



TECHNO-CREATIVITY AND AUTHENTIC LEADERSHIP: CREATIVITY, TECHNOLOGY, AND ARTISTIC PRACTICE INTERTWINED

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Abstract. Through my work as an artist, educator, and activist, I aim to promote the interconnectedness of arts, management, creativity, curating, research, and technology by developing courses for art academies, art students, and interdisciplinary students at universities. I believe that future university and art academy education will increasingly integrate interdisciplinarity, combining fields such as management, creativity, technology (including artificial intelligence), curating, and other disciplines. This approach aligns with the interdisciplinary nature of professional life after graduation, whether one pursues a career as an artist or as a director of an institution. I reference both the art academy and university environments due to my experience as a lecturer in both settings. The article explores the relationship between authentic leadership and creativity within the context of university pedagogy, utilizing a reflexive research method based on a case study of creativity education. This case study focuses solely on the university environment, specifically on teaching creativity to interdisciplinary groups of students. My experience as a lecturer contains teaching artists, performers, and interdisciplinary students at both the Bachelor of Arts and Master of Arts levels. Data includes my notes as a facilitator-lecturer, as well as the creative output and feedback from the interdisciplinary student groups. This data is analyzed using qualitative methods. The case study, derived from a Digital Creativity course, is examined speculatively to assess how the skills acquired may impact students post-graduation. As I was not in contact with students after the course ended, observations are limited to the processes observed during the course itself. The research question addressed is: how can digital learning of authentic leadership and creativity be facilitated within university pedagogy to create a safe and empathetic learning environment for students? Leadership is discussed from the perspective of authentic leadership and its relationship to creativity. Digital literacy is framed as critical thinking and responsibility in the context of collaboration with non-human entities, such as artificial intelligence. This study is relevant for university and art academy professionals working in cross-disciplinary contexts related to authentic leadership and creativity.

Keywords: art, creativity, education, leadership, technology, university pedagogy.

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1. Introduction

The current study explores the interconnectedness between authentic personal leadership and creativity, focusing on these themes in a course designed for an interdisciplinary group of Bachelor of Arts students. This article presents a case study from Vilnius University of Applied Sciences (VIKO), where the digital course aims to enhance creativity as a tool for developing authentic leadership skills among business, public relations, and administration students. In addition to the case study, I also developed shorter guest lectures at Tampere University, Finland, VIKO, and other locations, where I introduced artificial intelligence as a collaborator

in creative processes. These shorter courses, alongside the main case study, also contributed to my conclusions regarding digital literacy.

The case study was conducted through workshops aimed at enhancing creativity, which were integrated into a course designed for a diverse group of students, including those specializing in international business, public relations, and administration. The course material combined theories of creativity and authentic leadership with practical tasks based on performance and design thinking.

In the first part of the article, key concepts related to facilitation and the facilitator's role, authentic leadership, digital literacy, and creativity are defined. The second part presents and analyzes the case study, leading to an exploration of the main points regarding the connection between authentic leadership and creativity within an educational environment. A speculative framework assessing the potential impact of the course on the skills students gained and their applicability in professional practice after graduation is described, using a speculative analysis from the perspective of an artist and lecturer within university and art academy pedagogy.

The aims of the article are twofold: first, to outline the main tools used by the artist-educator in facilitating a course on Enhancing Creativity for an interdisciplinary group of university students; and second, to propose a speculative framework regarding the applicability of the knowledge gained during the course in professional practice, from the perspective of a lecturer-facilitator with experience in university and art academy pedagogy. These aims are achieved by analyzing data from two perspectives: that of the facilitator-lecturer during the course and the feedback provided by the students after the course.

I am an artist-researcher specializing in performance art, currently serving as a postdoctoral researcher at Vilnius Academy of Arts in Lithuania and as a university educator and doctoral studies co-supervisor at Kyushu University in Japan. In 2020 and 2022, I was affiliated with VIKO, where I implemented a Creativity course based on performance and Fluxus pedagogy. This course aimed to create an educational environment focused on non-judgmental exploration. In my own artistic practice, I use biometric data as a tool to connect with audiences and expand the performance experience for viewers.

