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Ecotones: Tensions, innovations, and systemic changes

Darwin Muljono

This writing proposes a conceptual framework borrowed from environmental science, called the *ecotone*—the overlapping areas of transition between ecosystems—to identify pain points that are systemic by way of investigation through contradictions and tensions between multi-actor interactions. The main inquiry of this writing is, thus, investigating how design identifies systemic problems and provides solutions at the systems level in multi-actor, complex, interdependent, and emergent systems. While local interactions do not always directly and absolutely affect global behaviours (neither complex nor emergent), local interactions provide insight into how structures govern the behaviours at the lower level. We would understand this dynamic better by first making sense of the types of pain points in the context of contradictions. While this framework would apply to any design discipline interested in approaching problems from a systems perspective, this writing will focus primarily on the ecotone framework application in the field of service design. The concept of ecotone itself being applied in the design disciplines is not new. It is used prominently in talking about the intersection between different disciplines for educational and knowledge development. Where the ecotone framework in systems design, like services, for example, differs is the focus on tensioned zones or areas where the ecology of the service recipients, e.g., customers, and service deliverers, e.g., employees, intersect. This writing will provide a few cases for exploration to illustrate how the ecotone framework can be used practically in different ways.

Introduction: Two types of contradictions

General design inquiry in complex systems investigates opportunities and pain points not only at the local level but also at the global level. The questions we should ask are thus:

- What is the type of a particular pain point?
- How do we identify whether the pain points we are addressing are systemic or not?

In the field of design related to multi-actor experiences and systems thinking like service design or whatever else is emerging, we often see specific barriers or challenges that one or multiple actors encounter that impede those actors from reaching their goals or make their experiences less than optimal—referred to as pain points. One of the most common exercises during research analysis is to group pain points that feel similar or related, for example, through affinity mapping or thematic analysis. Some people have developed frameworks to identify types of pain points; for example, Sarah Gibbons from the Nielsen Group identified three levels of pain points—interaction level, journey level, and relationship level (Gibbons, 2021).

From a systems perspective, it is important to distinguish whether the solutions proposed address pain points at the local or global level. Thus, while we are able to intuitively identify what pains (pain points and pain shall be referred to interchangeably from here on) look like, there do not seem to be methodical approaches that categorise whether they occur at local instances or are more rooted in the systems themselves. Designers have the proclivity to inquire deeper as to the causes of those pain points: to expose the whys of those pains to find misalignment between expectation and reality that culminates into pain points. Thus, for the purpose of introducing a framework in this writing, we can think of *pain points* as the consequences of those fundamental misalignments. As experiences and observations have taught us, not all pain points are the same, even if they look similar on the surface level.

Let us further develop our understanding of pains by looking at specific scenarios related to service design. For example, a service recipient wants to find the exit in an environment but needs help navigating. Suppose that the service deliverer—could be a person or an organisation—agrees that the service recipient's confusion about finding

an exit is a pain point for them as well (that is, they want the user or customer to be able to navigate out quickly to make room for others), then the fix is relatively straightforward. The goals of the service recipient and deliverer are the same. The misalignment falls between their expectations and the design execution (Figure 1. (a)). What if, in another situation, where similarly, the service recipient wants to find the exit in an environment that's confusing to navigate—only this time, the service deliverer receives some benefits from the fact that the service recipient lingers in the environment for an extended amount of time (Figure 1. (b))? We can see that while the pains in both scenarios look similar, the pain in the first situation needs to be approached differently than the one in the second.

What we can derive from the examples above is that, in a simplified form, there are generally two types of pain points—from the perspective of misalignment or contradictions, that we can roughly define as

1. Contradiction in meeting expectations means the pain point occurs when things do not apparently work as intended by both the service recipient and the service delivery. This type of contradiction can further be viewed in two ways:

    a. Where the service deliverers believe they provide what the recipients want, but it is not; they are unaware that they are not designing the right thing and

    b. The service deliverers believe they provide what the recipients want correctly, but it is faulty; they are unaware that the thing is not designed correctly.

2. Contradiction in principles, on the other hand, means the pain occurs because it is purposefully designed in such a way according to some inherent and underlying principles. For example, what we formally call a *dark pattern* in UI design would fall under the contradiction in principles, where things are intentionally designed for those consequences. Bear in mind that this could mean different things, and they do not necessarily mean the intent is in any way always unethical—though some of them are definitely done so. Design outcomes based on the constraints of rules and regulations or corporations' goals to make profits also fall under this category.

In all instances, the entry point of a qualitative investigation would generally begin with the pains of the actors. The pain category escalates when we discover that things are designed under the directives or constraints of specific organisational intents. These intents do not always align with service recipients' goals. A well-known classic example in the field of design is the so-called planned obsolescence, where corporations obtain maximum returns or benefits if the product's shelf life is as short as possible, even if their customers benefit more if their products last as long as possible. That is a contradiction in principle. Thus, we can outline the two types of pain into a kind of hierarchy; for a contradiction in meeting expectations, we can call it a type-1, and for a contradiction in principles, we can call it a type-0 (Figure 2).
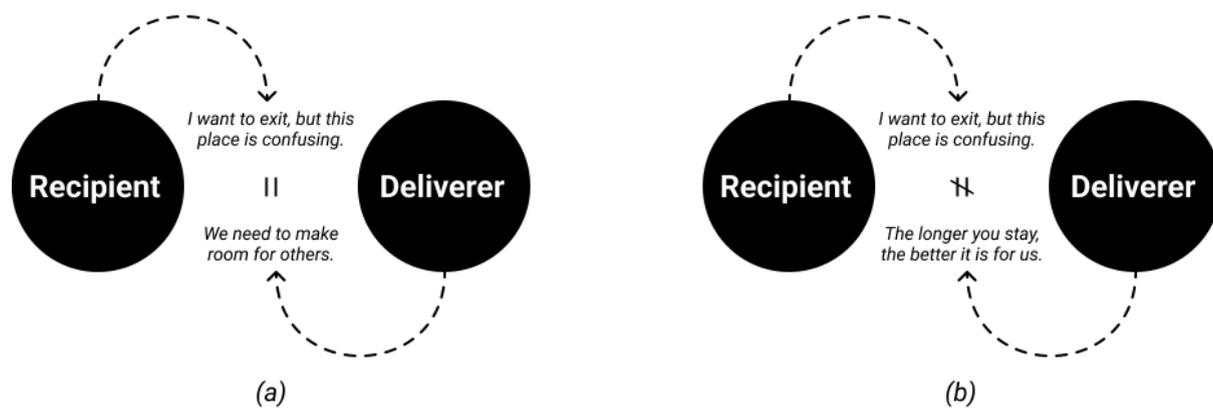

