The Real-World Community Model

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Abstract

A society is a complex system of interrelated parts. The specification standard for a community-type society is divided into a set of interrelated sub-systems that form a whole societal information system. The primary sub-systems of a societal system are: the social system; the [economic] decision system; the material system; and the lifestyle system. These societal systems categories apply to all types of societies; of which it is their internal configuration and emergently created interrelationship that are observable as a type of society. All societal systems may be sub-divided, for purposes of understanding, design, and adaptation, at these conceptions of categorization. If society is a collaborative effort, then a common and unified information system is essential for appropriately interpreting what is real with regularity. Commonality in generation and utilization of an information system allows for individual subjects among a societal population to work with one another to function better and to enhance the likelihood of survival and thriving; thus, linking self-interest to social-interest (mutual self- and social- fulfillment). Through a unified model for the organization of information human fulfillment is capable of being structurally attained. This model can be used programmatically to read and write society.

Graphical Abstract

Figure 32. *The real-world community information systems model.*
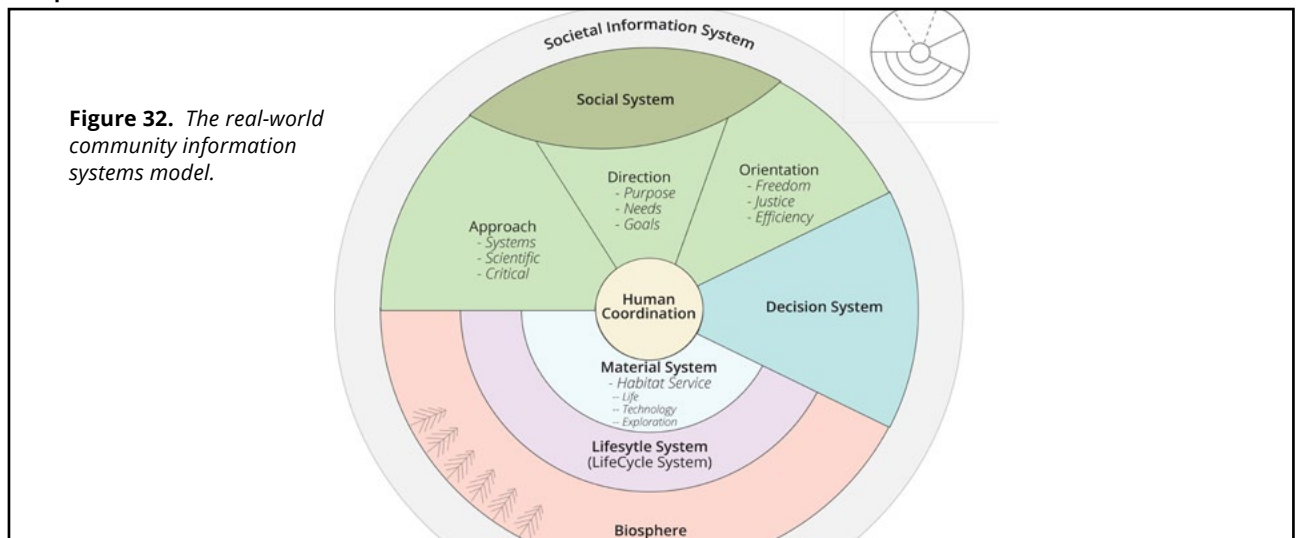
1 Introduction

INSIGHT: *We are faced with a looming scientific recognition that we are indeed one family sharing one household (the Earth) bound by the exact same laws of nature and hence the same unifying operational conception.*

The Real-World Community Model (RWCM; a.k.a., the Real World Community Model) is the highest level model describing the informational organization of a community-type society -- it is an information systems (IS) model for said type of society. This is the highest level model in the societal framework. The model represents a formal "map" by which the society structures information and arrives at important decisions that involve the systems and resources of which the society is composed. As a model, it visualizes *what* information sets the society is composed of, and describes *how* the society is composed in terms of its high-level relationships. The primary inputs of the model include the societal systems common to every type of society, and their direct sub-systems. The model presents these systems in their spiralling (helical) interrelationship, depicting the potential for enabling the spiralling evolution of the societal system, and its inhabitants. This type of societal design is superior to other models for it is subject to change as more accurate information becomes available. With iteration comes the capacity for adaptive design, which may be directed through an ability to orient by applying tools and strategies to current issues. The model represents a common point of focus for a society (of the type 'community') as well as a structured [systems] approach for accurately engaging with the real world. Essentially, the Real World Community Model is the highest-level model representing the unified information system for a community-type society, and it maps the scope of the society's conception and data architecture; it is the master reference model for the society. That which is real causes effects in the experiential, objective world. A unified societal information system relates all actions in society, because they are all interconnected. This model can be used to understand and intentionally design any type of society.

A societal information system (SIS) is a system that provides information for structuring, decisioning, and control of the organization of a society. It structures the information set and information processing capability of a society. Each event affecting the societal system and its inhabitants is assumed to have a probability of being processed correctly within the system, independent of previous states of the system.

When the organization of a societal system is defined, then individual users of the system have a greater potential for engagement with the system and with the real world, since every society exists within the real world, but not every society accounts for its presence. When navigating in reality, good decisions (as decisions that create fulfilling state-dynamics for those navigating together) require accurate maps that layout the whole terrain of life. Maps are useful for deciding a course of travel (i.e., the journey to be travelled) and they facilitate the arrival at decisions whose results maintain desired characteristics and results of travel. Essentially, the Real World Community Model is an information system's model for the semantic organization, storage, and processing of information at a societal level for individual, social, and ecological concern about the real world in which all humanity lives.

