



# "For every complex problem, there is a solution that is clear, simple and wrong."

-H.L. Menken

The problems that the world is facing now, including climate change, poverty, species loss, political upheaval, and even health epidemics, can all be described as complex, that is, they are being driven by multiple causes and those causes are interrelated. This complexity vexes the traditional problem-solving model of separating the problems into pieces and solving for the symptoms.

The very nature of complexity undermines the familiar mandate to define goals and strategies to achieve envisioned solutions. Climate Change is not a standalone issue, nor is the refugee crisis, or the ecological degradation of the soil. These issues are wrapped in contextual interdependencies that require an entirely different approach in assessment, and action.

# TRANSCONTEXTUAL INFORMATION

Crises in complex systems do not stay in one context at a time. The rapid transformation of ecological patterns, as predicted by climate scientists, will alter socio-economic structures. This transformation is already beginning to be felt in the detail of people's lives; in their families and in their communities as well as at global levels. Many industries will be made obsolete by climate change, thus upending community stability in terms of employment, health, and family well-being. Therefore the repercussions, such as domestic violence and increased mental health issues, must be considered within the same inquiry as drought, sea-level rise and species depletion.

And yet, current institutional structures mitigate these complex issues through the protocols of attending only to what is within their specific jurisdictions.

Attempts to solve health crises within the silo of the health system prove inadequate.
Attempts to solve education crises within the silo of the school system are blind to the larger shifts in technology, culture, and work.
A new approach is needed that can take into account transcontextual interdependencies that are currently being ignored.



### WHAT IS WARM DATA?

A majority of current scientific research tools and methodologies pull "subjects" from their contexts in order to derive detailed, specialized, quantifiable information.

The cultural habit of decontextualizing information, or reductionism, is the standardized, authorized, and empirical norm.

By contrast, "Warm Data" is a specific kind of information about the way parts of a complex system (e.g. members of a family, organisms in the oceans, institutions in a society or departments of an organization) come together to give vitality to that system. Rather than describing only the parts, warm data describes their interplay in context. For example, to understand a family, it is not enough to understand each family member, the relationships among them must also be understood – this is the warm data.

### CRITERIA OF WARM DATA

Similar to the criteria of the scientific method, there is a set of 7 criteria for this alternative research methodology.

What makes warm data warm?

Warm Data is relational information and is therefore strikingly different from information that has been acquired by taking things out of their contexts. Because warm data is alive, responsive and in relationship to other life, it cannot be measured, deliver definitions, or produce results that are repeatable. There is no such thing as objectivity in warm data.

## **WARM DATA**

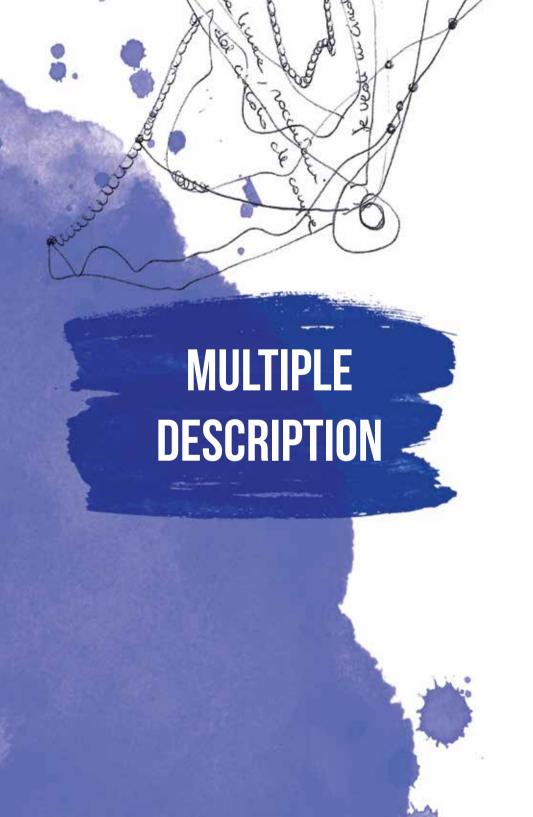
Transcontextual information about the interrelationships that integrate a complex system.





In describing a family it comes as no surprise that a mother will describe the family differently than her daughter, who will describe the family differently than her brother. Each member will express a version of the family seen from their vantage point.

