THE EUROPEAN DIGITAL MUSIC ACADEMY

Training methodology for a digital skills training in higher education institutions.

An EARSMUS+ funded project

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1. Introduction to the TEDMA project

The digitalisation of the music sector, inflicting new approaches to practice, production, communication and performance of music, raises the question of the necessity in the evolution of higher music education curricula. The European Digital Music Academy (TEDMA) was therefore created to address this much-needed innovation process in the live music sector and music education. Experts from four higher music education institutes and three music industry companies from four different countries, Germany, the Netherlands, France and Denmark, worked together to analyse during two years the current stand of digital skills training in higher education institutes and develop a training methodology for these institutions that effectively transfers digital skills to music students. The participating partners were:

- Stiftung Neue-Musik Impulse (Germany)
- TH Lübeck (Germany)
- Syddansk Musikkonservatorium (Denmark)
- Hanzehogeschool Groningen (Netherlands)
- SPOT Groningen (Netherlands)
- IMFP (France)
- SYL Production (France)

With this project partners from Germany, the Netherlands, Denmark and France the five following needs were addressed:

- 1. The live music sector faces a digital shift and has to deal with new target groups, fast-evolving consumption habits with a demand for digital consumption and multi-sensory experiences. This requires new skills in the training of the current and future professionals (i.e. students) of the live music sector for them to be able to create new performance formats that will enhance the relationship between the audience and the performers and reach new audiences. It is an EU-wide challenge that requires cross-border collaboration.
- 2. Digital skills are not yet well integrated into higher education curricula: Students who aspire to work in the live music sector are not provided with the proper digital

- learning, practices, methods and tools to address the evolution the live music sector faces.¹
- 3. The same higher education curricula do not yet fully integrate a cross-disciplinary approach. At the same time, tomorrow's live music professionals will need to master various tools (for production, management and communication) to better adapt to the digital evolution of the sector and meet the audience's demands.²
- 4. Work-based learning is still not a common practice within higher education institutes/universities, while this is beneficial for students who can have a more practical experience and for live music professionals who can profit from a new and fresh vision on their practices by today's 'digital native' students.
- 5. The different national higher music education systems are currently not yet well-connected, thereby hampering cross-border learning and exchanging practices.

Taking all this into consideration this project aimed to answer the following research questions:

- 1. What is the current stand on digital skills training in higher education institutions in Germany, The Netherlands, Denmark and France?
- 2. Which digital skills do musicians need to acquire during their studies in order to deal with digital transformations?
- 3. How can this skills be integrated into the academic curriculum?

The TEDMA project aimed to enhance the digital skills and competences of higher education students and live music professionals. The project addressed the need for innovation and especially the challenge of digitalisation in the live music sector, accelerated by the COVID-19 pandemic. While a few good practices exist, including both higher education institutes and live music organisations, to address those challenges, the project gathered both students and professionals from the live music sector to get

¹ Treß, Johannes: Acting self-determinedly and critically in a post-digital future? A critical review on digitalisation in music education. In: cefjournal (2023), p. 67. [online: https://doi.org/10.5281/zenodo.8010504 (last access, 28.03.2024)].

² Tobias, Evans: Inter/Trans/Multi/Cross/New Media(ting): Navigating an Emerging Landscape of Digital Media for Music Education. In: Randles, Clint (ed.): Music Education. Navigating the future. New York 2015, p. 91-93.

trained on digital skills, thus increasing resilience towards the digital shift and adding value for a sustainable career. All this by creating a methodology that addresses these needs and includes a cross-disciplinary approach towards live music performances, connecting different disciplines of the music ecosystem (performers, sound and light specialists, PR and marketing specialists).

After publishing the results to the first and second research question, describing the current stand in higher music education and the benefits of the developed methodology.³ This paper is designed to describe the methodology in detail, transparently giving a guidance for external institutions to integrate the methodology in their own curriculum. The detailed description of the training`s design, its learning outcomes and pedagogical strategy should be described. Furthermore, insights to the Modules and needed resources will be given.