Note that the term "real world" in the model's title is a synonym for humanity's common reality - it is the real world that everyone experiences, or has the conditional potential to experience, in common. Herein, there is not "my reality" and "your reality"; there is the/our experience of reality. This shared reality (existence) can be realized and accounted for by those within it, or not. In the reality of human embodied experience there is a world that remains stubbornly important, and it might be called, "the real world". The real world provides a reference for stability when a population navigates together. And, a community is, in part, a population of people navigating together in common.

It is important for a population to note that in the real and discoverable phenomenological world all societal models must be re-assessed and re-calibrated as new information becomes available. Further, when investigating how a system meets the real needs of a population, then the whole of the system must be accounted for: the whole of the real world must be modeled; there must exist a global accounting for information in the world space. By accounting for and organizing information about a common reality, a population of individuals becomes capable (i.e., creates the shared potential) of arriving at decisions that lead them, iteratively, to a higher and more optimal state of fulfillment. Society is, itself, a dynamic and iterative process (wherein, iteration is the repetition of a process).

The Real World Community model is a single model that can be viewed from several perspectives, and is designed to reflect the operation of a society that accounts as coherently as possible for the real world. It is built for a social population that has decided to navigate the world together. This model contains information accumulated through the lived experience of a cooperative population. The model determines the perception and integration of new information and it facilitates the creation of new knowledge. This model explains societal reasoning, inference, and decisioning processes that influence behavior and experience.

The information system that is the Real World Community Model is designed with a "person-independent" architecture. As a functional and common information system, the model is designed to externalize information without judgment or subjective projection such that societal decisions maintain a person-independent, non-arbitrary processing architecture. It is a system designed to explore implicitly social processes and physical activities, and make them explicit (i.e.,

visualize them explicitly) so that the whole of the society benefits from the evolution of understandings. As such, the model has the potential to be commonly informed by all participants in the society. Therein, it represents a formalized design that processes data independent of any individual's or group of individuals' authority. It may be said to be a model or tool that is "collaborated upon" for the benefit of everyone. As a tool, the model functions independent of matters of jurisdiction, opinion, or conduct. Its manner of functioning is transparently objective and collectively formalized.

An evolving information system must accomplish the following functions to survive and flourish:

- Adapt [-ion]
- Integrate [-ion]
- Orient [-ation]
- Direct [-ion]

A common information model and shared logic is required for:

1. A population to maintain agreement on the way a given system ought to operate.
2. Identifying the fundamental principles by which a given system ought to operate.

3. A complex of working groups and operational teams collaborating on a given plan.

Reality is information in which consciousness explores by means of a physical body. The reality of an information system is that it evolves by reducing entropy. Therein, the optimal configuration of a social system is that of cooperation, for cooperation reduces entropy. Therein, social interactions may be optimized when individuals care about one another, and therefore, act thoughtfully toward one another. A decrease in entropy means two things: first, it means less chaos (less uncertainty); and second, it means more information is present in the system by which to arrive at more optimal solutions. In emergent complexity theory, as self-organization occurs there is a lowering of entropy.

> *"We live in an information society, a global information system, a symbiotic system that stretches outward almost to infinity. So, the very idea of separation becomes literally and tangibly not applicable to the way we approach our life, the way we approach knowledge, the way we approach society, and the way we approach economics, which is the defining feature of our existence - how we get what we need, how we relate to that other system from which our resources are derived, and how we relate technologically to one another through*

Figure 33. *A high-level overview model of the real-world community domains.*
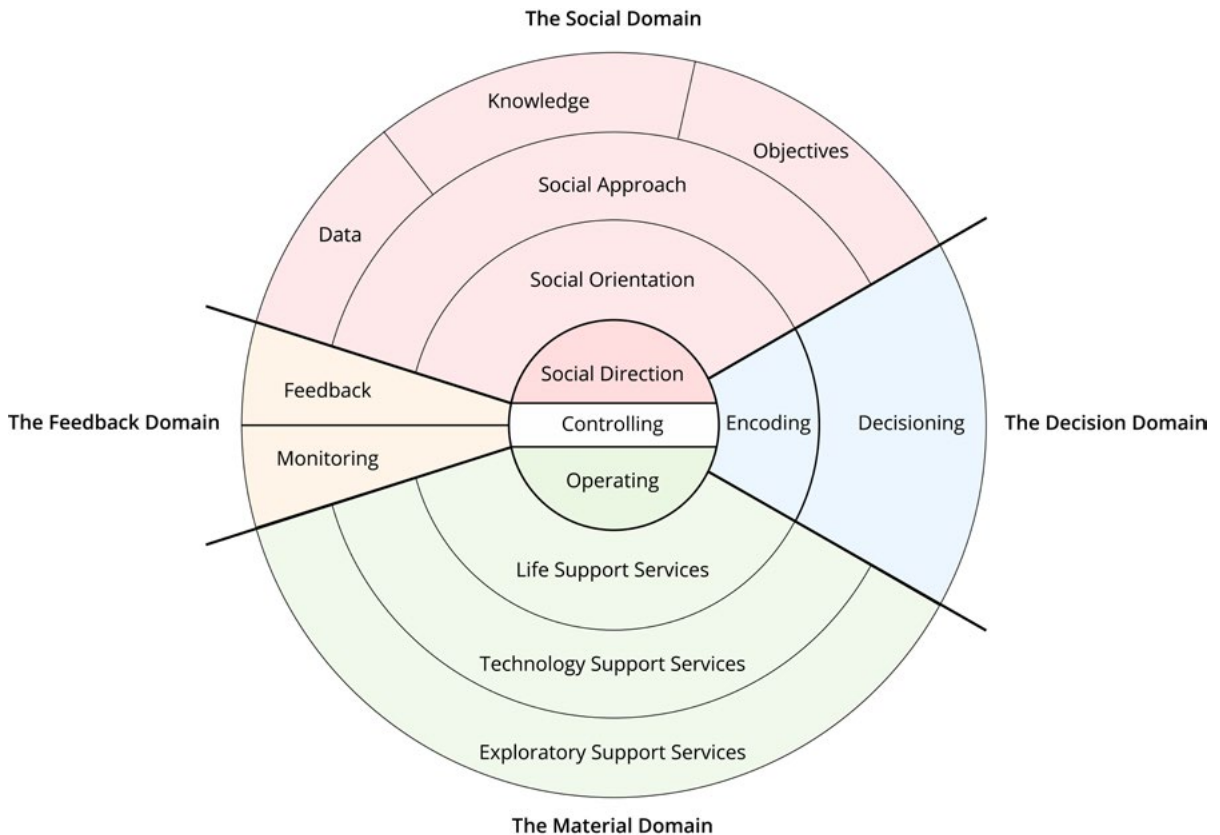
a common system. The realization is that we have to begin to unify all concepts, 'consilience' [wikipedia.org].
- Peter Joseph

