

The Four Complexities

Effective Definition of Complexity in Use	Structural Complexity	Emergent Complexity	Exploratory Complexity	Responsive Complexity
Source	great many variables, lots of moving parts (This is what common language calls complex.)	highly interdependent, non-linear, mutual causality	interdependency is unpredictable, lack of obvious control levers	massive entanglement, deep structure, unbounded system
“Donald Rumsfeld’s Window”	knowns are known (or knowable at least) <i>If we don’t know it, we can research it some more, and then manage it better.</i>	known unknowns (we’ll know them before “mission accomplished”) <i>We know we don’t know it, so we’ll discover it empirically with an iterative approach.</i>	unknown knowns (let’s find out what we don’t know we already know) <i>We don’t know what we already know, but creative approaches will reveal all.</i>	unknown unknowns (we can never know all that we don’t know—and we’ll deal with that) <i>“What ever happens is the only thing that could.” Let’s do this thing!</i>
Example In Common Language a Colleague Might Say...	“This massive database project is super complex because there are so many dependencies, on so many people and departments, in so many timezones. We need a great project manager to help us manage this complexity.”	“Our product, and our customer’s needs, are very complex for us to analyse all requirements upfront. The best result will emerge as we inspect and adapt. Let’s prioritised our agile backlog to remove uncertainty first.”	“Innovation is a complex undertaking and process, We have many creative discovery practices and tools to help us explore the market and our customer’s needs. We will disrupt our market, or the world—after this workshop.”	“These problems are so complex we may never solve them, but we must try because we can’t afford not to solve them.”
Approaches	traditional project manager, project management software, mapping, charting	intro-level Agile and/or scrum as often practiced. I believe Ken Schwaber (and also Jeff Sutherland) explicitly positioned Scrum to be an empirical iterative approach for managing this kind of complexity.	design thinking, service design thinking, exploratory design, exploratory testing, impact mapping	beta, Open Space Leadership (and OST), Sociocracy, responsive or adaptive action, service design <i>doing</i>
Who is found wrangling it	a traditional PM and hands-on leadership	a team, SM or team coach, a PO or equivalent, and other direction setting leadership with goals and objectives	a self-organising team with designers and facilitators and visionary, adaptive leadership	everyone(?)
Effective Leadership’s Question	What are the differences that make a difference?	How can our vision support trade-offs that create success for all?	What data and research? So what meaning is made? Now what will you do?	What will create the simplest conditions for successful patterns to emerge?
Responsive Complexity / Adaptive Action	<p>In an open system, each definition of complexity can be <u>present</u>, <u>viable</u>, <u>valid</u> and <u>useful</u> <i>at the same time</i>. If you constrain the system (bound it or close it) you will often collapse the definitions of complexity and eliminate definitions that could be <u>present</u>, <u>viable</u>, <u>valid</u> and <u>useful</u>. Is it what you want? Or not?</p> <p style="text-align: center;">Inspect</p> <p style="text-align: center;">What definition(s) of complexity are you using in this conversation or situation? What about other actors with whom you interact? What definition are they using?</p> <p style="text-align: center;">Make Meaning</p> <p style="text-align: center;">So what is known and what is unknown right now? So what definition(s) of complexity could useful, or fit for purpose, now?</p> <p style="text-align: center;">Responsive Action</p> <p style="text-align: center;">Now what can you do to work from the useful definition(s) of complexity?</p>			

