



# Deep Mining Authorship

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**Abstract.** Considering the emerging field of architecture and artificial intelligence, it might be necessary to contemplate the remodeling of the concept of authorship entirely. The invention of authorship is a complex historical process that can be traced back to the emergence of print culture in Europe in the 15th century. Prior to this period, most literary and artistic works were created anonymously or attributed to collective or anonymous sources, such as folklore or religious traditions. However, with the rise of printing, texts became more easily reproducible and marketable, and there emerged a need for individual authors to take credit for their works. The notion of authorship was closely tied to the idea of originality and ownership, as authors sought to assert their exclusive rights to their works and to distinguish themselves from other writers. This was supported by the development of copyright law, which granted legal protection to authors and their works, and helped to establish a market for literary and artistic works. The idea of the author as a singular, autonomous figure gained further prominence in the 18th and 19th centuries, with the emergence of romanticism and the cult of the individual. This period saw the rise of the idea of the artist as a genius, whose works were the product of their own unique creativity and imagination. This idea was further reinforced by the rise of literary criticism, which focused on the interpretation and analysis of individual works and their authors. However, as Michel Foucault and other scholars have argued, the notion of authorship is not a universal or timeless concept, but rather a historically contingent and culturally specific one. Different societies and cultures have different understandings of authorship, and these have shifted over time in response to changes in technology, culture, and social values. As it stands now, authorship in its traditional form can hardly be applied in a context where automated collaborations provide more than 50% of the generated material. This is true for multiple art fields. Visual Arts (Mario Klingemann, Sofia Crespo, Memo Atken, Oouch, etc.), Music (Dadabots, YACHT, Holly Herndon), Literature, etc. Very soon this will also be true for Architecture. The consequence is also an entire rethinking of the concept of the sole genius. This notion, developed by German Romanticists in the early 19th century, is, in the current context of AI-assisted creativity, completely obsolete, as we are drawing from the genius of hundreds of thousands of artists and artworks in order to interrogate the latent space for unseen artistic opportunities. More akin to an archeological dig leading to the discovery of a next-generation jet fighter plane.

**Keywords:** Authorship · Agency · Genius · Artificial intelligence · Creativity · Theory

## 1 Introduction—An Ontology of Authorship

In this paper we present a position towards the concept of authorship in the context of the emergence of technologies and design techniques in architecture based on artificial intelligence (AI). In order to prepare the ground for a conversation on Authorship and AI, both of these fields need to be described and defined in the context of the debate in this paper.

The word “authorship” has been in use in the English language since at least the 16th century. The Oxford English Dictionary cites the first known use of the word in 1579, in a book titled “A Discourse of the Adventures passed by Master F. J. in his Voyage to the East Indies”. The word “authorship” is derived from the Old French word “autor”, meaning “creator or originator”, which in turn comes from the Latin word “auctor”, meaning “producer, father, or founder”. The term “authorship” has since become an important concept in literature, academic writing, and other forms of creative expression such as architecture, referring to the act of creating or producing a written work and the recognition or attribution given to the individual or group who created the work.

The common understanding of ‘Authorship’ states: “*An author is 'the person who originated or gave existence to anything and whose authorship determines responsibility for what was created'*”.

Authorship in the context of this paper refers to the act of creating or producing artistic work, such as a book, painting, sculpture or design. It primarily refers to the recognition or attribution given to the individual or group who created the work. Authorship is important because it acknowledges and gives credit to the person or people who put in the time, effort, and creativity to produce the work.

In academic and research contexts, authorship can be a complex issue, as there are often multiple individuals who contribute to a piece of work, and determining who should be listed as an author can depend on a variety of factors such as the level of contribution, intellectual input, and responsibility. In such cases, authorship guidelines and protocols are usually established to ensure that appropriate credit is given to all those who have contributed to the work. The concept of authorship has been present for centuries and has been defined and discussed by various scholars, philosophers, and literary figures throughout history. However, the modern understanding of authorship and its legal implications can be traced back to the 18th and 19th centuries, when copyright laws were first introduced to protect the rights of authors and their intellectual property. In academia and research contexts, authorship guidelines and protocols have been established by various organizations and institutions, such as the International Committee of Medical Journal Editors (ICMJE), the Council of Science Editors (CSE), and the American Psychological Association (APA), to help researchers determine who should be listed as an author and ensure appropriate credit is given to all contributors.

In the arts, authorship can be a complex and subjective issue, as it involves questions about creativity, originality, and intellectual property. The definition of authorship in

the arts can vary depending on the medium, genre, and cultural context of the work. In some cases, the artist or creator of a work may be considered the sole author, while in others, authorship may be shared or attributed to multiple individuals who contributed to the creation of the work. Some art forms, such as collaborative works, performance art, and conceptual art, may challenge traditional notions of authorship and emphasize the role of the audience or viewers in co-creating the work. Overall, the definition of authorship in the arts is often shaped by legal, cultural, and artistic considerations, and may be subject to interpretation and debate.