Entering the university environment and teaching the subject of Creativity, I aimed to bridge art, technology, and creativity with authentic leadership. I am interested in the embodied experience of developing authentic creative thinking and empathetic communication as the foundation for non-judgmental environments, particularly while teaching the Enhancing Creativity course to Bachelor of Arts students. The pedagogical methodologies were closely aligned with my artistic interests, which is why performance pedagogy was applied. The Enhancing Creativity course was developed for digital learning/online learning, a challenge that sparked my interest in how creativity can be enhanced through digital collaboration between humans and non-humans. Immersed in performance and technology, my excitement for technological aspects motivated me to integrate artificial intelligence with creativity training techniques. Initially, I explored ways to incorporate avant-garde techniques into creativity training exercises. Subsequently, I involved artificial intelligence as a stimulus within the creativity loop (Griniuk & Brisson Mosich, 2022).

2. Theoretical framework

2.1. Defining facilitation in university pedagogy context

In university pedagogy, the facilitator's role is to clarify the problem or task so that participants understand what is expected of them and can approach the task through the lens of their experience. Insights into facilitation are discussed from a cross-disciplinary perspective, integrating authentic leadership, innovation, design thinking, and performance, often manifested in workshop-based activities. Designers and scholars Mosely et al. (2018) emphasize that creating a safe space is central to workshop situations, with the facilitator's role being crucial. This view aligns with the conceptual framework proposed by scholars and educators Byrge and Hansen (2009), known as the creative platform, which is widely used for educational purposes at VIKO. This framework focuses on a safe, non-judgmental space of empathy and ideation, integrating innovation, design thinking, and performative interactions, thus fostering authenticity in one's thinking and decision-making. Effective facilitation involves creating an environment where participants do not feel a sense of failure or experience confusion in communication (Mosely et al., 2018). Empathetic actions are aimed at enhancing participants' confidence, motivating active participation, and promoting authentic thinking.

2.2. Authentic leadership

Especially when addressing authentic leadership, individual thinking and the capability to solve problems by connecting previous experience with creativity are central. Authenticity in leadership is based on self-awareness and emphasizes that being true to oneself positively impacts the environment to which a leader is affiliated (Johnson, 2019). As Johnson (2019, p. 182) notes,

"Authentic leadership is rooted in a humanistic philosophy. The central focus of humanism lies in a person's own individual experiences. Humanism places a greater significance on human qualities such as self-realization and self-worth".

This style of leadership can be interpreted as being based on previous experiences, awareness of one's own capabilities, and recognition of weaknesses (Speranza & Pierce, 2019), with the goal of fostering empathic connections with employees within the organization. Although the term *authentic leadership* is borrowed from psychology and business studies, it is discussed here within the context of university pedagogy and the discipline of creativity. An authentic leader (Duarte et al., 2021) understands that employees' current positions are shaped by a variety of layers of previous education, workplaces, and experiences, recognizing that each employee, as an individual and specialist, requires a unique approach in communication and task development. In this way, authentic leadership facilitates a better understanding of employees' needs and interests. According to some authors (Duarte et al., 2021),

"Authentic leaders thus say exactly what they mean, act on their stated beliefs, seek out opinions that challenge their personal views [...] these leaders reinforce employees' positive attitudes and behaviors, generating benefits for specific workgroups and entire organizations".

Authentic leadership can positively impact the communication culture and work environment within organizations. I interpret becoming an authentic leader as twofold: firstly, enhancing self-awareness; and secondly, understanding and empathically connecting with employees.

2.3. Creativity

Creativity is the ability to generate new and original ideas or products (Pires & Varajão 2024). In the workplace, creativity involves producing innovative and potentially valuable ideas that can be applied across various strategic areas of an organization, such as in products, services, practices, or procedures (Pires & Varajão, 2024). Researchers often conceptualize creativity through one or more of the four Ps: person, process, product, and place (Bereczki & Kárpáti, 2021). More recent models integrate all four, proposing that creativity emerges when these components converge (Bereczki & Kárpáti, 2021).

