Global Forum
Shaping the future 2022

In the framework of the upcoming **Global Forum 2022, that will take place on 17 & 18 October 2022, in Muscat, Oman**, a series of preparatory thematic webinars, featuring contributions, reflections and dialogue among key experts and interested stakeholders, are organized.

This report sums up the discussions of the Global Forum Thematic Webinar V.

Global Forum Thematic Webinar V

December 8th, 2021

Ethics and AI

&

Digital Transformation in Time of COVID-19

Participants (64):

Hélène Abrand, Sylvie Albert, Salim Alrawas, Ingrid Andersson, Nicolas Andrieu, Sherif Aziz, Youssef Berbash, Katherine Blizinsky, Yahia Bouabdellaoui, Ahmed Bounfour, Marius Burgat, Sladjana Cabrilo, Mojca Cargo, Guiseppe Carignani, Kay Chopard, Russ Chung, Don Davidson, Bob Deller, Jurij Dolžan, Rohan D'Souza, Elisabetta Fierro, Geneviève Fieux Castagnet, Kevin Fitzgibbons, Sofia Gaviria, Christoph Glauser, Stéphane Grumbach, Alessandro Guarino, Thomas Hart, Jidier, Malgorzata Kalinowska-Iszkowska, Nitya Karmakar, Hugo Kerschot, Eun-Ju Kim, Carla Langjahr, Nicholas Leck, Sébastien Lévy, Suvi Linden, Judy Logan, Giorgos Longinos, J. Scott Marcus, Jeremy Millard, Serge Miranda, Mike Nelson, Eikazu Niwano, Alice Pezard, Elise Ravenscroft, Michael Reiter, Judith Ryser, Hilary Sadler, Fatih M. Sahin, Gérald Santucci, Chetan Sharma, Susanne Siebald, Michael Stankosky, Johan Stronkhorst, Bénédicte Suzan, Yoshio Tanaka, Lynn Thiesmeyer, Sylviane Toporkoff, Lefteri Tsoukalas, Daniel Van Lerberghe, Paul Waller, Paul Wormeli, Sarah Zhao.

The Global Forum Thematic Webinar V on "Ethics and AI & Digital Transformation in Time of COVID-19" took place on December 8th, 2021 from 13:30 to 15:00 UTC+1 via Zoom.

With more than 60 participants joining from all over the world, this invitation-only webinar was a particularly thought-provoking one. Framed by brief expert presentations, the participants engaged in lively debates and deep discussions on critical issues and opportunities related to the use of AI and digital.

It was the fifth of a series of live webinars (the next will be on March 16, 2022) devised for the purpose of feeding the framework of the upcoming Global Forum 2022.

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¦ The path forward for AI ethics

Sarah Zhao, Partner Rimon Law, USA/China
¦ Newly Promulgated China Privacy Law and its Impact on the COVID Pandemic

Topic 2: Digital Transformation in Time of COVID-19

Stephane Grumbach, Research Director INRIA - Rhone Alpes, France &
Rohan D'Souza, Professor Graduate School of Asian and African Area Studies Kyoto University, Japan
¦ The Future of Education, EdTech from Ethics to Elite training

Serge Miranda, Scientific Director of MSc BIHAR (ESTIA) and MBDS Master's degree (University Côte d'Azur); President of Datum Academy, France
¦ Towards virtual multiversities of the future (in the data economy)

Judith Ryser, Journalist, UK
¦ Role of digitalisation in with- or post- COVID sustainable city planning from an urbanist point of view

Lynn Thiesmeyer, Keio University, Japan
¦ Challenges of transboundary health protocols in ASEAN under COVID-19: Potentials of digital - analogue frameworks on mobility and health

Christophe Glauser, CEO of ArgYou.com" (the Swiss Find Engine for measuring impact), Switzerland
¦ Why more than half of the information on the Internet is never used by the users. An impact analysis showing how to manage digital chances

Concluding Remarks

Welcome and Introduction

Ingrid Andersson, moderating, together with Sylviane Toporkoff, welcomed the participants to this 5th preparatory webinar of the Global Forum 2022.

