

Tela de Araña: The Structure That Holds

Documentary Fragility and the Design of Living Knowledge Systems

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1. *Tela de Araña* as a space of reflection

Tela de Araña (Spanish for "spiderweb") is an independent studio dedicated to knowledge organization, semantic design, and documentary-editorial structures. It works with archives, collections, documents, vocabularies, catalogues, workflows, and memory systems, especially when those systems require structures that allow them to remain usable over time. Its field of work includes dispersed documents, fragile workflows, improvised vocabularies, unfinished catalogues, undocumented practices, and the forms of knowledge and memory that depend on them.

At the same time, *Tela de Araña* is a space for reflection on the conditions that make this work necessary. The practical problems encountered in archives, collections, organizations, and cultural projects are not only operational problems. They also raise conceptual questions about knowledge, memory, infrastructure, documentation, and continuity. When documents are preserved but their relations are unclear, when catalogues exist but remain unfinished, when vocabularies circulate without sufficient explanation, or when workflows depend on undocumented decisions, the problem concerns the structure that allows materials to remain intelligible.

This paper develops those questions from the perspective opened by *Tela de Araña*. It does not present a catalogue of services. It examines the conditions under which archives, collections, documents, vocabularies, and memory systems can continue to be found, interpreted, maintained, revised, published, migrated, governed, and used. The focus is therefore not only on preservation, access, or organization, but on the structures

that allow knowledge and memory to remain active without flattening their history, language, context, or authority.

Tela de Araña begins from a simple but often neglected premise: knowledge and memory do not remain usable because materials survive, but because the structures that connect, describe, contextualize, and sustain them remain intelligible.

2. Documentary fragility

Documentary fragility is not limited to the disappearance, destruction, or physical deterioration of materials. It can also appear when documents, records, catalogues, vocabularies, files, and databases remain present, but the structures that make them usable begin to weaken. In these cases, the archive or collection still exists, yet its internal relations become harder to understand. Materials may remain safely in place while the logic that explains them becomes partial, unstable, or inaccessible.

This kind of fragility often develops gradually. Materials become dispersed across folders, drives, platforms, offices, personal devices, or institutional routines. Workflows continue to operate, but depend on habits that have never been documented. Vocabularies are improvised to solve immediate needs, then remain in use without clear scope or criteria. Catalogues are begun but not completed. Files are duplicated without reliable version control. Categories continue to organize materials even after their meaning has become unclear. Local practices may be known only by specific people, while responsibilities, decisions, and exceptions remain outside any shared record.

The problem is therefore not only material. It is structural, semantic, procedural, and institutional. It is structural because the relations among materials may no longer be clear. It is semantic because the terms, categories, and descriptions used to name those materials may no longer explain them adequately. It is procedural because workflows, responsibilities, and maintenance routines may depend on informal knowledge rather

than shared documentation. It is institutional because the continuity of the system may depend on temporary arrangements, unstable roles, or people whose knowledge has not been transferred into durable forms.

A memory system can become fragile without losing a single document. It becomes fragile when the relations that give its materials coherence can no longer be understood or maintained. The surviving material then remains available in a narrow sense, but its capacity to support shared memory and future use is weakened. What is at risk is not only the material itself, but the conditions that allow it to participate in a system of knowledge.

This is why documentary fragility often becomes visible when knowledge, memory, or documentation have grown beyond the structures that once held them. An inherited archive may contain valuable materials but lack a reliable map of its contents. A digital repository may accumulate records faster than its metadata can explain them. A publication system may continue to produce outputs while losing track of rights, versions, sources, or editorial decisions. A community memory project may preserve testimonies, photographs, or documents while depending on local knowledge that has not yet been described, shared, or protected from disappearance.

In such situations, the first task is not to impose order in the abstract. It is to understand where the system has weakened: where materials have become dispersed, where categories no longer describe clearly, where decisions have gone undocumented, where workflows depend on memory rather than structure, and where authority or context may be lost if the system is reorganized too quickly. Documentary fragility requires attention to what exists, but also to what holds it together.

3. Knowledge infrastructure

Knowledge infrastructure can be understood as the set of structures that allows materials to remain usable over time. It does not refer only to digital or technical systems. It includes the arrangements through which materials are described, connected, maintained, and revised. In archives, collections, organizations, and memory projects, this infrastructure may appear in catalogues, metadata, classification, vocabularies, documentation, or governance routines. It may also remain less visible, embedded in the practices, distinctions, categories, and decisions that have shaped the system over time.