Figure 1. In scenarios (a) and (b) above, the service recipients encounter similar pain points, but the "quality" of those pains differs depending on the service deliverers' context.
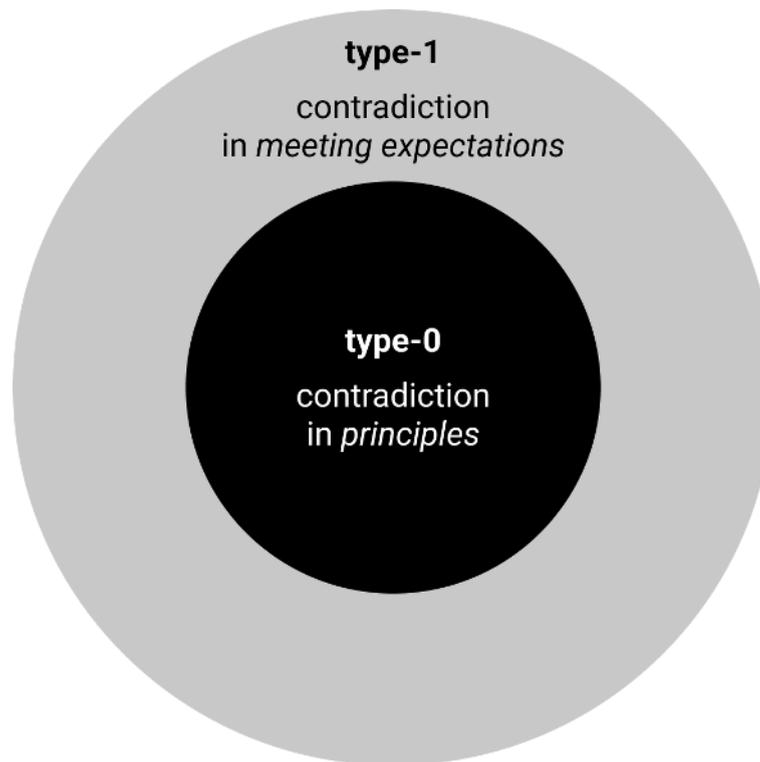
Figure 2. The type-1 and type-0 in a hierarchy—type-0 being the subset of the contradictions.

A simple demonstration of these two types of contradictions can be proven with the following classical propositional logic. Suppose the end-users are service recipients; notate it as R to be defined as "service recipient's expectation is correct," and the service deliverers notate it as D to be defined as "service delivery is designed right, or as intended." Then, (i) the first and obvious condition when R is aligned with D is that the recipient receives the service as expected because the deliverer provides it as intended, which indicates truth ($\top$) or no contradiction ($\sim\!\perp$), which also means R always implies D. Thus: $R \cdot D \Rightarrow \top \Leftrightarrow R \Rightarrow D$. (ii) When it is not the case that the recipient's expectation is correct ($\sim\!R$) and it is also not the case that the service is designed as intended ($\sim\!D$), then it is a contradiction in meeting expectations, thus: $\sim\!R \cdot \sim\!D \Rightarrow \perp$ (type-1). (iii) When it is not the case that the recipient's expectation is correct ($\sim\!R$) and the delivery of the service is designed as intended, D is a contradiction in principles, thus: $\sim\!R \cdot D \Rightarrow \perp$ (type-0).

Thus far:

(i). R • D ⇒⊤ ⇔ R ⇒D;

 Correct service expectation implies the right design.

 (ii). ~R • ~D ⇒ ⊥ (type-1);

 if receiving is incorrect and delivering is not right, then it's a contradiction in meeting expectations.

 (iii). ~R • D ⇒ ⊥ (type-0);

 if receiving is incorrect and delivering is right, then it's a contradiction in principles.

So far, the conditions outlined above conform with the truth conjunction formulas (p • q; ~p • q; p • ~q; ~p • ~q). The last condition (iv), however, is a bit confounding as it creates a logical paradox (not abiding to the conjunctive p • ~q) — that the recipient receives the service as expected R, even though it is not designed as intended (~D). But that means the service is actually designed right, because R always implies D (R ⇒ D ⇔ R • D ⇒⊤ from condition (i)). This creates an inconsistent logical equivalence (R • ~D) ⇔ (R • D). We can conclude that such a situation is impossible (~D⇔D), so we can be satisfied to conclude condition (iv) as "undefined." Thus, all the rules outlined above are fulfilled.

