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Integrating Artistic Research into German University of Applied Sciences Curricula: A New Paradigm in Science Education

Schmohl, Tobias[1], Grobler, Sebastian[2]

OWL Technical University of Applied Sciences and Arts, Germany[1, 2]

Abstract

This paper presents a pioneering approach to integrating artistic research into the curriculum of German universities of applied sciences (UAS). Recognizing the unique challenges and opportunities presented by artistic disciplines in higher education, we have developed modules for a master's program that blend epistemological content with the fundamentals of artistic research. This initiative addresses the current disparity in qualification opportunities for artistic disciplines at the UAS level, where artistic achievements are legally equated with scientific accomplishments, yet opportunities for higher qualification in these fields are limited.

Our approach is anchored in the belief that artistic research, a field that challenges traditional research paradigms by valuing artful knowledge alongside scientific knowledge, deserves a structured and recognized pathway within the academic system. Drawing from relevant legal texts and documents that equate artistic and scientific qualifications of personnel, we argue for the integration of artistic research into the curriculum as a step towards rectifying the existing imbalance and underrepresentation of artistic disciplines in higher education.

Keywords: *Artistic Research, Art-Based Research, Curriculum Development, Higher Education, Epistemology*

1. Introduction

Artistic research (ArtR) is a synthesis of creative practice and academic investigation, in which artistic pursuits are not only subjects of study but also an essential part of the research process itself. This approach departs from traditional research methods by focusing on creative, experiential, and practice-based forms of knowledge production and by promoting an exploratory mindset in which the search for knowledge and creativity is grounded in artistic processes and products.

The discourse on ArtR, as highlighted by Matcham [1], Williams [2], Vanlee [3], and Liinamaa [4], emphasizes the need for inclusive perspectives in research and the recognition of diverse methodologies and outcomes. Our effort is a step towards valuing the unique methodologies and scientific contributions of artistic disciplines at the UAS level, paving the way for new qualification paths for their graduates, right up to the doctoral level.

2. Definitions

Research can be described in general terms as the methodical and systematic pursuit of new knowledge across all scientific disciplines [5]. In a narrow sense, it involves the deliberate and purpose-driven investigation to discover new insights within a specific field of knowledge, including the development of ways to test these findings. Broadly, research encompasses the entire range of methodical, systematic, and creative intellectual efforts in all scientific disciplines. This includes the methods and techniques employed in these endeavors, aimed at acquiring new, verifiable knowledge and understanding the underlying principles governing them. It also refers to the network of individuals and institutions involved in this process [6]. Additionally, research involves the critical examination of existing dominant theories and the resolution of complex problems.

ArtR represents a unique paradigm within the broader domain of academic inquiry. While sharing commonalities with scientific research, ArtR diverges in its methods, objectives, and interpretative frameworks, emphasizing the process of art creation [7]. This divergence underscores the uniqueness of artistic inquiry as a mode of knowledge production. In contemporary discourse on ArtR, the discussion often centers around varying definitions and interpretations of what constitutes research within the arts.

Current discussions in the field frequently revolve around the evolving definitions and interpretations of what constitutes research in the arts. This discourse includes distinguishing between "research on art,"

a well-established field evident in disciplines such as art history, art theory, and cultural studies, and "research for art." The latter, while relatively new, does not significantly shift the theoretical underpinnings of art studies, often employing research methodologies from the natural sciences and sociology to inform artistic creation. However, the concept of "research in art," often synonymous with ArtR, remains more enigmatic and open to diverse interpretations [7].

Henk Borgdorff's work is pivotal in this discourse. He argues that research, traditionally understood as an original investigation aimed at gaining knowledge and insights, can be applied to the arts. This application, however, must recognize that the arts contribute uniquely to the realm of knowledge, not merely by extending empirical knowledge but by adding novel dimensions to the artistic universe: Following Borgdorff, ArtR “is to be understood as original investigation undertaken in order to gain knowledge and understanding. It includes work of direct relevance to the needs of commerce, industry, and to the public and voluntary sectors; scholarship; the invention and generation of ideas, images, performances, artefacts including design, where these lead to new or substantially improved insights; and the use of existing knowledge in experimental development to produce new or substantially improved materials, devices, products and processes, including design and construction” [8].

As a newly coined term within the academic sphere, ArtR sparks ongoing debates among artists, art theorists, and academics. Despite differing viewpoints, there is a consensus that in ArtR, the art-making process is paramount, with the final product gaining significance only if it elucidates this process. When considering ArtR as a novel form of scientific inquiry, questioning the nature of its subject matter becomes essential. Yet, such inquiries may be deemed unnecessary if we embrace the varied interpretations of research within the expansive artistic landscape. This landscape encompasses a range of activities, from experimentation to the genesis of new artistic phenomena.

