

DIGITAL TRANSFORMATION TRENDS IN MUSIC TEACHING AND TRAINING SYSTEMS

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SUMMARY. The pandemic has greatly accelerated the need for modernisation and digital transformation of education and training systems. NERa² (*A New Era of Digital Platforms in Music E-ducation*) Erasmus+ Strategic Partnership emphasises digital creativity in teaching and focuses to actively contribute and support the process of recovery. The partnership promotes intercultural dialogue approaches linking digitalised music education and training. Higher education institutes from various parts of Europe bring their digital music pedagogical expertise to provide a universal and comprehensive tool for the international academic environment based on real practice and experience. The study examines NERa's implementation of digital components and viewpoints into the traditional music teaching and training systems.

Keywords: NERa, music, education, digital transformation, pandemic

The current coronavirus crisis has been spreading all around the globe, affecting almost every aspect of daily life, including the very deep human aspiration towards education and culture. Therefore, we had to find our own responses, acting in accordance with the common, universal effort to follow changes in the digital media consumption, also to find the proper responses and reactions, essential for the cultural and educational organisations to stay alive and open. “In 2019, finding a business conference where the topic of digital transformation is not mentioned as a

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² NERa Erasmus+ Strategic Partnership was founded in 2020 by the Eszterházy Károly University (H), University of Rzeszów (PL), Conservatorio Lorenzo Perosi Campobasso (I), Conservatorio Ottorino Respighi Latina (I), Academy of Arts Banská Bystrica (SK), Babeş-Bolyai University (RO), Zeneiroda Kft. (H).

challenge [...] is almost unimaginable.”³ stated economists one year before the pandemic. Now specialists from the field of education could sum up the current situation with the same wording.

The pandemic has hit music industry – both in its performing and educational aspect – particularly hard, becoming therefore one of the most disadvantaged area, in every respect. The traditional, personal way of music education and training – as the traditional mode was not passable anymore – needed to undergo a rapid digital adaption. The coronavirus pandemic revealed: reality makes us always creative. The digital environment raised a lot of tricky factors: besides being aware of these, we realised the immediate necessity of “recycling” the traditional elements, and/or finding creative, new focuses. There has been an ongoing, clamant need to enhance skills development and digital competences that reinforce creativity, contributing to the recovery and resilience of the music education sector. We have to become aware and acknowledge that all the challenges the cultural and creative fields are facing in this global crisis, represent also the opportunities for them to renew approach and methods, also find a new, creative way of music teaching, without sacrificing its main definition.

In response of the pandemic situation, NERa aims to obtain updated, qualitative, digital tools and resources for music education. Through a multidimensional, multifocal, complex, transformative approach it helps the implementation of digital components and viewpoints into the traditional music teaching and training, enhancing also the recovery of all the paths of communication in/through music. The partnership cooperation complements and adds up the efforts to help the cultural sector recover from crisis situations, supports the use of the European frameworks on digital competences of educators. “To ensure the effective development of digital literacy and tackling disinformation through the education and training process, teachers and educators need to be further supported with guidance and hands-on examples.” emphasises the Digital Education Action Plan 2021–2027 of the EU.⁴

³ Majó-Petri Zoltán, Prónay Szabolcs, Huszár Sándor and Dinya László (2020): “Digitális transzformáció az egyetemeken – Egy tömeges, nyílt, online oktatási működési modell, és az egyetemisták digitális oktatáshoz fűződő attitűdjének vizsgálata.” ((Digital transformation in universities - A mass, open, online educational operating model and the attitudes of students towards digital education) in: *Információs Társadalom* 20/1. pp. 72-94, p. 73.

⁴ *Digital Education Action Plan 2021–2027 of the European Union*. #DEAP, #EUDigitalEducation
https://ec.europa.eu/education/education-in-the-eu/digital-education-action-plan_en

NERa members gain new inspirations by putting together their experience and get a deeper and more complex understanding and skills in the area of digital teaching and training in music/arts and music/art communication, in all its segments; it also serves for more effective start-up of an institution, by expanding its portfolio of activities. All NERa members shall improve the quality of their educational tools and rethink their pedagogical approach to their students. The extensive contribution to the modernisation and digital transformation of NERa members' education and training systems, the partnership builds digital education readiness, and faces the challenges presented by the recent sudden shift to online and blended teaching, training. NERa teachers and trainers improve their digital teaching competencies by implementing tasks from the real, constantly changing teaching environment and performance practice; implement a more comprehensive, blended teaching/training process. An improved interfacing between practice and theory will be created, to a resistant, still dynamically changing theory, which could dramatically improve and enforce our quick adaptation to possible crisis situations. Raising the interest towards digital education readiness responds to real life requirements, as such providing benefits for both music industry and its labour market.