2. Training Design

The TEDMA training methodology was developed in a two years process including several transnational and digital meetings with all experts from the designated partners. Preparative to the project application, a theory-driven research was executing leading into the initial described problem statement and objectives of the TEDMA project. In between the first and second phase, a desk research was conducted in order to gain insights to current stand among the project partner institutions. The results showed that there is a need for a more technology and digital education at music education institutes. For most of the participants it is not at all or only a minor subject in their curriculum and also the teacher and lecturer miss often competences and resources. These results are confirming the transnational necessity for an education that faces the digital transformation for a sustainable artistic success in the labor market.

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³ Report: "The European Digital Music Academy. Needs and perspectives on digital skills training in higher education institutions in four European countries." Digitally available with free access.

However, it had to be stated, that the umbrella "digitalisation" gathers an immense number of opportunities and possibilities to address the subject. It is nearly impossible to bring all the different forms of digital artistic expression, communication and (legal) environment into one methodology. Therefore, the partners agreed to focus on the five categories music production, future technologies, cross-arts, marketing and legal rights. Even this agglomeration includes a humongous field of topics that can be addressed.

Nevertheless, the core concept of the developed methodology appears to tackle significant themes that the represented education systems lack, helping to succeed as a musician in a rapidly digitally transforming world. Not only on a music production/performance side can electronic tools help distinguish artistically, but also in managing, marketing and rights subjects, digital transformations lead to major changes (for instance be social media platforms, or more futuristic the Metaverse).

Following the structure, general principals, optional modules and examples of the integrated workshops will be described, relating it to the experiences of the test training in Lübeck. Generally, the methodology needs to be considered as a flexible and adjustable structure and can be individualised by every institution. The reason is, that this flexible concept aims to be adaptable for the different needs of heterogeny education institutions.

Core structure

The core structure of the methodology contains of three pillars: inspiration, practice and presentation. With these three phases the methodology aims to integrate a practical, more guidance and inspiration-based teaching approach as well as a participative and inclusive program. The project-based structure allows the students to individually pursue their interest, leading in a self-motivated approach, pooling the individual artistic diction with digital tools. For the ideal input, a survey among the students can give the lecturers hints about the individual expectations towards the presented digital tools.

1. Pillar: Inspiration

The first pillar is a kick-of phase designed to inspire the participating students by presenting a variety of digitalisation subjects. Related to the test training, this can be an exhibition of various digital tools and concepts, which can give the students that do not already have specific projects in mind an idea of the multiple angles of a digital artistic journey. On the other side, also presentations can be used to make the topic more accessible. Examples can be relations between optic and acoustic signals, new environments such as the Metaverse for instance, or specific programs such as LOGIC or the Eurorack.

2. Pillar: Practice

During the secondary phase of "practice", the students attend in groups their chosen workshop(s). Here the institution organises a "basic professional environment" workshop teaching general knowledge concerning the (digital) marketing of an artist, general music law (including contract basics), as well as some insights about artist booking and distribution. This workshop should be mandatory for all students as it is classified as general skills, need for a successful career as an artist.

Further, the institution can propose one or several workshops that cover the field of digital music production. As the artistic work is the foundation of any artist, the focus lays on these workshops. Here the students can choose between the offers the institutions can make. In order to gain some insights about possible workshop ideas, the proposed workshop at the test training, are described in the appendix, delivering information concerning the aim of the workshop, output, duration, workload, the student requirements and a general description of the workshop.

Generally, the educative idea is to reinforce cooperative artistic creation with a digital focus, always keeping in mind the balance between technological and creative input from a lecturer side.

The workshop phase is considered the core of the project. Here the students develop their own projects with the guidance of the lecturer/expert. Therefore, this phase should cover the majority of the time of the global project.

3. Pillar: Presentation

The third pillar – the "presentation" phase – leads the project development, normally held mainly inside the education institution, into a result presentation, ideally on public ground. By presenting the artistic performances on a professional stage covers three additional project aims. Firstly, the presentation underlines the practical approach of the program. Giving students/young professionals the opportunity to gain experiences in a professional performance environment, for instance by collaborating with local festivals or venues, combines theory and practice, as well as artistic ideas with audience expectations.

This work-life experience with an unknown audience not only prepares the students for their future career, but also should give the project a seriousness that motivates the students to create a convincing performance, however giving the students as much freedom as possible in their artistic articulation.

Additionally, these first experiences with professional promoters also supports the creation of a professional network for the students, as a key factor for a professional career.

