



A META-ARCHITECTURAL
VIEW OF CONTRIVED ONTOLOGY

MEANING- MAKING IN THE WILD

JASON HOBBS

TE-002
VERSION 1.0

THEORETICAL EXTENSIONS

IAD CANON

Three scenarios...emerge all of which require recognition and addressing: contrived ontologies brought into the world obliviously which could be either sustaining or transformative of existing meanings in a particular socio-cultural context; meanings intentionally sustained; and new meanings introduced into the world with an intent towards change...

The view in this dissertation is that all three scenarios have a place in Design in general, and equally in IA, and that, as a matter of principle, no one is of any greater or less importance than another.

(Hobbs 2021:59)

ABSTRACT

This text explores Information Architecture not as an aspect of design, a process of design, or as diagrams or schematics, but as a way meaning becomes real in the world. It asks how structures of meaning - whether carefully designed, tacitly inherited, or poorly formed - come to shape what people can do, expect, and take for granted.

Contrived Ontology names the degree to which a structured meaning, carried by an artefact, system, practice, or conceptual formation, comes to operate as social reality, rather than merely as representation or interpretation. At this time, however, no single theoretical account adequately explains this transition across all contexts, scales, and modes of operation. The table presented herein therefore does not offer a unified theory of contrived ontology, but rather a meta-architectural consolidation of multiple complementary accounts, each illuminating different aspects of how meaning is structured, stabilised, and sustained.

As a meta-framework, the table herein is intended for analytic purposes and not as a set of best practices; it offers, in its current state, a tentative yet necessary and purposeful conceptual landscape for information architectures operating in the wild in the developing theory of Information Architecture Design.

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Methodological Note

Portions of the conceptual clarification and articulation in this work were developed through sustained dialogical use of a large language model (ChatGPT, OpenAI), employed as an interactive research instrument rather than as a source of original theoretical claims. The model was used to support reflective iteration, stress-test distinctions, surface implicit assumptions, rehearse counter-positions and refine theoretical language at varying levels of abstraction.

The AI system did not introduce independent theoretical commitments, empirical claims, or normative positions. All conceptual frameworks, arguments, interpretations, and conclusions presented here originate with and are the responsibility of the author.

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1. INTRODUCTION

This meta-framework ('the table') is concerned with a single, deceptively simple question: How does meaning become real enough to constrain action in the world?

This question is not posed abstractly, but as a problem of design, use, and social reality. Within the theory of Information Architecture Design (IAD) developed in this research, this question is addressed through the concept of Contrived Ontology (CO). CO names the degree to which a structured meaning - carried by an artefact, system, practice, or conceptual formation - comes to operate as social reality, rather than merely as representation or interpretation.

The IA of an object, as an internal meaning, is referred to as a contrived ontology (Hobbs & Fenn, 2019) because in Design, ontology emerges in social reality through experience of design objects (Dourish, 2004). If the design object comes to be used as intended and comes to effect social reality as the mediation of a problem as intended [or functionally taken up as such, regardless of original intent], then the internal meaning is conceptualised as transcending the object by becoming the effect it was intended for, referred to as a maximal contrived ontology. Indeed, one could say that the extent to which a design object is capable of realising its intended meaning, by way of IA, in the world, is a measure of a designer's skill of conceptual resolution.

A tentative theory is thus presented for how information architecting might operate in Design and how an information architecture may be speculated to come to exist as a phenomenon in the world by Design. Information architectures are phenomena which effect social reality through the introduction of artificial ontology contained within (or as) the content and form of a design object. When a design object is used the artificial ontology is realised as an instance of a cohering, altered or newly introduced socio-ontological phenomenon, or aspect of a social ontology. When the object is repeatedly used, the individual instances of socio-ontological being become absorbed into the general malaise of social ontology existing as a background to human social reality. It is in this way (and theory) that a Conceptual IA designed into an object, comes to possess the capability of effecting change in the world.

(Hobbs. 2021:264)

A key claim of IAD is that information architectures are not neutral descriptions of the world, nor are they limited to digital artefacts or design processes. Rather, they are meaning-making structures that bind structural logic (SL) and semantic formation (SF) into

ontological commitments that may be more or less tacit, more or less durable, and more or less socially operative.

From this position, CO is not binary. It is best understood as a gradient: minimal CO refers to the internal ontological commitment carried by an artefact or structure - recoverable in principle through analysis of its SL and SF; maximal CO refers to that commitment becoming socially real: institutionalised, habitualised, legitimised, and experienced as just the way things are.

At this time however, no single theoretical account adequately explains this transition across all contexts, scales, and modes of operation. The table presented herein therefore does not offer a unified theory of CO, but rather a meta-architectural consolidation of multiple complementary accounts, each illuminating different aspects of how meaning is structured, stabilised, and sustained.