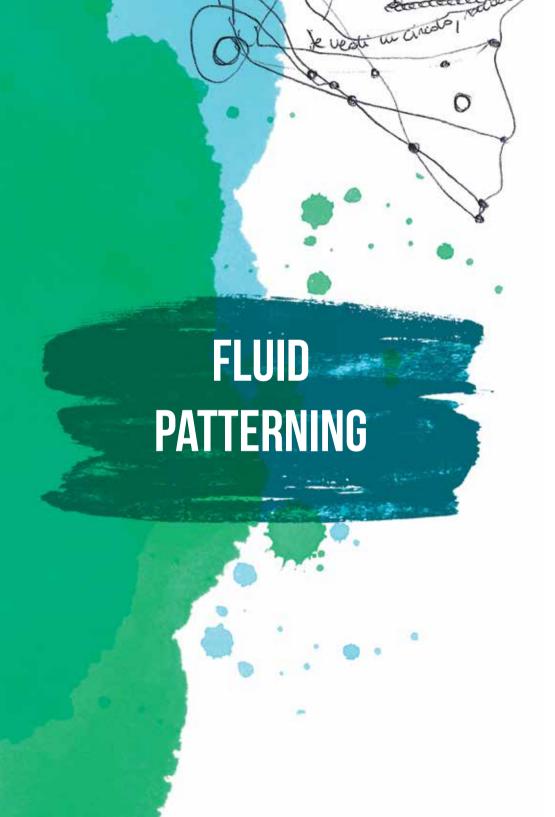
It matters who is doing the observing. What is perceived is informed by perspective. Observing the observer is noticing that there is a relationship between what is perceived, and who perceived it. Asking "who paid for the research?" or "what were the questions in the inquiry?"-- is a way to get to another layer of information about any research project.



There are lots of families out there with a mother, a father and two children. But they are nothing alike from the inside. To understand a family, a familiarity with their relationships is necessary.

Because the observer matters and each observer brings different relational information, it is clear that no one can perceive the entirety of a complex system, and so multiple observers are necessary. But multiplicity alone is not enough.

What is required in developing Warm Data, is a familiarity with the relationship between the observers. A list of stakeholders and exhaustive data streams about each one will not illuminate the relations between them.



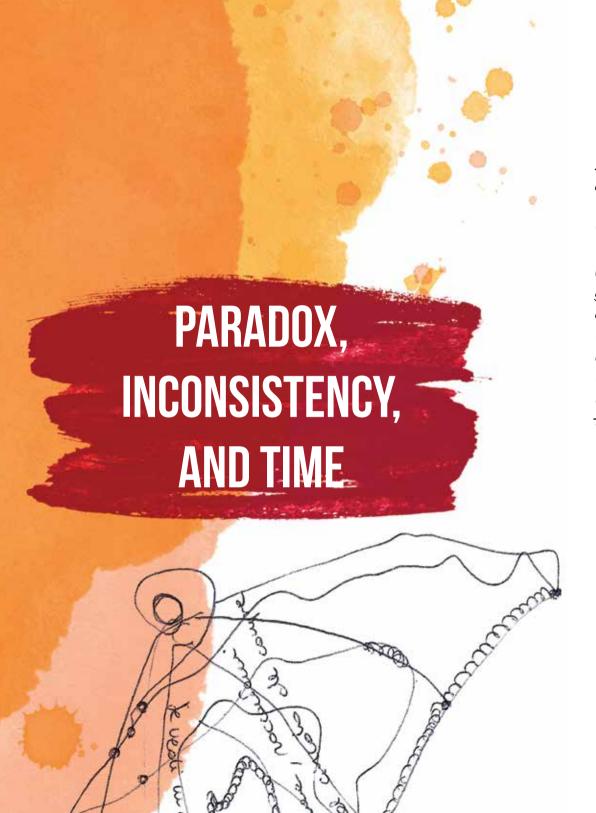
In terms of family, the patterns of family roles, and expectations are re-patterning. Families are structuring their lives in ways far beyond the limits of previous generations.

Also, notions of family that once were specific to blood related kin reach much further now into community.

What begins to emerge through observing the observer and multiple descriptions is that there are patterns, but these patterns are not stable.

The rapid changes in the world now have heightened the need to stay alert to the reality that all the patterns are changing.