Due to the uncertain pandemic situation with regards to the new variant outbreak and possible travel restrictions that may be imposed, the Global Forum 2022 will be postponed by a few months: As the event traditionally takes place in Autumn, the new dates set for the Global Forum are Monday and Tuesday, 17 & 18 October 2022.

The Ministry of Higher Education, Research and Innovation in Oman is supporting the Global Forum. The organisers are confident that the event will be able to take place in October in Muscat. However, in case the event cannot be held onsite, all technical possibilities will be used to make it either a hybrid or an online event.

Topic 1: Ethics & AI

Paul Wormeli, Innovation Strategist, Executive Director Emeritus, Integrated Justice Information Systems Institute – IJIS, Wormeli Consulting, USA, **discussed the path forward for AI ethics**.

There are thousands of applications for AI already in place. The worldwide market for AI in 2025 is estimated to be $190.61 billion. The forecasted AI annual growth rate in the next 7 years is 33%, which is high for any discipline. By 2030, China will be the world leader in AI technology, with 26.1% of the global market share, which of cause the rest of the world will compete with. In 2019, the machine learning application industry received $37 billion of funding in the U.S. By 2030, AI is estimated to lead to an $15.7 trillion, or 26% increase in global GDP.

However, in spite of all this, a huge percentage (93%) of the people involved in technology feel little prepared for dealing with the upcoming challenges regarding smart machine technologies and its impact on society. There are fears about three things in particular: The concern about the algorithms, which are at the heard of AI, and particular those that have been created by machine learning technology without human intervention, and the extent to which they result in misidentification, misinformation, and the misuse of personal data leading to consequences and harm to individuals.

A lot of what we fear is the unknown. We are still at an early stage in the roll-out of AI, and we are not sure where this is going to lead us without some action taken to protect against the abuses that may come from the use of this technology. The WHO published a set of 6 ethical principles to deal with AI: to protect human autonomy, to promote human well-being and safety and the public interest, to ensure transparency, explainability and intelligibility (especially with respect to the algorithms), to foster responsibility and accountability for those deploying AI, to ensure inclusiveness and equity in all AI applications, and to promote AI that is responsive and sustainable.

Many organizations throughout the world in almost every country are coming up with such kind of principles. Most of this work is been done on a country-by-country basis by democratic countries attempting to ensure that the democratic principles are embedded in the use of AI.

What can the Global Forum contribute to this discussion? As a unique organization that can acknowledge the international scope of this issue, not just for technologists, but for the impact upon society, the Global Forum is able to address cross-boundary issues, as it deals with a variety of boundaries', such as manufacturing, regulatory issues, health, education etc. The Global Forum has an interesting set of people involvement that brings together divergent and convergent views of industry, academia, government and civil society. A role for the Global Forum, at least to begin with, is to raise the critical questions that come from these varying perspectives.

The Global Forum's ambition is to try to explore the internationally shared ethical values that form the basis for developing guidelines and build a set of questions that are recognized internationally in order to promote an ethical reflection on technologies that are using AI.

The idea is to build a draft set of questions as a preparation for discussion. These issues will be discussed in detail at the Global Forum 2022 in order to come up with a document that can be distributed through all resources to influence companies and governments to include the questions in their consideration of the use, development and deployment of AI.

There are a number of universal questions applying to all disciplines in a democratic society, such as:

- How to protect human rights?
- How to structure governance?
- How to ensure equity and accuracy?
- How to enforce ethical policies in the use of AI?
- How to prevent abuses and misuses?
- How to ensure informed consent on the use of personal data?
- How to prohibit secondary uses of personal data?

A developer has a different set of question (in addition to the universal questions), such as:

- How to prevent algorithmic bias?
- How to limit or prevent unauthorized usage of outcomes?
- How to protect against intrusion and misappropriation?
- How to positively identify people?
- How to anonymize outcomes?
- Who owns the results?
- How to reflect the views of all stakeholders?

From the government perspective, there is a whole other set of questions:

- What constraints on the use of personal information will be enforced?
- How will secondary use of results be prohibited?
- What privacy rights will be protected and how?
- How will AI applications prohibit discrimination based on race, ethnic origin, gender, age or other class characteristics?