1.1 FRAME-SCALE: MEANING, COMPLEXITY, AND ONTOLOGICAL RESPONSIBILITY

Frame-scale is introduced in IAD as a response to a persistent and consequential problem in design theory and practice: the tendency to conflate complexity with size, abstraction with distance, and scale with spatial or systemic extent. This conflation has led to systematic misjudgements about where meaning resides, how responsibility is distributed, and what kinds of design intervention are required in response to different kinds of problems.

Frame-scale was originally developed to address this problem directly.¹ It names the relationship between the breadth and depth of problem conception and the level at which meaning must be resolved, without presuming that complexity increases simply because a system is larger, more distributed, or more technologically elaborate

FRAME-SCALE AS A QUALITATIVE, NOT QUANTITATIVE, DISTINCTION

In IAD, frame-scale is not a measure of magnitude, scope, or system size. It is a qualitative distinction concerned with:

¹ See https://www.researchgate.net/publication/355177132_Applying_Information_Architecture_in_Design_Thinking_Ideating_Solutions_to_the_Wicked_Problem_of_Addiction

- what is being treated as a meaningful whole,
- what counts as relevant context, and
- where ontological responsibility for meaning is being held.

A small artefact may demand engagement at a large frame-scale if its meaning implicates ethical, social, or discursive concerns. Conversely, a large technical system may operate at a relatively small frame-scale if its meaning remains local, conventional, or unproblematic. Frame-scale therefore resists the common assumption that “bigger” problems are necessarily more complex, or that abstraction implies detachment from consequence.²

FRAME-SCALE AND LEVELS OF ABSTRACTION

Frame-scale is closely related to, but not reducible to, levels of abstraction. In the original formulation, three levels of abstraction were identified as arising in response to high-complexity problem ecologies: object-level, systems-level, and conceptual or discursive level. These are not hierarchical stages to be passed through, but simultaneously available realities that become relevant depending on how a problem is framed.

Frame-scale names the availability and necessity of these levels within a given design situation. A large frame-scale makes multiple levels of abstraction simultaneously relevant and demands the capacity to move between them without loss of granularity or coherence. This movement is not spatial, but semantic and conceptual: it concerns how meaning is re-interpreted, re-bounded, and carried across levels of abstraction.

FRAME-SCALE, IA, AND SYNTHETIC COGNITION

From its inception, frame-scale was tied to the claim that Information Architecture provides a distinctive capacity for synthetic cognition in conditions of complexity. IA was positioned not merely as a method for organising information, but as a means of enabling conceptualisation across multiple levels of abstraction and sustaining coherence as meaning moves between them.

This insight proved decisive. As the work developed, frame-scale became indispensable for explaining how:

² This distinction was initially articulated in relation to Design Thinking and wicked problems, where complexity was shown to arise not from problem size alone, but from the indeterminacy introduced by breadth and depth of enquiry relative to the limits of available knowledge, resources, and cognitive capacity.

- Structural Logic and Semantic Formation operate differently at different levels of abstraction,
- Conceptual Information Architecture can remain present and operative across object-, system-, and conceptual-level instantiations,
- and minimal contrived ontology can progressively realise itself as maximal contrived ontology without collapsing into arbitrariness or losing traceability.

Frame-scale thus emerged not as a contextual backdrop, but as a precondition for visibility, traceability, and accountability in meaning-making.

FRAME-SCALE AS CONNECTIVE TISSUE IN IAD

As the theory matured, frame-scale proved to be the connective tissue linking the core concepts of IAD. It underpins the Golden Threads by enabling traceability across time and abstraction, supports synthetic integrity by allowing complexity to be simplified without loss of meaning, and provides the conditions under which conceptual resolutions can be transported from design into the world

Crucially, frame-scale also makes it possible to speak coherently about IA in Design and IA in the Wild within a single ontological framework. The same meaning-bearing structures may operate at different frame-scales depending on whether they are being intentionally designed, tacitly reproduced, or institutionally enforced.

DISTINGUISHING FRAME-SCALE FROM SPATIAL AND SYSTEMIC ACCOUNTS

Frame-scale must be distinguished explicitly from spatial, ecological, or purely systemic accounts of design and complexity. While spatial metaphors may be useful descriptively, frame-scale is not governed by spatial extent, nor does it presume that meaning emerges primarily from relations between components in a system.

Instead, frame-scale is concerned with how meaning is resolved, stabilised, and made consequential, irrespective of where that meaning is instantiated. This distinction is essential for avoiding the reduction of ontological questions to matters of scale, scope, or system boundary, and for maintaining responsibility for meaning at all levels of design practice.