According to Glăveanu (2020), varied perspectives enhance creative potential. Additionally, unique combinations of ideas drive the emergence of fresh perspectives in creative endeavors (Glăveanu, 2020). Creativity enhancement techniques, essential for innovation, vary widely in their application and processes, such as individual or collective brainstorming, and divergent or convergent thinking (Timbadia & Khavekar, 2016). Some authors (Bonetto et al., 2024) explain that creativity training is a structured program aimed at enhancing creativity in individuals, consisting of one or more sessions. Since the early to mid-20th century, various creative skill development programs have been implemented in organizations and educational institutions, containing problem-solving tasks, thinking courses, meditation, idea marathons, and role-playing, all designed to foster creativity (Bonetto et al., 2024).

Individual creativity and its enhancement are aligned with authentic leadership: "Positive emotions specifically increase workers' desire to explore and assimilate new ideas, discover fresh information, and develop their individual potential, which induces employees to be more creative" (Duarte et al., 2021).

Individual creativity enables creative actions by individuals within a changing environment (Kozbelt et al., 2010). Authentic leadership and creativity are inseparable and are addressed jointly in the educational environment of the case study.

2.4. Digital literacy

The term *digital literacy* was coined in the 1970s to refer to the ability to understand basic computer-related concepts (Tsz Kit Ng et al., 2021b). Cory Robinson (2020) notes that while transparency in algorithms and artificial intelligence is widely recognized as ethically important, the general public often lacks a basic understanding of how artificial intelligence functions. Burgsteiner et al. (2016) and Kandlhofer et al. (2016) define artificial intelligence literacy as the ability to grasp the basic techniques and concepts underlying artificial intelligence in various services. Artificial intelligence literacy is associated with perceived abilities, confidence, and readiness in learning about artificial intelligence. In the current research, artificial intelligence literacy is specified as being connected to the ethical aspects of collaboration with artificial intelligence. Some authors (Tsz Kit Ng et al., 2021a) emphasize the importance of

critically assessing the outputs of artificial intelligence systems, including understanding the ethical implications such as potential bias in algorithms or the impact of artificial intelligence on privacy and security. It involves using artificial intelligence in a responsible manner that aligns with ethical standards (Tsz Kit Ng et al., 2021b).

3. Author's reflection on her experience with interconnection of creativity and authentic leadership

Of note is that authentic leadership holds great importance for me, as my daily life contains not only my performance and biometric technology projects and teaching activities but also my role as the Southern Department leader at Nordland Museum (Nordlandsmuseet) in Norway. I aim to apply authentic leadership as a technique within my work. Unexpected situations frequently arise in the workplace – often on a monthly, if not weekly, basis. In these instances, the interconnection between authentic leadership and creativity becomes essential for resolving unforeseen problems. From my experience, problem-solving in an organizational context has become somewhat routine; however, each problem is unique, and no single scheme can be applied to every issue. The only approach is to apply creativity. In this context, authenticity refers to the director's or leader's individual experience based on previous experiences, and in this article, it is applied specifically in connection with the studied area of creativity and leadership.

4. Method

The overall method of this study is reflexive research. I employ reflexive research to reflect on the classroom situation and teaching tools. This approach is utilized due to my extensive experience in pedagogy, particularly in university and art academy settings. According to Etherington (2004), reflexive research involves exploring and reflecting on collected data, drawing on the researcher's previous practice. Etherington (2004) describes reflexive research as being grounded in the researcher's practice, allowing for speculative analysis and perspectivation of the findings. I use practice-based knowledge as the foundation for investigating the cases and providing speculative insights into future scenarios related to authentic leadership beyond educational institutional contexts.