The elements usually treated as technical support are therefore part of the epistemic architecture of a system. Metadata models do not merely add information to documents; they define which aspects of those documents can be recorded, searched, compared, and reused. Classification systems do not simply arrange materials; they establish relations of proximity, separation, hierarchy, and relevance. Cataloguing guidelines stabilize description by defining what should be recorded, how it should be expressed, and under what criteria different materials can be treated consistently. Controlled vocabularies, thesauri, taxonomies, and naming rules regulate the language through which materials become findable and intelligible. Inventories, folder structures, and documentation templates give practical form to these decisions, making them available for use, maintenance, and transmission.

These structures shape whether materials can be found, related, interpreted, trusted, migrated, and maintained. A file may exist without a stable name and still remain difficult to identify. Records can be preserved with too little description to support interpretation or connection. Categories may continue to organize a collection even after their scope has become uncertain. Vocabularies can accumulate terms from different moments, projects, people, or assumptions without making those differences

visible. Databases may store information while failing to support meaningful navigation across the relationships that give the materials context.

For this reason, knowledge infrastructure is not external to knowledge. It participates in the conditions under which knowledge can circulate and remain usable. The same material may support different forms of memory, research, publication, accountability, or teaching depending on the structures that describe and connect it. A photograph can be an image, a record, evidence of an event, part of a collection, a trace of a relationship, or an item governed by specific rights and responsibilities. Which of these dimensions can be found, interpreted, and maintained depends on the infrastructure built around it.

Semantic relationships are especially important in complex systems. Materials do not usually become meaningful in isolation; they are connected to people, places, dates, events, practices, institutions, collections, languages, rights, versions, formats, and prior decisions. When these relationships are absent, implicit, or scattered across undocumented practices, the system becomes harder to use and harder to sustain. When they are modeled carefully, the system can support discovery, interpretation, migration, publication, and future revision. Linked data frameworks and ontological modeling may be useful in some cases, but only when the complexity of the materials and the purposes of the system require that level of formalization. Formal modeling is not an automatic improvement. It is valuable when it clarifies relations that the system must preserve, expose, or make interoperable.

The concept of knowledge infrastructure therefore moves the discussion beyond the opposition between content and support. Catalogues, vocabularies, metadata, classification, documentation, and workflows are not neutral containers added after materials have been collected. They are part of the conditions through which materials become usable as knowledge and memory. To design or repair them is to work on the

structure that allows a system to hold together without depending entirely on tacit knowledge, improvised decisions, or temporary arrangements.

4. Diagnosis before design

Diagnosis is the methodological core of any responsible intervention in a knowledge or memory system. Before any design or repair takes place, the existing documentary situation must be understood. This means examining how the system is currently organized, where its structures are already working, where they have become fragile, and what kind of intervention the situation can actually support. It also means recognizing where knowledge, authority, and responsibility are held, especially when local practices or vocabularies have not yet been documented.

The diagnostic stage is not a preliminary administrative step. It is the condition that allows intervention to be proportionate, contextual, and accountable. Without diagnosis, a project may begin with a ready-made technical or descriptive solution before the actual structure of the materials has been understood. Such solutions may produce order at the surface while disturbing the relations, histories, and responsibilities that give the system its meaning. A premature intervention can make materials more visible while making their context less intelligible.

A diagnostic process must therefore examine both the structures that already support the system and the points where those structures have begun to fail. This requires attention to the existing forms of organization, description, workflow, documentation, and governance, as well as to the gaps, dependencies, and uncertainties that make the system fragile. The aim is not only to identify what is missing, but to understand how the system currently holds together.

This also requires attention to what should not be disturbed. Archives, collections, and memory systems often contain traces of prior arrangements, local classifications,

provisional names, inherited categories, or improvised solutions. Some of these may be inadequate for future use, but they may still preserve evidence of institutional history, community practice, research decisions, or documentary provenance. Diagnosis helps distinguish between disorder that obstructs use, structure that remains meaningful, and traces that require interpretation before any alteration takes place.

Diagnosis protects a project from premature solutions. It prevents platforms, vocabularies, databases, and workflows from being imposed before the actual documentary situation has been understood. It also clarifies the scale of intervention: whether a project requires an advisory process, a vocabulary, a metadata model, a documentation plan, a workflow, a collection map, a governance structure, an implementation process, a deeper redesign, or another form of work defined by the condition of the materials.