2. SCOPE, STAKES, AND ONTOLOGICAL COMMITMENTS

The table should not be read as a taxonomy of competing theories, a hierarchy of correctness, or a closed explanatory system. Instead, it functions as an architectural aid for thinking—a structured surface on which multiple perspectives on CO can coexist without being forced into agreement.

This table is not an attempt to define Information Architecture (IA) exhaustively, nor to adjudicate between competing theories of design, systems, or meaning. Its purpose is more specific and more demanding.

The table exists to address a long-standing and unresolved problem for IA as a practice, a discipline, and a phenomenon in the world: how to recognise, analyse, and account for IA as something that is real, operative, and consequential beyond its representations, artefacts, or design documentation.

Within Information Architecture Design, this problem is reframed as an ontological one. The central question is not what IA is supposed to be, nor how it should ideally be practised, but rather: under what conditions does a meaning-structure become real enough to matter in the world? The table that follows is a structured response to that question.

Several framing positions are necessary to explicate prior to the presentation of the meta-framework itself. These include:

1. IA in Design & In the Wild
2. Structural Logic, Semantic Formation, and Contrived Ontology
3. Against frequency, scale, and novelty fallacies
4. The function of constraint
5. Beyond intention and arbitrariness: triangulated answerability
6. From inferred intelligibilities to material inscriptions

2.1 IA IN DESIGN & IN THE WILD

A persistent difficulty in IA discourse has been the implicit privileging of IA in Design - concerned with the engineering or design of IA - over IA in the Wild, where meaning-structures emerge, stabilise, and persist (with or without conscious architectural authorship). This distinction has often led to two unhelpful extremes:

- Treating IA as synonymous with blueprints, schemas, or diagrams, or
- Dissolving IA into general social or systemic relations such that it can no longer be identified as a phenomenon in its own right.

IAD rejects both extremes. It treats IA as a condition of meaning-making that operates across design, use, practice, and institution, whether explicitly engineered or historically sedimented.

The table is designed to hold both domains—Design and the Wild—within a single analytical frame, without collapsing one into the other.

2.2 STRUCTURAL LOGIC, SEMANTIC FORMATION, AND CONTRIVED ONTOLOGY

The table is grounded in the IAD distinction between:

- Structural Logic (SL) — the patterned organisation, relations, and constraints that can be reconstructed or described;
- Semantic Formation (SF) — the coherent meaning through which something is encountered, interpreted, or inhabited; and
- Contrived Ontology (CO) — the degree to which a meaning-structure is made real in the world.

Within this framework, minimal CO refers to internally coherent meaning-structures that are intelligible in principle³, while maximal CO refers to meaning-structures that have transcended through use⁴, to become socially operative reality.

Crucially, the transition from min CO to max CO is not guaranteed by intention, coherence, novelty, scale, or excellence of design practice. Poorly formed, derivative, conservative, or copied architectures routinely achieve max CO.

The table therefore does not model ‘good IA practice.’ The table models the conditions under which meaning becomes ontologically consequential.

2.3 AGAINST FREQUENCY, SCALE, AND NOVELTY FALLACIES

Several common fallacies are explicitly rejected in the framing of this table:

Frequency ≠ theory

The rarity of explicit Conceptual IA (CIA) in practice does not diminish its theoretical necessity. CIA is always operative, even when tacit, inherited, or poorly articulated.

Scale ≠ complexity

Object-level architectures are not to be assumed to be ontologically less complex than system- or institutional-level architectures. Complexity is first a qualitative matter, only secondarily a quantitative one.

Convention ≠ absence of architecture

Semantic formation types such as ‘book’, ‘website’, or ‘bank’ are not CIAs. They are culturally and institutionally embedded generalities that carry socio-ontological weight. Each instantiation nevertheless involves a particular⁵ CIA, whether explicitly designed or tacitly reproduced.

The table is structured to prevent these fallacies from re-entering the analysis implicitly.

³ That is ‘on paper’, as blueprints, schematics or schema prior to release into the world embedded in objects or as the architecture of systems.

⁴ From Paul Dourish’s (2004) assertion that ontology arises in use.

⁵ Of all books, *this* book is about x, has word count y, and the unique ISBN number z

2.4 THE FUNCTION OF CONSTRAINT

Throughout the table, the transition to max CO is described in terms of meaning becoming socially operative as a constraint on interpretation and action. This is not a normative judgement, nor a claim that meaning is primarily restrictive.

Constraint is used diagnostically.

A meaning becomes max CO not when it merely enables possibilities, but when not treating it ‘as such’ reliably produces consequences—friction, failure, exclusion, sanction, or breakdown. Enablement is always present, but constraint marks the threshold at which meaning ceases to be optional.