	D	~D
R	(i). ⊤	(iv). undefined
~R	(iii). type-0 (⊥)	(ii). type-1 (⊥)

The abstraction above only demonstrates the delineation of the types of pain according to the kinds of contradictions that emerge from the interactions of, for example, two primary actors—the deliverer and the recipient. We should understand that the reality of the situation is always much more complicated. Where the categories above would be useful for design practitioners and theorists alike is to be able to design appropriate solutions at an appropriate scope. Namely, we cannot always use local solutions if the problems are structural or if the growth of global problems accelerates faster than the rate at which local solutions can solve them. In other words, systemic problems would

most likely need systemic changes, but only if we are able, or understand the need, to identify what the systemic problems are in the first place. This line of thought aligns with Midgley's practical application of critical systems thinking, in which, taking from Churchman's concept of improvements (that are especially pertinent in design), states that "conducting an intervention is a systems problem" related to boundary analysis which involves critical awareness of different possible boundaries for analysis which means "something that appears to be an improvement given a narrowly defined boundary may not be seen as an improvement at all if the boundaries are pushed out"—thus "as much information as possible should be 'swept in' to definitions of improvement" (Midgley et al., 1998, p. 467-8).

Thus, based on the types of pain proposed above, it would be helpful for us to think in terms of ecosystems and structures. Namely, each actor's behaviours are governed, in some ways or others, by a certain structure that, in turn, influences the culture, habits, and so on that surround it. It seems evident that individuals are not merely the instances of individuals in themselves—meaning that individuals are not isolated systems. Rather, we (as individuals) experience life in the constancy of the dynamic context, engagement, and interaction with our environments. Individuals bring their worlds with them and are in constant interface with the other worlds. In approaching systems, therefore, we should not just focus on the ecosystems of the service deliverers but also acknowledge the ecosystems of the service recipients.

However, unlike Midgley (again, taking inspiration from Churchman), who takes the position that boundaries in a system "are social or personal constructs that define the limits of the knowledge that is to be taken as pertinent in an analysis" in rejection of systems being the structure of reality, the position taken here is firmly realist. While it seems evident that knowledge analysis is a social (but not personal) construct, i.e., epistemologically subjective (theory-laden), the structure of the world is ontologically real. From a philosophical perspective, we must, therefore, move beyond the empirical (i.e. Humean constant conjunction), constructivist (i.e. Kantian transcendental idealism), or phenomenological that merely looking at the conscious experiences of "a conflict between groups of people" (i.e. Hegelian dialectic according to Midgley et al. (1998, p. 469)) approach to inquiry. Rather, we ought to "submit the doctrine of empirical realism itself to transcendental analysis; that is, it must ask what its necessary conditions are"

(Bhaskar, 1975, p. 101). This is known as critical realism in philosophy—a framework pioneered by Roy Bhaskar, a philosopher of science. Suppose it is the case that experiences emerge from the constancy of the interactions between individuals and their worlds. In that case, it only follows to think about those experiences in the context of the individuals and their ecosystems. Such is the distinction between looking at Hume's inductive argument in asking, "What is the correlation between x and y?" or Kant's transcendental argument in asking, "How is x possible?" with critical realists that ask: "What the structures of the world have to be like for x to be possible?" In other words, "We shall want to know not about chicken-and-egg but about chicken-and-ecological niche" (Collier, 1994, p. 22). This particular philosophical framework is especially useful for interrogating why tensions arise from particular interactions between service deliverer and recipient and pushing further to ask what structural conditions create the tensions of those interactions, i.e., its principle contradiction (type-0). There is a conceptual apparatus to aid our inquiry in surfacing contradictions in principles when we look at the context of the overlapping domains, structures, or the ecological niches where those interactions happen: the ecotone framework.

Conceptual preliminaries: Ecotones

To understand and frame the intersections of various actors and their ecosystems, we can borrow a concept from ecology called the *ecotone*. While there are various definitions of ecotones proposed in the environmental sciences, for example, "areas of steep transition between ecological communities, ecosystems, or ecological regions along an environmental gradient" (Kark, 2007, p. 1), "straight habitat band between two other adjacent habitats" (Kolasa & Zalewski, 1995, p. 1), "tension zone where principal species from adjacent communities meet their limits" (Gosz, 1991, p. 9), and so on, they share common ground where concepts such as "'community boundary,' 'edge,' and 'transition zone'" are "essentially synonymous with ecotone." (Lloyd et al., 2000, p. 903) More specific examples, "the transitional zones between tundra and taiga, forest and steppe, desert and tropical forest (i.e., forest tundra, forest-steppe, and savannah) should be considered ecotones" (Rusek, 1992, p. 198). We can look at those examples in greatly simplified diagrams below (Figure 3)

Culminating those various characterisations, we can take the definition from *Selected Entries from the Encyclopedia of Sustainability Science and Technology*—an ecotone, thus, can be understood as an area "of transition between ecological communities, ecosystems, or ecological regions" and the concept of an ecotone assumes "the existence of active interaction between two or more ecosystems with properties that do not exist in either of the adjacent ecosystems" (Leemans, 2013, p. 148). The concept of ecotones is also being applied in domains outside of ecology. For example, an architecture professor, Ann Pendleton-Jullian, used the concept of ecotone for "architectural design education" that "proposes a sustainable educational environment: a spec of pervasive innovation that is talent-rich and talent diverse" (Pendleton-Jullian, 2019, pp. 113–114). Similarly, ecotone is used in postdigital education, for example, by Ryberg et al., beyond the conceptual to include the space and material dimensions—as "innovation ecotones." One example provided is the architecture and design programme students' workspace, which they call "Digital and Material Infrastructures," where the "physical and online spaces were closely connected (Ryberg et al., 2021).