In this sense, diagnosis is both practical and ethical. It gives practical orientation by showing how the system works, where it is vulnerable, and what kind of intervention it can support. It gives ethical orientation by asking how intervention can strengthen the system without erasing the histories, contexts, or authorities that give it meaning. To diagnose before designing is to accept that knowledge systems are not neutral containers waiting for technical improvement. They are situated arrangements whose internal logic must be understood before they can be responsibly changed.

5. Living systems of knowledge and memory

The expression "living systems of knowledge and memory" refers to systems whose usability can continue beyond the moment of their initial organization. A system of this kind is not defined only by the presence of materials, nor by the apparent order of a catalogue, database, folder structure, or repository. It is defined by its capacity to remain usable and intelligible as its surrounding conditions change.

A living knowledge system can be used, but it can also be explained. Its categories, vocabularies, metadata fields, naming rules, workflows, and responsibilities are not only applied; they can be understood by those who inherit or maintain them. Its structure is not dependent on a single person's memory, on undocumented habits, or on tacit decisions that cannot be reconstructed. The system can support present work while also making its own logic available to future users.

Continuity is therefore central. A knowledge system is not finished when it is delivered, published, digitized, or placed inside a platform. It remains active only if it can be maintained, questioned, corrected, migrated, governed, and extended. This requires documentation, but not only as an external manual added after design. Documentation must form part of the system itself: decision logs, maintenance guides, update routines, workflow notes, naming rules, review cycles, and records of responsibility allow the system to remain intelligible when circumstances change.

Governance is equally necessary. A system that lacks shared rules for revision, responsibility, and conflict is structurally vulnerable. Without governance, maintenance becomes improvisation. Without maintenance, coherence becomes temporary. A living system requires procedures through which change can occur without dissolving the relations that allow the system to function.

This is especially important because knowledge and memory systems are never static. They change as collections grow, projects end, people leave, priorities shift, platforms become obsolete, and new uses emerge beyond what the original design anticipated. A system capable of continuity must be able to respond to these changes without losing the history of its own decisions or the context of the materials it holds.

A living knowledge system is not simply a well-organized collection. It is a structure capable of continuity: one whose categories, decisions, responsibilities, and maintenance practices can be understood and transformed from within. Its strength lies

not in being fixed, but in being able to remain coherent while changing. In this sense, the aim of design is not closure, but the creation of conditions through which knowledge and memory can remain usable, intelligible, and sustainable over time.

6. Community, authority, and non-flattening

The design of knowledge and memory systems is never only a technical matter. Organization clarifies, connects, and makes materials usable, but it also selects, translates, normalizes, and sometimes erases. Categories may make a collection easier to search while reducing the complexity of the practices that produced it. Metadata may increase visibility while detaching materials from local language, context, or authority. A vocabulary may create consistency while treating variation as error. For this reason, structural work must be understood as an intervention in the conditions through which memory is represented, transmitted, and used.

Responsible structure does not seek cleanliness at any cost. What appears inconsistent or unfinished may still preserve evidence of earlier decisions, institutional histories, local practices, or community knowledge. Disorder can obstruct use, but it can also carry traces of the conditions in which materials were produced and handled. To reorganize without diagnosis is to risk losing those traces before their meaning has been understood.

This is especially important in projects involving community memory, local archives, cultural collectives, and fragile documentary environments. Local vocabularies are not automatically deficiencies to be corrected by professional terminology. They may record relations, distinctions, experiences, and authorities that external systems do not recognize. The task is not to replace them with more standardized language, but to understand how they function, what they make visible, what they protect, and how they can coexist with other forms of description when needed.

Community authority must therefore remain central. Documentation should support those who hold memory, not extract knowledge from them in order to relocate control elsewhere. A system designed for continuity must make materials more usable while preserving the authority of the people, communities, or institutions connected to them. This includes attention to how authority is distributed over description, access, revision, interpretation, and public use. It also includes the recognition that some forms of knowledge may require limits, context, or specific conditions of access.

Tela de Araña's Community Webs program expresses this principle in practical terms. It opens a working space for small communities, grassroots organizations, local memory projects, cultural collectives, and fragile archives whose systems need structure, while explicitly avoiding the replacement of community knowledge, language, decisions, or authority. The emphasis is on identifying existing materials, points of dispersal, areas of fragility, urgent needs, and the first structure that could help, without separating knowledge from those who hold and sustain it.