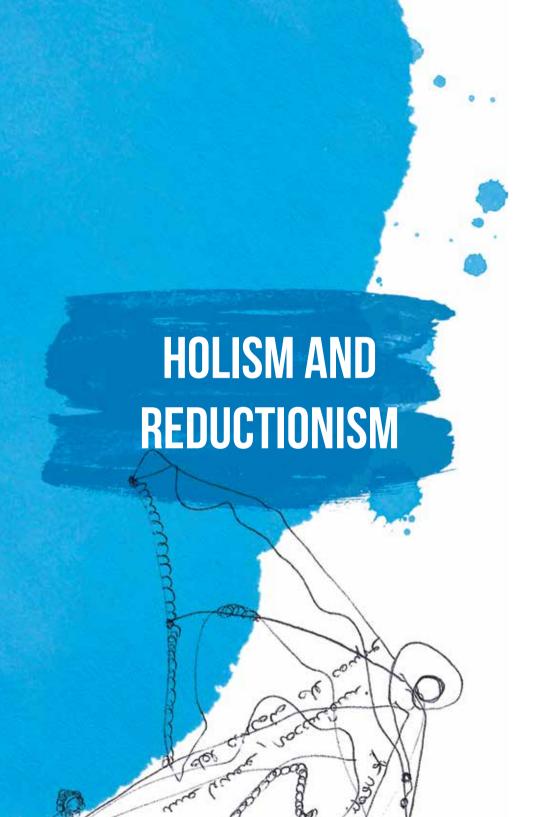
To go looking to "crack the code" now is to seek a faulty formula. Keeping a keen lookout for changing patterns is not only more rigorous than seeking stable ones, but it's also less fraught with errors.



Anyone who has ever been in a relationship will know that relationships are nothing if not filled with inconsistencies and paradoxes.

In a family, as time passes, children grow and parents do too. The harmonies and the discords between family members shift as communication changes. The family is still the family, but the warm data has changed, understanding the family means taking those movements into consideration.

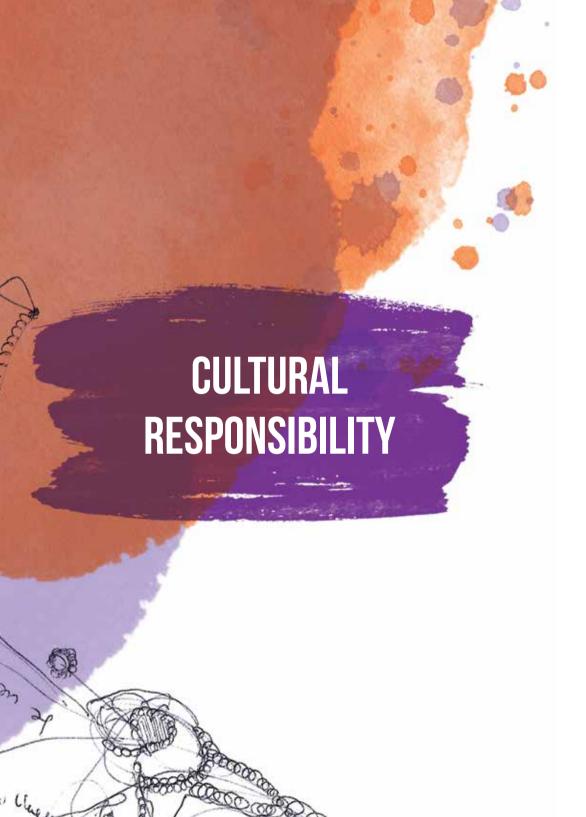
Add time to a complex system and relationships shift in response to responses. In a scientific study, contradictions and paradoxes are a problem, but in warm data, they give us hints about where a system will be resistant to intervention or might instead be open to shifting. Paradoxes are portals into relational process.



In studying a family, we might want to zoom in and focus on one family member, but we'll also want to zoom out and study the relationship between the family members, their community and their ecology.

The scientific method involves breaking things down and studying each part. But when you break a system into its parts, you break it.

Reductionism can obscure the interrelationships that weren't within any of the parts. And when an insight is extracted from one context and transplanted elsewhere, the unintended consequences can be disastrous. So Warm Data asks, "What can we perceive if the practice of pulling things out of context is balanced by also studying them within context?"