Eventually, the students should furthermore not only be involved in the artistic creation and presentation, but also in the communication and marketing of the event. Taking into account the learnings from the "basic professional environment" workshop a marketing strategy should be derived and pursued to create a holistically realistic situation.

Methodology Formats

As initially stated, the methodology should be considered flexible and adjustable to the institution`s resources and capacities. Therefore, the amount and the concrete content of the workshops is intentionally not described concretely. The examples given should give an idea, where the journey can lead, taking into account that the subject of digitalisation in music education offers a broad set of opportunities.

Also, the format in which the methodology is implement is perceived adaptive. During the development phase of the methodology seven partners from four different countries where involved, noticing the individuality and certain numbness of every education system and its curriculum. In consideration of this challenges, different formats are imaginable for this methodology.

- 1. Firstly, the methodology can take, like the test training, a week during the semester and include a mixed version of the three pillars. Here presentations do not only have to take place at the beginning, as this can lead to an overwhelming amount of information. As this format is rather easy to integrate in a regular curriculum, it also is considered quite limited timewise (as also stated in the evaluation of the test training).
- 2. A second possible format can be a summer school concept, where students (also from other institutions) come together for a period of time during the semester break to take part in the methodology. This format has the advantage of being independent from the regular curriculum, however, faces also the issue of increased communication effort and the risk of insufficient responses. The schedule can last from one to three weeks, depending on the individual concept.
- 3. As a third option the methodology can be integrated into the existing curriculum. In this concept the whole project can be seen as a one or two semester module in which the different pillars ca be expended. This is the most in depth version, giving the students a lot of time to develop their projects and also rewarding the effort by credits. This leads to a higher motivation, though, is administratively more complex to achieve.
- 4. The last version is more likely a kind of internship and rather cooperatively and external version of the methodology. Here the input is done by a professional partner, like a cultural centre and the whole project gains a more practical oriented perspective. Here the education institutions are more partners and corporate with the professional partner. In detail there can be multiple short phases of one or two days where information is shared, and project further developed.

Obviously, more variations in the format are available but should not be further discussed here. The presented versions give an impression of the flexibility this methodology incorporates and gives each institution an option to integrate it.

2.1 Learning Outcomes

Outgoing from the description of the methodology, the learning outputs should be pointed out. As a pedagogical institution, higher music education institutions are demanded to present learning outcomes of the individual modules in their curriculum. For the TEDMA methodology the major outcome includes the acquirement of digital skills by all participating students, taking into account the diverging levels among the students.

The world is getting increasingly digitalized and especially since the Covid-19 pandemic all kind of areas of our daily life are getting affected. Starting by the workplaces that are increasingly replaced by remote work, communication technology that are shifting from face-to-face encounters to video-call conferences up to entertainment program – especially in the music industry – that developed live performance substitutes by creating digital livestream formats. These few examples show the disruptive transformations we phase through the digitalisation of both, private and professional live.

Apart from this digital transformation process professional musicians have to deal with wide range of skills, starting with technical instrumental skills, to self-management, concert booking, brand und communication skills, knowledge about legal aspects, such as copyright issues, networking skills and creative potential, needed to succeed in the current and future digitized music industry.⁶

The methodology includes a set of skills that are trained through this methodology:

New practice skills: through the usage of new practice tools, such as the improvisation machine at the TEDMA training, new and effective ways of practice can be learned and employed.

⁴ Fischer, Benjamin: Konzerte für die Couch. In: Frankfurter Allgemeine Zeitung [online: https://www.faz.net/aktuell/wirtschaft/musiker-in-der-corona-krise-die-professionalisierung-der-live-stream-konzerte-17049576.html (last access 02.04.2024)].

⁵ Döhring, B. et all: COVID-19 acceleration in digitalisation. [online: https://link.springer.com/content/pdf/10.1007/s10368-021-00511-8.pdf?pdf=button, (last access 02.04.2024)].

⁶ Schneidewind, Peter and Tröndle, Martin: Selbstmanagement im Musikbetrieb. 2014, p. 14-15.

Music production skills: in practicing the utilization of digital music hard- and software, such as MAXMSP, Ableton or other MIDI tools, students learn to produce individually music samples, usable for recorded music or live performances.

Communication/Marketing skills: the methodology put a focus on the marketing side, taking into account that the communication through social networks, digital advertising or more classical marketing channels include an important aspect of many musicians' professional life. Moreover, the group work demands communication skills, generally assessed as important in a professional environment.