(a) basic ecotone diagram

(b) forest tundra ecotone
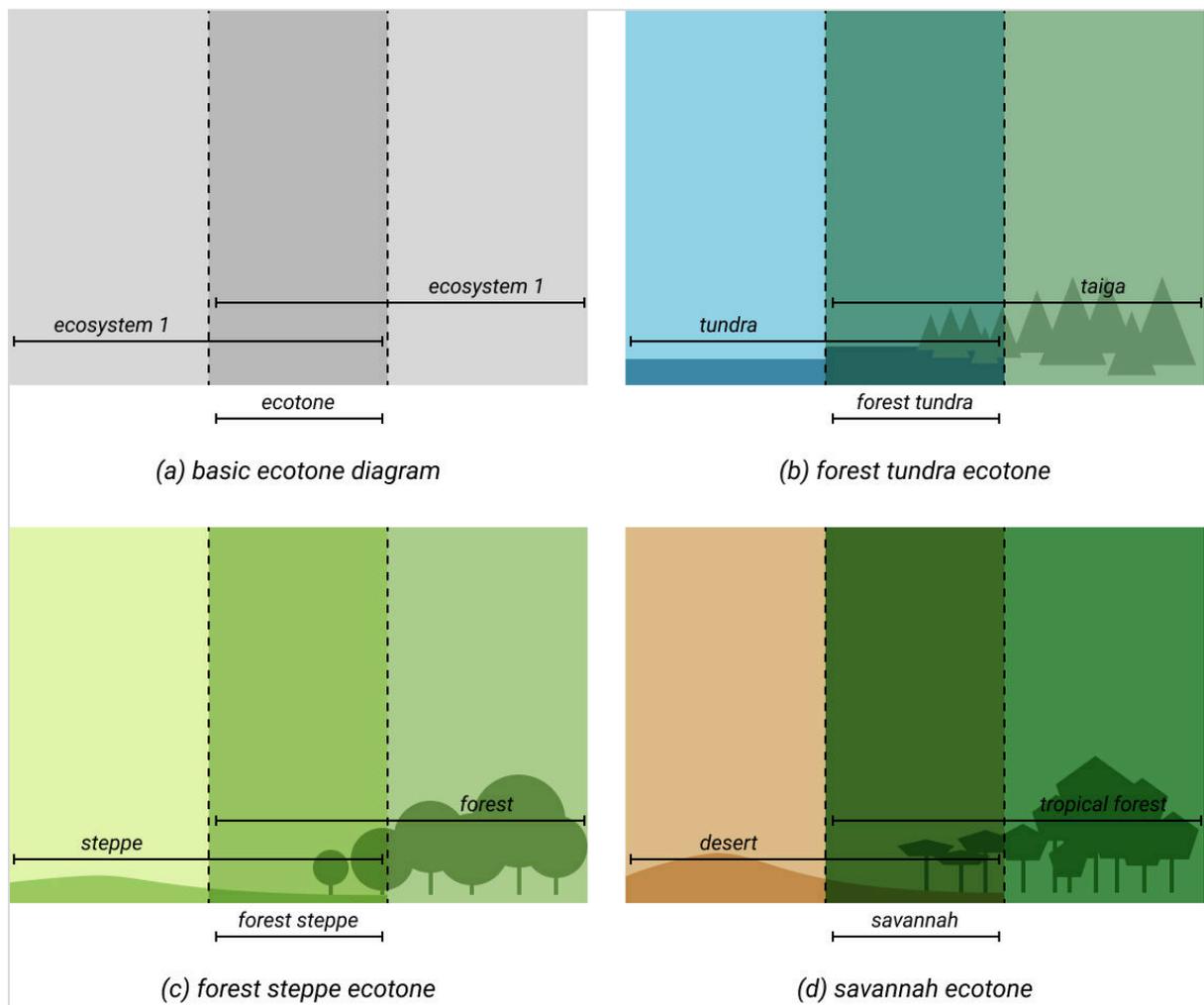
(c) forest steppe ecotone

(d) savannah ecotone

Figure 3. Various examples of ecotones.The ecotone framework in systemic design

The ecotone framework here is of somewhat different utility from the example above applications. What we are interested in is, firstly, a framework to uncover systemic pains and only, secondly, an auxiliary tool for synthesising novel ideas. From a systems perspective, we could think of an ecotone as the overlapped and tensioned areas/zones between the service deliverer and service recipient because each brings with them not only their own mental models, beliefs, knowledge, understanding but also the rules and structure that shapes their behaviours and state of minds, i.e., their ecosystems (Figure 4). While standard definitions of ecotones in environmental sciences and ecology do not usually follow the implication of "stress" (Walker et al., 2003, p. 579), the choice of the word *tension* here is deliberate. Aside from its etymological origin—the *tone* in ecotone comes from the Greek τόνος (tónos), which means tension and for our purposes, designing from the systems perspective, the goal of the framework is to expose hints of tensions existing between two ecosystems. This is where we could surface the contradictions (type-1 or 0) where the ecosystems intersect.

We can also think about the clashing models and interaction patterns between different partners in service delivery. Even different touchpoints in a single service can have ecotones. This framework aims to push our qualitative research and surface some hints as to the whys of the actors' behaviours from a systems perspective. Interestingly, an emergent behaviour usually occurs when there are any contradictions at all if a human agent is involved. A common situation is when a customer encounters a roadblock because the system does not allow it or makes it difficult for them to get what they want. A representative or an agent provides support to the customer through workarounds or hacks.

In some cases, these hacking behaviours are repeated similarly in different instances by different reps independently. These patterns emerge because the service actors pick up certain behaviours to compensate for an inefficient, lacking, or purposefully onerous system. What the service actors do, in essence, is act as mediators of two conflicting ecosystems. It also seems justifiable to suspect that there is a deep type-0 conflict in the roles deliverers want to play in providing service and how they are trying to interact with the recipients, which are also contradicting the ecosystem they're confined in—an ecotone between their projected ideals and their working reality.