2 The domains of the Real World Community Model

A.k.a., The real-world information systems model, the unified information system, the societal information system, the real-world societal information systems model, the informational systems operation model.

The Real World Community Model is an information system sub-composed of three primary organizational sub-divisions, known as system domains. Each top-level system domain is composed of sub-domains representing one or more sub-models to that system domain. Each domain [space] is an information sub-system and a component of humanity's common existence in the real world [information system]:

1. **The social system domain** - The social organization of the society. This content is detailed in full in the Social System Specification Standard.
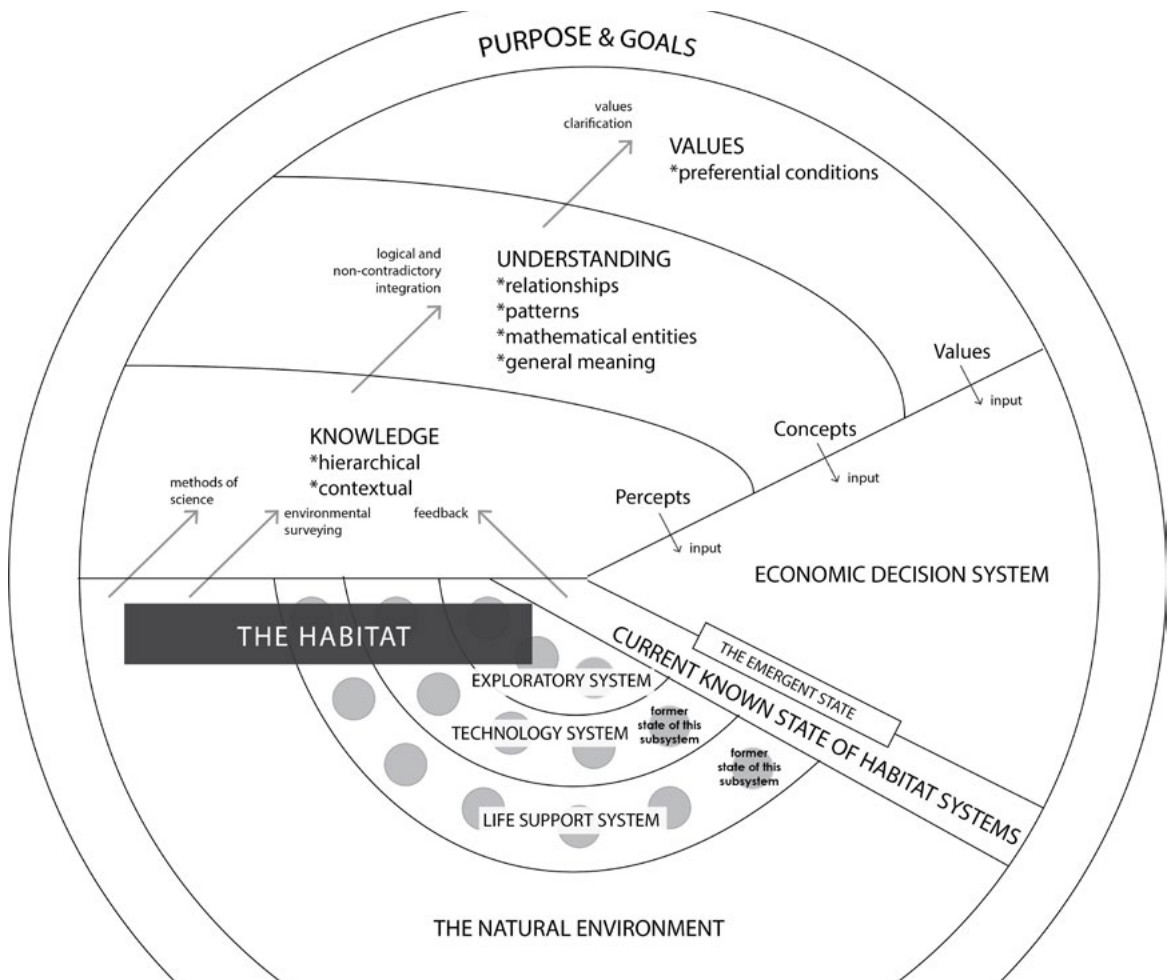   A. **The purpose domain** - The purpose for the

Figure 34. *The real-world community information systems model.*

community's existence in the world. This is the direction domain, and it includes goals and other directional components.

