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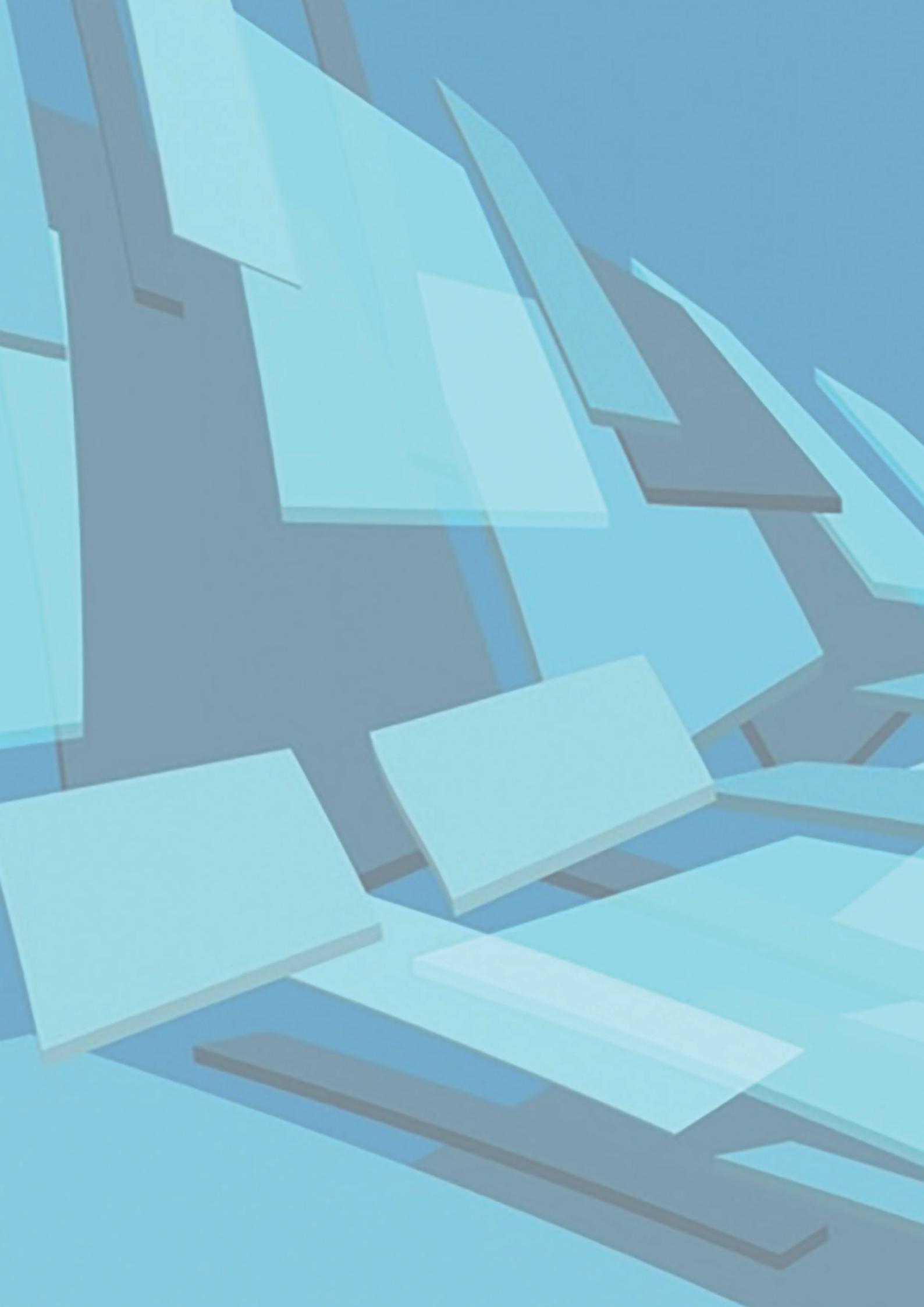
### THE CHALLENGE OF THE EMERGENCY REMOTE TEACHING IN THE EDUCATION OF ART CONSERVATORS. EXPERIENCES AND REFLECTIONS

