./There never is enough water./Imagine the drip of it,/the small splash, echo/in a tin mug,/the voice of a kindly god./Sometimes, the sudden rush /of fortune. The municipal pipe bursts,/silver crashes to the ground /and the flow has found/a roar of tongues. From the huts,/a congregation: every man woman/ child for streets around /butts in, with pots,/brass, copper, aluminium,/plastic buckets,/frantic hands,/and naked children/screaming in the liquid sun,/their highlights polished to perfection,/flashing light,/as the blessing sings /over their small bones*”.

Second session

“Clean the planet, clean the web: how the virtual dimension can operate for tackling the new priorities”

Heidi Tworek, *Associate Professor, University of British Columbia – Canada*

“There are four main things that we can focus on [...]: content moderation data, protection, competition and infrastructure. [...] Analysing these four dimensions of content of data, of competition, and of infrastructure, together with [...] the environmental dimensions and the ways in which the laying of cables but also the creation of servers are having all sorts of potential effects, not just on those who are using the devices, but also those who live in places where the materials are coming from is crucial.”

Syed Munir Khasru, *Lead Author and Co-Chair, T20 Task Force on Digital Transformation – Bangladesh.*

“Europe has internet connectivity data connection [covering] almost 80%, where its total in Asia is around 57%, or in Africa is 37%. Many people are left out, [thus highlighting the] importance of developing more sustainable and inclusive internet infrastructures. Internet access must be more affordable, easier to access, particularly for the people living in the developing countries, as well as easily available to build data in such infrastructure in developing countries. For cleaning the Planet, it is important that the TECH Giants continue to invest in new sustainable technologies and infrastructures.”

Rosanna Di Gioia, *Cyber & Digital Citizens Security Researcher, EU Joint Research Centre – Italy*

"To clean the web of harmful content, the following steps are needed: conduct multidisciplinary research involving young citizens using participatory research and citizens' engagement to gather their opinions and needs; Support institutions responsible for conceiving and implementing policies, strategies and legislation to ensure they have the required data to make informed decisions; Establish effective partnerships with Member States authorities and Law Enforcement Agencies to identify best practices, meet specific needs and ensure security and privacy; Develop innovative and child-friendly tools, such as physical games and video games, to raise awareness and to foster digital skills development for all ages."

Muhammad Khurram Khan, *Founder & CEO, Global Foundation for Cyber Studies and Research – USA & King Saud University – Saudi Arabia*

“Report from the World Economic Forum categorized five global critical ways, which include economic, environmental geopolitical societal and technological risk. So as per the report, one of the top 10 ways in terms of likelihood is cyber security, which is ranked at number nine, while on the other hand, one of the top 10 risk in terms of impact is IT infrastructure breakdown, which is ranked at number 10, and that makes our hyper connected world quite scary.”

Emmanuel Amos, *Chief Software Architect, Programos – Nigeria*

“New national and international legislation is needed. Collaborating internationally and nationally for developing a new integrated program to include all areas and provide not only connectivity but also technological literacy support is of the outmost importance.”

Tony Ojobo, *CEO, African ICT Foundation – Nigeria*

“There is the need to bridge the digital divide, to make sure that no one is left behind. Everyone is included. Now why do we need the digital inclusion? [Because] only 43% of Africa is connected, which sums to about 590 million people of the African population. 4 Main points for Digital inclusivity: It has to be accessible; It has to be available; It has to be affordable; And then also, there is a need for adoption. Not only infrastructure, we need quality access. There is the need for us to bridge the device gaps in terms of how we can encourage equipment manufacturers to come up with low price devices that could be used in rural communities as well as the primary and secondary schools. Granting them access to the internet [must be accompanied] by institutional support, just like what our country is doing, as well as investments, them being an inspiration for a number of other countries.”

