

Hybrid Competitiveness

Managing Human–Algorithmic Coexistence in Organizations

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Introducing artificial intelligence requires decisions that directly affect an organization's ability to respond to its clients and users: what knowledge it can integrate, what solutions it can conceive, how it can produce them, and what responsibilities it can take on. Whether these possibilities develop depends on how relationships among people, artificial entities, and available resources are organized. When those relationships are left unmanaged, AI can speed up tasks without building capabilities. What develops may not last beyond the pilot. Tasks that helped early-career professionals build expertise may be automated without alternative learning opportunities, and it may become difficult to reconstruct what was delegated to artificial entities.

Hybrid competitiveness is the capability to provide distinctive, relevant responses to specific demands. It arises from human–algorithmic coexistence. It is hybrid because those responses develop through the interaction of human and algorithmic capabilities. Their competitive value is assessed against available alternatives, including current practice, using criteria such as quality, usefulness, access, time, cost, or new possibilities for action.

Generative Change Management (GChM) proposes an intervention model for managing the conditions that enable this capability to develop. The model connects three areas of decision-making that correspond to its dimensions (Figure 1): expanding professional contribution, innovating in the organization of production, and setting the direction of the organizational project—the shared purposes and commitments that guide the organization's work and development. It replaces a linear, calendar-driven approach to intervention with a fractal logic: the same pattern applies to configurations at different scales, from a person working with an artificial entity to several units working together. What develops through each intervention becomes part of the conditions for the next.

The model starts from a premise: in coexistence with artificial entities, what we do and who we are at work change together. This ontological change in who people are as professionals is visible in the contributions they make, the recognition they receive, and their participation in decisions. The value of expertise changes as tasks once considered exclusive to human judgment can be performed with artificial entities. This shifts the boundaries of professional practice and what people can accomplish in their roles. A new way of producing solutions can make previously unthinkable professional contributions possible. To make those contributions, people need resources, recognition, and participation in decision-making. In turn, their contributions can change the services the organization offers and the demands it can address.

The demand and the unit of intervention

An intervention starts with a specific demand, which may concern a current difficulty or an opportunity for development: addressing needs that existing offerings do not meet, bringing together dispersed knowledge, or conceiving solutions that require different forms of collaboration. Defining the demand clarifies for whom the response should make a difference and the criteria for assessing its value.

The unit of intervention comprises the people, artificial entities, knowledge, resources, and relationships involved in responding to that demand. Its scope depends on the work to be done and may extend beyond the boundaries of a team or department.

Assessing what has developed requires an identifiable baseline: what the unit could do, how it framed the problem, how it organized production, and who participated in decisions. This baseline makes it possible to examine what changed and which conditions made that change possible.

GChM brings together three operations:

Expand capabilities: develop what people and artificial entities can conceive and accomplish through their relationships.

Innovate in production workflows: reorganize how problems are framed, proposals are developed, decisions are made, work is carried out, and results are reviewed.

Ensure responsible traceability: make it possible to reconstruct how a response was produced, what was delegated, and who can intervene and be accountable for its consequences.

These operations are addressed together. Traceability applies to both capability development and production reorganization. One criterion guides the rest of the model: a capability exists when what has developed can be used again, reviewed, and brought into collaborative work. If it remains tied to the episode that produced it, it is a use case that has not yet developed into a capability.

Dimensions and intervention decisions

GChM's axes help identify which conditions to address. Each dimension contains three categories of intervention. Their relevance depends on the demand being addressed, the possibilities for transformation, and the relationships that sustain the work.