NERa members searched and used logical framework methods to achieve effective treatment of insufficiency in digital music education readiness. Developing competences of educational experts reinforces the ability of education and training institutions to provide high quality, inclusive digital education. Networking of institutions, sharing of resources and expertise, collaboration with digital technology experts – through their different experiences, profiles, and specific expertise – produce relevant and high-quality project results. These activities will also lead to consequently educate students more effectively. They benefit from these results and can demonstrate their responsiveness, adaptability, and flexibility. According to Sandrine Desmurs and the Strengthening Music in Society (SMS) Digitisation Working Group “the debates surrounding the introduction of new technologies in education are quite divisive, and research on the subject, which is not new, allows us to qualify the views of both the anti (digital is a problem) and the pro (digital is a solution)”.⁵ In this sense, NERa contributes to the debate on the side of pro digital.

⁵ Desmurs, Sandrine and the members of the SMS Digitisation Working Group (2021): *A new season for digital music education?*
<https://sms.aec-music.eu/digitisation/a-new-season-for-digital-music-education/>

Innovativeness in NERa activities

NERa innovativeness consists of various steps. The partnership defines innovative, specific methodological elements and procedures for music instrumental, vocal and theoretical teaching and training in order to approaching more digital and resilient recovery from Covid-19. NERa adopts new, creative, music teaching and training practices on a digital platform, in each special segment of music. Innovation becomes a comprehensive methodological tool, the whole of the educational process is set on new foundations, where teaching staff will be active actors, simulating real situations. This new approach will be supervised by the digital experts, helping with both theoretical and practical expertise.

The following NERa activities therefore result in a more problem-solving and critical way of thinking, contributing to the respond to the circumstances created by the pandemic:

- Define innovative, specific methodological elements and procedures for music instrumental and vocal teaching and training in order to approaching more digital and resilient recovery from Covid-19.
- Create and extend innovative audio database of parts/voices of the vocal, instrumental music compositions comprised within the music curriculum, to meet the need for modernisation and digital transformation of music education and training systems.
- Prepare, implement, test, and evaluate online and blended (personal and online) music teaching, training activities to deploy digital tools and methods, and deliver quality and inclusive education through virtual means with HEI educational staff, digital technology experts and students.
- Develop progressive integrated digital curriculum of vocal, instrumental, theoretical music teaching and training subjects at partner HEIs.
- Provide E-platform for music educators, trainers and performers for digital content exchange, teaching/training material sharing.
- Through academic publications communicate project results for digital education readiness, inform the educational community about the project outcomes.

NERa Outputs

The methodological guide for creation and utilization of the audio database in the vocal, instrumental, theoretical music teaching process consisting of:

- Designation of starting point, needs assessments of digital tools and resources; defining fields and subjects of vocal, instrumental, theoretical music teaching and training system where digital transformation is possible according to universities' teaching and training portfolio
- Case studies of NERa universities' Covid-responses in their educational activities since March 2020
- Collecting perspectives of digital platforms already available worldwide in the music industry; usage know-how; online copyright, investigating the copy right limitations and potential solutions of these platforms
- Defining desired affects of utilization of audio database
- Developing digital training concepts for universities' staff by a digital technology expert
- Selecting repertoire (curricular music compositions) for the digital resource
- Selecting techniques, equipment supporting the online access to the methodology and tool
- Defining the selection criteria for the venue for testing database

Group work with special personal presence, a basic element of music teaching and training process, is unachievable in the pandemic. Creating a collection of freely available, gap filling audio database tool of parts/voices of the vocal, instrumental music compositions comprised within the music curriculum for the academic environment of all partner HEIs will hopefully effectively cover the demand of effective digital teaching in crisis situations. Using this digital transformation resource and tool of distance teaching, teachers will be able to implement digitalised vocal and instrumental music educational activities in the following segments:

- Consistent and accurate intonation with increasing control
- Demonstrate a free-tone quality with minimum tension
- Increase students' individual practice abilities, demonstrate an increasingly advanced level of performance skills
- Establish beneficial practice habits to help growth and development

- Utilize warm-up methods
- Giving access to performing in a group both with vocal and instrumental accompanied works

This output consists of a) recording, b) testing, c) creating open access processes:

a) Recording - According to the methodological guidelines, teaching staff of NERa members record (instrumental play, singing) parts/voices of the compositions. The adequate interpretation of compositions of all representative styles, including character, stylish correctness is a sine qua non criteria. The recordings should be made in a way, that tonality and tempo can both be converted (transposed/changed), highly important in working with different voice ranges. The repertoire of the recorded compositions is determined in the methodological guidelines.

b) Testing - The testing process of the methodology guide and the audio database focuses on concert activity, the indispensable test phase of utilization of the audio database and methodology in teaching and training process. During the testing process NERa members' mixed ensembles (duo, trio, quartet, etc.) of teaching staff and selected students perform compositions from the database in live concerts and giving these live concerts for online viewing streamed. The performers will have had studied the selected compositions through the digital tool and resource before the testing phase. Leveraging the innovative IT tool, the rehearsing process will be minimised or completely left out in the testing phase.

c) Creating open access processes to the audio database - NERa creates open access to the database, which can be used as an innovative digital music education tool through an E-platform. This platform also serves as a platform for feedback, using crowdsourcing model in which educational community is involved with best practices of using the digital tool. During the pandemic and other possible crisis circumstances which may occur, establishing the use of these digital resource and tool makes possible the achievement of the aims, contents, schedule and competence development formulated previously in HEIs' curriculum. Due to its digital form, the audio database shall be available for HEI's educators, students, present and future generations, regardless of their social and cultural background from all over the EU region, allowing them to be successful innovators in their profession.