Third Session

Digital way to prosperity for rural communities

Giovanna Seddaiu, *EWA-BELT Project Coordinator, University of Sassari and Desertification Research Centre – Italy*

“The key concept that is overarching all the others, is that promotional food security at smallholder scale. But how? By reducing the gap, reducing the cost to harvest, implementing digital agriculture, empowering women. EWA-BELT is working hard in trying to achieve these goals and many more in a consortium of 20 partners based in UK, France, Italy, Greece and Sub-Saharan Africa.”

Noel Makete, *Centre Director Sericulture Research Centre, KALRO*

“The approach we are using is participatory technology development and dissemination within the farmer field research unit. And this is basically learning by doing. Here, we are evaluating different varieties for farmer preferred, underutilized and neglected crops, and also their associated agronomic principles, including pest and disease management, soil fertility management as well as pre and post-harvest management. These technologies ensure that it's not just about proper agronomic principles, but also about the protection of the crop while in the field and after harvesting. The post-harvest technologies will ensure produce remains in good condition, is safe for consumption and can store for a longer period.

For the past one year working with the different stakeholders in the project has led to strengthened linkages and formation of networks among participating institutions and farmer groups.

Bazoumana Koulibaly, *Senior Scientist, INERA*

“To meet the high food demand due to increase in population and soil degradation, there is high pressure on natural resources in Burkina Faso condition. The importance of these problems recommends accurate information on key parameters of farming system for their sustainability, which is sometimes affected by relevant economic aspects. As contribution to food security and farming systems sustainability, the EWA-BELT project is promoting traditional and innovative agricultural practices, improvement of crops and food protection as well as technology-related instruments. EWA-BELT project will also contribute in the promotion of neglected and underutilized species (NUS) for food diversification and soil integrated fertility management for achieving food security goals and the improvement of household income for small farmers.

Deodatus Kiriba, *Agricultural Research Officer, NM-AIST*

“In Tanzania, we are constrained by many both a biotech in bad factors, which include land degradation, and contamination, like the fluoride. But we also have low appropriate exhibited by the climate change in law square footage. [...] So, to give a case study now in Tanzania, the EWA-BELT Project has done much on the land restoration; we first did the land degradation survey to map the degradation caused by poor quality factors. After mapping the land degradation, new approaches, including managing and covering integration, will be done to recover the soybeans, or utilizing the available neglected crops as to benefit the farmers in the integrated lens.

But we are also implementing this oil in the water management experiment. We are encouraging farmers to utilize the available organic sources to inorganic.”

Joseph Adjebeng-Danquah, *Senior Research Scientist, CSIR-SARI*

“We have low crop yields resulting from poor soils and low inputs use and cultivation of low yielding varieties. There's also a sporadic outbreak of pests. In Ghana EWA-BELT activities have been carried out in 4 case study areas, made up of four districts. In addition, we are also validating some of the technologies at three of our stations so to validate them this year and then use them in subsequent years of the projects. We are also looking at integrated soil fertility and water management practices to improve the yield of sorghum and millet. Studies are being carried out to develop effective pre and post-harvest strategies that looks at minimizing aflatoxin contamination in groundnut and maize. Different storage structures also being assessed for their effectiveness in managing aflatoxin contamination in stored grains and legumes. Further, for the soil nutrient management, we are trying to look at using compost from locally available plant residues to prepare organic fertilizer that can be utilized by the farmers. Both Kundok Development Consult Limited and CSIR SARI are also assessing the effectiveness of plant-based pesticides in controlling pests of maize and cowpea.

We are also looking at future perspectives on how we can use ICTs to help the dissemination of these technologies for the rural communities.”

Joseph Tholley, *Dean, Faculty of Agriculture and Food Sciences, University of Makeni*

“Typically, in Sierra Leone, any farmer must carry a small amount of animal husbandry either in the form of chickens, or goods or sheep, and then crops. The EWA-BELT Project is trying to understand what and how we can modify or rather not the system. But, how can we adjust and put this combination systematically in a more organized manner so that the farmers can continue to produce and increase their productivity? By creating not only a high yield component, but also by sustaining the environment in which farmers are producing. This is the main goal of an *integrated agriculture*, which is encouraging mixed farming.”