Teamwork skills: In a complex world, teamwork and cooperative (artistic) creation can be a useful skill, which should be trained through group works.

Cross-disciplinary work skills: These groups are assembled in a cross-disciplinary team, enhancing the artistic performance by integrating not only auditive, music expression, but also visual or haptic dimensions.

Legal knowledge: A rather side topic is the legal knowledge, especially of the evolving music market (e.g. AI, Metaverse etc.). As a professional, artists need to develop an understanding of legal opportunities and threads, especially concerning the monetarization of their artistic work.

European networking & language skills: Finally, the TEDMA project brought in students from four different countries enabling international relationships and networks, promotion the European mindset. Considering that the music market works on an international level, this exchange fosters a broader perspective and additionally supports the development of professional language skills.

The TEDMA methodology includes therefore not only digital skills development, but also incorporates a variety of additional skills that are taught by the application of this training scheme.

2.2 Learning Strategies

For a successful transfer of the focused learning objectives, the training methodology incorporates a practice, individualized and motivation driven concept. This rather modern categorized teaching system aims to effectively transmit the learnings taking into account that learning is strongly influenced by the motivation of the learner. ToungVan Vu describes exemplarily the reciprocal relationship between motivation and achievement.⁷

The first pillar of the methodology includes the "inspiration phase", introducing new tools, insights, techniques or tools to the students. Here the importance is to rather inspire and create a guidance atmosphere, rather than to educate and impose specific application forms. This traditional teaching, related also to school learning, does not empower the student, taking all responsibilities and decision making from him/her.

An important pedagogical aspect of the methodology is the practice-oriented approach, having two effects, one motivating the students by supporting the individual project creation and secondly by applying the simple concept of "learning by doing". The concept will be enhanced by providing support from experts in each workshop/module.

Moreover, the students are requested to develop individual project, being able to implement the presented tools and techniques, but also being free to integrate further complements. This promotes a creative approach to the project and includes a higher motivation, as a higher commitment and identification with the results can be expected.

Eventually, the group work situation enables networking, but also artistic exchange, discussions and feedback loops, creating new perspectives and a co-creative

⁷ Vu, T.: Motivation-Achievement Cycles in Learning: A Literature Review and Research Agenda. In: Educational Psychological Review (34, 2021), p. 39-71 [online: https://link.springer.com/article/10.1007/s10648-021-09616-7 (last access, 02.04.2024)].

atmosphere. Through formal and informal discussions, the work phase emerges with leisure activities, enhancing again the motivation.

It should be stated that the connection of the project output with university credits is related to the motivation of the participants. The extra-curricular activity, as it is processed at the TEDMA training emerges issues in the dedication of the project results.

2.3 Training Resources

The presented methodology also raises questions concerning the necessity of resources, needed to appropriately execute the training to achieve the goals set. Firstly, experts in the individual fields need to be recruited, assuring enough competences for the inspiration phase and the presentations, as well as for the workshop phases, where these experts support the student groups with overcoming obstacles, clear out open questions and supervise all groups.

A quickly underestimated topic is the availability of sufficient space. Apart from a bigger hall for the inspirational presentations, every group needs a dedicated room for the workshops and performance development. As many institutions lack sufficient rooming, the topic needs to be addressed early, to prevent issues.

Moreover, the selected working spaces need to comply certain requirements. As music performances and trainings are operated, the acoustics need to enable proper playing. Furthermore, computer hardware and especially software licences need to be offered for a barrier free exploitation of the creative potential of all students. The software licences should include recording, sound and visual creation. Examples can be Ableton, MAX MSP or Midi programs.

Further sufficient time resources need to be assembled to execute the presentations and workshops, but additionally to the creation process of the students aside of the official program. A time management strategy including the periods initiate and process the projects of necessary for the success of the methodology. The time required to recruit

partners for the cross-disciplinary approach should not be underestimated, as such cooperation need time to be established.

If an international training is envisaged, also financial and administrational resources are required. For the travel, accommodation and nutrition of external students, organisational staff is needed.

As it can take time and effort to assemble all resources described, mainly the organisation of the initiation period consumes the main resources. Once established time and financial input reduces through learning project management progress.

