Research Monograph Series

The Generative Topology of Information Space: P versus NP, the Discrete Positions of Creation, Viewing, and Evaluation, and Interface Ontology

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Abstract

This paper develops the ontological proposition that information has time and distance and that an information space therefore exists. It does so without reducing the P versus NP problem to a loose metaphor outside computational complexity. In complexity theory, P is the class of decision problems decidable by a deterministic computation in polynomial time, whereas NP is the class of decision problems whose positive instances admit certificates verifiable in polynomial time. The P versus NP problem asks whether polynomial-time verifiability and polynomial-time decidability coincide. The present paper does not identify this question with creativity as such. It treats P versus NP as a rigorous reference model showing that, within a shared problem setting and a shared set of operational rules, proximity to verification need not coincide with proximity to construction.

In Generative Topological Ontology, topology does not directly denote a mathematical topological space. It denotes the structure of connectability generated by relations. On this basis, the paper defines information space not as a set or container of informational items but as a relational structure formed by admissible operations, paths of transformation, computational resources, and irreversibility. Informational distance is the operational cost required to reach one information state from another. Informational time is the order, duration, dependency, and irreversibility required by that transformation. “Pure information space” does not name a transcendent realm detached from physical implementation; it names the operational structure that remains analytically discernible when physical coordinates are bracketed.

The paper then redefines the creator, viewer, and evaluator not as essentially different subjects but as discrete positions within the same generative phase. These positions are discrete because they share a work, an institution, a language, and evaluative coordinates; they are not necessarily distributed across mutually irreducible phases. Creation, viewing, and evaluation operate in parallel within each act. A work functions as an interface that connects, exchanges, and redistributes these positions. Evaluation does not merely measure an already completed being; it directs the subsequent visibility, recognition, preservation, imitation, and generative possibilities of the work.

Finally, the paper integrates self-externalization, inverse problem art, Web Installation, and artificial intelligence within a generative topology of information. An artwork is neither a predetermined answer nor a certificate of correctness. It is a boundary condition that transforms the problem space within which something can appear as a question or an answer. Creativity is

therefore not merely the addition of a new informational point. It is the generation of paths, neighborhoods, boundaries, and forms of connectability that did not previously exist. Being is consequently reformulated not as static location but as the capacity to reach and to enable further reaching.

Keywords

Generative Studies, Generative Topological Ontology, information space, P versus NP, computational complexity, informational time, informational distance, creation, viewing, evaluation, discreteness, dispersion, self-externalization, inverse problem art, interface ontology, artificial intelligence

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1. Introduction: Where Is Information?

Information is often understood as abstract content without location. A string, formula, image, or algorithm can be reproduced across different media while remaining identifiable as the same information. Information therefore appears independent of material position, without distance or time, and immediately self-identical. Yet storing information is not the same as being able to reach it. An encrypted archive, an undeciphered script, an unproved theorem, unindexed data, or a text whose presuppositions are unavailable may be physically present while remaining remote for a particular subject or computational system. Conversely, geographically distant information may become operationally near through an adequate protocol, index, algorithm, or language.

This difference indicates that information possesses a spatiality irreducible to physical arrangement. The position of information is not determined only by coordinates on a storage device. It is determined by the states from which it can be reached, the operations by which it can be reached, and the resources required for that reaching. Any ontology of information must therefore account not only for informational content but also for accessibility.

Generative Topological Ontology understands being not as a fixed substance but as the topological structure of relations that continue to generate. Relation precedes being, while topology is defined as “the structure of connectability generated by relations” (Tanaka 2026a). The present paper extends this ontology into the informational domain by describing information space through connectability, operationality, transformation cost, order, and irreversibility.

Its central thesis is as follows:

> Information has time and distance. Information space is the topology of connectability formed by this time and distance. Creation does not merely add a new point to information space; it generates new paths and neighborhoods.

The P versus NP problem provides a rigorous point of reference for clarifying this thesis. It does not, however, mathematically disclose the essence of artistic creativity. P versus NP concerns complexity classes of decision problems, not meaning, aesthetic value, or creativity in general. Its relevance lies in a more restricted structure: even for the same informational object, the computational path from a presented certificate to verification need not have the same cost as the path from conditions to a decision or solution. This structure serves as a limit model for distinguishing what can be confirmed from what can be generated.