Alemayehu Chala, *Hawassa University*

“The agricultural practices in Ethiopia are underdeveloped and there is less efficient transition to more productivity. Although, local crop varieties are resilient and adaptive to the prevailing environmental conditions, they are constantly facing various constraints including insect pests, diseases as well as adverse climate and weather conditions. In addition, access to resources, and modern knowledge and technologies is limited. In this context, we carry out some major activities. First is non-recovery, which involves identification and mapping of existing situation and constraints, as well as some of the indigenous practices and knowledge, and crop traits (including that of neglected and underutilized crops) in order to best utilize them in a way that improves agricultural productivity and sustainability. Besides, we are engaged in evaluation and testing of integrated soil fertility and pest management practices. We are also searching possible ways of optimization of pesticide use and finding alternatives to synthetic pesticides for those farmers to exploit the most in a way which is cost-effective and sustainable.

Toky Ravoavy, *Ligne Verte NGO, Madagascar*

“What is missing to move towards real change with the many global challenges [the] digital revolution [entails]? Human solidarity and digital technology for the exchange of good practices. Madagascar is connected to the world, but it needs the world with good practices and know how to protect its unique biodiversity and exploit its potential: young people, natural resources, farmland and mines.”

Fourth Session

The journey towards a sustainable, fairer and more inclusive Digital Society

Nicol Turner-Lee, *Director, The Center for Technology Innovation at Brookings – USA*

“[There are many] problems with the digital divide. Still, 2.2 billion young people under the age of 25 are not connected to the internet across the world. Here in the United States, we saw millions of students who did not have either internet access or a device. In my view, being disconnected from the internet – whether in the U.S. or across the world - is a symptom of poverty. And it's a poverty that is not only economically based, but it's one in which we rob people of the opportunities available to them, particularly in civic engagement. That is why the digital divide is not an either-or solution; everyone needs internet, a mobile phone, an internet banking account.”

Andrea Ciucci, *Coordinating Secretary, Pontifical Academy for Life – Vatican*

“Digital transformation, in fact, has allowed us to realize one of the dreams that have always characterized human society a universal language. We have invented a system to encode (and thus communicate and share) almost all of human experience. Yesterday simple operations, then data, texts, images, sounds. Soon after emotions or pre-conscious neuronal commands. Digitalization has offered a common language, capable of enabling the whole world, the entire human species, to dialogue. This is why we are fascinated by it, and we understand all its possible advantages. At the same time, digital transformation has a powerful and insidious limitation. If we see more and more frequently the retreat from the exercise of common responsibility, the prevalence of localisms and particularisms, continental and national resistances, it is also because a common digital language, with the possibility of understanding and saying almost everything, opens us to the temptation that everyone says the same thing, that the same language, the same discourse are imposed on everyone.

The powerful universality of digital transformation brings with it the serious risk of a cultural and anthropological homogenization, even more deeply rooted than the biases that infect the extensive data with which we read the present and predict the future. Global governance sees in digitalization one of its most powerful and effective tools, but if we want to produce positive and lasting fruits, we cannot build it by creating a mono-cultural world that erases and eliminates the differences and the infinite manifestations of human history.

“A sustainable, fairer and more inclusive society” can exist only if it is able to preserve differences and make them coexist in peace. Peace is not made by erasing the details, but rather by putting them in respectful dialogue with each other.”

Benjamin Horton, *Project Lead, Common Futures Conversations, Chatham House – United Kingdom*

“How digital tools can enable international exchanges and how they are enabling international exchanges [is the focus]. Focusing on young people, who feel tokenized or patronized by decision makers, is not necessary.

The only way to build a fairer and more inclusive digital society is to bridge the gap between policy elites and youth. Chatham House launched a project called “Common Futures Conversations”, which delivers an online community space for young people to develop their own ideas about issues across all different policy areas from the energy transition to eradicating modern slavery. Furthermore, it is fundamental to develop better participatory models to allow young people to participate in the policy-making. Another relevant topic is the “barrier of connectivity”, since a large part of the global population don’t have sufficient internet access.”