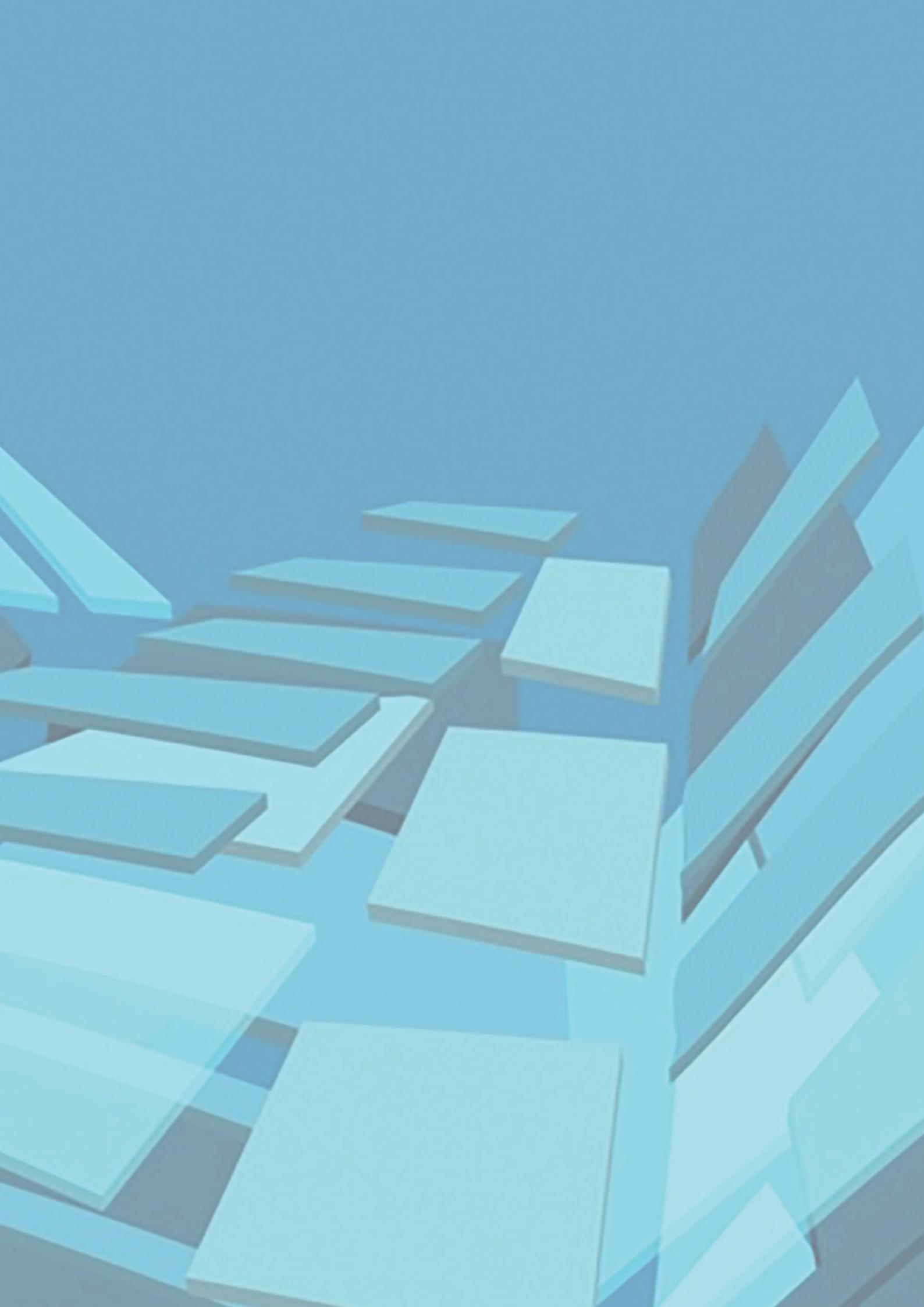
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# THE CHALLENGE OF THE EMERGENCY REMOTE TEACHING IN THE EDUCATION OF ART CONSERVATORS. EXPERIENCES AND REFLECTIONS

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## ABSTRACT

COVID-19 pandemic and the measures to constrain it have influenced, among others, every dimension of the cultural heritage; from research, conservation and preservation projects to training and education. The closure of training buildings and campuses, the cancellation of face-to-face classes and labs and other learning experiences forced a shift to emergency remote teaching. This created a special impact on art conservators' education, especially since the field of heritage conservation is powered by art history, technology and science, and therefore any deceleration has an important impact on it. Moreover, conservators are considered as having to be in contact with the actual object of their studies i.e., to be physically present in the archaeological sites, to interact with the material of the monuments and generally work very close to them as per the field's tradition. The closure of the education domain deprived conservation students from the physical contact with their objects of study, but fostered the digital transformation of the heritage sector, as well as the academic conservation education. The goal of this paper is to discuss advantages and weaknesses of emergency remote teaching comparing to face-to-face and online teaching, as well as to record the experience of remote teaching in the Department of Conservation of Antiquities and Artworks and the opportunities emerged for the curriculum of the Department.