B. **The data domain** - All available data that is commonly collected and output through various mediums and methods. This domain space may also be referred to as the "perception domain". This domain includes data collected from the environment and data output as the result of information processing.

C. **The knowledge domain** – The logical integration of observations and relationships into common knowledge. This domain space may also be referred to as the "conception domain". This domain includes the social approach and the knowledge produced from that approach.

D. **The values domain** – The values domain is composed of the society's value system and its reasoning. The value system involves those conditions [based upon that which is known]

that support the fulfillment of our needs and orient our total [systems] alignment with our common direction of intent. The values domain defines the set of value conditions that orient decisions toward the fulfillment of real world human needs. This is the orientation domain, and it includes objectives and other orientational components.

2. **The decision system domain** - The decision organization of the society. This content is detailed in full in the Decision System Specification Standard.

A. **The [economic] decision domain** – The formalized decision model applied toward a change to the current known sate of the habitat's dynamic. The decision system modifies the operative dynamic [re-structuring] of the community.

B. **The current known state of the habitat** - This is the model of the community's presently known dynamic of operation.

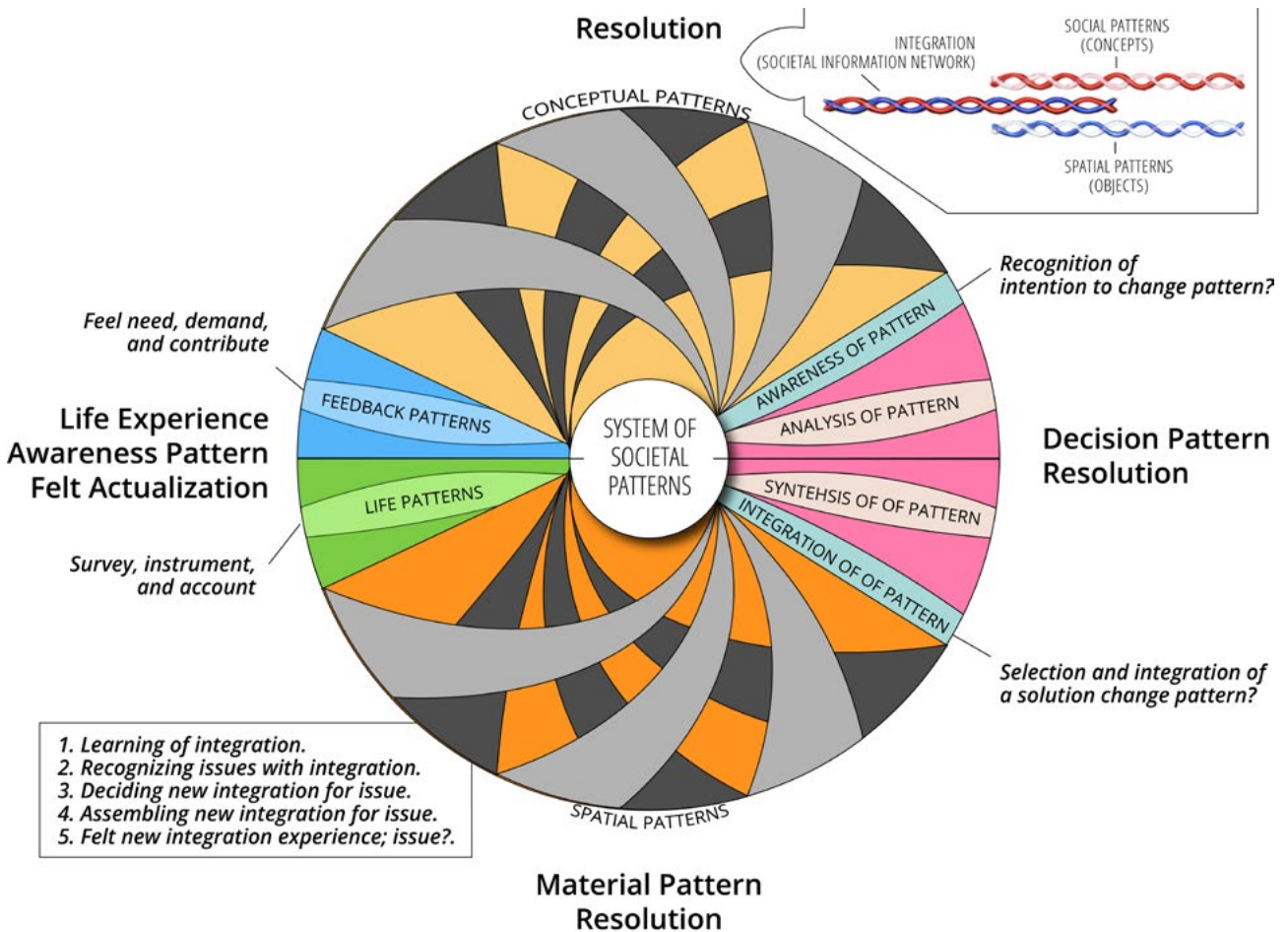

Figure 35. *A real-world community information systems model depicting data (social/conceptual) and object (spatial) information within a bi-directional spiralling pattern where social, decisional, material, and life solutions are resolved.*

3. **The material system domain** - The material organization of the society. This content is detailed in full in the Material System Specification Standard.

   A. **The habitat service systems domain** – The operational service systems that provide the architectural infra-structure for the continuation of the society's habitat and its material fulfillment of individuals' needs. The habitat service system domain also includes a record of the state-dynamic of all prior habitat service system states.