2. Methodological Limits: Mathematical and Generative Topology

“Topology” in this paper does not directly mean a mathematical topological space specified by a family of open sets. In Generative Topological Ontology, topology is an ontological and operational concept describing what can connect with what, which differences remain preserved, and which boundaries can be crossed. This limitation is essential. A computational graph, state-transition system, metric, or complexity class does not by itself determine one unique mathematical topology.

The informational topology proposed here should therefore be treated as a minimal operational structure. Let (I) be a set of information states, (O) a set of admissible transformation operations, π a sequence of operations, and $(C(\pi))$ the resources required by that sequence. The operational distance from (x) to (y) may be represented conceptually as

$$d_O(x, y) = \inf \{ C(\pi) \mid \pi : x \rightarrow y \}$$

If no path exists, the distance may be treated as infinite. This distance need not be symmetric. Decompression and compression, verification and discovery, or the production of an outcome and the reconstruction of its generative conditions may require different resources. Information space is therefore better understood as a directed structure of reachability than as a homogeneous and symmetric container.

Informational time is not only clock time measured from outside the operation. It consists of the order, dependency, repetition, waiting, memory, and irreversibility internal to transformation. Turing’s model showed how symbolic computation proceeds through finite states and sequential operations (Turing 1936–37). Computational complexity subsequently distinguished computability in principle from feasibility under bounded resources (Hartmanis and Stearns 1965). Landauer’s analysis of logical irreversibility further showed that informational operations cannot simply be presumed independent of physical cost (Landauer 1961).

The “purity” of pure information space thus does not deny physical implementation. It is a methodological abstraction that brackets geographical coordinates and material composition in order to analyze the transformation relations that remain. Information space is not a second world independent of physical space. It emerges at the interface among physical implementation, symbolic systems, operational rules, and situated knowledge.

3. P versus NP: The Complexity Difference between Verification and Decision

P is the class of decision problems decidable in polynomial time on a deterministic model of computation. NP is the class of decision problems whose positive instances have certificates, or witnesses, verifiable in polynomial time. Hence, $P \subseteq NP$, and the open question is whether $P = NP$ or $P \neq NP$ (Cook 1971; Cook 2006). Cook's completeness result for satisfiability and Karp's polynomial-time reductions among combinatorial problems established that formally different problems can be connected through a common structure of computational difficulty (Cook 1971; Karp 1972).

P versus NP is often paraphrased as follows: if it is easy to check an answer, is it also easy to find one? This is intuitively useful but requires qualification. P and NP are first of all classes of decision problems. They do not directly classify discovery, production, or artistic creation in their general senses. Search problems involving the construction of witnesses require related formalisms such as FNP. For self-reducible problems such as SAT, decision and witness search are tightly connected, but this relation cannot simply be generalized to every act of creation.

Nevertheless, P versus NP exposes a decisive feature of information space. The path from a state (x,w), in which a certificate (w) has already been supplied, to a verification result is not identical to the path from input (x) alone to an appropriate (w) or affirmative decision. A short path of verification does not automatically entail a short path of construction. Thus, even within a single problem phase, a neighborhood of verification may differ from a neighborhood of construction.

In the vocabulary of Generative Topological Ontology, the problem can be restated, with appropriate restriction, as follows:

> Within an informational phase sharing the same problem definition and operational rules, does the reachability structure formed by verifiability coincide, under a polynomial-time measure, with the reachability structure formed by decidability or construction?

If (P=NP), the complexity boundary separating verification from decision for NP decision problems becomes traversable within polynomial time. If ($P \neq NP$), a difference of reachability remains irreducible under that resource bound. Neither outcome abolishes information space. The equality of P and NP would collapse a particular complexity distinction; it would not identify all verification with all generation across meaning, embodiment, history, and value.

4. Informational Distance and Informational Time

Informational distance is not merely the surface similarity between strings. Two propositions may differ by one symbol while differing radically in truth conditions or computational consequences. Conversely, visibly dissimilar representations may be operationally near if an efficient translation connects them. Distance is therefore not an intrinsic property of isolated items. It depends upon admissible operations and interfaces.

