**Problems in Generative Art Theory and Artificial Intelligence
(Paper)**

Topic: Generative Art Theory

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Abstract
In a previous chapter titled Generative Art Theory I introduced a series of problems. These are not problems in the sense that they require single correct solutions, but rather are questions that the artist will want to consider when making a piece; that critics and historians will typically address in their analysis; and that insightful audience members will ponder. They are problems that typically offer multiple opportunities and possibilities.

It is notable that, for the most part, these problems equally apply to both digital and non-digital generative art; to generative art past, present, and (it is hoped) future; and to ordered, disordered, and complex generative art. In addition, these same problems or questions are trivial, irrelevant, or nonsensical when asked in the context of non-generative art. In a sense the applicability of these questions can cleanly divide art into generative art and non-generative art.

These problems include:

> The Problem of Authorship
> The Problem of Intent
> The Problem of Uniqueness
> The Problem of Authenticity
> The Problem of Dynamics
> The Problem of Postmodernity
> The Problem of Locality, Code, and Malleability
> The Problem of Creativity
> The Problem of Meaning

Since the publication of this chapter a new form of neural network-based artificial intelligence called "deep learning" has appeared on the scene, and has been applied to digital art. This technique, sometimes called "inceptionism", fits well within my previously offered complex-systems-based definition. In this paper I explore whether the problems in generative art noted above hold up well in this new artificial intelligence context for generative art.