Realization, Information and Knowledge

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Abstract

A common philosophical position holds that knowledge cannot be reduced to information, especially when knowledge is understood as realization or direct insight. This document argues against that separation. We propose instead that realization *is* information, but of a deeper, highly curated kind: information whose decoding requires specific cortical architectures, prolonged training, and context-sensitive interpretation. Building on analogies from coding theory and neuroscience, we show that realization differs from ordinary information not in kind but in degree of curation, distortion tolerance, and decoder specificity. This reframing preserves the informational nature of knowledge while explaining the necessity of apprenticeship, the abundance of realization narratives, and the failure of naive transmission models.

1 Introduction

The distinction between information and knowledge has long occupied philosophy, cognitive science, and neuroscience. A popular move in this debate is to deny that knowledge is information at all, especially when knowledge is taken to mean realization, insight, or direct understanding. According to this view, information is external, symbolic, and transmissible, whereas realization is internal, experiential, and non-transferable.

This document challenges that dichotomy. We argue that the failure of realization to be easily conveyed does not imply that it is non-informational. Rather, realization is a special class of information: highly curated, deeply structured, and dependent on sophisticated decoding architectures. The problem is not that realization escapes information, but that its encoding and decoding lie far beyond the assumptions of everyday communication.

2 Information Beyond Naive Transmission

In classical information theory, information is defined operationally: it is whatever reduces uncertainty at a receiver. Importantly, this definition is silent about meaning, phenomenology, or ease of decoding. Information may be present even when decoding is difficult, expensive, or impossible for a given receiver.

Everyday usage, however, implicitly assumes:

- readily available decoders,
- shared representational conventions,
- low distortion under transmission.

When these assumptions fail, we are tempted to say that "information is absent." In reality, what is absent is not information but a suitable decoder.

Realization belongs precisely to this category. It is information whose decoding requires extensive prior structure. The mistake is to equate "information" with "easily decodable information."

3 Curated Information

We introduce the notion of *curated information*. Curated information is information that:

- presupposes a highly specific decoder,
- is robust only within a narrow interpretive regime,
- tolerates extreme distortion in representation,
- is activated rather than reconstructed.

A musical score is curated information: without training, it is meaningless ink. A mathematical proof is curated information: without the right abstractions, it is syntactic noise. The same applies, more strongly, to realization.

Thus realization does not stand outside information; it occupies the far end of the informational spectrum.

4 The Codebook Analogy Revisited

The analogy between brain organization and coding theory helps clarify this point. In coding theory, a codebook defines which combinations of symbols are valid codewords. Many possible symbol strings exist, but only a small subset carry meaning relative to the code.

Similarly, the brain can be viewed as implementing a personal codebook. Different cortical regions correspond to codewords, and certain joint activations correspond to meaningful experiences or insights. Most combinations are non-codewords and yield confusion or noise.

From this perspective:

- Information is present whenever a valid codeword is activated.
- Meaning depends on the internal structure of the codebook.
- Decoding failure reflects codebook mismatch, not informational absence.

Realization corresponds to accessing rare, high-order codewords. These codewords are informationally real, but sparsely accessible.

5 Distortion and Non-Reconstructability

A key objection to treating realization as information is that it cannot be reconstructed from its encoding. Descriptions of realization fail to reproduce realization in the listener. However, reconstructability is not a necessary condition for information.

In information theory, lossy encoding is ubiquitous. An image compressed beyond a certain point no longer allows faithful reconstruction, yet it still conveys information about structure, orientation, or category. Realization encodings are simply extreme cases of lossy encoding.

They preserve:

- constraints,
- directions of attention,
- causal pathways,

while discarding phenomenological detail. The information survives; only naive reconstruction fails.

6 The Cortical Decoder

Unlike smell or taste, realization depends on cortical rather than peripheral organs. This matters because the cortex is capable of learning new decoders. Through plasticity, abstraction, and recursion, the cortex can be shaped to interpret increasingly subtle informational structures.

This explains why realization admits extensive textual, oral, and autobiographical encoding. These encodings are informationally meaningful only to cortices that have undergone sufficient prior curation.

Thus realization is not ineffable; it is decoder-intensive.

7 Apprenticeship as Information Engineering

Teacher–student relationships exist not because realization is non-informational, but because its information content is highly curated. Apprenticeship functions as a prolonged process of decoder construction.

The teacher does not transmit realization directly. Instead, the teacher:

- shapes representational priors,
- eliminates misleading decodings,
- stabilizes interpretive regimes,
- times the exposure to informational triggers.

This is information engineering at the cortical level. Only after sufficient curation does the informational content of realization become decodable.

8 Why Abundant Accounts Exist

The existence of vast numbers of realization narratives follows naturally from this view. Because realization is informational and cortical, it can be encoded linguistically. Because it

is highly curated, these encodings function as partial, context-dependent triggers rather than reconstructions.

Different traditions encode similar informational invariants using different symbolic systems. The invariants persist because they are informational; divergence arises because decoding depends on prior curation.

9 Against the Brain-as-Hard-Drive Model

Affirming that realization is information does not reduce the brain to a passive storage device. The cortex is not a hard drive but a dynamic decoder whose structure determines what information can be extracted from a given signal.

Knowledge, on this view, is not stored information but *successfully decoded information*. Realization represents a regime in which decoding reaches unusually deep invariants.

10 Conclusion

The opposition between information and realization is a false dichotomy. Realization is information, but information that has undergone extreme curation, compression, and contextualization. Its apparent ineffability arises from decoder limitations, not from a lack of informational content.

By recognizing realization as curated information, we preserve the continuity between computation, neuroscience, pedagogy, and lived understanding. Knowledge remains informational, but its deepest forms demand time, structure, and apprenticeship to decode.