Nevertheless, this ecotone is an opportunity to make radical and systemic changes—an innovative reimagination of what the structure could be to address the type-0 conflicts between the service recipient and the service deliverer. There are various tools in systems design that different organisations use differently. Take service design, for example, a discipline in design that is systematic in its approach. We can use the evolution map as a jumping-off point to illustrate how the ecotone framework could be useful. Generally, the evolution map consists of different horizons or phases to outline how various capabilities (new or modified) relate and evolve to reach the organisation's north star. If we identify specific pains related to type-0, there are two general approaches to the evolution map. Firstly, how can any emergent behaviours observed be capitalised to generate new concepts or used as a design inquiry (e.g., How Might We—) to generate more conversations and ideas? Secondly, if type-0 conflicts are identified, what kinds of structural changes (or new structures instilled) are needed in order to ensure the concept solutions can be carried out effectively and in alignment with the service recipients' expectations? Often, this might be something like: How do we ensure there is consistency in the behaviours of the service deliverers? How do we ensure the service deliverers are providing service in accordance with their expertise, passions, goals, etc.? The structural changes could be in the form of new regulations, changes in certain metrics or KPIs, or even changes in their mindsets and culture (Figure 5). In general, we can ask, "What is broken: the interaction or the value exchange?"
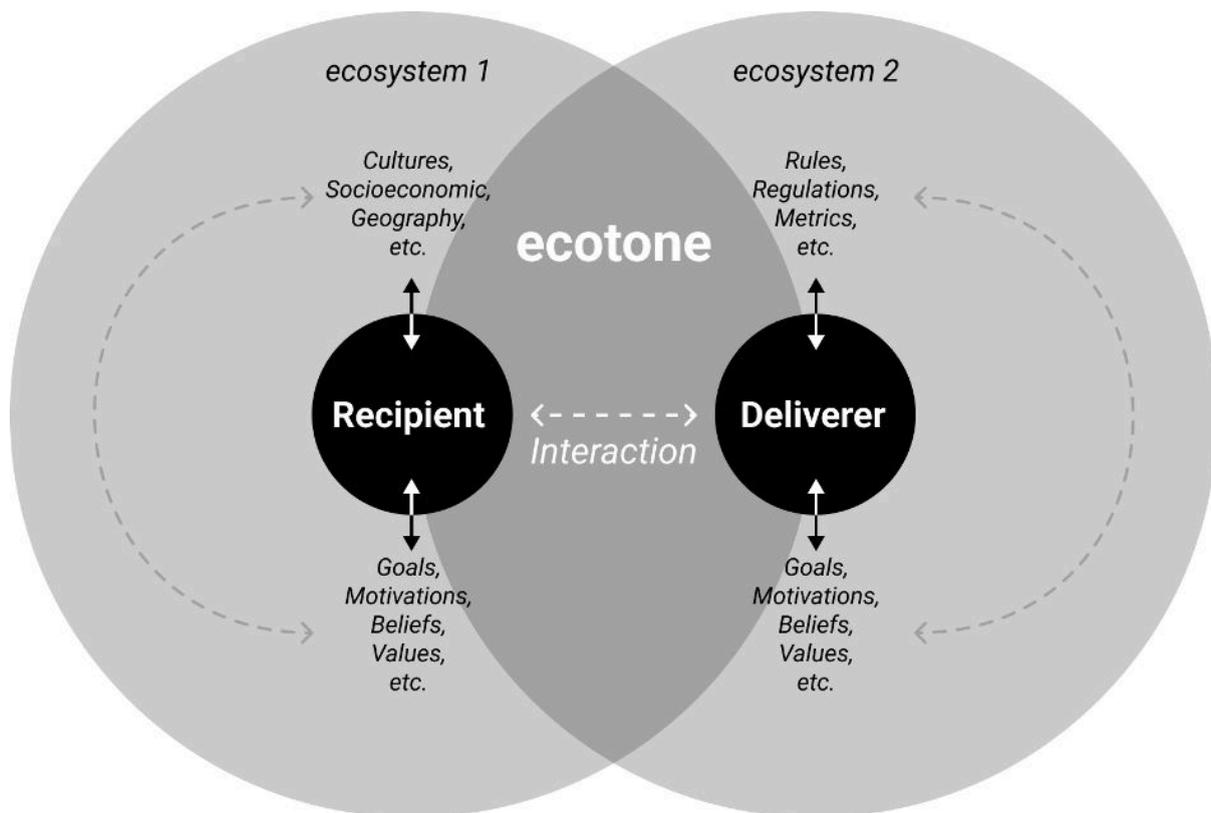
Figure 4. Ecotone framework for approaching design from a systems perspective—this is not a Venn diagram but merely an abstract representation of beings and their worlds.
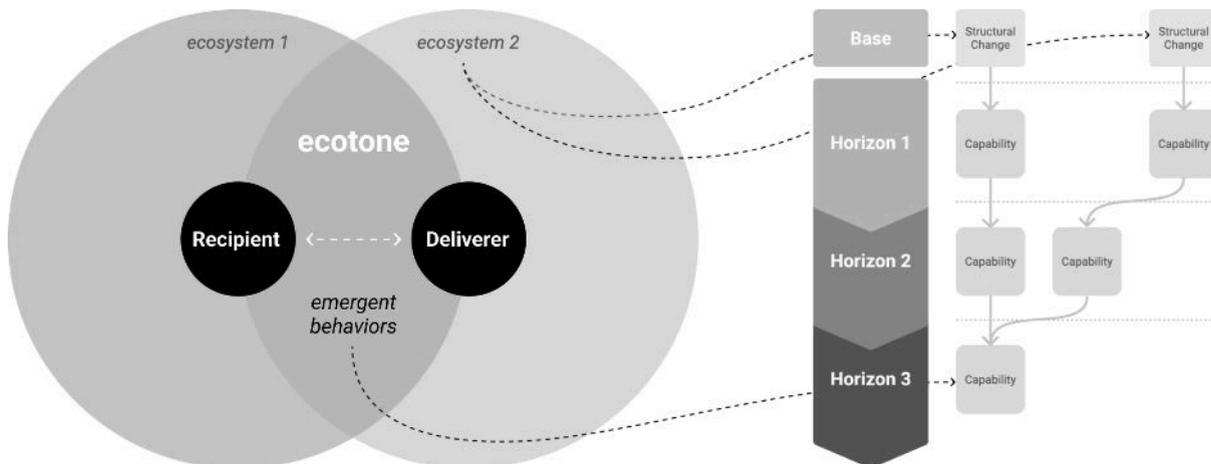
Figure 5. For example, the ecotone framework applied in service design on the evolution map.