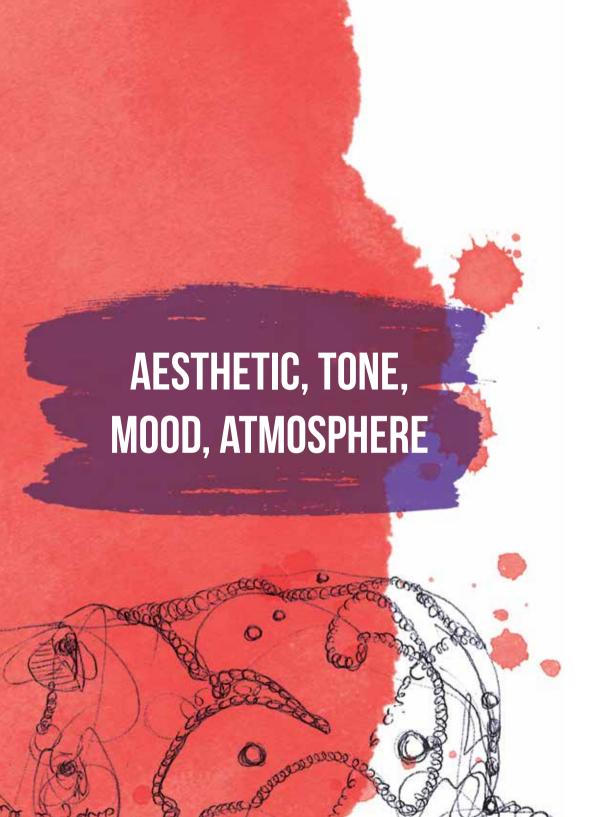


In a family, the interaction between child and parent, or parent and grandparent can be filled with misunderstanding due to generational blind spots.

This is often painful and disorienting, but such interactions can also reveal the edges of our own assumptions about how the world works.

Everyone has blind spots. All ways of knowing are culturally informed. In the West, the education systems, the institutions and even what is thought of as "knowledge" are all deeply influenced by the cultural history of the scientific method, which itself has blind spots, particularly when it comes to interrelational complexity.

Of course, the frustrating thing about our blind spots is that they tend to be invisible to us. Interacting with others and their different ways of perceiving can help us become aware of our own blind spots. Taking responsibility for the limitations that our lens brings can also bring awareness to assumptions that were previously invisible.



We've all witnessed joyous families. And we've been in households filled with tension. What can a child NOT SAY in a tense household that might bubble up freely in a joyous one? Who is it possible for them TO BE?

The aesthetic or tone of a system is not just background, it is context that influences how the relationships and communication form.

Familiarity with tone and aesthetic can help us recognize the logic of the communication — the question then becomes, "What can be brought to the tone that will allow for new communication to emerge?"

# IN ADDITION TO THOSE 7 CRITERIA FOR WARM DATA, ANOTHER CONCEPT CAN BE USEFUL TO KEEP IN MIND:

"I would like to propose a new word for 'System' that refers specifically to living systems – that is, to systems composed of living vitae, which emerge from their communications and interactions. The expression and communication of interdependency and, particularly, mutual learning should be implicit in the term. The existing word, 'system', while useful for discussion of many kinds of systems, does not communicate contextual fields of simultaneous learning as is necessary for life."

"Biology, culture, and society are dependent at all levels upon the vitality of interaction they produce both internally and externally. A body, a family, a forest or a city can each be described as a buzzing hive of communication between and within its living, interacting 'parts.' Together the organs of your body allow you to make sense of the world around you. A jungle can be understood best as a conversation among its flora and fauna, including the insects, the fungi of decay, and contact with humanity. Interaction is what creates and vitalizes the integrity of the living world. Over time, the ongoing survival of the organisms in their environments requires that there be learning, and learning to learn, together.

Gregory Bateson said, "The evolution is in the context." So why don't we have a word for those bodies, families, forests and other buzzing hives of communication—and for the mutual learning that takes place within those living contexts?"

- From Symmathesy, a word in progress by Nora Bateson

# **SYMMATHESY**

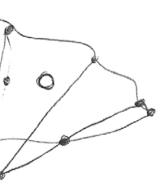
An entity formed by contextual mutual learning through interaction.





"How do we think our way through the messes we're in when the way we think is part of the mess?" -Nora Bateson

# WHAT IS A WARM DATA LAB?



Like the heads of the mythological Hydra the crises are many now. But in our silo-ed world, the crises that we perceive and address are also silo-ed, as is the habit of finding silo-ed solutions. Much like chopping off the Hydra's heads, the resulting solutions that do not address the complexity seem only to generate more consequences.

Thinking in complexity requires an ability to perceive multiple perspectives and contexts. The Warm Data Lab process creates a living kaleidoscope of conversation in which cross-contextual knowing is generated and interdependencies are illuminated.

A well-facilitated Warm Data Lab is an artful balance between opening the group's horizon of learning and facilitating rigorous and multi-faceted discoveries. The magic is in participants' own connection and learning, which cannot be funneled into any particular knowledge.

Developed by Nora Bateson over the last seven years, the Warm Data Lab is offered by certified facilitators to groups interested in practicing and strengthening their collective ability to perceive, discuss and respond effectively to complex or 'wicked' issues. It is not dependent on knowledge or skill but both increase in an atmosphere of mutual learning.

The lab can appear simple, but there is a lot of complexity hidden within that simplicity. Certified facilitators have been trained in extensive theory and guided practice to help them design labs that foster a rich dynamic of mutual learning and avoid the many hidden landmines that can undermine the generativeness of a Warm Data Lab.