This framing applies equally to enabling and harmful meanings. Ugly, unjust, or violent meanings—apartheid, by way of example—are no less real for being morally objectionable. Their reality lies in their answerability in the world, not in their ethical merit.

2.5 BEYOND INTENTION AND ARBITRARINESS: TRIANGULATED ANSWERABILITY

A recurring temptation in discussion of meaning is to ground meaning either in intention, ‘someone meant this’, or in interpretation, ‘meaning is what is read’. Both positions fail to account for why certain meanings endure, constrain, and matter in IAD.

The table proceeds from a different commitment: Structural Logic and Semantic Formation are necessary but insufficient for non-arbitrary meaning.

For a meaning-structure to achieve max CO, the coupling of SL and SF must be triangulated through a third condition:

- Material inscription — the writing of meaning into artefacts, systems, procedures, infrastructures, or institutions; and
- Consequential uptake — the emergence of repeatable consequences when action or interpretation deviates from the stabilised meaning.

This triangulation renders meaning answerable in practice. It removes reliance on intention without collapsing into arbitrariness. It also explains why IA can be real and consequential even when it is tacit, inherited, or poorly designed.

2.6 FROM INFERRED INTELLIGIBILITIES TO MATERIAL INSCRIPTIONS

Information architectures do not appear only where they are explicitly drawn or named. They pervade human social reality across a continuum:

- From inferred intelligibilities—experienced structural necessities reconstructed through practice,
- To material inscriptions—the codified, institutionalised, and infrastructural forms through which meaning is stabilised and enforced.

The table that follows is organised to accommodate this full range, without reducing IA either to internal abstractions or to external artefacts alone.

3. HOW TO READ THE TABLE

Frame-scale has been articulated prior to the presentation of the meta-framework table because it conditions how the table itself should be read. The grouping of accounts, the distinction between micro, meso, and macro explanations, and the placement of conceptual and transversal mechanisms all presuppose an understanding of frame-scale as a qualitative orientation rather than a spatial hierarchy.

The table should not be read as:

- a taxonomy of competing theories,
- a hierarchy of correctness, or
- a closed explanatory system.

Instead, it functions as an architectural aid for thinking—a structured surface on which multiple perspectives on Contrived Ontology (CO) can coexist according to distinct theoretical roles, without being forced into agreement.

The table is intentionally plural. It reflects the claim that no single account sufficiently explains how meaning becomes ontologically real across all contexts, scales, and modes of operation. Rather than resolving this plurality by reduction or synthesis, the table makes it legible and workable.

3.1 ROWS AS DISTRIBUTED EXPLANATORY ROLES

The rows are ordered by explanatory responsibility rather than by origin, disciplinary status, or proximity to IAD. The first group brings together the social-theoretical accounts that perform the principal explanatory work for maximal Contrived Ontology. These accounts explain how meaning becomes mediated through tools, repeated in practice, recursively reproduced through action, embodied as disposition, legitimised institutionally, and sedimented through discourse and power.

Their sequence moves from situated activity towards increasingly durable and far-reaching forms of social stabilisation. This movement should not be read as a hierarchy. It provides an intelligible progression from tool-mediated action, through routine and the recursive

relationship between agency and structure, to habitus and doxa, institutional legitimacy, and historical-discursive constraint.

The second group identifies the generative and transformational contribution of IAD. Structural Logic and Semantic Formation establish the coupled basis of minimum CO; semantic mechanics describe the structural operations through which information becomes relationally intelligible; Conceptual Information Architecture concerns the intentional resolution of meaning at the level of concepts; and socio-semantic mechanics describe the reflexive-discursive operations through which designers interpret and reorganise meaning within design.

The third group contains transversal, operational, and governing accounts. Frame-scale and the integration of Philosophy of Information with Levels of Abstraction regulate how architectures are made visible and how ontological claims are bounded. Heuristics explain the tacit operation and persistence of stabilised meaning. The Golden Threads provide conditions for evaluating reach, resolution, integrity, and responsibility across frame-scales and over time.

The final row is a boundary case. Non-human or agentive making is included to test the limits of intentionality, authorship, and answerability rather than to present a settled explanation.

Overlap between rows is intentional. It indicates that maximal CO requires explanation through multiple mechanisms and at different spans of consequence. The role named in the final column identifies the kind of work each account performs within the framework; it does not rank the account by importance or correctness.

3.2 COLUMNS AS DIMENSIONS OF COMPARISON

The columns make each account answerable to the same comparative questions without implying that the accounts offer the same kind of explanation.