It is even more complex when it comes to architecture, as it involves the collaboration of multiple individuals and disciplines in the design and construction of a building or structure. The definition of authorship in architecture can vary depending on the specific project, the role and level of involvement of each participant, and the legal and cultural context of the work. Some architectural projects may be attributed to a single architect or design team, while others may involve multiple designers, engineers, contractors, and other stakeholders who contribute to the project in various ways. In some cases, authorship may be shared or collaborative, with each participant contributing their own unique ideas and expertise to the design process. Professional organizations such as the American Institute of Architects (AIA) and the Royal Institute of British Architects (RIBA) have established ethical standards and guidelines for architects and designers to ensure that appropriate credit is given to all contributors and that the integrity of the design process is maintained. However, authorship in architecture can still be a complex and debated issue, particularly in cases where disputes arise over ownership, attribution, or credit for a particular design or project.

## **2 Debate—Authorship, Authority and Language**

Authorship of language is a concept that relates to the origin and ownership of language, particularly in the context of its use in literature and other forms of creative expression. While language is a shared cultural resource that has evolved over time through the contributions of countless individuals and communities, authorship can be seen as a way of assigning ownership and attribution to specific uses of language in literature and other creative works. In the context of literature as well as in architecture, authorship of language or form can refer to the ways in which writers use language to create meaning and shape their work. This can include considerations such as the writer's style, voice, and use of literary devices, as well as broader questions about the cultural and historical context in which the work is created. All of which can be translated to the use of formal language in architecture design, which form a specific portion of the authorship of a design object. This being considered, the concept of authorship of language has been challenged by poststructuralist and postmodernist theories, which suggest that language itself is inherently unstable and fragmented, and that meaning is not fixed but rather constantly in flux. According to these theories, the author is not a single, unified figure who controls the meaning of a text, but rather a product of the social and cultural discourses in which they operate. Overall, authorship of language is a complex and contested concept that involves questions about the origins, ownership, and use of language in literature and other forms of creative expression.

Michel Foucault, a French philosopher and social theorist, was known for his influential work on the relationships between power, knowledge, and discourse. While Foucault did not specifically address the concept of authorship authority in his writings, his ideas on the nature of power and knowledge can be applied to the ways in which authorship is constructed and contested in various fields.

In his book “The Archaeology of Knowledge”, Foucault argues that knowledge is not a static entity, but rather a dynamic, constantly evolving system of discursive practices that are shaped by power relations. He suggests that the way in which knowledge is produced and circulated is not neutral, but rather reflects the interests and perspectives of those in positions of power. This perspective can be applied to the issue of authorship authority, as it raises questions about who gets to decide what constitutes authoritative knowledge, and how these decisions are shaped by broader social, cultural, and political contexts. Foucault’s work also highlights the ways in which authorship can be used as a tool of power, with certain individuals or groups being granted more authority or recognition for their work than others, based on their social status or institutional affiliations. Michel Foucault’s position towards the author can be understood through his influential essay, “What is an Author?” In this essay, Foucault argues that the traditional understanding of the author as the singular, individual creator of a work is a relatively recent historical development, and that it is closely tied to notions of authorial intention, originality, and ownership. He suggests that these ideas emerged in the 18th and 19th centuries, and were closely tied to the rise of capitalism and the development of copyright law. Foucault critiques this traditional view of the author, arguing that it is overly individualistic and neglects the role of social, cultural, and historical factors in shaping the production and reception of a work. He suggests that works of literature are not created *ex nihilo* by individual authors, but are rather the result of a complex web of cultural and discursive practices that extend beyond the individual. Foucault also suggests that the notion of the author as an autonomous, transcendent figure is problematic because it encourages a form of interpretation that focuses solely on the author’s intentions and meanings. He suggests that this approach neglects the role of readers and interpreters in shaping the meaning of a work, and that it limits the potential for creative and subversive readings. Overall, Foucault’s position towards the author is complex and nuanced, and challenges traditional notions of authorship and creativity. He suggests that the author is not a singular, autonomous figure, but is rather shaped by a range of social, cultural, and historical factors, and that the meaning of a work is not fixed or determined by the author’s intentions.