Using the methodology and the digital tool in formal education needs upgraded, progressive and integrated digital curriculum of vocal, instrumental, theoretical music teaching and training subjects, which is one of the main utilization fields of NERa outputs. This hybrid, more digital approach, and

pedagogical development in constructing e-learning environments enhances a resilient recovery from crisis situations. The consortium identifies possible curricular areas in the partner countries, where the digital tool and the methodology can be used: course types, aims, competences to develop, schedule, education management, method of assessment. Once this method has been put into practice, the methodology will be complemented in the future by recommendations and guidelines based on further experience gained.

Academic publications communicate project results for digital education readiness, best practices gained from crowdsourcing model, and they are the most appropriate way to inform the educational community about the NERa outcomes. The multiplication process will highlight and present outputs and their impact on beneficiaries as a final result of the joint collaboration. These outputs should cover a wide range of areas and topics all dealing with pandemic impact mitigation, digital transformation of the education system. The target audience will be HEIs' teachers, trainers, students, professional musicians, IT experts, researchers, local/regional decision-makers. The multiplication activities will present the structure, method of use of the outputs, and also invite additional partners and organisations or experts to contribute to the outputs through further development.

NERa expects to prove that the digital skills of educators/trainers in higher education will be increased. They will obtain new, high quality and meaningful digital vocal and music instrumental teaching and training tools, knowledge, attitudes, values, and methodologies, thus becoming real experts in combining theory and practice in online and blended classrooms. Getting in touch with the variety and complexity of problems from real life crisis situation experiences and problem-solving practices will considerably widen music educators' view. The crisis-related effective educational process, the digital approach allows a more efficient and beneficial approach of teachers to students, also because of the specific training and knowledge transfer. Through NERa outputs students will be better prepared to face and respond efficiently unpredictable situations in real life. Graduates represent an especially targeted group of students, as they will be better prepared for labor market demands, and they will be able to examine and acquire new skills, work in a team – moreover, in a transnational context – effectively. Besides the digital adaptation of teaching/training system, HEIs are expected to enhance the promotion of intercultural competences and dialogue that contributes to social inclusion through the arts, also by fostering innovative participatory and intercultural dialogue approaches embedded in a digital frame of education.

The developed teaching and training tool may be used as part of the formal digital approach for music education. NERa promotes the collaboration with digital technology experts to develop tailor made solutions adapted to local challenges and realities. It may positively influence the digital adaptation and development of the HEIs curriculum; thus, it could have a significant impact on teaching methodology, and its performance. At the regional and national levels, the project will also contribute to the recovery resilience of the arts and art communication sector.

Sustainability

NERa will be responsible for the long-term sustainability of the project results. Thanks to standardisation of the innovative IT method and the common language of music, any foreign HEI may enter, supply, update the developed database and methodology, respectively following the challenges that higher education sector is facing in light of this global crisis. The project will equip partnership institutes with valuable and modern tool and resource, usable not only in pandemic and other crisis situations, but also at getting back to the so-called normal life circumstances/educational environment. As the teaching, training staff utilizes the new technologies and tools in educating, the updating of these materials will be not only for their own interest but keeping this research database updated prolongs its lifespan and usability, the impact would be maximized, ensuring quality material for teaching for the years to come. Crowdsourcing model would ensure not only the sustainability but also the further development of the outputs: a constant, post project evaluation of feedback is received and reintegrated into the outputs, a real possibility and opportunity where the whole of the educational community can be involved.⁶

The pandemic has not only limited the way people can relate to each other and perform their most basic everyday-tasks but has also had a significant impact on the regular delivery of education and training. “At such a critical time for our societies, access to education is proving, more than ever, to be essential to ensuring a swift recovery, while promoting equal opportunities among people of all backgrounds.”⁷ The current crisis has

⁶ The utilisation of NERa opens paths to other fields of education, where the physiological mechanisms, tools and forms of music within pedagogy and therapy are explored. Szabadi Magdolna: “A zeneterápia alkalmazási lehetőségei a pedagógiában”. in: *Fejlesztő Pedagógia* 32. 2021/1-3. pp. 145-151

⁷ *Erasmus+ Programme Guide Version 3 (2020): 25/08/2020*
https://ec.europa.eu/programmes/erasmus-plus/sites/default/files/erasmus_programme_guide_2020_v3_en.pdf

greatly accelerated the need for modernisation and digital transformation of education and training systems. NERa has a strong digital adaption dimension, it aims to shape a specific, still missing, yet demanded type of digital music professional, much needed for the music industry, who (trained by project outputs) will have better opportunity to work in various fields. In the context of digital transformation, educators will be ready to meet the expectations of employers, respectively market expectations of the arts and art communication sector.

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