Primary contribution identifies what the account makes intelligible. Mechanism specifies how the account understands meaning to be formed, mediated, reproduced, stabilised, transformed, or governed. Frame-scale locates the span at which its contribution becomes most visible without treating that location as fixed or exclusive. Limits / tensions constrains over-extension by stating where the account is insufficient or where its use introduces theoretical risk. Role in the framework identifies the architectural function performed by the

account, whether explanatory, generative, stabilising, regulative, operational, transformational, governing, or boundary-testing.

Theoretical provenance is not repeated within the table because it is established in Appendix A. Relations between accounts are not reduced to compatibility lists because those relations are explained through the theory map in Section 4.1. Removing both forms of repetition allows the table to function as a comparative architecture rather than as compressed prose or a substitute bibliography.

The columns therefore discipline comparison while preserving theoretical plurality. Accounts need not agree in order to coexist within the framework; they need only remain bounded by the contribution, mechanism, scale, limits, and role assigned to them.

3.3 HEURISTICS AS AN OPERATIONAL AND CROSS-CUTTING ACCOUNT

Heuristics occupy a distinct position within the framework. They do not primarily explain how meaning is first structured, nor how it becomes legitimate. They explain how structured meaning continues to operate once it is no longer noticed as structure.

Through naturalisation, cognitive offloading, routine, and tacit uptake, heuristics make stabilised meaning livable, repeatable, and taken for granted. They help account for the persistence of maximal CO without requiring continual reflection, deliberate interpretation, or explicit enforcement.

Heuristics retain their own row because this operational contribution cannot be reduced to a side-effect of another theory. At the same time, their effects are cross-cutting: tool use may become heuristic, practices may routinise heuristic responses, dispositions may carry them, and institutions may formalise or reinforce them.

Heuristics do not initiate or resolve discourse, and they do not provide a total explanation of social stabilisation. Treating them as structure would overstate their role; ignoring them would leave unexplained how structure becomes tacitly operable. Any account of Contrived Ontology that cannot accommodate heuristic uptake is therefore incomplete.

4. THE META-FRAMEWORK FOR MEANING-MAKING

Contrived Ontology Meta-Framework: Comparative Accounts (A)					
Account / Lens	Primary Contribution	Mechanism	Frame-Scale	Limits / Tensions	Role in the Framework
A. Primary Explanatory Accounts for Maximal Contrived Ontology					
Psychological Tools & Activity Theory	Explains how meaning stabilises through tool use, learning and situated activity.	Tools and signs mediate action; repeated participation internalises ways of perceiving, interpreting and acting.	Micro	Thin on institutional durability and macro power; may understate how tools are historically and politically conditioned.	Stabilising; explanatory
Practice Theory	Explains how meaning persists through routine, embodiment and repeated social practice.	Recurrent doings, sayings, materials and practical understandings normalise meaning in use.	Micro → meso	Thin on formal institutional power and on how meanings are first designed or conceptually resolved.	Stabilising; explanatory
Structuration Theory	Explains the recursive relationship through which situated action reproduces or alters social structure.	Rules and resources are both the medium and the outcome of recurrent social action; agency draws on structure while reconstituting it.	Micro ↔ meso; extending towards macro	Highly abstract; less specific about semantic content, material artefacts and intentional design resolution.	Recursive; stabilising; explanatory
Field Theory – Bourdieu	Explains durable alignment between meaning, embodied disposition and social position through habitus, field and doxa.	Repeated participation sediments dispositions; field relations and capital reproduce meanings until contingent order is lived as self-evident.	Micro → meso	Can appear overly reproductive or deterministic; thinner on explicit rules, deliberate redesign and discursive genealogy.	Stabilising; explanatory
Institutional Theory	Explains how meanings acquire legitimacy, durability and enforceability within organised social settings.	Rules, norms, roles and shared meaning systems institutionalise expectations and govern action.	Meso	Thin on the micro-genesis of meaning and informal embodied practice; risks over-formalising stabilisation.	Stabilising; regulative; explanatory
Discourse & Power – Foucault	Explains historical and discursive conditions that delimit what can be said, known and done.	Discourse, power/knowledge and disciplinary regimes sediment meanings across social formations and render them normal.	Macro	Thin on local artefact construction and situated design agency; may minimise possibilities for intentional intervention.	Genealogical; critical; explanatory
B. IAD Generative and Transformational Mechanisms					
Structural Logic + Semantic Formation	Defines the coupled generative basis of minimum CO: organised relational structure and the meaningful whole through which it is encountered.	Structural ordering constrains possible relations; semantic formation binds those relations into a coherent and encounterable whole.	All; instantiated at object, system and concept levels	Does not by itself explain social uptake, durability, legitimacy or power once a formation enters the wild.	Generative; foundational
Semantic Mechanics	Explains the general structural operations through which information becomes an intelligible relational configuration.	Differentiation, grouping, ordering, nesting, boundary-setting, relation, constraint and resolution organise information across SL and SF.	All	Creates the structural conditions for meaning but does not itself determine meaning or explain social stabilisation.	Generative; analytic