ArtR cultivates a distinct relationship with the public by accepting participation and contact as essential elements of the creative process, fostering a dynamic relationship between the researcher and the audience. This approach not only enriches the artistic process but also serves to democratize the creation and appreciation of art, encouraging a more inclusive and participatory cultural discourse.

2.1 Rethinking Knowledge Creation in Artistic Research

Borgdorff's contribution to the discourse challenges conventional paradigms of knowledge generation. He advocates for ArtR as a distinct realm of knowledge production, employing methodologies akin to those in empirical sciences. Borgdorff introduces a nuanced understanding of knowledge in this context: it is artistic, embodied, and non-conceptual, yet simultaneously cognitive, non-propositional, rational, and non-discursive. Despite referencing debates in various scientific fields, Borgdorff stops short of fully integrating these diverse notions of knowledge into his theoretical framework.

A significant aspect of his argument is the emphasis on "practical knowledge" — the implicit beliefs and assumptions foundational to artistic creation, yet often remaining unarticulated. This form of knowledge, intrinsic to artistic processes, diverges from the more concrete, empirical knowledge that typifies scientific inquiry.

The proposition of ArtR as a novel scientific discipline prompts a reassessment of established scientific objectivity concepts. Alternatively, if we view "research in art" as a new artistic program, broadening the definition of research, it may not necessitate redefining the criteria for scientific research. Recognizing ArtR as a valid, expansive research practice implies that artists in this domain should recalibrate their self-perception, addressing potential misinterpretations of ArtR as a science.

The juxtaposition of art and science is not contingent on narrowly defining art as research in the scientific sense. Both domains are vital to the human experience: empirical science seeks to advance reliable knowledge, while art enriches various aspects of human life with aesthetic values. The commensurate significance of art and science lies in their unique contributions to human existence. Empirical scientific research embodies research in a strict sense, whereas research in art aligns with a broader interpretation, consistent with other forms of artistic expression.

In this context, the Social Sciences and Humanities Research Council of Canada has introduced the term "research-creation." This concept encapsulates an "approach to research that combines creative and academic research practices, and supports the development of knowledge and innovation through artistic expression, scholarly investigation, and experimentation. The creation process is situated within the research activity and produces critically informed work in a variety of media (art forms)" [9].

2.2 Differentiating Practice-Based and Practice-Led Research in Artistic Inquiry

Within ArtR, it is imperative to distinguish between two types of research, as defined by [10] and [11]. Candy provides a concise definition of these two types of research, stating that "[i]f a creative artifact

serves as the foundation for the knowledge contribution, the research is practice-based. If the research leads primarily to new understandings about practice, it is practice-led" [10, p.1].
Practice-based research, on the one hand, integrates the creation of an art form as a central component of the research process. Here, artistic practices like painting, dance, sculpture, or music composition are not just subjects of investigation; they are conduits of research. The creation of new artistic works, viewed as contributions to knowledge, is the primary outcome of practice-based research. These artifacts, performances, or exhibitions encapsulate new insights and understandings, thereby constituting a form of new knowledge or contribution to the field. The research aims to generate artifacts, performances, or exhibitions that embody new understandings and insights.
In ArtR, practice-based approaches are used to explore and understand artistic processes, techniques, and the materiality of the art form. The artistic work itself, as a result of this research, stands as a testament to the inquiry and its findings.
Practice-led research, on the other hand, focuses more on the reflection and theoretical understanding that emerges from artistic practice. Here, the practice (artistic creation) leads to new insights that are then articulated and analyzed through a more traditional research framework. The outcome of practice-led research is typically a combination of an artistic output and a reflective, analytical documentation or thesis that contextualizes and explains the insights gained from the creative process.
In ArtR, practice-led approaches are instrumental in investigating the concepts, theories, and ideas underpinning an artist's work. It emphasizes understanding the implications, meanings, and contextual relevance of the artistic practice.

2.3 Recent Discourses in Artistic Research

Recent discussions in the field have further expanded the scope of ArtR. Taylor & Hansen [12] categorize organizational aesthetics research into four categories, blending intellectual and aesthetic analyses with artistic explorations. Djahwasi & Saidon [13] introduce the performative methodology as a third paradigm within ArtR, marking a distinct mode of inquiry. Seregina [14] highlights the diverse terminology in the field, such as artistic inquiry and arts-based education research, indicating the breadth of approaches and perspectives.
The positioning of ArtR within higher education brings both challenges and opportunities. Its integration into academic frameworks promotes rigorous inquiry but also raises concerns about potential constraints on artistic spontaneity [8]. This integration underscores the importance of maintaining the essence of artistic creativity within structured environments.
ArtR's ethos resonates with scientific research's aim to explore the unknown, driven by curiosity and imagination [15]. This pursuit parallels the scientific quest for new knowledge frontiers. Market dynamics and state policies significantly influence ArtR's trajectory. The increasing global consumption of art and the expansion of higher education present complex challenges and prospects for ArtR [16].
Haarmann's [17] 'praxology of knowledge' in ArtR emphasizes practical knowledge. However, the philosophical delineation between this practical knowledge and propositional knowledge remains an area for further exploration and clarification.