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Keywords:

art conservation, high education, emergency remote teaching, online teaching, cultural heritage

## 1. INTRODUCTION

The wide-ranging impacts of the COVID-19 pandemic and the measures to constrain it have taken a considerable toll on all aspects of our life and living environment. COVID-19 crisis has influenced every dimension of the cultural heritage as well: from research, conservation and preservation projects to public outreach, training and education.

Museums, archeological sites and libraries were closed; many conservation projects have been suspended, resulting in the suspension of laboratory visits and internships; The synergy between professionals and students has been disrupted; the dissemination of scientific knowledge has been hindered; scientific events, conferences and live scientific dialogue have been canceled; Heritage sites themselves faced risks of decay by the suspension of maintenance; Lending and borrowing artworks among museums, and consequently the exhibitions, was totally suspended; Volunteers in the heritage sector, and many students among them, had to halt their activities. With the ban of travel, international student exchange programs, like Erasmus, have also slowed down, and the list goes on.

As far as financial implications on culture heritage sector are concerned, it is worth noting, that according to the report "COVID-19 & Beyond, Challenges and Opportunities for Cultural Heritage", published by Europa Nostra on October 2020 [Europa Nostra, 2020] in Italy the cultural sector was expected to lose 3 billion EUR in the semester from April to October 2020, whereas in Spain, almost 980 million EUR just in April. According to the European Commission report titled "Europe's moment: Repair and Prepare for the Next Generation" [European Commission, 2020] activities relying on crowded workplaces, like cultural events, festivals etc., will be more affected by the crisis. Preliminary Commission estimates show that tourism, the social economy and the creative and cultural ecosystems could see a more than 70% drop in turnover in the second quarter of 2020. Actually, the 2021 Annual Single Market Report [European Commission, 2021a] explains that "...museums lost revenues up to 75-80% (in popular touristic regions)". Moreover, according to the results of a survey conducted by the ICOM in 107 countries, across five continents, between 7 April

and 7 May 2020 nearly one third of the museums will downsize and more than one in ten may be forced to close permanently [ICOM, 2020]. Furthermore, in UNESCO's report "World heritage in the face of COVID-19" [UNESCO, 2021a] it is noted that at the height of the crisis, 90% of countries were forced to close or partially close their World Heritage sites. In 2020, a 66% drop in site visitations and a 52% decline in revenues at surveyed sites were reported. 13% of sites surveyed noted that staff have been laid off as a result of COVID-19, with an average of 40% of permanent staff and 53% of temporary staff made redundant [UNESCO, 2021a]. In Greece, due to lockdown restrictions, it was estimated that unnecessary consumption, which includes culture, will contract by 23,6% for the period March-April 2020 [Hellenic Parliament Budget Office, 2020].

Moreover, the pandemic has also posed serious social challenges. Isolation has a negative impact on people's mental health and well-being. Since cultural heritage has a key social role, suspension of interaction, learning and exchange of experiences through cultural heritage has a serious effect on people, and particularly for young people [Creswell et al, 2021].

According to the Europa Nostra Report [Europa Nostra, 2020] COVID-19 crisis has made clear how necessary culture and cultural heritage are for people and communities across Europe. At a moment where hundreds of millions of people remained physically apart, cultural heritage appeared, more than ever, as a crucial instrument to bring people together. UNESCO also underlines the power of culture and knowledge to strengthen human fabric and solidarity, at a time when so many people around the world must keep social distance and stay at home [UNESCO 2021b].

Among this unpredictable reality, education, both formal and non-formal, which constitutes a significant element in the value chain in the field of culture, has been dramatically influenced. This is even more emphatic for art conservators' education, which is directly related to the cultural environment in a very particular way: as the field of heritage conservation is powered by art history, technology and science, any deceleration has an important impact on it. Moreover, conservators have to be in contact with the actual

artefacts they treat, to be physically present in the archaeological sites, to interact with the material of the monuments and generally work very close to them as per the tradition of the field. Yet, while the shutdown of the heritage and education domain deprived conservation students from their hands-on physical contact with the object of their studies, it also fostered the digital transformation of the whole heritage sector, as well as the academic conservation education that is the heart and soul of art conservators' training. The goal of this paper is to record the experience of remote teaching in the Department of Conservation of Antiquities and Artworks and contribute to a dialogue on taking better advantage of online teaching in the curriculum of the Department.