Conceptual experiments: ecotone framework preliminary explorations

Let us further develop our intuitive understanding of the ecotone framework through a few conceptual experiments. We could begin with something simple, generic, and commonly experienced by many people: cancelling a service (Figure 6.). In many business processes still, when customers attempt to cancel their service as painlessly as possible, they inadvertently encounter some form of friction in their journey as the service representatives, say an agent, would try to prevent churn by price matching, offering alternative products/services, introducing loyalty discount programs, and so on (Figure 6. (a)). In turn, these behaviours from the agents are informed by the rules set up by the corporation itself. By outlining the causal mechanisms of the pain point, we can see the principle contradictions (type-0) between the goal of the customers and the goal of the corporations (Figure 6(b)). Here, when we dig deeper, we see the misalignment of interests when customers cancel their services, which causes revenue loss to a corporation.
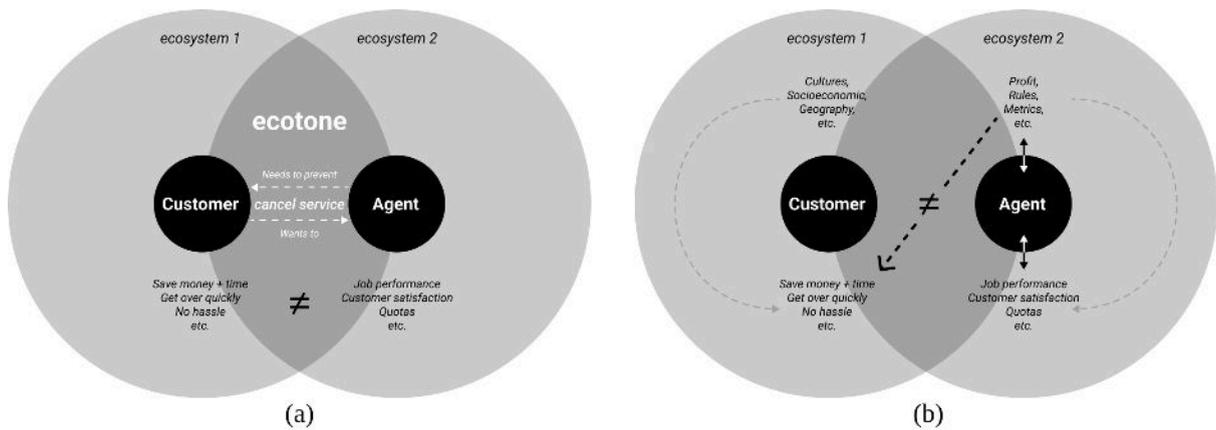
Figure 6. Contradiction is embodied in customer-agent interaction but is rooted in underlying contradiction with the corporation's structural/systemic goals.

The ecotone framework does not necessarily need to conform to the two overlapping circles model. What is most important is the mindset and understanding of how we correctly identify the types of pain points and how we appropriately correspond to our findings. Another example of the ecotone framework that involves more than two ecosystems (from my past work) takes place between the client (care recipient), caregiver (care deliverer), and the state—in this example, consider the state as Washington State Department of Social and Health Services (DSHS) that facilitates (usually a Case Manager is assigned) and pays independent care providers through the clients' Medicaid or Medicare program. However, we shall refer to this actor as the state for simplicity's sake. Suppose we begin with a simple interaction between the client and the caregiver where the caregiver provides extra hours of care for the client, and the client, even with the extra hours of care received, still feels that sometimes the caregiver is behind schedule or not getting the work done (Figure 7 (a)).
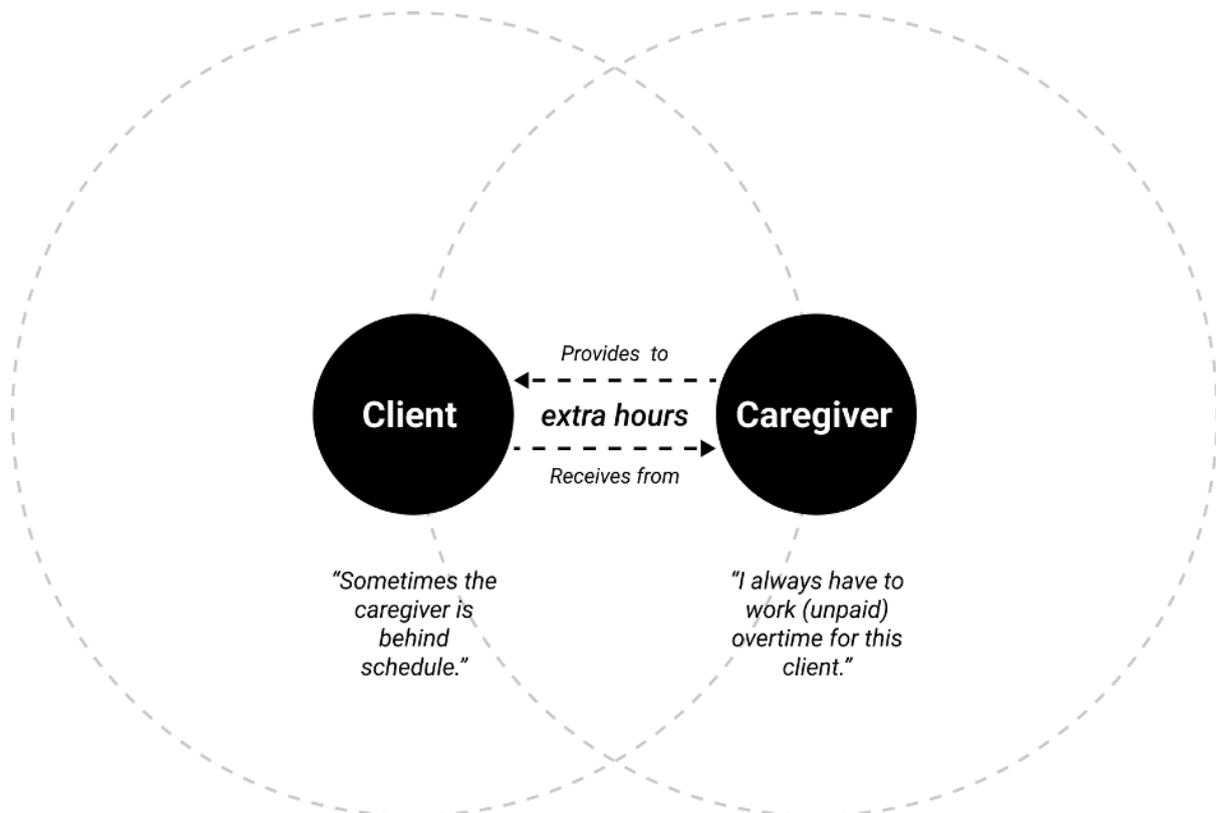
Figure 7.(a). Pain points arise for the service recipient (client) and service deliverer (caregiver).