5. Research ethics

The research was conducted with the students' consent. They were informed that I would use the data from the lectures and their feedback to develop research aimed at enhancing pedagogical methods for teaching creativity. The students were made aware of the forthcoming research output, and any data or information they provided has been anonymized. The ethical aspect of collaborating with artificial intelligence lies in the clear definition of its purpose – as a tool to enhance individual creativity. In the digital environment of the enhancing creativity training, artificial intelligence generates stimuli that students can use to boost their creativity. Artificial intelligence was not involved in any other processes within the digital study environ-

ment. The artificial intelligence was not involved in grading, assessment, or any other processes that might affect the students' academic outcomes, thereby ensuring that the technology's role remained supportive rather than intrusive. The ethical use of artificial intelligence in this context means that it serves as a supplementary resource that enhances students' creative thinking, rather than diminishing the role of lecturer or limiting students' own efforts.

6. Data collection and analysis

I collected data during the fall semester of 2020. The data includes notes from conversations, comments, and feedback from students. A feedback session was organized where students could provide their feedback via the chat section on the *Microsoft Teams* platform. Six students participated in the feedback session out of a total of eleven students with whom I worked during the course. Typically, researchers conducting empirical studies in creativity studies tend to prefer large sample sizes due to the prevalent "objectivist" tradition (Pires & Varajão, 2024). In the current study the sample size of qualitative data is small. This is the limitation of the current study, as the research outcomes are based on feedback from six students. I maintained a diary after each session with the students, documenting the events and reflections in real time.

The data analysis process was guided by the frameworks of Gadamer (2006) from the perspective of hermeneutic theory and Thomas (2006) in connection with general inductive analysis. This approach involved analyzing keywords extracted from the raw data samples. Thomas argues that traditional qualitative methods like grounded theory and phenomenology may not always be suitable for all types of qualitative data. He introduces a method called general inductive analysis, which aligns with hermeneutic philosophy and is particularly effective for analyzing artistic data. This method involves systematically analyzing data based on specific evaluation objectives, allowing findings to emerge naturally from the raw data without rigid methodologies.

7. Pedagogical tools

Dada writing, questionnaires, and collaboration with artificial intelligence are not research methods but tools applied within the Enhancing Creativity course. The course included a variety of tools integrated into tasks and exercises designed to provide a multifaceted approach to creativity enhancement.

8. Creativity through arts-based methods towards authentic leadership

The arts and technology-based methods addressed during the digital Enhancing Creativity course, facilitated by an artist working with biometric technology and performance, included the following.

Firstly, a surrealist method of automatic writing (Thompson, 2004), adapted for the educational digital space. During automatic writing exercises, students engaged in extended

writing sessions, focusing solely on the writing process without detaching their attention from it, rather than on the content of the text.

Secondly, a Dada writing technique (Thompson & Mimno, 2017) was utilized, adapted to the digital space. Students reused words from existing texts by cutting them out and rearranging them to create their own texts. Some participants used texts on paper, while others used texts found in the digital space.

Thirdly, the Six Thinking Hats method by Edward de Bono (1999) was employed (Kivunja, 2015). This method involves adopting one of six perspectives, each represented by a coloured hat, to analyze a case study or situation. In my interpretation, this method took on a role-play format and was easily applied to the digital space, fostering dialogue between me, as the facilitator, and the students.

Lastly, a creativity training method I developed, called transcorporeal writing (Griniuk & Brisson Mosich, 2022), was used. This method involved artificial intelligence as a collaborator in writing practices.