## 2. ONLINE TEACHING VS EMERGENCY REMOTE TEACHING

Today, digital technologies make up for a large part of the way people communicate, work and interact. However, in the field of learning, at least before the pandemic, nothing similar has ever been—at least to a large extent—the principal object of preoccupation. According to the National Documentation Center of Greece [National Documentation Center, 2013], this was the case either as students or professors were not familiar with the practice of distance learning, or they did not have access to digital facilities and the appropriate equipment. The Europa Nostra report [Europa Nostra, 2020] also states that almost 60% of the respondents had not used distance or online learning at all before the pandemic, while between 50% and 80% in European Union countries did not use digital textbooks, exercise software, simulations or other digital educational media. In addition, although the majority of educators (around 70%) recognized the importance of digital media assistance, only 20% of students were taught by teachers using digital media. On the other hand, 95% of the respondents, today, believe that the pandemic marks a turning point regarding the use of technology in education and training.

Before recovering from the shock and fully understanding the real effects of the pandemic, the academic community

was forced to adapt to this unpredictable situation. Ministries of education in different countries have recommended or made mandatory to implement online learning at all school levels, universities included. This decision was supported, among others, by UNESCO [UNESCO, 2020], which has developed a COVID-19 Response Toolkit in Education to support countries in their educational response to COVID-19 by providing practices and examples, specially focused on the topic of remote learning. UNESCO has additionally provided a list of free educational platforms and resources that can be used for online learning according to the needs of each educational institution, providing social care and interaction during education closure.

Although it was imperative to stay physically apart, it was necessary to remain close together and safeguard the continuity of the educational process, regarding the participation of the students in it and providing their support too. Closure of training buildings and campuses, cancellation of face-to-face classes and labs and other learning experiences forced a shift to emergency remote teaching. With little notice and creativity using readily available tools, remote “classrooms” were created to transfer traditional classroom interaction in a distance learning environment until the crisis passes.

Dealing with the challenge of distance learning was immediate and urgent, with unknown implications. New questions raised, like whether the academic space itself and the universities were shaped for tele-working conditions and how the relationships within the university community, between students and professors or within each category might be affected. Reflections came up concerning the consequences of distance learning to the studies, the research interests, the employment and daily survival of the students as well as about the ways the academic community must deal with all this. In fact, as far as the University of West Attica is concerned, the short time of three semesters run under remote teaching did not permit the elaboration of extensive surveys regarding the questions posed previously, except a survey for the students of the School of

engineers [Photopoulos et al, 2021].

It is important to clarify that emergency remote teaching is quite different from online teaching [Anohina, 2005]. Online education, including online teaching and learning as an alternative to face-to-face educational systems, has consistently been a focus of education research for over twenty years [Branch and Dousay, 2015; Means et al, 2014]. Many researchers have tried to explore the terminology around online teaching, because even though it is often defined, it has a wide range of meanings attached to it [Singh and Thurman, 2019; Moore et al, 2011]. According to Oxford Dictionary, online learning is a system of learning that uses electronic media, typically over the internet [Oxford Advanced Learners Dictionary, 2020]. It is often referred to as “e-Learning” among other terms. However, online learning is just one type of “distance learning” - the umbrella term for any learning that takes place across distance and not in a traditional classroom. The target of online courses is to build virtual courses aiming to produce a learning experience that does not depend on being face-to-face with the instructor. Classroom courses, however, are designed to capitalize on real-time interaction between the students and the instructor in a group setting.

The design of different types of learning environments can depend on the learning objective, target audience, access (physical, virtual and/or both) and type of content [Moore et al, 2011]. Effective online learning results from careful instructional design and planning, using a systematic model for design and development. The design process and the careful consideration of different design decisions have an impact on the quality of the instruction [Hodges et al, 2020]. Most often, moving to online teaching is a process that takes resources –human, intellectual, technical–, as well as time: it is estimated that adapting a typical course to online teaching (including planning, preparation and development) takes between six and nine months [Iglesias-Pradas et al, 2021]. On the other hand, emergency remote teaching describes a situation that demands the transition from face-to-face teaching to remote teaching, the whole process being carried out using online platforms and the internet, while the instructors

and the students are in quite different geographically places.