   B. **The natural environmental domain** – The domain from which humanity acquires resources, discovers knowledge, and into which the habitat service systems are produced and integrated. This is the larger ecological environmental system that humanity affects and that affects humanity. This is the life-ground that sustains the habitat and humanity's material existence. It is that which humanity constructs its service systems into.

Note that there are multiple views of the Real World Community Model. Some of these views contain a fourth domain. In these other views the fourth domain may be:

1. **The lifestyle system domain** - the lifestyle organization of the society. This content is detailed in full in the Lifestyle System Specification Standard.
2. **The feedback domain** - the monitoring, surveying, and feedback organization of the society.
3. **The project plan domain** - the project plan to bring into existence and sustain the society. This content is detailed in full in the Project Plan Specification

Standard.

Within the Real World Community Model, the material system is divided into two interrelated systems. The first system is that of the natural [ecological & phenomenological] environment, which is discoverable and surveyable, and represents the life-ground of material fulfillment. The natural environment is both discoverable and is also humanity's common heritage. The second system is that of the habitat service systems, of which there are three principal subdivisions (Read: life, technology, and exploratory). This second system is embedded within the first. A society's habitat, and its service systems, exists within a larger phenomenally ecological system. The service system(s) structure and organize the provisioning of fulfillment.

Some societies do not seek to account for a sufficient totality of the real world. When the real world is not sufficiently accounted for in the iterative design of a societal system, then human fulfillment and general happiness will likely be left wanting. Additionally, there is accurate information to be gained about the real world, and there also is inaccurate information about the real world. A community-type society requires accurate information about itself within the real world if it is to remain resilient and adaptive to an environment that "dictates" its survival and well-being.

If a system (or in the literature, 'agent' or 'constructor') does not accurately model its environment, then its reasoning, decisioning, and results will likely suffer. In the real world, systems are surrounded by their environments, forming a cohesive whole, which can be modeled and then dynamically simulated. Creatures that are unable to successfully model the world around them are likely to perish more quickly. The information system of a community-type society must be sufficiently flexible and accepting of feedback to adapt its "mapped" model of the [real] world as more information is gained
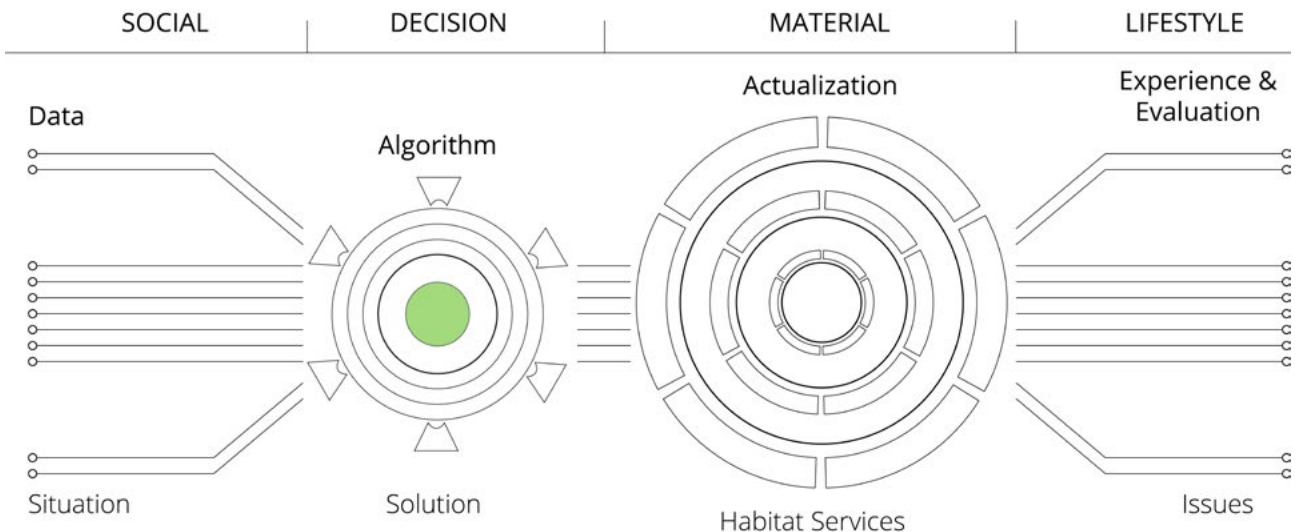

Figure 36. *Overview of a society's four informational and material dimensions of design and operation.*

about the "terrain". Organisms that are successful at modeling and sustainably modifying the world around them are more likely to prosper. Every decided action taken represents a choice with probable consequences. Hence, a healthy and intentional society desires a precise and logical model of its world space, with each new iteration of the model acting as new picture of the real world, as close to the real one as possible.

Models disorient to the degree to which they are inaccurate in their description of the world space they model. Some models are more accurate in their description of the real world than other models. A more accurate model is likely to disorient its users less (or not at all) in their navigation within the real world, than a highly inaccurate representation of the world. And fundamentally, all inaccurate models have the potential for disorientating their users. If individuals care about their own survival and the thriving of the society of which they are an integral part, then it is prudent to facilitate the further development and evolution of those models that structure everyone's interconnected fulfillment.

In general, all information in the Real World Community Model is transparently accessible and available to anyone who wants to observe, perceive, or otherwise, verify. The model is participatively open to new discoveries, to new understandings and integrations, to new technologies and ways of living, and to new states of existence in a progressing verse (a uni-multi-omni verse). Contribution to and participation with the model leads to a more informed and unified model, and a higher degree of potential flourishing for all.