- Where, how and by whom can meaningful international ethics norms be developed, and how can they be put to use and be defended?
- What do democratic countries do to maintain and advance their competitive and innovative capabilities in AI?

Then, within many individual disciplines, there are topical questions, each one in turn generating further sub-questions:

- Algorithm transparency
- Impact on employment and training
- Support for responding to climate change
- Revolutionizing public health
- Gender manipulation
- Controlling disinformation

Stéphane Grumbach suggested not to overuse the word "democratic" given the current tension that exists at the international level regarding the use of that word. Not all countries are democratic and political systems change. AI might be a problem for all and for a long time, and most of what was said applies to both democratic and non-democratic countries.

Paul Wormeli agreed and explained that "democratic" referred less to actual governments than to the source of the values reflected in the questions. Some of the basic questions come from what one might call "people-oriented issues", the question of avoiding harm from the use of AI. Its meaning was more "people oriented" regardless of the form of government.

Sherif Aziz added that, once cloning came up, there was a global understanding of where limits should be set. For AI, there should be something similar to the protocols and global practices established in healthcare.

Yahia Bouabdellaoui proposed to start the with a definition of ethics. Ethics is some kind of moral philosophy, determined by social and cultural factors. AI is only a tool; it is easy to make laws but we the ethical culture.

Gérald Santucci added [via chat] that we may not agree on *one* definition of ethics. Almost every country has its own. A lot of overlap of course, but also significant differences, e.g., in the Western world the focus is on individual rights while in China (not only) the focus is on the wellbeing of the group/collectivity. Probably, we need to give one definition, but the most important output will be the questions.

He further suggested to map the questions (universal, developer, government, topical) onto the principles, to maintain coherence and good interpretation.

Eun-Ju Kim commented [via chat] that, in addition to WHO, UN agencies like ITU have been working intensively on AI issues, including ethical ones, from the aspects of international standards and policy in digital economy and transformation: e.g., AI 4 Good initiative, where all the stakeholders are also welcome. See also https://aiforgood.itu.int/

Hilary Sadler [via chat] referred to another UN institution dealing with Ai: https://oecd.ai/en/

Sarah Zhao, Partner Rimon Law, USA/China, **introduced the newly promulgated China Privacy Law and its impact on the COVID pandemic**.

Accelerated by the Pandemic, a comprehensive framework governing cybersecurity, data protection and privacy protection has been formed: China has issued a Cybersecurity Law in July 2017. The China Data Security Law has been issued in September 2021, followed by the China Privacy Law (or Personal Information Protection Law) and related implementation rules and regulations in November this year.

Some of the relevant issues impacting foreign institutions:

Major Internet service providers, with significant numbers of customers, are required to establish an independent supervision entity composed of external experts to supervise the protection of personal data, in accordance with Article 58 of the privacy law.

Foreign companies located outside of China that process personal data collected in China, shall establish a legal entity in China, or appoint a designated representative in China, and the contact information for such entities and representatives should be provided to the relevant administrative agencies in accordance with Article 53.

Governmental agencies' data collected in China shall be stored in China. The transfer of such data across international borders requires special assessments and approvals from the government. (Before, all data collected in China had to be stored in China. To some extent, this narrows the scope of the data that have to be stored in China).

In the event of a breach occurrence when the data processer has adopted effective measures to prevent the customers from any harm, the breach does not need to be reported in accordance with Article 57.

Article 41 states that, without the Chinese government's approval, the processers of personal data shall not transfer the data collected in China to overseas judicial and law enforcement institutions. (This statement is consistent with the previous existing practice in China, but this is the first time for the government to state it clearly in the Law. However, certain situations can be handled differently.)

The maximum monetary penalty has been raised to one million yuan for a general violation, and 50 million yuan for a serious case. Involved officers can be personally held liable for a maximum fine of one million yuan. In addition, criminal procedure penalties can be imposed for serious cases.

Other relevant issues are:

If a company goes through merger, acquisition, or bankruptcy, the data subjects shall be notified and the contact information for the new data holders should be provided to the data subjects.

Collecting personal images (avatars) in the public are not allowed for commercial usage without the consents of the data subjects, but it is allowed if the purpose of collecting is for the public security.