The facilitator utilized performance and design thinking tools, and adapted visual art fragments as stimuli to address creativity blocks. The course lasted three months. Creativity blocks related to authentic leadership and communication, particularly written communication, were addressed using arts-based tools developed by the Dada (Thompson & Mimno, 2017) and Surrealism (Thompson, 2004) art movements. These techniques were adapted by me as the lecturer:

“My aim within the creativity workshop session was to unite what the core interest areas of the students were, the majority of which were students from the program international business and public relations, with avant-garde creative writing techniques. The Dada technique of creative writing is based on using existing texts, cutting words from the texts and then randomising the choice of location of these words in sentences. Where can there be a meeting point between these techniques and contemporary business students? This was the first layer of this experience for me. The second layer was the current digital space, where a challenge is reaching fluent communication, empathic connections, and flow in the workshop. Techniques from art movements don't usually meet with applied business tasks, such as marketing related tasks. But still in the art projects, where is my background from, I have together with colleagues used this Dada technique quite a few times to create titles for exhibitions or projects, which also can be understood as a marketing tool for these artworks or art projects. So in my understanding it was potentially applicable in the broader sense of marketing”.

In our communication with the students, it was important for me to assess the relevance and applicability of the exercises. The connection between my practice and theirs was central to this process. We explored how applying techniques from the Dada art movement could be beneficial in business communication. The authenticity of word combinations is what captures the interest of viewers or customers. Thus, the key aspect of integrating the Dada art movement techniques with contemporary business and public relations students was to focus on authenticity and creativity in order to produce original results. Interestingly, during such workshops, students employed a wide range of approaches, as illustrated in the vignette below, taken from my lecture notes:

“I asked the students to prepare newspapers or magazines and something to cut with, as we would work with a Dada writing technique, with which they would need to create

slogans for their chosen product. After this creative session in their domestic environments they were supposed to share photographs with the group. It turned out that one of the students did not have any physical newspapers, which turned the exercise into an experiment of how the Dada technique and this task could be done digitally. The student suggested that he would work with online journals and then use a program for mixing the words into a slogan. Originally he planned to make a slogan for the coffee brand but he was dissatisfied with the words he found in the media, so his choice fell on a tea product within this exercise. Another student used a crossword puzzle for cutting out the words and this slogan was directed at the lottery as a product. Quite unintentionally the material – paper – from which the words were cut out gave a beautiful texture of this hand-made process in the photograph, which was followed by a discussion on the aesthetic of the slogan visualisation and the contemporary desire from the viewers to see a trace of the hand on the communication material. The third student used his study material from the previous course and used the cut out words from his previous reading paper. He seemingly enjoyed the process and suggested a large variety of slogans, he expressed his interest in original language and that this technique can give room to this originality and unexpected findings of how to formulate the product communication”.

The variety of approaches by the students confirmed that using the Dada art movement technique encouraged improvisation from the outset, as students began working on the given tasks. Feedback from the students indicated that both the process and the results were surprising to them in several ways: they found it challenging to fully control how the slogans would turn out, and the process was seen as a collaboration between the material (their chosen medium for cutting out words) and the initial idea for the slogan. The creativity loop appeared to be twofold: the initial idea and the result were co-shaped by each student and their interactions with the materials.

The term *creativity loop* is adapted by me from the term *creative loop* (Ermine, 2018), which describes a cyclical process within creativity. In my earlier research, I developed the term *creativity loop* based on the concept of a performance loop (Griniuk & Brisson Mosich, 2022). In performance, the performative action unfolds through input from the performer and feedback from the audience, with the performance evolving through repeated cycles (Griniuk & Brisson Mosich, 2022). Similarly, the creativity loop involves input from the human creator and output from collaborating technology, constructing a posthumanist approach to the creative process (Griniuk & Brisson Mosich, 2022).

In exercises using Dada techniques, the creativity loop involves the human creator and the materiality of the cut-out words. In the Surrealist technique, the creativity loop contains the human creator’s interaction with the keyboard and the expanding text on the screen through continuous writing. In the Six Thinking Hats technique, the creativity loop is found within the role-play interactions among group participants. In creativity training involving artificial intelligence, the creativity loop includes the writer and artificial intelligence, where artificial intelligence-generated content serves as inspirational material and stimuli for the human creator.

This article includes only vignettes and not the slogans, products, or process photos due to ethical considerations and the students’ consent to use only anonymized quotes from feedback in any research output.