The Real World Community Model is structured to facilitate the organization and sharing of information, energy and services among a society. What is the use of organizing an understanding of reality if not, in part, to produce a complex computational information system to facilitate human fulfillment and flourishing at the societal level. In a sense, life is a configuration of information. What "we" call this physical reality is defined by information in a structured form. Information and computation form the bedrock [terrain] of humanity's conscious reality, and hence, its optimal societal structuring. As a community, humanity may model its systems so that they remain flexibly transparent to a selectively adaptive real-world social environment. Fundamentally, the world contains information that individuals and social populations can
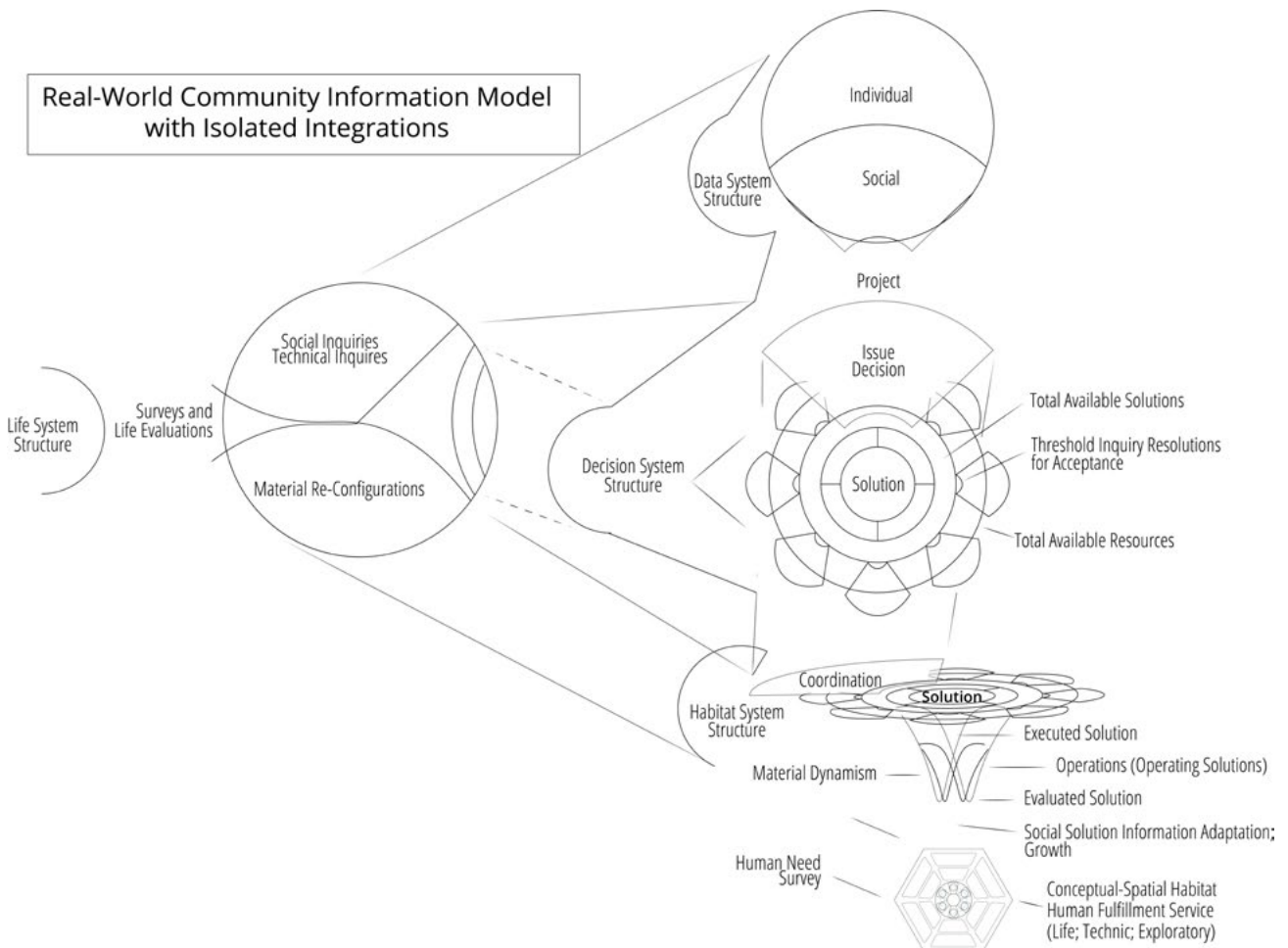

Figure 37. *The real-world community information systems model.*

discover, organize, and use to enrich their lives.