To round up the picture regarding the criticism of Poststructuralist thinkers, Roland Barthes cannot be ignored. “The Death of the Author” is a phrase coined by French literary critic Roland Barthes in his essay of the same name, first published in 1967. In this essay, Barthes argues that the traditional concept of the author as the sole originator and controller of the meaning of a text is a myth, and that the meaning of a text is instead created through the interactions between the reader and the text. Barthes asserts that the author is not a transcendent figure who imbues the text with meaning, but rather a historical and cultural construct that has been used to establish the authority of the writer and the ownership of the text. He suggests that the idea of the author as a single, unified source of meaning is a product of a particular historical and cultural moment, and that

this concept has been used to control and limit the ways in which texts are interpreted and understood.

“The Death of the Author” has been influential in literary and cultural studies, as it challenges traditional notions of authorship, interpretation, and meaning-making, and emphasizes the role of the reader in co-creating the meaning of a text. It has also been criticized by some scholars who argue that it ignores the role of the author in shaping the text, and that it promotes an overly subjective and relativistic view of interpretation.

### 3 What is Authorship in the Age of AI?

The ongoing debate of authorship and artificial intelligence (AI) revolves around questions considering the nature of creativity, the role of human agency, and the boundaries between human and machine-generated art and architecture. On the one side, proponents of AI-generated art argue that machines can produce creative works that are indistinguishable from those produced by humans, and that these works can challenge traditional notions of authorship and creativity. They also suggest that AI-generated art has the potential to democratize access to creative tools and to expand the boundaries of what is possible in art. On the other hand, critics of AI-generated art argue that machines lack the consciousness and intentionality of human creators, and that the notion of authorship is closely tied to human agency and the expression of individual identity. They also raise concerns about the potential for AI-generated art to displace human artists and to reinforce existing power structures in the art world. In addition to these philosophical debates, there are also practical and legal considerations around the ownership and copyright of AI-generated art, as well as questions about the ethical implications of using machines to produce art. Overall, the debate around authorship and AI-generated art is complex and multifaceted, and involves questions about creativity, agency, ownership, and ethics that are still being explored by artists, scholars, and policymakers.

To illustrate this point the authors would like rely on the example of the ‘Portrait of Edmond de Belamy’. The painting was created by the French art collective Obvious in 2018, using a form of AI called Generative Adversarial Networks (GANs)<sup>24</sup>. The painting depicts a blurry, slightly distorted portrait of a fictional aristocrat named Edmond de Belamy, and was sold at Christie’s for over \$430,000.

The creation of “Portrait of Edmond de Belamy” sparked a discussion and debate in the art world, as it raised questions about the nature of creativity, authorship, and the role of machines in artistic production. Some critics argued that the painting was simply a product of mathematical algorithms, and that it lacked the intentionality and emotional resonance of human-generated art. One of the most vocal critics of the painting was the artist and critic Jerry Saltz, who wrote a scathing review in *New York Magazine* in which he called the work “terrible” and accused the art world of “gushing over crap” simply because it was created by a machine.

Other critics raised similar concerns about the role of machines in art, arguing that the painting lacked the emotional resonance and intentionality of human-generated works. Some also questioned the validity of the auction price, suggesting that it was driven more by novelty and hype than by the artistic merit of the painting itself. Others praised the painting as a groundbreaking example of the potential for AI to create new forms of

art and challenge traditional notions of authorship and creativity. Despite these debates, “Portrait of Edmond de Belamy” has become a significant cultural artifact and a symbol of the growing interest in AI-generated art. It has also spurred further research and experimentation in the field of computational creativity, as artists and researchers continue to explore the possibilities and limitations of machines as creative tools.

## 4 Conclusion: The Future of Authorship

The future of authorship is a complex and multifaceted question, as it is tied to larger shifts in technology, culture, and society. However, there are several trends and developments that are likely to shape the future of authorship in the coming years:

1. Digital media and the internet: The rise of digital media and the internet has already transformed the way that information is created, shared, and consumed, and is likely to continue to impact authorship in the future. As more people have access to digital tools and platforms, the barriers to entry for creating and sharing content will continue to lower, potentially leading to more diverse voices and perspectives in the cultural landscape.
2. Artificial intelligence and machine learning: The development of artificial intelligence and machine learning technologies is already impacting the creative industries, with machines producing everything from music and visual art to literature and journalism. In the future, it is likely that AI-generated works will become even more common, potentially challenging traditional notions of authorship and creativity.
3. Collaborative and participatory practices: In recent years, there has been a growing interest in collaborative and participatory forms of art and culture, with artists and audiences working together to co-create works. This trend is likely to continue in the future, potentially blurring the boundaries between authorship and audience participation.
4. Shifts in cultural values: As cultural values and norms shift over time, so too will the way that we understand and define authorship. For example, as the importance of individualism and originality is challenged by more collective and collaborative modes of working, our understanding of authorship may also shift.

Overall, the future of authorship is likely to be shaped by a range of technological, cultural, and social factors, and will continue to evolve in response to changing norms and practices.

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