2.4 Training Modules

One core element of the TEDMA methodology is the practice-based workshop system. During these workshops experts with differing expertise in digital technologies support the students in creating their individual projects. While students can switch the workshops to receive a diverse input, the experts train, advise and support the students with their perspective and specific knowledge.

Outgoing from the immense scale of possibilities which provides the digitalisation field, an enormous variation of links to the overall topic can be tied. This wide range of possibilities demands a specialization and focus in order to sustain a qualitative learning environment. The TEDMA research suggested five main areas that should be focused on the presentations or workshops. These include:

- a. Electronic music
- b. Cross-Arts
- c. Future technologies
- d. Publishing / author rights
- e. PR/Marketing

Which specific workshop are proposed within these fields, can be decided by each institution itself, leaving room for specific national needs, market changes or educational gaps.

During the TEDMA training workshops for improvisational exploration (impro machine), an interdisciplinary investigation, responsive web design and digital tools-based performance training have been proposed. Author rights and marketing pillars were included through presentations.

All workshop descriptions can be found in the appendix, offering a transparent insight into the practiced workshops.

3. Conclusion

With the project of The European Digital Music Academy (TEDMA) a much-needed innovation process should be addressed, following the need to reconsider higher music education by emphasizing more digital skills training. As multiple studies confirm, the application of digital technologies have several benefits, ranging from creative, lateral thinking, communication and new practice skills.

With the TEDMA methodology a concrete training scheme has been developed enabling international higher music education institutions to apply a tested training into their curriculum. This training scheme includes three pillars – inspiration, practice and presentation – leading to a motivation, practice-based and individualised training program for music students. By including the sectors electronic music, cross-arts, future technology, publishing/author rights and marketing, a wide range of skills for a successful career in the transforming music industry can be taught.

By depicting the learning outcomes and strategies, the positive effects of the methodology could be outlined, stressing out that the flexibility of the methodology leaves room for curriculum-based adaptions for all institutions. Especially the time schedule and modules can be adopted, replaced or adapted by the needs and perspectives of every institution and its market structure.

The characterized resources required for the successful implementation of the methodology, should avoid unplanned issues during the integration of the program, giving a transparent insight into the experiences of the TEDMA project.

The partners wish to support all interested institutions in their efforts to establish a present and effective curriculum, aiming to support all students in starting a successful career. For this reason, the results are shared with open access, wishing to enable constructive change in the higher education sector.

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5. Appendix

Workshop Name	1.1. Responsive Webdesign
Group size	4-10
recommendation	
Workshop	Introduction to recognize web, design and conception
Workshop	Introduction to responsive web, design and conception of digital products, screen design, interactive systems,
Description	context of use, user behaviour, usability and user
	Experience Basics, Mobile Systems, Beyond Mobile,
	Touchpoints on immersive and transmedia applications.
	01_VL_Introduction Usability, UX, Responsive Web,
	context of use (basics)
	02_VL_Briefing
	03_VL_Lasts and specifications
	04_VL_Calculation
	according to AGD (Alliance of German Designers) and BGD
	(Professional Association of German Communication Designers)
	Determining your own value on the market per hour
	Calculation examples of web products
	05_VL_Research, Design Thinking
	06_VL_Structural layout and information architecture (IA)
	07_VL_ Functional layout_Wireframe Differentiation between wireframe, prototype, mock-up
	Prototyping tools
	Prototype for usability testing (basics)
	Touchpoints and integration of cross-media/digital products
	products
	08_VL_Composition, positioning on the web
	Conditioning, expectation, mind maps
	09_VL_ScreenDesign (UI)
	10_VL_Color, typography on the web
	11_VL_Outlook: Beyond Mobile; Digital Products/
	Transmedia/ cross-platform
Workshop Aim	After successfully completing the module, students are familiar with
	the basics of screen design for the responsive web.
	Responsive Web. They can design digital products for desktop, tablet and mobile applications.
	design them.
	They have learned from examples and above all from their own
	project work through all production phases,
	plan, calculate and structure the content of digital media
	structure, to create an information architecture and
	test navigation guidance through prototyping.
	You will gain an insight into the design of Touchpoints
	and thus a cross-platform experience (UX).
Workshop Output	First screen design project