At least four dimensions of informational distance can be distinguished. The first is the number or complexity of computational steps required for transformation. The second concerns resources such as memory, communication, and energy. The third is the background knowledge required for translation, interpretation, or understanding. The fourth consists of social conditions such as institutional access, authorization, and evaluative standards. These dimensions are not identical, but each contributes to whether a state is reachable.

Informational distance is consequently relational rather than absolute. The same information can be near or far for different algorithms, languages, bodies, institutions, and histories. An interface is not a transparent device that simply removes distance. It opens certain paths, closes others, and reorganizes what counts as near or remote.

Informational time is likewise irreducible to external duration. A transformation from (x) to (y) has prerequisites and an order. Once an answer is known, one cannot fully restore the cognitive state in which it was unknown. After encountering a work, one may be unable to return to the same world that preceded the encounter. Information acquisition transforms its recipient, and the transformed recipient changes the meaning of subsequent information. Informational time is therefore not only processing time but an irreversible generation in which the history of connection alters future connectability.

Information space can now be defined as follows:

> Information space is not a container in which informational items are placed. It is the relational structure continually generated by reachability among information states, transformation costs, order, irreversibility, and boundary conditions.

5. Discreteness and Dispersion: The Positions of Creation, Viewing, an

The distinction between the discrete and the dispersed is central to Tanaka·s recent work. Discreteness names a condition in which several elements remain separate while sharing coordinates, rules, a problem definition, and a scale of comparison. Discrete elements have measurable distances within the same system; classification, operation, selection, optimization, and solutions are therefore possible in principle. Dispersion, by contrast, names a condition in which elements belong to different bodies, scales, temporalities, causalities, values, and reality conditions for which no final coordinate system provides complete inclusion. Translation between dispersed phases remains possible, but it produces a remainder that cannot be eliminated (Tanaka 2026c).

Conventional art institutions position the creator, viewer, and evaluator as separate subjects. The artist produces a work, the audience receives it, and critics, markets, museums, or academic institutions determine its value. This division of labor is socially real. Ontologically, however, the three are not necessarily distributed across entirely different phases. They occupy discrete positions within a shared generative phase because they share a work, artistic institutions, language, history, and evaluative coordinates.

Creation already includes viewing and evaluation. A maker observes what appears, selects, retains, rejects, and modifies while producing. Viewing also includes creation and evaluation. A viewer does not merely receive sensations but composes contours, meanings, relations, and memories. Evaluation likewise includes viewing and creation. It modifies the visibility, circulation, preservation, citation, imitation, and future conditions of production of a work.

Creation, viewing, and evaluation are therefore not three serial stages. They operate in parallel within each act and become locally foregrounded as functional positions. At one moment production becomes prominent; at another, observation or judgment does. The other operations do not thereby disappear.

This structure can be formulated as follows:

> Creation, viewing, and evaluation are not proprietary capacities of separate subjects. They are discrete positions within the same generative phase, and the work is an interface that connects, exchanges, and redistributes these positions.

The question “Who is the creator?” must therefore be preceded by another: what generates the positions of creation, viewing, and evaluation, and who or what temporarily occupies them?

Human beings, works, exhibition spaces, languages, algorithms, markets, and preservation systems can each occupy these positions and modify the possibilities of the others.

6. Evaluation Is a Generative Force, Not Mere Verification

Within the analogy to P versus NP, evaluation must not be identified with formal verification. A computational verifier determines whether a certificate satisfies conditions fixed by a formal system. Artistic evaluation, by contrast, frequently changes the conditions of existence of what it evaluates. When a work is collected, reviewed, priced, canonized, or included in a curriculum, evaluation participates in generating its social reality.

As The Dynamics of Evaluation, Proof, and Value argues, evaluation is not a neutral measure externally applied to being. It is a force that directs actions and choices toward particular forms of convergence. Proof stabilizes this force institutionally, and value sustains it through time. Evaluation produces further evaluation, proof demands further proof, and value induces further value, forming a self-referential evaluation leverage structure (Tanaka 2026d).

The discrete positions of creation, viewing, and evaluation are therefore neither fixed nor equivalent. Institutions distribute speech, capital, visibility, and capacities of preservation unevenly among them. The evaluative position does not merely describe other positions; it changes their informational distance. To make one work searchable and another invisible, to authorize one expression as a legitimate problem and dismiss another as noise, is to reorganize the neighborhoods and boundaries of information space.