The subsequent workshop built on the materials created using the Dada technique and extended to a new task involving Surrealist automatic writing (Thompson, 2004). The following vignette, as recorded in my lecturer's diary, explains the process of this workshop:

"The next step within business meeting arts was the writing exercise based on a Surrealism movement writing technique – automatic writing. During this exercise the same group of students needed to reflect on the previously created slogan by writing without thinking. The technique requires that the writer writes the first sentences which would appear in their mind, thus excluding criticality toward the text. The mind and the text connect, be it via writing by hand, or by computer. The aim of automatic writing here was to overcome any blocks or barriers which might appear in the process of working with text. This task seemed to be more challenging than the previous. Most of the students admitted that they analyse each sentence a lot when writing text describing products or services. The unexpected turns in working with the text can lead to the finding of new ways to communicate".

The students also emphasized that the performative aspect of the creativity workshops was valuable to them. They associated this performativity with exercises (Kivunja, 2015) such as those involving the Six Thinking Hats technique by de Bono (1999). For example, one student, in her written feedback (translated from Lithuanian), explains:

"De Bono's six hats. I enjoyed doing the exercise with this method in a group, where each of us needed to create the six hats. All the members of the group performed how they saw and experienced each of the six roles, connected to the hats. It was an experience of creativity".

From this quote is seen that authentic, performative expression of the individual within the group, felt as a positive and creative experience.

Each exercise, drawing from visual arts or creativity studies, focused on enhancing individual authentic expression in the digital teaching environment – whether performed solo or in groups. A core element of their creative process involved using materials and objects from their domestic environment, which were presented digitally in group settings. Artificial intelligence output was interpreted as stimuli, with the human collaborator providing input and the artificial intelligence generating output, together creating a creative loop. By incorporating artificial intelligence into creativity training, I expanded the methodologies developed for the digital course with an interdisciplinary group, which serves as the case study for this article. My aim was also to enable individuals to enhance their creativity through interaction with the computer alone, allowing them to work in their own creative space. Especially during the Digital Creativity course, it is crucial to provide tools for enhancing creativity, including digital tools like artificial intelligence as a creative collaborator.

9. Recommendations

The investigation in this case study revealed interconnected points that unite visual arts, creativity, and authentic leadership, with a speculative perspective on the usefulness of the knowledge gained for students' future careers. The results of this study offer recommendations applicable to university lecturers involved in educational programs and courses focused

on creativity and leadership, particularly for interdisciplinary student groups and in digital learning environments.

Notably, working with students from a single specialization allows for more targeted content. However, when students come from diverse disciplines, the course should adopt an interdisciplinary approach, ensuring that the outcomes are broadly applicable to all participants, as demonstrated in this case. The recommendations are as follows:

1. Exploring with materials. The use of arts-based methods and creativity studies methods in combination offers a structured approach for students to generate new outcomes. The process involves several steps: formulating an initial idea, selecting available materials, engaging in a dynamic interaction with these materials, and producing an outcome. The results are often surprising and unexpected. This exercise is particularly beneficial for students accustomed to achieving perfection in their outcomes. It fosters divergent thinking, which is defined as thinking more broadly and deeply (Design Council, 2026). Divergent thinking – creating multiple authentic ideas – positively impacts individual experience by providing a broader range of possible solutions. This approach increases the likelihood of generating one truly innovative idea among many;
2. Process rather than product. The focus should be on the flow of creative action rather than solely refining one solution. In the classroom, prioritizing and encouraging the processual nature of creativity is essential, rather than emphasizing a final product. This approach contributes to a broader discussion about societal values and expectations of creative individuals. Authentic leadership, which is shaped by previous experiences, successes, or failures, underscores this perspective. If authenticity is recognized as a process of becoming, then creativity should similarly be valued as a process of continual development;
3. The combination of individual creative tasks and performative actions. Workshops should include individual tasks, such as writing and working with materials and objects, alongside tasks that incorporate performativity in the digital space. These tasks should be conducted in a group setting, where each participant contributes to the collective performative flow, as demonstrated in the exercise with de Bono's Six Thinking Hats;
4. Taking an entry point in the student's interest. Each student should be encouraged to explore materials and formats that align with their individual interests. Each student has their own approach to interpreting the provided tasks, as illustrated by the vignette on the chosen materials for the task based on the Dada movement writing methodology.