Usability/to apply the content (of the workshop) in the context of the student	Understanding of responsive Web design, insuring perspective of creative usage.
Required student level	Unspecific
Time duration/structure:	One day
Total student workload in hours approximately:	20 h
Participant prerequisites:	non
Literature:	Spies, M. Branded Interactions, Creating the Digital Experience, Thames & Hudson Ltd, 2015 Norman, D. The Design of Everyday Things, Basic Books 2013 Krug, S. Don't Make Me Think: A Common Sense Approach to Web Usability (Revisited), 2013 Nielsen, J. Should Mobile Design Principles Be Applied to the Desktop?, Peachpit 2012 (Artikel) Goodwin, K. Designing for the Digital Age: How to Create Human-Centered Products and Services, 2009 Alexander, K. Kompendium der visuellen Information und Kommunikation, x.media, 2007. Böhringer, J., Bühler, P. und Schlaich, P., Kompendium der Mediengestaltung: Produktion und Technik für Digital- und Printmedien, x.media, 2008. Jacobsen, J. Website-Konzeption. Erfolgreiche Web- und Multimedia-Anwendungen entwickeln, Addison-Wesley, 2. Aufl. 2006. Markus, D. Grundlagen der Mensch-Computer-Interaktion, Pearson Studium 2006 Radtke u. a. Handbuch Visuelle Mediengestaltung, Cornelsen 2004 Zusätzliche Online Quellen: Nielsen Norman Group, www.nngroup.com International Usability and UX Qualification Board, www.uxqb.org Interaction Design Foundation, www.interaction-design.org

Workshop Name	Improvisation Exploration
Workshop Haine	Improvidution Exploration
Group size	15
recommendation	
Workshop	Meet John, also known as the ImproMachine—a creation conceived,
Description	designed, and built with a core principle that transcends conventional boundaries. This innovative musical entity, crafted by an interdisciplinary artist, musician, thinker, instrument builder, visual artist, and computer programmer, challenges the very essence and meaning of music.
	The core inquiry of the ImproMachine revolves around the nature of music itself. Is it confined within the flawless performances of Mozart, Beethoven, or Bach, or does it manifest in contemporary compositions and the expansive realm of free jazz? The central philosophy rejects the strict definition of music, asserting that such a demand contradicts its essence as a constantly renewing and vital energy. Music, in this view, emerges from an open space with countless possibilities, finding its power in the dialogue with that vital space.
	To embody this philosophy, the ImproMachine invites musicians from diverse disciplines to step into the void, unburdened by preconceptions, and question the very concept of 'music.' Guided by the motto "everything is music," a unique form of improvisation unfolds, shattering established musical standards.
	At the core of this musical exploration is John, the ImproMachine—an unassuming metal box measuring 26 x 15 x 9 cm. With four main buttons in black, white, red, and blue, a rotary knob, and a digital screen displaying letters, numbers, and codes, John becomes more than just a machine; it transforms into a playing field for musical dialogue. Named after the influential John Cage, John acts as the game master, linking various starting points through chance and determining the framework for the musical game.
	John doesn't judge; it facilitates musical research where the game itself takes precedence over achieving a perfect stylistic outcome. Once its role is fulfilled, John gracefully concludes with a simple yet profound "Thank you."
	The ImproMachine concept is grounded in the belief that limitation serves as the starting point of all art. Boundaries, fluid and changeable, transform emptiness into meaningful space. Musicians, as asserted by the underlying principle, are the managers of both

	supply and borders. Every recognized art form becomes a temporary result born from the interplay between flowing and limiting.
	Iterations with the ImproMachine guide musicians through a creative process, enabling them to tap into their musicality over successive sessions. This experience evolves into a lived journey as participants build a database of capabilities, enriching their musical language and crafting their own principles independent of the ImproMachine.
	Described as a means to stretch a membrane, the ImproMachine, according to the underlying principle, resonates with an unprecedented sound. For professional musicians, it symbolizes an extension of their musical journey—an exploration that opens vital space and acknowledges infinite possibilities for innovation. The ImproMachine stands not just as a creation but as a testament to the transformative power of music when liberated from conventional constraints.
Workshop Aim	This workshop focuses on elevating participants' improvisational skills across creative domains. Through interactive exercises, participants will enhance adaptability, quick thinking, and collaborative abilities. The goal is to provide a versatile toolkit for navigating uncertainty and infusing spontaneity into various creative endeavours.
Workshop Output	Experience, performance, learning process.
Usability/to apply the content (of the workshop) in the context of the student	Bachelor students and master students, preferably in arts and music.
Required student level	Any
Time duration/structure:	Minimal is 2 hours max is 5, but it can be done multiple days in a row. It's an iterative learning process.
Total student workload in hours approximately:	See above.
Participant prerequisites:	Open to all, preferable performers, poets, and individuals from various artistic realms. While musical experience is advantageous, it is not mandatory. What's essential is a passion for creative expression and a readiness to explore the principles of improvisation. Come with an open mind, a collaborative spirit, and a willingness to push the boundaries of your creative comfort zone.
Literature:	Map of Music – David Bruce https://youtu.be/c8odznnCRdo?si=idtlsHo-7uKeOunx