The audit reports for cross-borders data transfer assessments should be kept for no less than three years.

The law has clearly authorized the China Administration of Cybersecurity (CAC) to launch inquiry, investigation, inspection, seizure, and other related administrative actions against the violation of data protection rules.

In the current new age of data economy, the means to strike a balance between maximizing the free flow of data commerce and minimizing the risks of causing harm to personal data, has become a daunting task for regulators in every country. The Chinese government's recent rules have clarified certain elements that encourage the industry, while simultaneously imposing certain serious restrictions.

It is a fervent goal that regulators all over the world will strike the right balance between these elements to avoid a situation of "Stop Eating because of the Risk of Choking" so that more investors and industry players will be more willing to participate in this new data economy.

Topic 2: Digital Transformation in Time of COVID-19

Stephane Grumbach, Research Director INRIA - Rhone Alpes, France, **addressed the future of education: EdTech from ethics to elite training.**

Education has been tremendously affected by COVID and digital means have been used to respond to the lockdown situation. However, education is a field that will be radically transformed independently of COVID, although COVID has accelerated the situation.

Today, education is in a severe crisis for essentially three main reasons: First, technology has changed the way knowledge is accessed, transferred and produced. Just to mention search engines, Wikipedia, or the current cooperation between machines and human groups for research in protein structure prediction. Predictive models are completely changing the way we do and teach science. Technology has totally changed the picture. Second, most of the jobs that exist today will disappear in the very near future—which means that we have to train people differently than we have trained them in the past. New education and new curriculums have to be developed. And third, the current distrust in the elites, both the political elite and the scientific one. This distrust will not disappear very soon. It is correlated to the fact that there is a mismatch between the knowledge we produce, and in particular the one we produce with regard to the global environment, and the way we act. This discrepancy between how we act and the knowledge we are able to produce generates a global distrust in society.

The emergence of EdTech platforms will change the picture. Platforms are regulating and orchestrating two sides of the markets: producers and consumers (or to use the metaphor of a taxi: drivers and passengers).

All the markets we depend on will be managed through platforms in the coming decades, including health, i.e., the relationship between physicians and patients, but also education and the relation between teachers and students.

In general, platforms are very disruptive in those markets as they condemn most of the existing actors to obsolescence. The way schools and universities work today will soon become obsolete and will be transformed. There are many ways EdTech platforms can operate: They can be complementary to the existing school or university systems, or they can be alternatives to the existing systems.

Education is very political; it has to do with building a common culture and ensuring some kind of national cohesion. It has also to do with the way elites are trained and maintained in a country. Platforms are changing this picture in a very profound way, as they focus on individuals versus social groups, while universities, and in particular elite universities, train people to belong to a social group and share its culture and values. Another aspect is that platforms essentially operate from abroad, which means that a country's educational system could fully depend on platforms from another country (comparable to the extend we depend on search engines or cloud systems). This rises a lot of questions about the influence of one country on another and the capacity to drain brains towards the platform country.

There are many political questions that will come up and that have to be discussed very soon. The same way we have the discussion on AI and ethics, we could have the discussion on what education platforms should be like. For instance, China has heavily regulated platforms in the last year, and in particular EdTech platforms. As some people argue that access to EdTech platforms is unfair because you have to pay it, China is trying not to let them go public and is imposing heavy regulation.

Rohan D'Souza, Professor Graduate School of Asian and African Area Studies Kyoto University, Japan, **complemented the previous presentation on EdTech.**

There is a correlation between education and the production of elites. For instance, Eton was a very important training ramp for the British elites. Same for Harvard, Yale and other top universities in the USA—equally crucial to create a culture for national and global elites.

This raises the question of the relationship between EdTech and the production of elites. One critical aspect is the fact that interaction allows the students to reproduce behaviors. In fact, the student in EdTech is the product, not just the student or the customer. The student is the product as by producing these interactions, the students are revealing certain kinds of psychological profiles. Apart from the obvious question of data, another important question is: Do EdTech companies get an insight into people who, at some point of their life, could become leaders of companies or countries? What do those EdTech companies do with the information collected during the training and education service they are providing? Even if traditional universities and colleges (or even networks of students) also have the possibility to collect this type of information, EdTech companies will be privy to some deeper psychological aspects of people who might become leaders and make critical decisions.