Contrived Ontology Meta-Framework: Comparative Accounts (B)					
Account / Lens	Primary Contribution	Mechanism	Frame-Scale	Limits / Tensions	Role in the Framework
B. IAD Generative and Transformational Mechanisms – Continued					
Conceptual IA	Explains intentional resolution of meaning at the level of concepts, enabling coherent nesting and alignment across artefacts and systems.	Conceptual relations are articulated and resolved so that multiple instantiations can remain mutually intelligible.	Conceptual / transversal; instantiated at object and system levels	Thin on institutional enforcement and social uptake; may be misread as rarefied abstraction rather than practical design work.	Generative; integrative
Socio-Semantic Mechanics	Explains how designers reflexively interpret and intentionally reorganise meaning in anticipation of social consequence.	Designers decode, recode, reframe and encode meaning by modulating semantic mechanics within abstraction during design.	Conceptual → societal; across design frame-scales	Does not itself explain later uptake, enforcement or stabilisation in the wild; must not be collapsed into social discourse theory.	Transformational; integrative
C. Transversal, Operational and Governing Accounts					
Frame-Scale	Makes architectures visible and comparable across spans of abstraction, information density, time and consequence.	The analytic frame expands or contracts to reveal different relations and implications without treating scale as a layer or degree of reality.	Transversal / all	Does not produce or contain architectures and does not explain how meaning forms or stabilises.	Coordinative; analytic; regulative
Philosophy of Information + Levels of Abstraction + Relational Constraint	Provides epistemic discipline for modelling informational reality and guards against naïve object-first or relata-only accounts.	Levels of Abstraction delimit what is observed and represented; informational structural realism foregrounds relations as constitutive of intelligibility.	Meta / transversal	Thin on normativity, lived consequence and social stabilisation; may flatten meaning into information if overextended.	Regulative; epistemic; critical
Heuristics / Tacit IA Operation	Explains how maximal CO persists and operates without continual reflection or enforcement.	Naturalisation, cognitive offloading and routinised uptake make structured meaning livable, repeatable and taken for granted.	All	Does not explain the origin, design, legitimacy or transformation of meaning; heuristics must not be mistaken for structure itself.	Operational; sustaining
Golden Threads	Governs the quality and responsibility of composition, stabilisation and consequence across frame-scales and over time.	Synthetic Reach tests span; Synthetic Resolution tests intelligibility; Synthetic Integrity tests durability, traceability and accountability.	Transversal / all	Does not explain meaning emergence or social stabilisation; may be misread as a method rather than governing conditions.	Governance; evaluative; accountable
D. Boundary Case					
Non-human / Agentive Making	Tests whether the framework can account for meaning-making without singular or fully human authorship.	Automated, distributed or agentive processes compose and propagate relational configurations whose authorship and answerability may be diffuse.	Variable	Ontological status, intention and accountability remain unresolved; exposes tensions in human-centred assumptions.	Boundary; stress-test

4.1 THEORY MAP: CONTRIVED ONTOLOGY ACROSS FRAME-SCALE AND ROLE (KEY)

The theory map that follows should be read through the lens of frame-scale. The distinctions between micro, meso, macro, and conceptual or transversal accounts do not refer to differences in size, scope, or system extent, but to the level at which meaning is being resolved and held accountable.

Each account in the map occupies a role relative to frame-scale: some explain how meaning is structured or encountered at a given level, others explain how it is stabilised, reproduced, or transformed across levels. Frame-scale therefore governs how explanatory responsibility is distributed across the map, preventing it from being read as a hierarchy or taxonomy and allowing multiple accounts of contrived ontology to coexist without collapse into a single explanatory logic.

What follows is a guided map, or key, of where different accounts operate, what kind of work they perform, and how they relate to one another.

The social-theoretical accounts identified in this map are grounded bibliographically in Appendix A: Theoretical Provenance of the CO Meta-Framework.

MICRO - MESO - MACRO LEVELS

MICRO-LEVEL: ARTEFACTS, ACTIONS, AND IMMEDIATE USE
At the micro frame-scale, CO is encountered through artefacts, situated actions, and immediate relations between structure, meaning, and use. Within IAD, Structural Logic and Semantic Formation provide the generative basis of minimum CO, while semantic mechanics organise information into intelligible configurations. Object-level IA names their material instantiation, not a separate explanatory account. Psychological Tools and Activity Theory explain how these structures mediate action and sense-making. Together, these accounts explain how minimum CO is composed and encountered, but not its wider durability or legitimacy.

