

Distance Learning and Artificial Intelligence: New Challenges for Donald School Educational Activities

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COVID-19 pandemic had suddenly turned the highly globalized world into the lockdown when not only international travel was warranted but, in many instances, free movements within the countries and even within the neighborhood. Human rights were challenged during the fight against the new virus, but the pandemic has also raised questions about the obligations of each individual to protect others. Politics, science, and often the church were on the collision paths. Keeping in mind the diversity of the world's societies in economic, religious, political, and environmental issues, we should not be surprised about the confusion and controversies in people's minds and behavior regarding vaccination that is supposed to be one of the ways how to fight the Sars-CoV-2 virus. Furthermore, even the most prestigious medical journals are not immune to publishing publications with gross scientific fraud.

COVID-19 pandemic, apart from the death toll and destroyed economies, has changed the world in a previously unseen way of great magnitude.

For almost 2 years, every single person has been affected by the COVID-19 pandemic in one way or another. This global disaster has changed the world not only temporarily but in many manners permanently.

High mortality and morbidity rate, economic and social impacts are the most significant short-term consequences of the COVID-19 pandemic. Still, regardless of the unknown end of the pandemic, it will have vast and long-lasting effects on every segment of life.

In an elegant recent editorial, Cadmus sends a message that the unanticipated consequences of COVID-19 are impacting every sector, field of activity, and level of global society today. They are raising unemployment and inequality, compelling adoption of unconventional economic policies, polarizing societies, activating political extremism, aggravating competitive nationalism, contesting the veracity of scientific knowledge, undermining international cooperation, and the functioning of the multilateral system.

At a more fundamental level, the pandemic has exposed a plethora of hidden threats to human well-being which challenge prevailing notions of security, laid bare the inadequacy of partial theories, revealed the limitations of narrowly framed sectoral policies and strategies implemented by specialized agencies, and highlighted fundamental questions regarding the complex, interconnected nature of the social reality on which our understanding of the world and ourselves is based.

The pandemic thus reiterates the need for fundamental changes in theory, intellectual disciplines, educational curricula

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and content, the structure and coordination within and between different departments and levels of government, policy-making institutions, programs for implementation, and measures for assessment.

At the international level, it has profound implications for our conception of multilateralism and the type, structure, and relationship between the complex array of international institutions established to foster peace and human security for "we the people." COVID-19 is a call for new ways of thinking, knowing, educating, decision-making, and practical execution of measures to promote human security for the common good.

Humanity is called on today to change many things, but most of all, our understanding of the world we live in, our place in it, and our relationship to it and to one another.

Within our learned societies group, we have incredibly active Ian Donald Inter-University School of Ultrasound. With its 142 schools worldwide, Donald School is the most dynamic educational platform in the world. Of course, endless pandemic strongly affected regular activities, which in 2019 had more than 11,000 participants worldwide. Board of the Donald School was, however, very active in organizing 16 webinars and the most actual topics in both developed and developing countries (Table 1).

Thousands of participants took part in our distance learning program. We also did not stop producing new books within the Donald School library. The list of published books during the pandemic is listed in Table 2.

However, we are very much aware that nobody on the ground can seriously predict the end of pandemics. Of course, we are missing our direct physical contact with participants very strongly. We understand that teaching is a transmission of enthusiasm and that the intellectual charm of the speakers in direct contact with participants cannot be replaced successfully. However, the reality is different. We will have to adapt to the new distance learning program within Donald School and the International Academy of

Table 1: Donald School courses organized in 2020 and 2021

Date	City/Country
2020	
February 1	Sarajevo, Bosnia and Herzegovina
February 20–22	Jeddah, Saudi Arabia
February 24–26	Khartoum, Sudan
February 29–March 1	Kiev, Ukraine
July 10–11	Turin, Italy
October 29–31	Cagliari, Italy
November 11	Zagreb, Croatia
November 20–22	Thessaloniki, Greece
December 11–12	Beirut, Lebanon
2021	
February 6	New Delhi, India
February 14–15	Addis Ababa, Ethiopia
June 11–12	Torino, Italy
June 24–26	WCPM, Istanbul
7 August	New Delhi, India
September 17–18	Tuzla, BiH
December 11	Athens, Greece

Table 2: List of published books during pandemics

List of published books

1. Chervenak FA, Kupesic Plavsic S, Kurjak A. The fetus as a patient: current perspectives. Jaypee Brothers, New Delhi, 2019
2. Kurjak A, Chervenak FA. Donald School Embryo as a person and as a patient. Jaypee Brothers, New Delhi, 2019
3. Merz E, Kurjak A. Donald School Textbook Current status of clinical use of 3d/4d ultrasound in obstetrics and gynecology. Jaypee Brothers, New Delhi, 2019
4. Petanovski Z, Kurjak A. Donald School 3D-4D Ultrasound in gynecology. Jaypee Brothers, New Delhi, 2021

Books ready to be published

5. Kurjak A. Fetal brain function. Jaypee Brothers, New Delhi, 2022
6. Kurjak A, Pooh RK, Chervenak FA. Donald School Atlas of fetal anomalies, 2nd edition. Jaypee Brothers, New Delhi, 2022
7. D'Addario V, Rizzo G: Donald School Basic textbook of ultrasound in obstetrics and gynecology, 3rd edition. Jaypee Brothers, New Delhi, 2022