EdTech can't be simply be placed in the context of education. There is a lot of work to be done in the context of EdTech companies and the production of elites. This might be one reason for China for shutting it down. States want to have the monopoly on the production of elites; they do not want those psychological profiles of their elite to be revealed or accessed by private companies.

If EdTech companies are about collecting behavioral information, and if the collection of behavioral information allows EdTech companies to get insights into the psychological profiles of their students, and if their students are really products rather than customers or students, then what would be the consequences for the elite production? EdTech companies should serve a large number of "ordinary" people and should not be allowed to produce elites. Elite production should remain in the traditional venues, i.e., universities and schools such as Oxford, Yale, Princeton, Harvard, Cambridge etc.

There could be an extremely steep divide between elite production, that will continue as previous, and mass education through EdTech. And we can already see this trend in the way EdTech companies are advertising themselves: it is really about mass education.

Sylvie Albert commented [via chat]: EdTech platforms have been there for a long time and have they truly affected post-secondary negatively? It seems that traditional education systems have the trust of society and this is a difficult strategic advantage that hasn't been pierced.

Jeremy Millard [via chat] advocated "blended" learning and teaching: Let tech do what it does best and people do what they do best. The challenge is this is a moveable feast… All evidence to date shows that people and AI working together leads to the best solutions, as in healthcare, education, work, etc.

He further added that there is a clear difference between the elites and the "meritocracy", but maybe they overlap to a great extent. Philosopher Micheal Sandell (Harvard) has some interested thoughts on this.

Serge Miranda, Scientific Director of MSc BIHAR (ESTIA) and MBDS Master's degree (University Côte d'Azur); President of Datum Academy, France, **pointed the way towards virtual multiversities of the future (in the data economy).**

The first 2 European MOOC-based Master degrees in computer science have been launched just before the pandemic, but were amplified by the COVID-19 crisis. One Master degree is from the University of Nice, the other one from the ESTIA school of Engineering in Biarritz.

We are living strong paradigm shifts, with the most important being the "4th paradigm of science" introduced by Jim Gray with respect to data and economy. In terms of education this means that every job will be altered by the digital transformation around data. From a computer science point of view, this concerns data management, data analysis, and AI. Education and universities are affected by two major disruptions: the first being MOOCs (Massively Open Online Courses) which started 10 years ago in Stanford. MOOCs rely on strong video tutoring and social networks of students. The second one being the strong demand for professional skills related to data analysis, artificial intelligence, big data management and cloud architecture. Those are the domains with a strong demand for skilled people and this demand will further increase in the coming years.

The term "multiversity" was coined by Clark Kerr, Dean of the University of Berkley in the 60s—a period of major disruption in universities. Kerr's multiversity, synonymous with "knowledge industry", marked the shift from traditional academic theory to industry-related applied education. At that time universities had to prove their adequacy regarding their relationship with the society and the economy—which finally led to the creation of the Silicon Valley.

We are currently facing the same disruption concerning eLearning and EdTech, amplified by the COVID-19 situation. During the pandemic, there had been a kind of reverse delivery of education: Normally, the students come to a given place to follow courses and obtain degrees. We almost have the reverse situation today, as the courses and degrees come to the students regardless of where they are. We are moving from centripetal universities of the past towards centrifugal multiversities of the future.

There are several indicators showing that this tsunami of skills in demand cannot be satisfied by traditional universities. GAFAM and others big private companies are taking on this role in higher-education. They are called “Gradeos” in Europe (also called “micro-master” in the USA or specialization depending on the MOOC platform). Customized Gradeos are filling the traditional gap between universities and the economy.

There is a completely new dimension for universities in the future, especially with regard to other disruptions in others parts of the world, such as Africa and India, where there will be a strong demand in the future due to the number of potential students.

Judith Ryser, Journalist, UK, **discussed the role of digitalisation in with- or post-COVID sustainable city planning from an urbanist point of view**.

We should not forget that the Global Forum is dealing with 4 major stakeholders: governments, industry, academia and the civil society. It is important that those four forces are considered as being of equal importance because ultimately the services go to the people or customers who are at the receiving end of the digitalization changes.