If we take an empirical stance as the method of investigation, we might conclude or provide design solutions that would train the caregivers so they are more efficient in their work. If the extra hours are generally accepted as a necessary package of being caregivers, then we propose a self-care project through meditations or adopt a stoic philosophical mindset to mitigate burnout. These are often embodied into mobile or desktop apps or social network sites — what Evgeny Morozov called *solutionism*, an ideology deeply embedded in the design disciplines that believes all human affairs could be solved given good enough algorithms. (Morozov, 2013) While useful in certain instances, solutionism is hardly sufficient to address systemic problems. Many human and social aspects, like political will or democratic deliberations, are crucial in addressing problems at a higher level. Similarly, while training could make caregivers more efficient and the self-care initiatives could help mitigate some of the caregivers' burdens, they are by no means the cure to the root problems.

Rather than circles, the area of the actors' ecosystems can be just delineated rectilinearly like the diagram below (Figure 7 (b)). In the diagram, the darker shade areas are the ecotones between two interacting ecosystems, e.g., between ecosystems 1 and 2 (ecotone 1—2), between ecosystems 2 and 3 (ecotone 2—3), between ecosystems 3 and 1 (ecotone 3—1), and so on. The ecosystems can further be divided into two aspects: functional (top) or emotional (bottom). Again, whatever features or components we include in the framework depend on the research inquiry's needs. If we follow the diagram outlined below, we can see that more complex interactions are mapped out between the three actors, where the state assesses the client's care needs, which later is transformed into the pay that the caregiver receives for their services. What is indicated in the diagram is that the state's assessment of the hours is misaligned with the reality of the actual care-providing needs, which in turn limits the pay of the caregivers and the hours of care the caregiver has to provide. Despite the caregiver's scope of work being bound by the rules and regulations outlined by the state, the caregiver often provides extra hours of care because the caregiver has a sense of responsibility and care for their work. This situation, again, puts more burden on the caregivers.

Interestingly, we can see that the structural components (eligibility to receive care and caregiver legal obligation) that govern the local behaviours of the actors emerge from secondary ecotones (ecotone 2—3 and 3—1), which themselves are the synthesised ecosystems (or worlds) of those actors. This means that ecotone 2—3 is shaped by the synthesised client's and state's ecosystems, and ecotone 3—1 is shaped by the synthesised caregiver's and state's ecosystems. We could suppose that the state (ecosystem 3) is the larger structure that envelops both the client's and caregiver's ecosystems, but the synthesised forms of both ecosystems are qualitatively different, which shapes the dynamics that we see in the diagram above (Figure 7(b)).
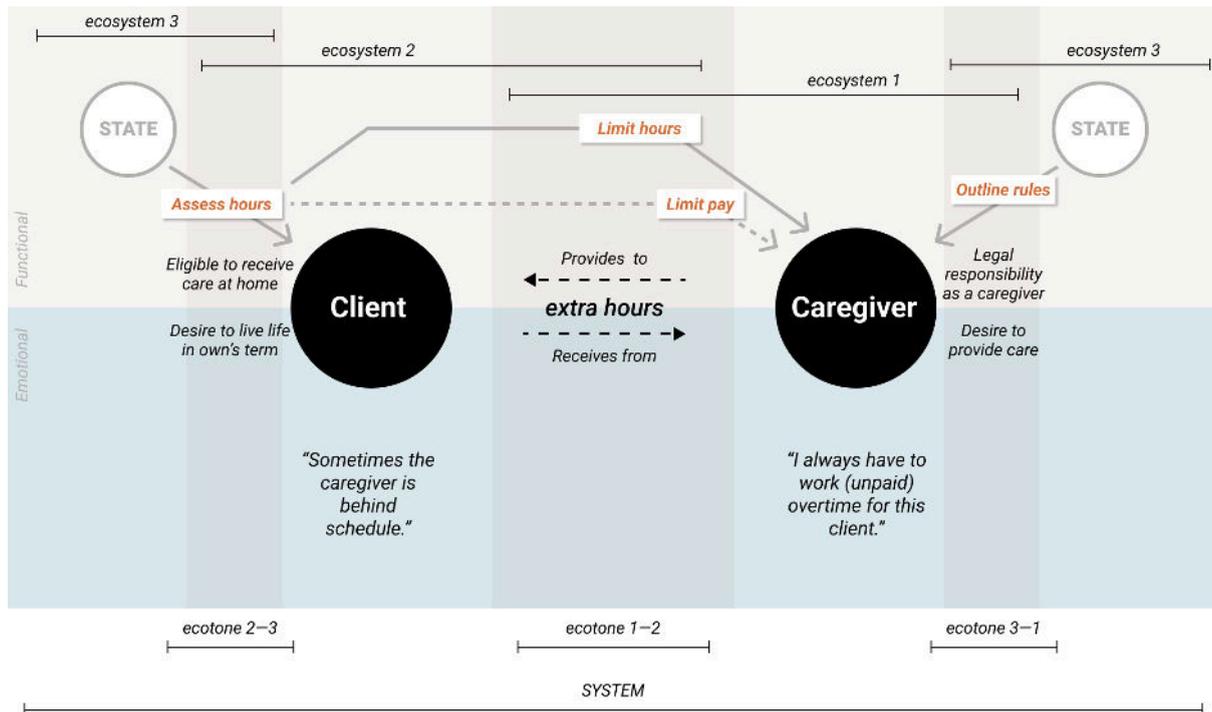
Figure 7(b). Ecotone framework maps out various contradictions which hint at the problem upstream, where the mismatch of hours for care service is assessed and the reality of the actual hours needed to provide care.