10. Discussion

After formulating recommendations for university lecturers on incorporating arts-based and creativity tools into courses with interdisciplinary arts students, it is essential to discuss the connections between creativity and authentic leadership. These connections outline how the knowledge gained during the course can, from the perspective of the author, lecturer, and facilitator, be speculatively applied to the students' future work, particularly in project leadership and organizational leadership. Additionally, the relationship between learning as a process and the digital learning environment will be explored.

During the courses connected to innovations, creativity and design thinking it is often the case that various models are presented by the lecturers, for example business model canvas, SWOT (strengths, weaknesses, opportunities, threats) analysis, or various schemes for stakeholder analysis¹. Especially when working in the digital space, it seems effective to present a structured scheme and assign tasks for case analysis. These techniques can, speculatively, prepare students to analyze a project, identify its weaknesses, and improve it during the planning phase. However, in reality, unexpected issues often arise during project implementation that cannot be predicted through these schemes and analyses. Successfully addressing these unforeseen problems requires both creativity and effective leadership skills.

10.1. Connectedness of arts, creativity, technology, and authentic leadership

The study explores four key aspects: creativity as the subject for students; arts as tools for enhancing creativity; technology as both the digital space of the course and a tool for enhancing creativity, exemplified by collaboration with artificial intelligence; and authentic leadership. These elements are interconnected in the following ways.

Firstly, drawing from my background in performance art, I actively incorporated art and exercises developed by various artists into the tasks designed to enhance creativity. Given that art is my field of expertise, I adapted creativity techniques for digital learning, as detailed in the vignettes.

The integration of art and the adaptation of exercises to the digital space motivated me to develop creativity training that specifically involves artificial intelligence (Griniuk & Brisson Mosich, 2022). Concurrently, in 2022, I used artificial intelligence in my own practice to develop scripts for my performances.

Authentic leadership, as a key element, emphasizes the value of past experiences in project leadership. This aligns with reflexivity and reflection on completed tasks, as experiences are accumulated through each task performed. In the course, experience in enhancing creativity and confidence was fostered through both art and digital methods. As both an artist and lecturer, I designed the course content to align closely with my own artistic practice.

10.2. Relationship between technology and creativity

There are very few studies addressing “the effects of technology-enhanced learning interventions on creativity” (Berezki & Kárpáti, 2021). Recent study explores creativity-stimulating virtual environments (Bourgeois-Bougrine et al., 2020). Research suggests that computer-based creative thinking training can as successfully enhance divergent thinking abilities as traditional training in young adults (Berezki & Kárpáti, 2021). In the case of individual creativity enhancement, creativity and technology – in this study, artificial intelligence-generated stimuli – are inseparable. The combination of artificial intelligence-generated stimuli and individual thinking can lead to divergent thinking through human and non-human interaction, generating multiple ideas before the best one is selected by the human collaborator. In this

¹ From the author's observations.

way artificial intelligence can be aligned with a non-human pen-pal, as technology-facilitated communication and collaboration during creative process (Bereczki & Kárpáti, 2021).

10.3. Gained skills in speculative perspectivation: creativity and authentic project or organisation leadership

The speculative insight into how the skills gained during the Digital Creativity course, facilitated by an artist, can be applied to project or organizational leadership:

- Creativity skills. Speculatively, these skills are useful in handling unexpected situations during project implementation. They can help address unforeseen issues or problems as they arise;
- Arts-based tools and artificial intelligence integration. Arts-based tools, adjusted for the digital learning space by the facilitating artist, and the involvement of artificial intelligence to enhance creativity, bring technology, art, and creativity closer together. This process can be termed techno-creativity, representing the unity of human creators and collaborating technology. Literature describes techno-creativity within “new art genres that defy modernist definitions or hybrid artistic and multimedia works and directions of development of artistic and creative education” (Łapińska, 2020), emphasizing the intersection of art and technology. I suggest using techno-creativity in digital creativity education and methods that involve technology;
- Authentic leadership framework. This framework enables the use of one’s qualifications and creative tools effectively in various situations. Each leader is unique due to their previous experiences, and similarly, each project or organizational situation is unique;
- Interconnection between study materials and professional practice. The artist-facilitator not only incorporated chosen exercises into the digital course but also used these techniques to enhance her own creativity in her artistic production. Speculatively, maintaining such an interconnection between study materials and the professional lives of participants is crucial. Techniques like creativity training involving artificial intelligence should be practiced both within and beyond the study environment, as demonstrated by examples from 2022. This ensures that the study material remains useful and applicable in professional settings.

10.4. Suggesting potential methods for future longitudinal studies

The limitation of the current study lies in the small sample size of qualitative data and the short-term scope, which made it impossible to follow up on the outcomes of the Creativity course and the skills gained after the students completed the course. A potential extension of this study could involve a longitudinal follow-up over five years. This extended study would engage students during their third year of study, when the course is taken, track the impact of the Creativity course on their final year and the development of their graduation thesis, and examine its effects three years post-graduation. This approach would allow for tracing the interconnectedness between creativity and authentic leadership in both university and professional life environments.

The methodology would include focus groups with students transitioning into professional work life. However, one challenge of a longitudinal study is maintaining participants’ commitment to contributing over the five-year period.

11. Novelty of the research and research results

The novelty of this research lies in its integration of art, technology – particularly artificial intelligence (in the context of 2022) – creativity, and authentic leadership within a digital creativity learning environment. The course, designed and implemented by a performance artist, aimed to enhance creativity among students of business, public relations, and administration. This unique combination provided insights into both material-based and digital tools-based education, highlighting the value of integrating material and digital experiences in a holistic approach over the three-month Enhancing Creativity course.

Creativity, as a tool, facilitates the development of authentic leadership skills, which can, speculatively, be applied by leaders in projects and organizations to address unexpected issues and problems encountered during project implementation or daily operations. The concept of techno-creativity emerged from the research findings, defining the fusion of human creativity with technological collaboration.

12. Conclusions

This article explores the interconnectedness of art, technology, creativity, and authentic leadership, examining how a Digital Creativity course can equip interdisciplinary university students with skills in these areas through arts-based methods. The case study focuses on a Digital Creativity course designed for Bachelor of Arts-level business, public relations, and administration students. As the facilitator and performance artist, I developed the course material by adapting artistic exercises for the digital space and later incorporating artificial intelligence to enhance creativity.

Such a transcorporeal collaboration – combining human creators and technology – facilitates creative processes in individual creative spaces, which is particularly crucial in a digital creative environment. The creative skills acquired through arts-based methods, in conjunction with the artist-facilitator-lecturer's guidance, enable students to move beyond traditional project analysis tools such as SWOT analysis, stakeholder analysis, or business model canvas. Instead, these skills foster the ability to trust one's reflexive abilities and previous experiences to respond creatively to real-time situations.

Arts-based methods that integrate technology speculatively bring art, creativity, and technology closer together, not as separate disciplines but as part of a cohesive interdisciplinary milieu. This approach enhances digital literacy and collaboration between humans and non-humans. Authentic leadership, which draws on one's own experiences and creativity training, is intertwined with these methods and can, speculatively, serve as a valuable tool for project leaders and organizational leaders dealing with unexpected situations.

The findings of this research may be of interest to lecturers and educators working in the fields of creativity, technology, and authentic leadership within a university pedagogy environment. Given my background in both university and art academy pedagogy, my speculative perspective is that these findings can be applied in both contexts. Specifically, they could be used to integrate art into university settings and to incorporate creativity, authentic leadership, and technology into art academy environments.

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