Online courses are specifically designed for asynchronous learning. In this case, the educational material is delivered to students at different times considering that different students have different schedules in mind [Barker, 2020]. For example, some students may work a little bit each evening, while others will devote weekend stretches to their studies. Online courses accommodate asynchronous learning by engaging students in ways that do not depend on real-time interaction. So online courses have to be designed with regards to flexibility, and to take into consideration the particular student profile. On the opposite side, teaching in face-to-face mode means that the instructor interacts with all students at the same time. Students interact also with each other and share in real time the same educational experience. Discussions in vivo, working in teams, questions as they arise and immediate answers by the teacher are all characteristics of the synchronous teaching. Instructors design their classes relying on real-time interaction.

In face-to-face teaching the learning experience is powered by the teacher. Teachers might act in accordance to the learning conditions of the audience; enrich a lecture with knowledge checks, questions group activities such as solving a problem on a whiteboard with class input, extra resources such as videos etc. Especially in the case of face-to-face conservation labs, these interactions are very important as they may influence the learning process, not only because the students have the possibility to know various case studies but also because they have the possibility to know the artwork itself, with the particularities it actually presents. Since the whole class experiences the artefact at the same time, these interactions allow for deep and thorough understanding of its material condition.

Emergency remote teaching stays in between online teaching and face-to-face teaching. During COVID-19 crisis, instructors tried to maintain the accessibility, the participation and the engagement of the students using digital media and the internet, and to recreate a synchronous learning experience

through video conferencing or, alternatively, they tried to accommodate asynchronous materials by posting video lectures to convey the lessons. Either option may present challenges for both instructors and students.

As far as the educational material is concerned, in an online course, the material is created in such a way that a systematic and well-organized path is formed to introduce them to the learning process [Barker, 2020]. The provided material could comprise of online simulations, embedded quizzes, online lab exercises, forum discussions and they are all set up ahead of time and placed at key checkpoints to enhance the understanding of the curriculum.

When converting a class to emergency remote teaching, instructors will find ways to deliver the lectures and materials, but without the normal interactivity of the classroom. At this point, they will likely find holes in their usual teaching methods. For instance, an instructor may schedule one-on-one discussions with students to respond to questions, but other students will miss hearing that discussion. Anticipating and accommodating these needs takes foresight and experience [Barker, 2020].

Concentration, engagement and active participation of the students are meaningful and important aspects of the learning process. The role of the lecturer in the online environment proved to be more complex than in face-to-face teaching. Besides the use, of the appropriate online tools to transfer the knowledge, remote teaching also requires that the teacher watches and motivates students to participate, creates opportunities and organizes interaction with each other, sets rules and standards for communication and participation simultaneously. The lecturer also has to verify the functionality of all of them, be flexible, very explanatory and patient, take immediate decisions and be sensible not to overload students.

At the same time, although digital technologies enabled many students to continue studying, it also proved a major barrier for others when access, equipment, connectivity or skills were lacking. Students with disabilities faced several challenges: from access to technology and digital educational

material to the teacher competence on disability and accessibility matters. Unfortunately, teachers who had to convert quickly to emergency remote teaching are starting themselves from various levels of digital familiarity. They may not have the technological expertise or be aware of the best learning platforms for online education. Therefore, the learning curve is steep for academic staff and students alike, and student-learning experiences may be vastly inconsistent. Universities have tried to support their academic staff to respond to this emergency learning situation by providing platforms and organizing intensive courses for training their staff to remote teaching. According to the authorities of the University of West Attica [Lakasas, 2020], the academic staff responded fast to this emergency. More than 95% of the undergraduate courses were taught by remote teaching although the vast majority of educators and learners had little, if any experience, in teaching and learning online or in the different pedagogical approaches needed for this.

Moreover, the digital transformation in education is being favored by the technological progress in connectivity, the widespread use of devices and digital applications, the need for individual flexibility and the increasing demand for digital skills. For example, Eurostat data for 2019 indicates that access to broadband internet ranges across the EU from 74% of households for the lowest-income quartile to 97% in the highest-income quartile [European Commission, 2021b].