# HOW A WARM DATA LAB WORKS

After an introduction to Warm Data, the certified facilitator opens up a lively and constantly evolving series of small group conversations by presenting a single topic, carefully crafted for that particular event and inviting the participants to discuss that topic through a handful of curated contextual lenses. For instance, the group might explore the topic "What is Well-being in a changing world?" through contexts such as Family, Ecology, Economy, Education, Culture and more.

Participants are invited to explore the contexts that are of interest to them and to shift to a different context as soon as they realize that they might want to investigate something else. After each participant has had an opportunity to explore the topic from multiple vantage points, the group will gather all back together to share surprises and insights.

From start to finish, a Warm Data Lab event typically takes only between 2 to 2.5 hours, but the shifting of perspectives often continues to bubble for days or even weeks after a lab. Many participants find that they want to continue discussing or exploring these concepts in the following days and so a video conference channel has been made available so that participants can connect with other people for ongoing mutual learning.

#### Mutual Learning via Video Conference

For those wanting to connect for ongoing mutual learning about warm data, you can access the conversation schedule and links to the video conference channel at: https://bit.ly/ExploreWarmData

### Want to arrange a Warm Data Lab?

Hundreds of certified facilitators are available to help design and host a lab for your group.

**Interested in becoming a certified Warm Data Lab facilitator?** Upcoming facilitator trainings are being scheduled in various parts of the globe.

For more information about arranging a lab or attending a training, visit batesoninstitute.org or email bateson.institute@gmail.com or matthew.schutte@holo.host

### **Credits**

Nora Bateson, Bateson Institute Matthew Schutte, Holochain Lucas Tauil de Freitas, Holochain Graphic Design: Renato Inacio, fluencydesign.com.br Cover Art: Samuel Papiro

### From the cover:

Lenee e circolo
"Se vedi una linea, raccontami che circolo compie.
Se vedi un circolo, raccontami da che linee é fatto."

Line and circle

"If you see a line, tell me what circle it makes.

If you see a circle, tell me which lines it is made from."

### Nora Bateson,

is an award-winning filmmaker, research designer, writer, and educator, as well as President of the International Bateson Institute based in Sweden. Her work asks the question "How we can improve our perception of the complexity we live within, so we may improve our interaction with the world?" An international lecturer, researcher, and writer, Nora wrote, directed and produced the award-winning documentary, An Ecology of Mind, a portrait of her father, Gregory Bateson. Her work brings the fields of biology, cognition, art, anthropology, psychology, and information technology together into a study of the patterns in the ecology of living systems. Her book, Small Arcs of Larger Circles released by Triarchy Press, UK, 2016 is a revolutionary personal approach to the study of systems and complexity, and the core text of the Harvard University LILA program 2017-18. Her new book, Warm Data, will be released in 2020 by Triarchy Press. Nora was the recipient of this year's Neil Postman Award for Career Achievement in Public Intellectual Activity.

### Matthew Schutte,

is a Certified Warm Data Lab Facilitator and the Applied Philosopher for Holochain, a new framework for powering peer-to-peer applications. Matthew believes that new patterns of social interaction will come from new understandings of life, not from forcing structural change or policy. If we are to meet the challenges that we face, our solutions will need to emerge in context, informed by the lived experience of the people making use of them. Matthew is working to shift and re-vitalize our capacities for communication and coordination both at a technical level with Holochain and through the shifts in worldview that Warm Data Labs enable. Matthew is an international speaker, a graduate of UC Berkeley School of Law and sometimes surfs 10 - 15 meter waves at the world-famous Mayericks near his home in San Francisco.

### "The shape of the response needs to meet the shape of the trouble" -Nora Bateson

"As a policy maker and data analyst, I cannot overstate the importance of this work, the inspiration, the richness, the depth and variety held in this workshop is simply invaluable."

-Audrey Lobo-Pulo, Founding Board Member, Open Data Australia and Founder, Phoensight

"There is growing pressure to divide and distill environmental and social issues into smallest parts and put them in separate drawers in order to understand them and to solve them (..) (Nora) lays ground for new insights and ways to work across climate and ecological crises."

-Mihela Hladin Wolfe, Director of Environmental Initiatives, EMEA, Patagonia Europe

"One of the biggest shifts in my thinking thanks to the warm data lab has been around the nature of technology. I used to believe that technology was inherently neutral, but I now see that line of reasoning as naïve.

A technology does not exist independently from its contexts. And these contexts are part of complex systems. So it's clear to me now that we need to think hard about whether certain technologies should ever be built or released."

-David Jones, Executive Producer/Principal Program Manager,
Office Envisioning, Microsoft