Tanaka's critique is therefore not simply directed at the empirical separation of artist, audience, and evaluator. More fundamentally, it questions the naturalization of discrete positions within the same phase as essentially different identities or fixed authorities. The task of art is not to erase all positions but to render visible and reconfigurable the conditions through which positions are generated, exchanged, and invested with power.

7. Self-Externalization and Inverse Problem Art

Self-externalization is not a secondary act in which an already completed self expresses an interior content outwardly. The self comes into being only through relations with what is not itself. Yet it cannot be completely reduced to others, institutions, languages, evaluations, artworks, or technologies. The self emerges at the limit where it is projected outside itself but cannot be fully recovered from that projection (Tanaka 2026b).

From the perspective of information space, self-externalization is not the replication of a self but the formation of paths from self to non-self. A work, utterance, record, or bodily mark is not a transparent medium that preserves identity intact. It produces transformations and makes the return path asymmetric. The self that reencounters what it externalized is no longer identical to the self prior to externalization. Self-externalization therefore has informational time, and its return is irreversible.

Inverse problem art actively designs this asymmetry. In a conventional forward problem, initial conditions and laws are used to obtain an outcome. In an inverse problem, observed outcomes or boundary conditions are used to infer the structures that produced them. Tanaka's inverse problem art, however, does not merely reconstruct a missing cause. It first establishes a declaration, outline, site, institution, web address, or exhibition condition as a boundary condition from which meaning, relation, subjectivity, and Workhood emerge retrospectively.

The work is therefore neither the correct answer to a pre-given question nor a certificate guaranteeing correctness. It is an interface that changes what can appear as a question and what can count as an answer. Whereas a computational problem presupposes fixed inputs, rules, and acceptance conditions, artistic creation can transform the problem definition itself.

This marks both the limit of the analogy with P versus NP and the theoretical extension proposed here. P versus NP concerns decision and verification within a shared formal problem phase. Inverse problem art asks how that problem phase is generated, who defines its boundary, and which realities are permitted to appear as problems. Creativity is not merely an efficient search through a given space. It opens relations previously excluded from the search space and reorganizes the distinction between problem and solution.

8. The Work as an Interface That Transforms Information Space

To regard a work merely as one informational item is to miss its generativity. If a work were only added to a preexisting information space, creation would be reducible to the accumulation of points. A work can instead alter distances among existing points, open paths, and bring previously disconnected experiences into a new neighborhood.

If an encounter with a work gives past experience another meaning, makes a familiar site appear as a different reality, or transforms the boundary between self and other, the work has not merely transmitted information. It has transformed the information space of the viewer. Viewing is then not the decoding of a meaning installed in advance by the artist.

Work A × Viewing Position B → New Reality C

Here (C) was not stored in a completed form within the artist, the work, or the viewer. It is a phase of being newly constituted through contact. This triadic generation is consistent with the basic propositions of Generative Topological Ontology: relation precedes being, and generation occurs through relation.

The difference between creation and viewing is therefore not an essential difference between an active author and a passive audience. Creation is a local operation that opens what could not yet be seen into a condition of visibility. Viewing is a local operation that assumes and regenerates that opening as another reality. Evaluation is a local operation that directs how the connection persists, becomes shared, or is institutionalized. All three participate in the topological transformation of information space.

9. Web Installation and Artificial Intelligence

Web Installation, originating in the 2010 Web Art Declaration, treats the internet not as a virtual container for information but as a field in which works and subjects emerge through access, connection, delay, movement, reading, display, and recognition (Tanaka 2026b). The location of the work cannot be reduced to a single file or screen. URL, server, device, communication path, viewer, temporal difference, update, and failure all become conditions of appearance. Web Installation does not eliminate the time and distance of information space; it exposes them as constituents of the work.

Artificial intelligence can likewise be understood less as an external agent moving through information space than as an interface that reorganizes informational distance and neighborhoods. Generative AI does not simply retrieve intact items from training data; it composes outputs through learned statistical relations. Yet rapid output generation does not simultaneously guarantee grounding, accuracy, contextual adequacy, or value. The shortening of a generative path may transfer the cost of verification to the user.