### **3. ADVANTAGES AND OPPORTUNITIES OF THE ONLINE LEARNING**

This massive and unprecedented use of technology for learning, however, also revealed many opportunities. For example, it came up clearly that organizing teaching in a different way, interacting with students on a more personalized basis, focusing on their specific needs, working in small groups and assigning specific learning objectives was welcome. It was also evident that distance teaching could not work on a mass scale. The remote teaching experience at the Department has shown that the need to form smaller groups in the case of distance teaching

is even more necessary than that of face-to-face, especially when laboratory exercises are concerned. This is mainly valid for courses focusing on the chemical content of physical artefacts, as well as for conservation laboratory courses, where, traditionally, the contact with the physical object is necessary.

In order to preserve the physical contact of the students with the physical objects of their study as much as possible, in some conservation laboratories, such as the paper conservation laboratory, the following practice was adopted [Choulis, 2021]: the professor, with the help of university services, produced a complete set of audiovisual presentations through which the laboratory exercises were demonstrated and explained. The students were then divided into small groups and were guided remotely to work on a kit comprising of suitable material (physical objects and/or mock-ups) that was sent to them by post at their residences. This practice was also adopted by academic departments such as the Department of Conservation, University of Gothenburg, Sweden [Golfomitsou, 2021] and the MA Conservation of Cultural Heritage, Lincoln University, United Kingdom [Smirniou, 2021]. The production of audiovisual material was an important aid for distance learning, not only for conservation laboratories but also for science courses [Boyatzis, 2021], as it has enabled the professor to present the experimental procedures, to focus on specific important points, but also to give the students the opportunity to participate in the process, triggering dialogue and real interaction between them.

On the other hand, it is of no doubt that the increase of the workload in order to transfer materials and methods from face to face to remote teaching is dramatic.

Technology can be a powerful and engaging tool for collaborative and creative learning. It can help learners and educators access, create and share digital content. It can also allow learning to take place beyond the walls of the lecture hall, classroom or workplace,

providing more freedom from the constraints of physical location and timetable. It offers the opportunity to address, at the same time, students who are not necessarily geographically close, even students from all over the world, who can work together creating new student communities. Students can learn in different learning environments outside the formal education process, for example in places such as their home or work as well as in their free time. The abolition of spatial and temporal limitations could provide an opportunity for more people to study. It could also prevent students from dropping out and make easier to complete a study program. It is no coincidence that distance learning has significantly increased the number of students who attended the courses, as well as the rate of successful evaluation in the exams. However, the quality of the educational process and the achievement of learning objectives has yet to be proven. For students, convenience and flexibility may prove to be the most attractive characteristics of the online classes [Ferri et al, 2020]. Nevertheless, there are constraints too; using the screen all day, impacts on concentration and can be also a burden on mental well-being [Twenge and Campbell, 2018].

The development of collaborations between the teaching staff coming from different scientific fields or following different educational systems it is more possible. Professors from foreign institutions can more easily participate remotely in the educational process to offer undergraduate and postgraduate courses.

Conservation Departments now have to examine seriously the opportunity to organize study programs for students from abroad or expatriates, improving its recognition and attractiveness, domestically and abroad, in the field of cultural heritage, where, Greece has undoubtedly comparative advantages.

## 4. CONCLUSION

Digital technology, when deployed skillfully, equitably and effectively by educators, can fully support the agenda of high quality and inclusive education and training for all learners. It can facilitate more personalized, flexible and student-centered learning, at all phases and stages of education and training.

The Covid-19 crisis put the academic staff for the first time in a situation where there was no other choice but use digital technologies to provide education and training. The difficult circumstances of the pandemic meant that this happened hastily and, possibly, in an unplanned manner. A very important experience on the matter has been gained and many professors, students and families faced a steep learning curve. This pandemic also exposed the shortcomings that need to be tackled in order to integrate digital technologies successfully in education and training systems. Apart from fully online mode, learning can happen in a blended mode too, according to the needs of the educational environment, as different pedagogical approaches are needed when teaching online. We need to develop the skills and knowledge for this different mode of learning.

Crisis has forced us to rethink how education and training for art conservators could meet the demands of a rapidly changing and increasingly digital world, how the curricula and the academic environment could be transformed to combine traditional and modern ways of learning. Finally, it gives us the opportunity to define a strategic and longer-term approach to digital education and training.

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## NOTES

[1]The present paper is based on the author's oral presentation to the web-conference: Distance learning for conservators in the pandemic era: Opportunities, Challenges and Risks, organized by the Research Laboratory ARTICON: Conservation-Promotion of Visual Artworks, Books and Archival Material of the Faculty of Applied Arts and Culture, in collaboration with the Department of Conservation of Antiquities and Works of Art, University of West Attica, 20-04-2021 Athens, Greece.



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