The role of planning is to find a balance between the common good and private interest. The planning concerns various levels ranging from global, national, regional or city levels. At the strategic city level, planning is about to conceive, to steer and to manage change. At the local level planning is about implementing the changes.

The impact of COVID on planning was to find a balance between public health and economy—a tension which continues to exist as COVID is still there. The impacts of COVID on cities are important both with regards to society and individuals. For instance, COVID imposed social distancing on the society, which resulted in individuals that started to lose the ability to socialize. There have been all sorts of unforeseen impacts. More homeworking, more online telemedicine, more online shopping, more distance learning, more youth online communication and changes in the mobility mode on the societal side resulted in suburbanization, poorer human relations, less urban liveability, missing student life and loneliness on the individual level.

As far as negative effects of digitalization and COVID are concerned, it has been very socially divisive, notably for the poorer children due to a lack online equipment, Internet connection and/or technical knowledge. This caused damages for their education—which will impact the children for the years to come. For the very young children, COVID made that they spend lots of time online, notably on their mobile phones. As a consequence, these children do not acquire the social skills of communicating and may suffer loneliness. (A phenomenon which is brilliantly described in the book “The Lonely Century” by Noreena Hertz, 2020 Spectre.)

The lesson urbanists learnt from COVID is that they need to rethink planning. Planning is very top down and reductionist; it is not about changing laws or new communication online, but about human beings being social animals. The digital world is not sufficient for humans, they need to have a greater mix between real and virtual communication with online communication and face to face contacts. Maybe the human nature is a bit nimbler and more flexible, and we should not rethink cities but rather rethink behaviours, notably with the use of AI and robotics but under human control.

Judith Ryser recommended [via chat]: The BBC 2021 Reith Lectures, Stuart Russell -- Living with Artificial Intelligence.

Lynn Thiesmeyer, Keio University, Japan**, presented the challenges of transboundary health protocols in ASEAN under COVID-19: Potentials of digital - analog frameworks on mobility and health**.

Migration or transboundary movement in Southeast Asia have always been important. There are various types of human movement in this area such as labour, poverty or climate migrations and various displacements due to political/ economic conflict situations, environmental displacement or economic development displacement.

Despite COVID lockdowns and despite the rapid spread of online meeting technologies, the ASEAN regional economy continues to rely heavily on movement of persons, from professionals and specialists to industrial, commercial and agricultural labour.

The recent health disaster of COVID-19 has caused the ASEAN countries to collaborate, re-formulate and share policies and practices, both for migration and for health, on the global—not—national level, using both digitized data and analogue knowledge.

The COVID-19 is a health disaster, whose spread is anthropogenic, much of the original transnational spread was attributed to human movement. The analog forms of knowledge in such disasters make more visible the role of diverse human activities and environments in the emergence and intensification of threats, and the construction of "knowledge" about them from "smaller" samples. AI require huge samples compared to analog analysis.

COVID-19 has led to multi-state, transboundary cooperation in health diagnostics, health protocols, containment of disease and patient-handling policies and allocation of care and caregivers. These protocols traverse national boundaries as well as many sectors, including those of government, health facilities, skills training and employment, and medical equipment. All of these used digitized information, rapid recording and transmission of digitized information, digital storage and recovery of information.

The analog information and knowledge are also used in the context of the pandemic. The "analog", or in this case "traditional" technologies and forms of knowledge are still applied often with a high degree of accuracy and efficiency for health diagnostics, health protocols, containment of disease/ patient-handling policies and for the determinations on care and caregiving.

The analog methods often rely on natural capital and some ASEAN populations with low income and/or low education are unable to access adequate modern medical care, but can find, prepare, and more fully understand traditional medicines, which they also find, gather, and use during migration.

The use of hybrid approaches, i.e., of both analog and digital, might be productive not only in times of health crisis but generally. The following case study of a health issue (COVID-19 and transboundary movement) is equally valid for environmental and climate crisis: Analog findings look for little-known threats, the digital transformation makes it more discoverable. It shows you the precursors of the thread. Then, one can use statistical predictors for more discoverability of the spread. The discovered threats need surveillance, that is where u need the digital transformation and surveillance should, in a positive case, lead to reliable and rapid statistical profiling.