Hassan Ghazal, *President, Moroccan Association for Telemedicine and eHealth – Morocco*

“Digital health is a strategy for delivering healthcare more efficiently and effectively; all the results achieved are contributed to the citizenry, which aims to ensure healthy lives. Equity in health is a significant key for including diverse population and achieving global inclusiveness in digital development. In the digital age, it is fundamental that no one is left behind, to enhance access, reaching the most vulnerable populations. From 2022 to 2025, the aim is to strengthen the system by using digital health technologies for consumers, health professional, healthcare provider and industry in order to empower patients and achieve a global of health for all. In the MENA region many programs have been developed: telemedicine program in Lebanon, online medical refill request and telemedicine program; programs of psychological support for confined people in UAE, and many others.”

Patrizio Civili, *Special Adviser to the Director-General, International Development Law Organization*

The COVID 19 pandemic has brought to the fore the major evolution that information and communication technologies have undergone in the past decade. This evolution has been instrumental in preventing the global economy from grinding to a halt in spite of the physical isolation imposed by the pandemic. And, here at the UN, it has permitted diplomatic negotiations in the Security Council and the General Assembly, and the knowledge-sharing work of the UN Secretariat, to continue uninterrupted, online: what was lost in human interaction the UN gained in outreach beyond its conference rooms. But the pandemic also brought out in the starkest possible terms the inequalities that exist and continue to grow within and among societies, certainly in relation to access to the internet. And it has showed the extent to which the great capacity for outreach of social media can be misused to spread misinformation and inflame conflict. There has, in parallel, been a remarkable shift in the way the UN has been addressing digital technology policy, no longer as a separate, largely technical issue on its agenda, but in a way that is fully integrated in policy development in the 3 basic areas of UN engagement: sustainable development but also conflict prevention and the advancement of human rights. This approach has guided the UN Secretary General's recent "Roadmap for Digital Cooperation" and has informed the far-reaching proposals he has put to the current session of the UN General Assembly in his report on "Our Common Agenda".

The Secretary General's proposals project universal access to the Internet as a basic human right and as a contribution to renewing the social contract between government and citizens. They approach the internet as a global public good and call for strengthening its governance as an important part of the effort to improve multilateral governance of the global commons. And they call for a Global Digital Compact to promote integrity in public information and advance toward an "open, free and secure digital future for all". So, a great deal of purposeful action to which this series of conferences has a great deal to contribute.

Roundtable

“Digital Society: New Generation voices”

Erin McCluskey, *Founder, Ocean Plastic Leadership Network (affiliated to the UN) – USA*

“11 million metric tons of plastic enters the ocean each year. And it's not just in our ocean plastic pollution is choking our waterways; before it gets to the ocean it's in our soil, our air and our bodies, and it's a massive environmental challenge. We also know that it's not merely a technical challenge; just like climate change, it has very much social and political components. [...] We recognize that everyone is an expert in their own way, but we also have a lot to learn from each other. In order to have a fuller understanding of the challenge before us, we need to start talking to each other. So we've created this kind of model of bringing people from different perspectives into the same room. And we think that model is what we really need to see in the world, which is finding Pathways Forward with those that we that we disagree with. The world doesn't change by one person at a time, it changes as a network of relationships forms among people who discover they share a common cause and vision of what's possible.”

Irene Okike Mmam, *WSA National Nominee – Nigeria*

“Nigeria has many challenges ahead to be addressed, from health issue to cryptocurrencies, digital identity and much more. The development of new innovative technologies is the only solution for developing new innovative strategies for building a more inclusive and resilient Digital Society; Starting from financial apps to clinic diagnostics app to welfare assistance app and so on.”

Roberta Bosu, *Global Sustainability Project Leader, Avery Dennison – The Netherlands*

“There are a lot of significant barriers that must be addressed, like for example the E-waste, but there are also a lot of ways to get started. I work for a manufacturer company where we produce sticky labels. And, from our perspective, so from a manufacturer perspective, we can definitely go beyond all of these problems like the E-waste or trying to find better resources. So definitely, four factors can get people engaged. The first one is

embedded temporary economy principles. The second point is definitely transparency followed by collaboration and finally by digital inclusion”.