Science and Art in Bosnia and Herzegovina. A group of professor Badnjević from Sarajevo is working hard to assess the potential role of artificial intelligence (AI) in distance learning programs, as well as its potential application to data acquired during ultrasound. An AI-based eLearning platform is a system that possesses the ability to perform different tasks requiring human intelligence. Applying AI to distance learning programs solves many challenges put on the society by this pandemic. Even though direct physical contact with participants is missed adopting these novel systems allows training and education to become an ongoing process. According to the latest research people nowadays prefer to self-manage their learning experiences. Adoption of AI distance learning platforms allows creation of personalized learning paths providing the right content to the right person at the right time. AI is not the future. It is already a present not only affecting education process, but impacting other fields as

well. As invention of diagnostic ultrasound changed the face of obstetrics and gynecology, AI-powered solutions in ultrasound analysis will be able to translate acquired data into actionable insights that help increase diagnostic accuracy and personalize treatment. The initial results are encouraging, producing new insights on AI and 4D ultrasound to assess fetal and adult brains. We are also lucky to have in both Academy and Donald School a distinguished international leader in distance learning, professor Sanja Kupesic-Plavsic from the Texas Tech University Health Sciences Center El Paso, Texas.

The novel coronavirus disease COVID-19 caused a rapid and massive transition to online education. According to the U.S. Department of Education, in 2019, 79% of U.S. colleges offered either standalone courses or entire degree programs online.¹ Recent estimate indicates that the number of students enrolled exclusively in online programs had jumped 93% from 2019–2020.²

Newsweek and Statista evaluated 150 universities and colleges offering online learning courses or college/university degrees to adult learners, and Texas Tech University was ranked atop 150 higher education institutions.² The ranking is based on an online survey taken by more than 9,000 individuals in the U.S. from July through September of 2021. The final list of top colleges and universities is based on institutional indicators such as enrollment, graduation statistics, research activity, overall learner satisfaction, and the likelihood of recommending the institution to others. Additional data such as accessibility, support and service, cost, and perceived organizational reputation were also gathered.

Texas Tech University reported a 90% increase in online enrollment from 2019–2020, which was equivalent to a rise in the number of the contact hours for faculty development programs at Texas Tech University Health Sciences Center El Paso, reported by the Associate Academic Dean, Professor Sanja Kupesic-Plavsic, the foreign member of our Academy.³ In her article, Dr Kupesic emphasizes the importance of faculty development in preparing the contingency plans for academic and faculty development resources that would be available in 100% eLearning formats during the COVID-19 pandemic.^{4,5}

Texas Tech University is proud of its commitment to providing a high-quality online education to learners no matter where they are. This ranking highlights the hard work and success of faculty and staff involved in online education. Dr Kupesic believes that eLearning does not imply distance but connectivity in the global world: "We are certain that we will emerge from COVID-19 crisis stronger, wiser, and more experienced in using eLearning and implementing digital health. In our experience, meaningful transition to online allows for added flexibility, self-paced learning, increased academic productivity, development of new technical skills, consistency of educational content delivery, improved time management, and virtual collaboration skills. We are sure that innovations in educational technology, virtual reality, and AI will further facilitate the implementation and effectiveness of eLearning."

We are somewhat happy societies, including the International Academy of Science and Art in Bosnia and Herzegovina, the World Association of Perinatal Medicine, the International Society the Fetus as a Patient, and Ian Donald Inter-University School of Ultrasound. Newly formed International Academy in a relatively short time became a place for study, reflection, dialogue in a broad spectrum of science, art, and religion. From the time of Plato and Aristotle, any Academy in the world has been a society

of people with significant intellectual achievements (learned people). They are institutions of academic authority trying to advise decision-makers, produce views on different issues of science, produce opinions on various issues of science, and advise decision-makers on issues related to science.

Our Academy can and should have a presence in the life of society, without becoming part of politics, but providing expert advice when requested and expressing competent opinions and reactions to events of global importance. The International Academy of Science and Art in Bosnia and Herzegovina should be responsible for research, education, and standards.⁶⁻¹⁰

A permanent advantage of the Academy is the continuous availability of its leading and acting experts. This is a compensatory potential compared with societies where relatively frequent change of leading experts is standard after only short intervals, in particular within their boards. Therefore, it is an excellent solution to have both, namely different societies with their specific character, and above them, a kind of super-ordinated intellectual common home.

Human beings change continuously as the result of biological and cultural evolutions. Human beings do change the world they live in, indeed so much that it has been suggested that the current geological epoch be named the Anthropocene epoch. *Since knowledge now increases exponentially with a doubling time of 5–10 years, education cannot be limited, but it has to be lifelong. The Millennium Development Goals state that by the year 2015, everybody should be educated. Unfortunately, this did not happen. Perinatal education is not ectopic part of global education, contrary it is its integral part. Indeed, contemporary education is education of a person that is changing and for the world that rapidly changes.*

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