MICRO-TO-MESO: PRACTICE, RECURSION, AND SOCIAL FIELDS

Bridging micro and meso frame-scales are accounts concerned with the repetition and social stabilisation of meaning. Practice Theory foregrounds routinised activity and shared practical understanding. Structuration Theory explains how action draws upon, reproduces, or alters existing rules and resources. Bourdieu explains how recurrent relations become sedimented as dispositions, field relations, and doxa. Together, they show how repeated use becomes durable social formation without requiring complete intentional control or purely external enforcement.

MESO-LEVEL: SYSTEMS, INSTITUTIONS, AND LEGITIMACY

At the meso frame-scale, CO concerns coordination, durability, legitimacy, and enforcement. Systems-level IA names the coordinated manifestation of relational configurations across artefacts, channels, processes, and contexts; it is a form and location of architecture, not a separate explanatory account. Institutional Theory explains how meanings are stabilised through rules, norms, roles, shared meaning systems, and enforcement. Here, maximal CO becomes socially recognised, regulated, and consequential within organised structures.

MACRO-LEVEL: DISCOURSE, POWER, AND HISTORICAL CONSTRAINT

At the macro frame-scale, CO is addressed through genealogical accounts that explain how meaning operates as a condition of possibility rather than as a local structure. Foucault's work on discourse and power explains how meanings constrain interpretation and action across entire social formations. These accounts do not explain how meaning is designed or resolved, but how it becomes historically sedimented and socially unavoidable. In IAD terms, this level corresponds to the far-reaching effects of max CO rather than to its design.

IAD AND TRANSVERSAL ACCOUNTS

IAD AND TRANSVERSAL ACCOUNTS

Conceptual or transversal accounts operate across micro, meso, and macro scales, regulating how meaning is abstracted and made ontologically accountable. Conceptual Information Architecture (CIA) concerns the intentional resolution of meaning at the conceptual level. It enables coherent relations across artefacts and systems and is often tacit within their construction. Once stabilised, conceptual resolutions may span systems in the wild, supporting shared intelligibility, institutional uptake, or discursive alignment. CIA may engage macro-level discourse but is not a macro-historical account; it enables discourse to be intentionally engaged and reframed within IAD.

Frame-scale and the integration of Philosophy of Information with Levels of Abstraction operate alongside CIA as transversal disciplines. They regulate how CO can be observed, formed, claimed, and reasoned about; they do not explain its social stabilisation.

TRANSFORMATIONAL : ENGAGING AND REORGANISING DISCOURSE IN DESIGN

Socio-semantic mechanics describe how designers reflexively engage and reorganise meaning through decoding, recoding, reframing, and encoding. They may operate at any design frame-scale, particularly where design intersects with identity, ethics, institutions, policy, or broader social consequence. They do not explain the later uptake, reproduction, institutionalisation, or historical sedimentation of designed configurations; those processes belong to the social-theoretical accounts.

OPERATIONAL : HEURISTICS AND TACIT OPERATION

Also spanning all frame-scales are operational accounts, most notably heuristics and tacit IA operation.

Heuristics explain how meaning continues to function once it is no longer experienced as structure—through cognitive offloading, naturalisation, and routine. They do not initiate or resolve meaning, but they are essential to its persistence. Any account of CO that cannot explain heuristic uptake is therefore incomplete.

GOVERNING : THE GOLDEN THREADS

The Golden Threads govern how architectural composition and consequence are evaluated across frame-scales and over time. Synthetic Reach concerns span; Synthetic Resolution, intelligibility and operational coherence; and Synthetic Integrity, durability, traceability, accountability, and revision. They do not explain meaning's emergence or social stabilisation, but provide conditions for evaluating the quality and responsibility of IAD.

BOUNDARY CASE

BOUNDARY CASE : NON-HUMAN OR AGENTIVE MAKING

Finally, the framework includes a boundary case: non-human or agentive making.

This case is not resolved within the framework, but included explicitly as a stress-test. It probes the limits of CIA, intentionality, and answerability, and marks a site for future theoretical development rather than closure.

Taken together, this theory map should be read as a distribution of explanatory responsibility, not as a ladder or hierarchy. Different accounts explain different mechanisms, at different scales, and in different roles. The strength of the framework lies not in synthesis, but in architectural coordination.

5. AFTER THE TABLE

This meta-framework enables several moves that are difficult to sustain within existing IA or design frameworks.

It enables a unified account of IA in Design and IA in the Wild without collapsing one into the other. IA can be analysed as something intentionally made, tacitly reproduced, historically sedimented, or institutionally enforced—without requiring a change in ontological footing.

It enables transformational work—work that engages ethical, moral, and discursive questions—without reducing such engagement to advocacy, rhetoric, or abstract critique. Through socio-semantic mechanics and conceptual IA, discourse itself becomes a legitimate object of architectural intervention.