> **INSIGHT:** *Once a structure is defined by embodied consciousness, then the brain will start to search, to collect, and to pattern recognize things that align with that structure. All structures carry a potential for creation. At what potential is humanity structuring its fundamental information system? All information systems maintain a structural geometry. A geometric structure has (or generates) specific characteristics in its unfolding existence (i.e., expressed behaviors).*
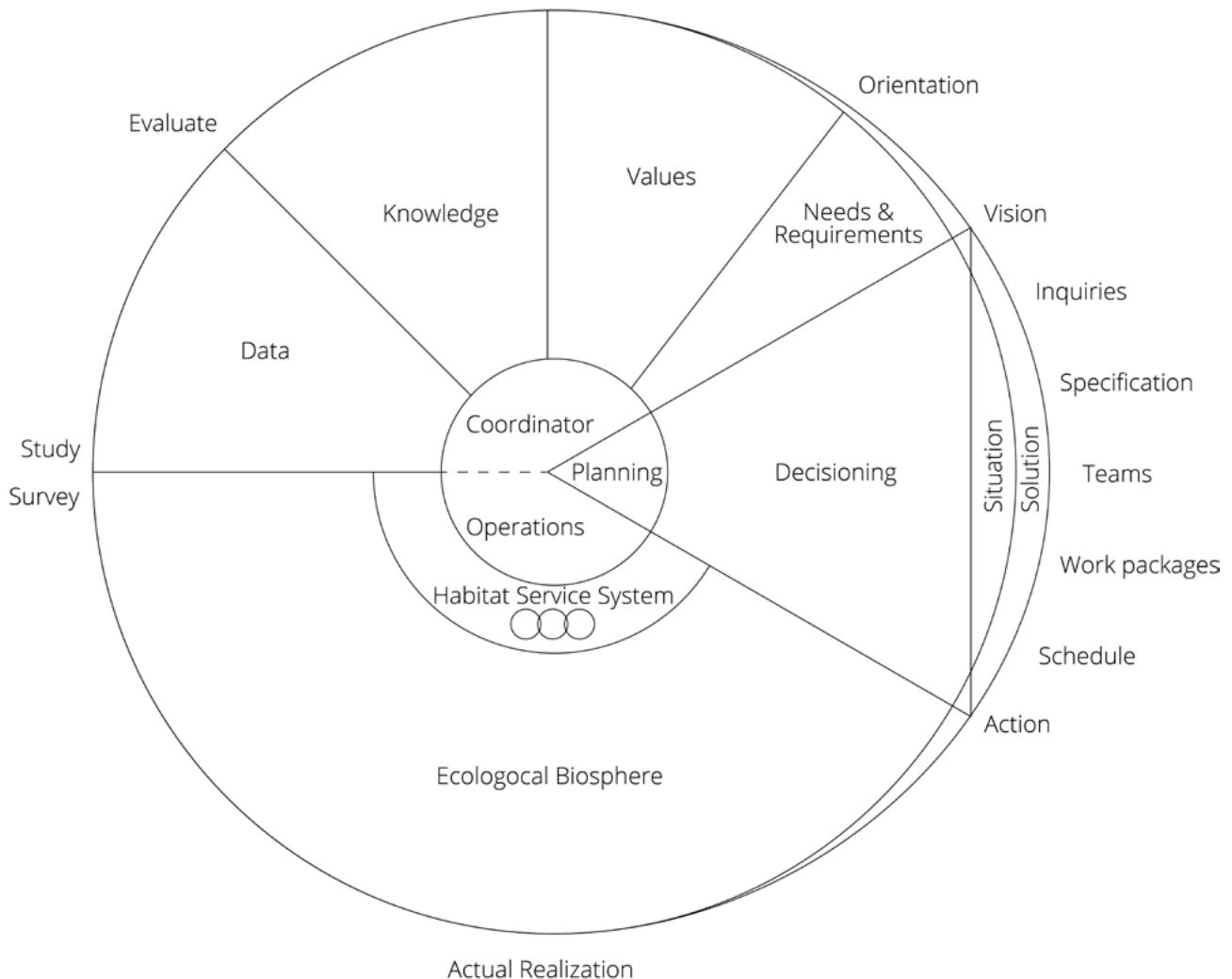
2.1 The societal information system

The complete societal information system is sub-composed of several information sub-sets, which are separated into two categories.

The first category represents the societal project itself

and its highest level system overview:

1. **The Project Plan (PP)** - Here is the plan, the integration of the highest level elements that require coordination [between location, time, and conception] in order to sustainably generate a society of the type-community. Simplistically, the social system = conception; the decision system = time and conception selection; and the material system = location spatialization of conception at time, now or then or when.

2. **The System Overview (SO; a.k.a., hypothetical overview)** - The highest level model or theoretical view of the system. An overview of the whole system through its highest level theoretical model. Technically speaking, the societal system can be modeled at the highest level as an integration of all systems into a unified and adaptive information systems model.

**Figure 38.** *The real-world community information systems model.*

The second category represents the societal information system, which is composed of the four primary societal system of which every type of society is composed:

1. **The Social System (SS)** - Here is the social system, the informational and navigational system for a social population. The social system includes a directional, orientational, and approach structure to guide and framework decisioning. And, the habitat experiences the change. The social organization of the Real World Community Model takes perceptible events and processes them through a structure for the existent purpose of navigating the community, together. The social information system codifies processes that are actually happening in the real world.

2. **The Decision System (DS)** - Here is the decision system, the algorithmic protocols developed by working groups that resolve decisions into integrated [standard] state changes to the material environment carried out by the InterSystem team. The economic decision domain arrives at selected decisions that are encoded into the material environment through a series of habitat service systems network. Herein, a society approaches environmental change with planning and coordination. The decision system codifies processes that the population intends to happen, or have constructed, into the real world. Therein, the idea of a decision system leads necessarily to algorithmic planning at population scale.

3. **The Material System (MS)** - Here is the material system, the spatialized [surfaces] that our conscious embodiment interfaces with, and has requirements from, and consequential experiences in. The material system encompasses both the human-made habitat service system and the biosphere (and encompassing physicalized cosmos).