This produces an asymmetry related to, but distinct from, P versus NP. AI may shorten the time required to produce an output without eliminating the time required to determine whether that output is factually grounded, whether its citations exist, or whether its concepts fit a given context. Large-scale generation may instead amplify the burden of evaluation and verification. Human judgments are then fed back into training, ranking, recommendation, and visibility, producing an evaluation leverage structure.

Creativity in the age of AI cannot therefore be defined solely by whether an output can be generated. It requires decisions about generative conditions, Reality-Grounding, preserved differences, and who assumes the costs of verification and evaluation. A prompt is not a command containing a completed meaning but a boundary condition imposed upon a generative space. AI generates possible outputs from this condition, but Workhood depends on whether an output opens new connections among self, other, site, institution, and reality.

10. Propositions

Proposition 1: Informational Being
The being of information consists not only in the storage of a sign but in its capacity to be connected, transformed, decoded, or made operative from other information states.

Proposition 2: Informational Distance
The distance between information states is the difference in operations, resources, knowledge, and institutional conditions required to reach one state from another.

Proposition 3: Informational Time
Informational time consists not only of external duration but of the order, dependency, history, and irreversibility of transformation.

Proposition 4: Operational Dependence
Informational nearness and remoteness are not intrinsic to isolated items; they vary with admissible operations and interfaces.

Proposition 5: Non-Identity of Verification and Generation
The efficiency with which an outcome can be verified does not automatically guarantee the efficiency with which that outcome or decision can be reached. P versus NP asks whether this non-identity can be eliminated under a polynomial-time measure.

Proposition 6: Discrete Positions
Creation, viewing, and evaluation are not essences of separate subjects but discrete functional positions within the same generative phase.

Proposition 7: Generative Evaluation
Evaluation does not merely measure completed being. It generates being by directing visibility, recognition, preservation, imitation, and future conditions of creation.

Proposition 8: The Work as Interface
A work is not a container transporting content from artist to audience. It is an interface that connects, exchanges, and redistributes the positions of creation, viewing, and evaluation.

Proposition 9: Creative Topological Transformation
Creation does not merely add a new point to information space. It generates paths, neighborhoods, boundaries, and problem definitions that did not previously exist.

Proposition 10: Being as Connectability
To be is not merely to occupy a fixed location. It is to possess the connectability through which one can reach others and enable others to reach new forms of being.

Conclusion

This paper has refined the intuition that information has time and distance at the intersection of Generative Topological Ontology, computational complexity, self-externalization, inverse problem art, the dynamics of evaluation, and interface ontology.

P versus NP shows that the existence of information does not by itself explain access to it. The existence of a certificate that can be verified efficiently when supplied is not identical to an efficient path toward that certificate or decision. Through this difference, information appears not as a flat set but as a structure possessing resource-relative distances and boundaries. P versus NP is not, however, a mathematical proof concerning artistic creativity. It concerns the relation between verification and decision within fixed formal systems. Preserving this limit clarifies the distinctiveness of art.

Artistic creation is not exhausted by finding an answer within a given problem space. It can transform the arrangement through which something becomes a problem, an answer, a creator, a viewer, or an evaluator. Creation, viewing, and evaluation are not essences belonging to separate subjects but discrete positions within the same generative phase. The work is not a neutral medium connecting them. It is an interface that transforms their distances, authorities, sequences, and generative possibilities.

When a work emerges through self-externalization, the self is not simply copied outside itself. It is transformed by contact with the outside and cannot fully return to its prior condition. Viewing is likewise not the confirmation of completed meaning. Contact between a work and a viewing position generates a reality previously possessed by neither artist, work, nor viewer. Evaluation does not merely measure that reality after the fact; it directs what can become visible, persist, and be inherited.

The existence of information space therefore does not mean that there is a separate world reserved for abstract information. It means that physical objects, signs, computations, bodies, institutions, and histories generate time and distance through connectability. Algorithms, works, languages, bodies, and institutions are not merely agents moving through a pre-given space. They are interfaces that generate the space itself.

The conclusion can be condensed into one statement:

> Information, too, has a “where.” That place is the path by which it can be reached from elsewhere and from which it can generate further relations. Creation opens new connectability where no such path previously existed.