3. The Science-Political Dimension of Artistic Research

The evolution of ArtR in Europe, beginning in the 1990s, has significantly intersected with higher education policy developments, particularly since the 2000s. This intersection is largely attributable to curricular reforms mandated by the Bologna Process, aimed at standardizing study programs and degrees to foster a unified European higher education area. These reforms have notably shaped ArtR's role in post-secondary education. Parallel to Europe's efforts, art universities in the USA, Canada, and eventually China have independently established ArtR-centric PhD programs since the early 1990s [18]. This trend underscores a growing recognition and institutionalization of ArtR in higher academia, despite the fact that less than 300 art schools and universities globally offer such programs [19].
A critical issue in this domain is the scarcity of specialized post-secondary education in artistic disciplines. This lack has sparked debates about the need for a distinct ArtR approach, separate from the methodologies of humanities or cultural studies. The push for legitimizing ArtR, championed by various artistic university associations and disciplines, is seen as a strategic move to access more robust state and non-state research funding. The Vienna Declaration on Artistic Research [20] reflects this stance by advocating for ArtR's inclusion in national and international funding policies. However, this declaration has encountered criticism, particularly in a Manifesto on Artistic Research [21], for its perceived overemphasis on financial incentives and the risk of scientification of artistic programs, which might undermine the intrinsic values of artistic creation [22].

Despite these controversies, the 2010s have marked a proliferation of institutes, doctoral scholarships, and research programs dedicated to ArtR throughout Europe. However, a notable gap remains in the integration of ArtR into the curricula of Germany's universities of applied sciences (UAS). These institutions are traditionally focused on applied sciences and technology. They can benefit from incorporating ArtR, particularly in programs like design and media technology. However, integrating ArtR requires navigating the UAS's existing curricular framework, which may not readily accommodate the fluid and interdisciplinary nature of ArtR. Opportunities lie in fostering interdisciplinary projects that combine scientific methods with artistic creativity, enhancing problem-solving skills and innovation. This approach aligns with the findings of [21], who emphasize the potential of ArtR to enrich traditional academic disciplines.

German UAS, which cater to a substantial segment of the student body, particularly in design and art-related fields, demonstrate a preference for research in natural sciences, and to a lesser extent, cultural and social sciences, over ArtR. This disparity is striking and underscores the need for a more inclusive approach to incorporating ArtR within the broader academic landscape, especially in institutions hosting significant numbers of students engaged in artistic disciplines.

Moreover, ArtR may contribute to expanding the traditional industry ties of German UAS. Collaborations could involve joint research projects, internships, or new product and service development. Such partnerships would provide mutual benefits, offering industry insights to students and enriching curricula with practical experiences [18].

4. Implications on Post-Secondary Teaching and Learning

The focus on artistic processes in ArtR presents transformative opportunities for higher education, especially in nurturing artistic processes. First, it encourages students to explore various expression forms and techniques, crucial in developing their artistic identity and producing profound, independent work. This nurturance is vital for professional growth. Second, articulating intuitive and pre-conscious artistic processes facilitates craft mastery. Such awareness empowers artists to transcend traditional norms, technological constraints, and perceived creative boundaries. Systematizing these processes within an artistic field's best practice discourse is imperative, given the current gap in formalized knowledge production. Integrating research with creation could elevate knowledge production within specific artistic domains.

In the following chapter, we will present an overview of a pioneering initiative to establish a new part-time degree program with the objective of bridging the gap between artistic and scientific disciplines. This initiative responds to evolving higher education demands, aligning with interdisciplinary study trends. The program's structure, extending to doctoral studies, commits to integrated professional development in these fields.

4.1 Curriculum design and implementation

To successfully integrate ArtR into the curriculum of German UAS, programs must align with the specific requirements and conditions of the German education system. This includes adhering to accreditation standards and promoting interdisciplinary learning, as highlighted in the Bologna Process guidelines. Development of ArtR programs should be undertaken in collaboration with accreditation bodies to ensure compliance with quality standards while maintaining the flexibility to respond to the dynamic needs of the job market and artistic practice. Interdisciplinary approaches are crucial, enabling students to make connections across various knowledge areas [7].