4. **The Lifestyle System (LS)** - Here is the lifestyle system, the description of the human optimal embodiment cycles and the selected (or selectable)

Figure 39. *This is a project to develop and operate a type of society that exists for the mutual benefit of all of its users.*
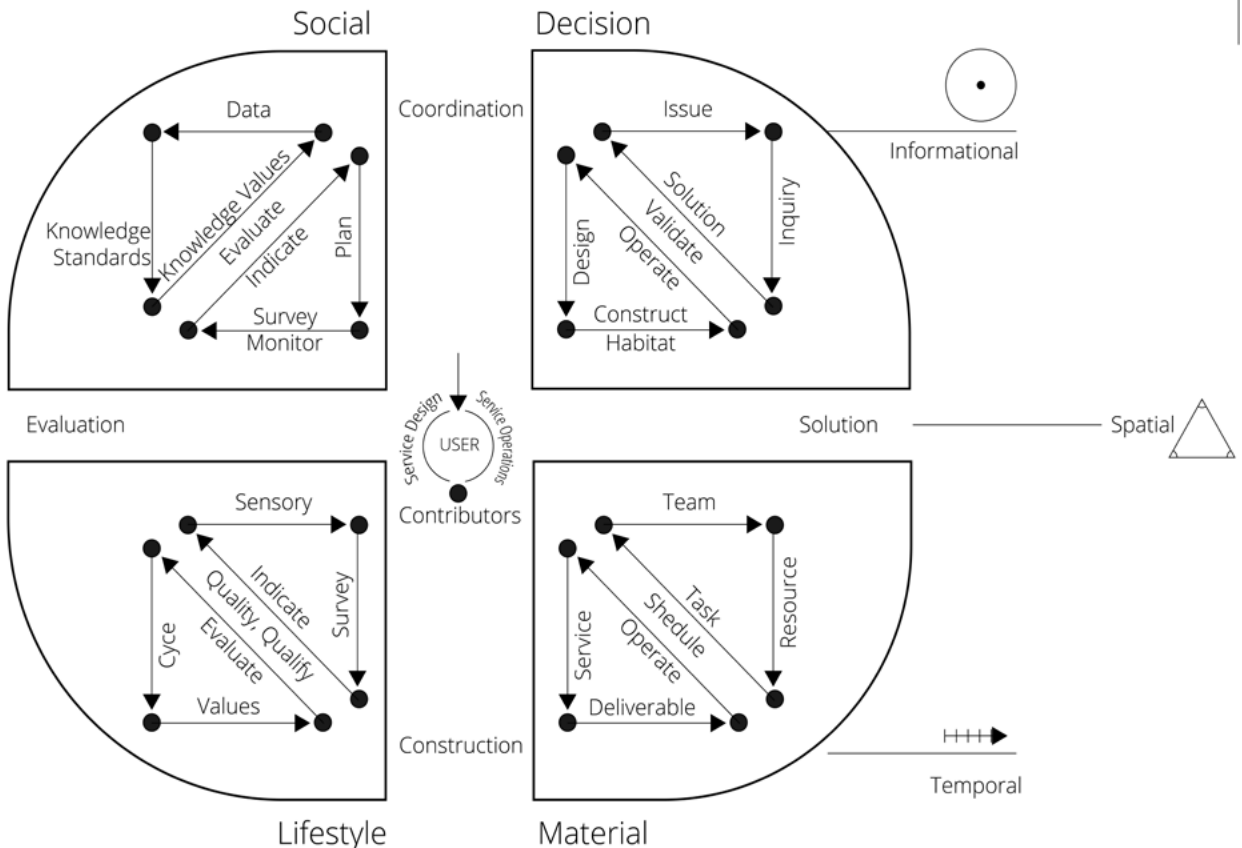
lifestyle, including reasoning therefore.

This real-world information system allows for the continuous development of a unified socio-technical engineering standard for operating a humane and ecologically accountable societal system. Because a community-type society recognizes (firstly) and accounts (secondly) for the three (or, four) fundamental systems of any society, it is possible to generate a resonant and harmonious society, where other societal types may be unable to do so (because, of a lack of recognition and accounting for what really exists). In part, this information model is called a "real world" model because it recognizes and accounts for the real world, and in doing so it allows its user to generate greater resonant states of harmony, which may appear, for example, as a more aesthetic, intuitive, and flourishing environment.

2.2 Feedback

Together, a society can build information systems and machines that can make the measurements that remove the potential for human bias and reduce the artificial limitations that set human individuals in competition to one another. When processing feedback for controlling orientation, it is necessary to distinguish the source of the information in order to distinguish the quality and organization of the data. Herein, more objective (Read: commonly verifiable and visually understandable) sources mean, a higher quality of data. Verifiable sources mean a higher quality of data. And, visualizable sources mean a higher quality of data. Machines with open code mean a higher quality of data. It is through feedback that adaptation can be usefully controlled. Feedback is necessary for self-directed structuring, and navigation. Situational and/or critical awareness is the ability to receive feedback.

Figure 40. *Any given society is a whole "experimental" system that may be proposed as a project and have its design engineered into an understood and objective existence where humans have potentially fulfilled socio-technical requirements. Humans may plan [the next iteration of] the societal system through projects coordination of a conceptual and spatial environment, where humans navigate together. Any core societal information system can be viewed at a high-level as a set of four primary conceptual sub-systems, the social, the decision, the material, and the lifestyle. These information system subsets can be formalized, defined, understood, and explained as a set of societal standards. Some societies propose, and together decide (or, mostly, pre-decide) their societies informational and materially integrated systems. Here, there is a real world where individual human beings experience each other and feel lesser and greater states of fulfillment, flow, suffering, well-being, etc. It is possible to plan for the next iteration of a real world society where a global population of individual human beings are sustainably/continuously fulfilled. Technically, this is a high-level depiction of a 'societal constructor'.*

Societal Information Sub-Construction Model(s)