To structure knowledge responsibly is not to make it clean at any cost. It is to create conditions of use without erasing the traces, languages, conflicts, and authorities through which memory was produced. A living knowledge system must therefore hold more than materials. It must also hold the relations, contexts, and responsibilities that give those materials meaning.

7. Toward a practice of structural care

The preceding sections point toward a practice that can be described as *structural care*. This term names the work of designing, repairing, and sustaining the conditions that allow knowledge and memory to endure without being frozen, extracted, simplified, or made dependent on a single person, platform, or moment of intervention. Structural care does not treat archives, collections, documents, vocabularies, and workflows as

isolated components. It attends to the relations among them and to the practices through which they remain usable over time.

Structural care begins by mapping what exists. Before materials can be reorganized, published, migrated, or modeled, their current condition must be understood: where they are, how they are named, how they are used, what relations already connect them, which structures support them, and where those structures have become fragile. This mapping is not only descriptive: it provides the basis for deciding what should be repaired, what should be preserved, what should be documented, and what should not be altered without further understanding.

It also requires reconnecting dispersed materials. Dispersal is not only a matter of physical or digital location. Materials may be separated by incompatible structures, fragmented responsibilities, or knowledge held in different places by different people. Reconnection means restoring the relations that make those materials usable again, without erasing the history of their fragmentation.

The design of coherent structures is another part of structural care. Coherence does not mean uniformity — it means that categories, descriptions, naming rules, workflows, and relationships can be explained and maintained. A coherent system allows users to understand why materials are organized in a particular way, how decisions were made, and how future changes should be handled. In this sense, coherence supports both present use and future revision.

Semantic relations are central to this work. Knowledge and memory systems depend on the ability to connect materials to people, places, events, dates, practices, languages, rights, collections, and prior decisions. When these relations remain implicit, the system becomes vulnerable to misunderstanding and loss. When they are documented and modeled with care, they support interpretation, discovery, migration, publication, and continuity. Structural care therefore includes the design of vocabularies, metadata,

classifications, and relationship models that make meaning traceable without forcing all materials into a single descriptive logic.

Documentation is the mechanism through which structural care becomes durable. The choices that shape a system, including its exceptions, routines, and criteria for change, need to be recorded so that the system can be understood by people who were not present when it was created. Documentation prevents continuity from depending entirely on memory. It also allows future users to question and revise the system without losing the logic that shaped it.

Governance gives this durability an operational form. It turns responsibility, maintenance, and change into shared procedures rather than informal habits. Without governance, structural care remains dependent on goodwill or individual memory. With governance, a system can define how change happens and how its consequences are recorded. This makes continuity a shared practice rather than an accidental result.

Structural care therefore brings these dimensions into a single practice. It does not place mapping, documentation, governance, and revision side by side as separate services, but treats them as parts of the same problem: how to create systems that can hold knowledge and memory without immobilizing them. A structurally cared-for system can continue to function through changes in people, tools, materials, categories, and uses. Its strength lies in its capacity to remain intelligible while being transformed.

8. Conclusion

The survival of knowledge and memory cannot be reduced to the survival of documents. Materials may remain present while the structures that make them meaningful weaken or disappear. A collection may still exist, and yet lose the relations that allow it to be located, interpreted, maintained, revised, and used. Without those relations,

preservation remains incomplete. What survives may still become difficult to understand.

Tela de Araña names the need for structures that hold without flattening. Its work begins where preservation, organization, and memory meet: in the fragile space between surviving materials and the conditions that make them usable. The central problem is not only how to keep materials from being lost, but how to sustain the documentary, semantic, and practical relations through which those materials continue to participate in systems of knowledge.

Documentary fragility shows that memory can weaken quietly. It appears through small structural failures: undocumented habits, unstable vocabularies, unfinished catalogues, dispersed files, unclear categories, and local knowledge that remains unsupported by shared structures. These conditions do not always destroy materials, but they reduce the capacity of those materials to remain intelligible over time.

The design of living knowledge systems responds to this condition by treating structure as a form of continuity. The mechanisms that organize, describe, connect, document, and govern materials are not auxiliary supports. They are part of the architecture through which memory remains usable. Their purpose is not to impose order for its own sake, but to create conditions in which knowledge can continue to be understood, maintained, revised, and sustained by those who work with it.

To care for knowledge and memory, then, is not only to save what exists. It is to sustain the structures through which what exists can continue to be understood.