We propose a pioneering part-time degree program, merging artistic and scientific disciplines. Modeled on our successful master's courses, this modular program offers flexibility for professionals. It integrates artistic and scientific principles, aiming to develop comprehensive understanding in both areas. The program targets professionals seeking advanced academic and practical skills at the art-science nexus, paving the way for doctoral studies. It emphasizes research opportunities combining theoretical and practical elements, fostering academia-industry synergy.

Participants must undertake a practical artistic-creative project. The curriculum includes theories from the artistic field (e.g., Baumgart's sensory cognition theory, Kant's imagination role, Adorno's art theory) and basic ArtR texts. It introduces art-works related to ArtR, artistic methods (e.g., artist book, re-enactment), and, where applicable, relevant methods from other disciplines (e.g., experimental design, action research, participant observation). Participants will reflect on and implement their artistic-creative projects, culminating in group discussions and critiques. The goal is to generate thematic-artistic knowledge, enhancing creative-artistic practices.

4.2 Establishment of a Specialized Doctoral Group

In conjunction with expanding our academic offerings, we plan to establish a specialized doctoral group within a doctoral college. This initiative follows our recent authorization by the German Science Council to award doctoral degrees, significantly enhancing our institution's academic and research capabilities. The doctoral college is envisioned as a center for interdisciplinary research, emphasizing collaboration across artistic and scientific disciplines. It aims to cultivate a vibrant community for academic exchange and innovation, contributing to the development of new research paradigms in ArtR.

4.3 Projected Impact and Future Directions

The introduction of this degree program and the establishment of the doctoral college are anticipated to enrich both arts and sciences. These initiatives are expected to enhance the institution's academic reputation and attract a diverse range of students and researchers. Such diversity is key to enriching the academic community and promoting a culture of interdisciplinary discourse and collaboration, fostering advancements in artistic and scientific research.

5. Artistic research — quo vadis?

The potential of ArtR lies in its ability to break free from traditional academic constraints and establish its unique methodology, theory, and institutional identity. Refuting the misconception of ArtR as a fallback for those unable to thrive in conventional academia or the arts [21], this form of inquiry transcends typical artistic and scientific methods. This unique form of inquiry moves beyond traditional artistic and scientific practices, characterized by its embracement of undisciplinarity, acceptance of uncertainty, and a quest for clarity that includes the integration of negativity. ArtR transcends the typical dichotomy of practice and theory, demanding a balanced integration of both elements. It calls for a deep understanding of both artistic practice and scientific inquiry, challenging established norms of art including authorship, epistemic knowledge pursuit, and concepts of inspiration, creativity, originality, and imagination.

At its essence, the practice of ArtR in aesthetics is an interplay of action and reflection, rooted in practices of difference rather than logics of identity. This approach predates the practices of modern sciences and operates under unique principles [7]. The strength of ArtR lies in its inherent conflicts and its perpetual state of self-definition, a characteristic that becomes increasingly pertinent in the digital era. ArtR resists simplification to algorithms or programs, facing the future challenge of navigating a digital landscape that constantly evolves. Aesthetic thought, fundamentally based on freedom, is an ongoing process of self-critique and exploration.

6. Conclusion

In this position paper, we have explored ArtR's multifaceted dimensions – from its theoretical underpinnings and methodological approaches to its evolving role within higher education and its science-political implications as well as its exemplifications within the German post-secondary educational system. ArtR emerges not merely as a field of study but as a revolutionary paradigm, challenging and expanding the boundaries of knowledge creation and dissemination.

The integration of ArtR into higher education curricula, particularly in light of the Bologna Process, signifies a recognition of its value in the academic sphere. This integration, while presenting challenges, offers unparalleled opportunities for fostering creativity, interdisciplinary dialogue, and innovation in teaching and learning.

ArtR's strength lies in its dynamic nature – it is a domain constantly redefining itself, pushing the limits of traditional academic disciplines. It advocates for a balance between practical artistic creation and inquiry, underscoring the importance of nurturing creativity and critical thinking in tandem.

As we look to the future, it is clear that ArtR holds a crucial place in the evolving landscape of global education and research. Its potential to contribute uniquely to our understanding of the world, to enhance our appreciation of aesthetics, and to innovate across disciplinary boundaries is immense. The challenge and opportunity ahead lie in continuing to develop ArtR in a manner that honors its unique qualities while embracing the changes and demands of a rapidly evolving world. This journey requires a commitment to both the preservation of artistic integrity and the pursuit of academic rigor.

In conclusion, ArtR stands at the forefront of a new epoch in academic inquiry. It invites educators, researchers, and practitioners to reimagine the possibilities of what research can be and how it can profoundly impact both the arts and sciences. As ArtR continues to evolve, it promises to enrich our understanding of the human experience, blending creativity with critical inquiry in a dance of knowledge that transcends traditional academic boundaries.

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