Nevertheless, from what we can observe, the systemic problem that addresses all the other pain points can be traced to the state-provided assessment of care. This could be because of various reasons—let us make a few conjectures:

- The client's desire to be independent influences their judgement about how much care they need or
- The state does not have the appropriate tools and methodology to assess the client's care needs or
- The Medicaid or medicare program constraints both the state and the client's allowances or
- The combination of some or all of the above

The conjectures above are usually outlined based on the scope of a project, which is a sensible constraint. Designers may use whatever framework results in opportunity statements, for instance:

- What other skills/talents can help with a caregiver's work?
- How do we manage a caregiver's emotional boundaries?
- How do we better assess a caregiver's skills to match a client's needs?
- How do we improve the assessment of a client's needs?

As hinted above, there are constraints in any given project. In the case of the service cancellation above (Figure 6), the organisation must make a profit. As such, the scope and constraints of the design are bound by the rules and regulations that directly or indirectly contribute to the organisational goals that might contradict a specific instance in a customer journey, e.g., service cancellation. Similarly, client and caregiver relationships are bound to specific constraints (Figure 7(b)). The opportunity statements above illustrate some of the limits of our current design tools and methodology, thus limiting our thoughts and understanding to illuminate the underlying problems. Take these standard tools used in service design:

- Journey Maps show sequences of moments, but they are merely inclined towards standardisations.
- Service Blueprints outline system components, but they often lack high-level insights into the interconnections of those components.
- Ecosystem Maps chart actors and their organisational relations, but they neither show the meaning nor implications of the power relations of those actors.

The ecotone framework in service design attempts to go beyond the surface-level experiences by embodying the actors' worlds in abstract representations of the structure they inhabit—with the understanding that those structures have empirical reality. While our jobs often limit our work, we should continually push towards understanding the source of tensions (and often, contradictions). Beyond human behaviour, there are motivational incentives, and beyond them are organisational rules, regulations, or legal obligations, and beyond them are the political-economic systems. In other words, we're asking the "whys" in a deliberate stratified manner, i.e. What the

structure of the world has to be like rather than viewing the individual experiences as a mere single layer of reality.

The identification of the root problem (e.g. social structure, political or economic system, and so on), in turn, gives us space to ask questions that are more fundamental and systemic (as opposed to surface-level) beyond just the client-caregiver experiences precisely because how their beings and worlds shape to those interactions. Going back to the caregiver example above, the ecotone framework leads us to inquire:

- What other types of care do caregivers provide outside the scope of standard care needs, e.g., related to activity of daily living (ADL)? And why do caregivers often go beyond their allocated time and resources despite the financial and emotional disadvantages against them? Why are we, as a society, allowing such things to happen?
- Why are we using (socially necessary) labour time as the metric to measure the value of care, which determines the price of care service?
- Why is a highly valuable service such as caregiving so poorly rewarded[1] from the material needs perspective?
- How do we reconcile the emotional labour, which "requires one to induce or suppress feeling in order to sustain the outward countenance that produces the proper state of mind in others" (Hochschild, 1983, p. 7)? However, we are not adequately compensating or solving for the caregivers' emotional well-being.

Conclusion

Some limitations needed calling out. For example, the ecotone framework does not explicitly illustrate the relations of power, such as those between the employer and employee, the state and its constituents. Furthermore, the ecotone framework

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[1] While it is important to expand our theoretical ideas into the realm of the political economy abstractly, real change through the grassroots efforts of real people is incredibly important. For example, in 2023 in Washington state (in the case study from Figure 7), labour unions were successfully bargaining a $21 minimum wage for home caregivers (Borkholder, 2023)—an incredible win for the home caregivers in Washington where the average hourly wage for Home Health and Personal Care Aide workers in the US in 2022 is $14.87, and the median wage is $14.51, according to Bureau Labor of Statistics. (Home Health and Personal Care Aides, 2023)

proposed here is still a straightforward model isolated from other ecosystems in the real world. Despite these limitations, however, the concept of ecotones is a framework that design practitioners and researchers can apply to identify tensioned areas to identify the systemic cause of conflicts (type-0) and understand and acknowledge that people are not defined just by their institutional functions, e.g., users, agents, market segments, consumers, and so on. To reiterate, the people that we use as the subject of design and research are, first and foremost, human beings. They might act and behave in accordance with some general market conventions (and often with some form of direct or indirect coercive forces). But they are their own individual selves, and at the same time, their individual beings are shaped by the worlds they inhabit. We should understand that when a service recipient steps into the domain of the service deliverers (and vice versa), they allow the other worlds to enter and overlap with theirs.

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