Abishek Kumar, *CEO, Lung Foundation – India*

“Climate change is a problem related to Human health. [...] We found that 30% of school children in Delhi have asthma [on a sample of around 4000 schoolchildren]. The reason I am sharing this information with you is that if you read the small text only 12% of these children are diagnosed, and only 3% are on some form of treatment. The first question is: is information reaching the right individuals? [Often], when we talk about air quality, when we talk about climate change, we're talking in conferences where a lot of individuals are not there. We then need to stop and question ourselves on whether we are actually engaging the various stakeholders of the society, the various people who can be responsible for action, and also for influencing the policy maker. The second question is: are the people who we think are informed actually informed? We thought the people of Delhi would know about air quality index since the air is really bad, but they did not.”

Michel Alimasi, *Social Impact Strategist – United Kingdom*

“The young generation is the one which has been left behind. The media, the prejudice, the young people, we are the digital generation, or the future. We are the last generation that can save the world. We are digital natives. But if you just look at the statistics about all the main four or five platforms, there are not so many young people involved, at least not covering crucial positions. All the content is still shaped but older people, or by the mainstream news media or is even owned by the mainstream news media.”

The Final Discussion of the 21st Infopoverity World Conference has brought to light the following considerations:

- a) By better recovering from the disruption caused by the pandemic, we must ensure that the digital society we are creating for the future is guided by the vision and goals of the 2030 Agenda. Some important issues emerged forcefully: the necessity to reduce the digital divide in African and Asian countries, ensuring accessibility and security to the Web; the development of digital literacy; the reducing of the gender gap; the promotion of e-learning and digital education; as stated by Daniela Rondinelli, Tony Ojobo, Rosanna Di Gioia, Amos Emmanuel, Heidi Tworek, Nicol Turner Lee, Benjamin Horton, Roberta Bosu, Michel Alimasi.
- b) Be aware that the Digital Society is made by and for the human being, who must be protected both from a legal and an ethical point of view. Law enforcement agencies and an Ethical Committee to ensure security and privacy, as well as to increase awareness and development of digital skills and support for literacy, are necessary aspects to be addressed, together with respect for human rights from a digital perspective. The contributions of Andrea Ciucci, Rosanna Di Gioia and Patrizio Civili have explored all these aspects.
- c) The creation and strengthening of strong partnerships between the public and private sectors are essential to build a more inclusive digital society and achieve the SDGs, in particular SDG1 (on poverty reduction) and SDG 2 (on the elimination of hunger), bearing in mind also, in consideration to the participation at city level, issues related to health, food policies, the construction of synergies and the sharing of lessons learned on the basis of practical experiences, as stated by Anna Scavuzzo, Tony Ojobo, and Amos Emmanuel.
- d) The importance of cleaning up the web, also taking into consideration the environmental dimension. Underlying the Web dimension, internet infrastructures should be more sustainable, available, affordable, and accessible to the Internet, as stated by Nicol Turner Lee, Syed Munir Khasru, and Muhammad Khurram Khan.
- e) How to address food security and promote sustainable agriculture through new technologies and digital platforms capable of ensuring development in rural communities was illustrated by professors and experts

from University of Nazi Boni, University of Makeni, University of Nairobi, University of Hawassa, Jimma University, Kundock Development Consultant Limited, KALRO, Nelson Mandela African Institute Belonging to the EWABELT consortium, with best practices already successfully operating in 38 villages in Ethiopia, Kenya, Tanzania, Burkina Faso, Ghana, Sierra Leone.

- f) The need to bridge the digital divide, preserve cultural differences and develop a new concept of global community, which should be inclusive and enhance the active participation of young people and women, emerged from the statements of Benjamin Horton, Tony Ojobo, and Nicol Turner Lee.