References

Cook, Stephen A. 1971. “The Complexity of Theorem-Proving Procedures.” In Proceedings of the Third Annual ACM Symposium on Theory of Computing, 151–158. New York: Association for Computing Machinery. https://doi.org/10.1145/800157.805047.

Cook, Stephen A. 2006. “The P versus NP Problem.” In The Millennium Prize Problems, edited by James Carlson, Arthur Jaffe, and Andrew Wiles, 87–104. Providence, RI: American Mathematical Society and Clay Mathematics Institute.

Hartmanis, Juris, and Richard E. Stearns. 1965. “On the Computational Complexity of Algorithms.” Transactions of the American Mathematical Society 117: 285–306. https://doi.org/10.2307/1994208.

Karp, Richard M. 1972. “Reducibility among Combinatorial Problems.” In Complexity of Computer Computations, edited by Raymond E. Miller and James W. Thatcher, 85–103. New York: Plenum Press. https://doi.org/10.1007/978-1-4684-2001-2_9.

Landauer, Rolf. 1961. “Irreversibility and Heat Generation in the Computing Process.” IBM Journal of Research and Development 5 (3): 183–191. https://doi.org/10.1147/rd.53.0183.

Shannon, Claude E. 1948. “A Mathematical Theory of Communication.” Bell System Technical Journal 27 (3): 379–423; 27 (4): 623–656. https://doi.org/10.1002/j.1538-7305.1948.tb01338.x and https://doi.org/10.1002/j.1538-7305.1948.tb00917.x.

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———. 2026b. 自己外部化の限界と存在生成——生成の位相存在論におけるインターフェイス

存在論―― / The Limits of Self-Externalization and the Generation of Being: An Interface Ontology within Generative Topological Ontology. Research Monograph. Sayama Aesthetics School / Institute of Aesthetics.

———. 2026c. 矛盾の共存在と並列的現実の生成論――離散・分散、ネオテニー、対象化、曼荼羅・阿字観を通じた位相変態―― / The Generative Theory of the Co-Being of Contradictions and Parallel Reality. Research Paper, Version 1.0. Sayama Aesthetics School / Institute of Aesthetics.

———. 2026d. 評価・証明・価値の力学――生成の位相存在論におけるレバレッジ構造と個別具体的偶然性―― / The Dynamics of Evaluation, Proof, and Value: Leverage Structures and Particular Concrete Contingency in Generative Topological Ontology. Research Monograph, Version 1.0. Sayama Aesthetics School / Institute of Aesthetics.

Turing, Alan M. 1936–37. “On Computable Numbers, with an Application to the Entscheidungsproblem.” Proceedings of the London Mathematical Society, 2nd ser., 42: 230–265. https://doi.org/10.1112/plms/s2-42.1.230.

Research Method

This text is published as a Research Memorandum within the continuing development of Generative Topological Ontology.

The concepts, definitions, hypotheses, and arguments presented here record the theoretical position reached at the time of writing and publication. They should not be understood as a finally established theoretical system. They may be expanded, revised, redefined, or reorganized through future research, artistic practice, interaction with reality, academic dialogue, and peer review.

This research does not regard only completed theories as legitimate research outcomes. It also treats the processes through which concepts emerge, become interconnected, undergo transformation, and are integrated into a theoretical structure as significant objects of inquiry. Accordingly, this memorandum should be understood not merely as an incomplete draft, but as a record of a particular phase in the generation of the theory.

The public release of a Research Memorandum is not intended to present a developing theory prematurely as a completed one. Rather, it is a method of documenting the generative processes of thought and practice, enabling their subsequent examination and reconstruction, and opening them to academic and artistic dialogue from different perspectives.

If the contents of this memorandum are subsequently developed into a peer-reviewed article, scholarly monograph, or other formal research output, the finalized work will be identified as a separate and fixed document.

When citing or referring to this memorandum, please include the title, author, version number, and date of the most recent update. Different versions may contain substantive differences in concepts, definitions, and lines of argument.

This Research Memorandum is not a final conclusion. It is one theoretical position reached within the continuing formation of Generative Topological Ontology and, at the same time, an interface open to further generation.