For the analog findings to remain useful in hybrid approaches, there must be (among others) preservation of knowledge of particular human subjects (not only AI-generated statistics), interaction with humans and human behaviour, and knowledge of regions, ecology and geography.

The digital transformation has allowed many kinds of information to become visible, audible, and recoverable or saveable (salvageable). The digital and modern technologies have helped to gather more data about hazards, but they have not yet been as useful as hoped, in addressing, managing, or preventing hazards, especially those that have anthropogenic causes. That is, they have too often remained re-active rather than pro-active. This is where analog inputs are also needed. There is still a Digital Divide: Digital inputs and analyses are still often vertical. Hazards and disasters require interactive, horizontal inputs.

Sherif Aziz wanted to know whether "analog" refers to experiential knowledge and what happens to human experiential knowledge in the context in AI? Where to strike a balance between relying on human experience and the use of AI?

Lynn Thiesmeyer explained that it is an evolving situation because we do not really know yet where are the boundaries between the so-called analog. We do not even have a good definition for analog. For many years it was used as an opposite for virtual. When formulating the WWW in Japan, people used to say "knowledge versus information", which was also a rather spurious distinction—both contain pieces of both and the definitions are is so vague.

It is not just an idea, it is a set of practices, and much of what is analog is really lived experience. Knowledge is a human element. It would be very hard to have something that is entirely AI, because AI is conceived and produced by people as well. The idea is to avoid hegemony, i.e., to avoid that a particular technology takes over the choice. It is the choice (to use a digital technology or not) that is very important.

Sherif Aziz [via chat] shared the link https://leaddigest.com/choiceless-in-a-world-full-of-choices/

Mike Nelson commented [via chat] that very few discussions about "AI ethics" mention how unethical it would be to *not* use AI to save lives, improve health, protect citizens and nations. It is far too easy to say, "more study is needed" (even if that could mean hundreds or thousands of people will die). A complete cost/benefit analysis is needed.

Jeremy Millard agreed [via chat] on it being unethical not to use AI, as long as safeguards and ethics are in place. AI is a general-purpose technology that can be used for good or evil.

Youssef Berbash questioned [via chat] how AI or digitally delivered education can help students with special needs especially where students and school system are lacking the resources to provide for their education and training?

Christophe Glauser, CEO of ArgYou.com" (the Swiss Find Engine for measuring impact), Switzerland, **addressed the question why more than half of the information on the Internet is never used by the users, and presented an impact analysis showing how to manage digital chances.**

ArgYou is specialised in the digital market analysis and effectiveness research of online campaigns as well as in competition analyses of websites, i.e., web analytics based on data science.

One of the most important aspects around AI are anonymous data that can be used without infringing anyone's private life.

There is a lot of information out there in the Internet and less than half of it is ever searched. Traditional market research has become difficult in time of COVID: Personal interviews are hardly possible, same for telephone interviews, because the smartphone is considered as a private space. Email queries don't provide useful market information neither, because emails are always answered by the same people. But, no data no market!

However, in order to reach the right people, you have to know what these people are searching for. One possibility is to use technology, including AI and machine learning technology, to analyse what the users are searching for in the search field of Internet platforms. Connected market research in real time allows to analyse more than 14,000 different Internet platforms in order to find out the topics the users are really interested in (i.e., the topics they are searching for), as well as on which channels these people are searching (search engines, social media, e-shops). There are no privacy issues at stake, because it requires only the content and the channel to track down the market.

ArgYou is also providing digital impact KPIs when "impact" has to be measured within Horizon Europe calls.

Concluding Remarks

Sylviane Toporkoff, together with Ingrid Andersson, thanked the speakers and the participants for a fantastic webinar with great presentations and discussions.

The moderator reminded the upcoming **Global Forum Thematic Webinar VI on 16th March, 2022, addressing energy transition and water management solutions**.

Timing of the webinar: 1:30 pm to 3:00 pm Paris time / 7:30 am to 9:00 am Washington DC time / 9:30 pm to 11:00 pm Tokyo time.