It enables pluralism without relativism. Multiple theories can be held together, not because they agree, but because they operate at different frame-scales, fulfil different roles, and explain different mechanisms involved in the realisation of meaning.

It enables traceability and accountability. By making theoretical origins, roles, and limits explicit, the framework allows claims about meaning, structure, and consequence to be examined, contested, and revised without destabilising the whole.

Finally, it enables collaboration. The table is explicitly designed to be entered by others—researchers, designers, theorists—without requiring prior agreement with IAD in its entirety. New rows can be added, existing rows challenged, and boundaries re-tested without dissolving coherence.

WHAT THE FRAMEWORK DELIBERATELY TRIES TO AVOID

Equally important is what the framework refuses to do.

It does not provide a single theory of meaning, nor does it seek to replace philosophical, sociological, or cognitive accounts with an IAD-centric alternative. Where established theories explain specific mechanisms well, they are retained rather than subsumed.

It avoids treating intention, scale, or novelty as guarantees of ontological significance. A small artefact may carry profound CO; a large system may merely reproduce convention.

It avoids reducing IA to representation, navigation, or usability, while also avoiding the opposite error of dissolving IA into abstract relations detached from material inscription and use.

It avoids premature closure. The table is not a finished map of the field, but a framework for disciplined exploration—one that remains open to critique, extension, and failure.

6. LAST WORDS

Information architectures are not neutral. They shape what can be perceived, enacted, valued, and sustained in the world. Whether deliberately designed or tacitly reproduced, they participate in the making of social reality.

The framework presented here takes that participation seriously. It treats meaning not as an interpretive afterthought, but as something that becomes ontologically real through structure, use, and consequence. It insists that architectures matter—even when they are ugly, harmful, or unjust—and that such mattering is precisely what makes them subject to critique and redesign.

By articulating how meaning is formed, stabilised, and transformed across frame-scales, IAD offers a way to engage with the world architecturally, without confusing architecture for control, and without mistaking critique for detachment.

The work of Information Architecture, in this sense, is not merely to organise information, but to participate—carefully, explicitly, and accountably—in the ongoing construction of reality.

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APPENDIX A:

THEORETICAL PROVENANCE OF THE CO META-FRAMEWORK

This appendix identifies the primary theoretical traditions underpinning the accounts represented in the CO meta-framework. It is not intended as an exhaustive literature review, but as a declaration of provenance sufficient to support accountability, critique, and extension.

PHILOSOPHY OF INFORMATION / LEVELS OF ABSTRACTION INTEGRATION

- Floridi, L., 2011. *The Philosophy of Information*. Oxford: Oxford University Press.
- Floridi, L., 2019. *The Logic of Information: A Theory of Philosophy as Conceptual Design*. Oxford: Oxford University Press.

Theoretical Supports For IA in the Wild (Maximal Contrived Ontology):

PSYCHOLOGICAL TOOLS & ACTIVITY THEORY

- Vygotsky, L.S., 1978. *Mind in Society: The Development of Higher Psychological Processes*. Cambridge, MA: Harvard University Press.
- Engeström, Y., 1987. *Learning by Expanding*. Helsinki: Orienta-Konsultit.
- Nardi, B.A., 1996. *Context and Consciousness: Activity Theory and Human-Computer Interaction*. Cambridge, MA: MIT Press.

PRACTICE THEORY

- Schatzki, T.R., 2002. *The Site of the Social*. University Park, PA: Penn State Press.
- Reckwitz, A., 2002. Toward a theory of social practices. *European Journal of Social Theory*, 5(2), pp. 243–263.

STRUCTURATION THEORY

- Giddens, A., 1984. *The Constitution of Society: Outline of the Theory of Structuration*. Cambridge: Polity Press.

FIELD THEORY - BOURDIEU

- Bourdieu, P., 1977. *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.
- Bourdieu, P., 1990. *The Logic of Practice*. Stanford, CA: Stanford University Press.

INSTITUTIONAL THEORY

- Berger, P.L. & Luckmann, T., 1966. *The Social Construction of Reality*. New York: Anchor Books.
- Scott, W.R., 2014. *Institutions and Organizations* (4th ed.). Thousand Oaks, CA: Sage.

DISCOURSE & POWER - FOUCAULT

- Foucault, M., 1972. *The Archaeology of Knowledge*. New York: Pantheon.
- Foucault, M., 1977. *Discipline and Punish*. New York: Pantheon.
- Foucault, M., 1980. *Power/Knowledge*. New York: Pantheon.

Together, these traditions provide complementary accounts of how meaning is formed, stabilised, and transformed, without collapsing into a single explanatory register.