Workshop Name	Playing & improvising with music and light using digital tools
Group size recommendation	10
Workshop Description	This workshop offers an overview of resources to digitally enhance the performance of the musician and the band using computer tools (Ableton Live, Max-Msp, Blender, Arena) Generation of new sound and visual perspectives (audio and MIDI signal processing, human/machine musical/video interactions, instant musical analysis, sound set programming, use of sampling, introduction of a dose of chaos for sound and video effects via the implementation of random parameters).
Workshop Aim	Give participants basic knowledge and practical application of digital music and video tools.
Workshop Output	30-minutes live performance by the participants.
Usability/to apply the content (of the workshop) in the context of the student	Participants will be able to apply the content of this workshop at different levels of personal and professional activity, using digital tools for music and video that are standard, flexible, and easy to access.
Required student level	High-school or above.
Time duration/structure:	5 days (8-hours/day) Day 1: Presentation of the music and video tools / system connections Day 2: Participants use of tools and brainstorming of artistic applications Day 3&4: Participants application and rehearsal, combining music and video.
	Day 5: System installation and public performance
Total student workload in hours approximately:	Attendance and participation in the workshop (40-hours), no other additional work needed.
Participant prerequisites:	3 years' experience of playing music (instrument, vocal).
Literature:	User manuals for Ableton Live, Max-MSP, Blender, Resolume Arena.

Workshop Name	Interdisciplinary investigations into artistic productions
	D
Group size	Between 10 and 20
recommendation	
Workshop	Participants shall in an apan and collective process, collect and
Workshop Description	Participants shall, in an open and collective process, collect and transform data, explore and experiment with the substance, define and develop a symbiotic and cross aesthetic/multimodal performative output through site specific investigation, using digital media to collect, retain, transform and display matter. By surveying the selected area for shapes & patterns, colors & texture, movements & noises the participants shall extract and generate information, or content for musical translation - e.g. by composing melody and/or harmony, extract dynamics and/or tempo etc. from lines or shapes, or by converting patterns into (musical) numeric systems e.g. scales and their steps, or by using field recordings - manipulated or not - as equal musical elements. The collected information shall also serve as the basis for (moving) images - unedited or manipulated digitally through the use of video effects programs. The images shall enter into the final piece or pieces, thereby creating a coherent and continuous connection between place, sound and visuals. For the showing or performance of the work, the participants shall decide on place, duration, structure and form, that again may be extracted from the collected material - e.g from the journey travelled, a map, a narrative or other means that connects the work to the environment. The presentation of the work may include live performance and improvisation - analog/acoustic as well as digital. I may incorporate
	choreography/ movement/placements of sound and performers in the space of the presentation.
Workshop Aim	To develop awareness of uncondi=onally crea=on To spark and generate new ideas using chance and coincidence To create cross aesthe=c and site specific artwork
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Workshop Output	Performance/exhibit
Usability/to apply the content (of the workshop) in the context of the student	The workshop will provide knowledge for future crea=ve work and processes
Poguired student	(Pophologratudente) mostavatudente)) Osia ha ahain ad fari ali districti
Required student level	(Bachelor students?, master students?) Can be shaped for children
IGAGI	as well as students of higher educa=on ins=tu=ons
Time duration/structure:	Anywhere from half a day to several days/week
Total student workload in hours approximately:	See above

Participant prerequisites:	None necessarily - helpful to have the ability to make qualified choices on main instrument
Literature:	none