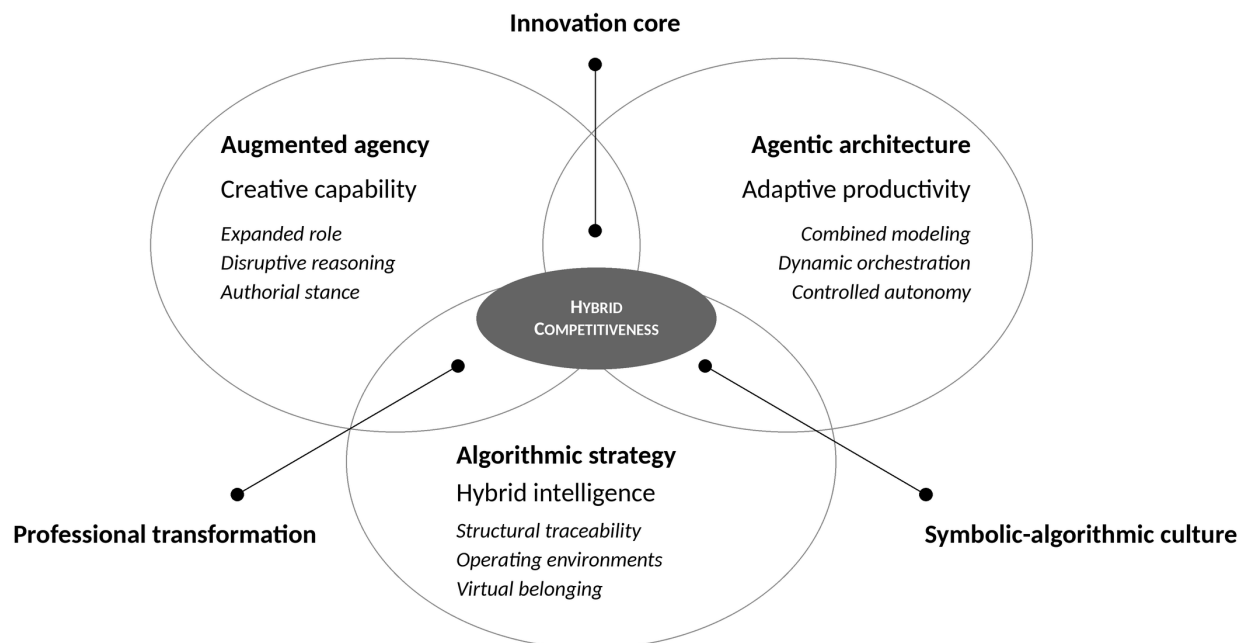


Figure 1. GChM architecture.

An intervention may focus on one or more axes. For example, expanding a person's professional contribution may require changes in both how it is recognized and what is delegated within the production workflow. Effects are examined across all three dimensions because professional, production, and strategic conditions influence one another. The emergents shown between the dimensions—configurations of capability, identity, and meaning—are described in the section on assessing what has developed.

Dimension	Intervention axis	Decisions it guides
Augmented agency Professional contribution	Expanded role	What new contributions a person can make beyond their current job, profession, or knowledge, and what conditions they need to make them.
	Disruptive reasoning	Which disciplinary perspectives to bring in to reconsider the problem definition, hypotheses, and possible solutions.
	Authorial stance	What is delegated, how it is reviewed, and which responsibilities and ethical criteria guide professional participation.
Agentic architecture Organization of production	Combined modeling	How to integrate human and algorithmic capabilities, distribute work, and determine what is shared, automated, and audited.
	Dynamic orchestration	How to coordinate participants, resources, and information to respond to varied demands and reorganize the workflow when necessary.
	Controlled autonomy	Which decisions artificial entities can make and which actions they can take, given their demonstrated capabilities, the risks, and the available means of review.
Algorithmic strategy Direction of the organizational project	Structural traceability	Which future possibilities to pursue and which present conditions must change to make them achievable.
	Operating environments	Which interfaces, languages, and collaborative spaces enable people and artificial entities to develop responses together.
	Virtual belonging	How to manage trust, commitment, autonomy, and leadership to align contributions with a shared mission.

Table 1. GChM dimensions, axes, and intervention decisions.

Agentic architecture organizes human and algorithmic contributions to production; it does not require autonomous agents. The scope of autonomy is calibrated to demonstrated capabilities, risks, and available review mechanisms.

Algorithmic strategy refers to the direction of the organizational project when artificial entities take part in conceiving possible futures and making decisions; it is distinct from policies for selecting or governing AI models.

Virtual belonging refers to people's identification with the organizational project. The term does not mean remote work or attribute a human experience of belonging to artificial entities.

The fractal logic of intervention

Fractal logic maintains a common pattern across configurations at different scales. In a person's relationship with an artificial entity, in a team, or in a network of units, the same three operations are combined, and the relationship among professional contribution, production, and the organizational project is examined. The participants, resources, demands, and relevant intervention axes vary.

Changes to delegation, access, criteria, or forms of recognition change how participants can coordinate. As they work, people and artificial entities adjust their exchanges in response to the difficulties and opportunities they encounter. This self-organization takes place under conditions that management can shape and review.

Management sets and reviews these conditions: purposes, access to information and artificial entities, responsibilities, and limits of autonomy. It also determines who controls the instructions, stored memory, and criteria the entities use, and what happens to these resources if the person who developed them leaves. Dialogue quality is one of these conditions: asking an entity to test a hypothesis opens a different exchange than asking it to draft a conclusion. The exchange itself takes shape as the work proceeds.

Each intervention may open up a possibility, reveal a dependency, or require a different allocation of decision-making authority. What develops becomes part of the conditions for subsequent interventions. Evidence guides decisions about whether to deepen the work within the same unit, revisit the demand, or address the unit's relationships with other units. The schedule coordinates resources and reviews.

Greater sophistication is evident in the problems that can be addressed, the knowledge that can be integrated, and the range of responses that can be sustained responsibly. A configuration can develop through clearer coordination and fewer dependencies.

An example of intervention

A hypothetical example illustrates these decisions. A professional services firm needs to develop proposals for clients whose needs fall outside its standard service offering. The team has sales information, technical knowledge, and operational experience, but these resources remain fragmented during solution design.

The intervention focuses on disruptive reasoning and combined modeling. Professionals from different specialties and artificial entities compare interpretations of the problem, develop alternatives, and examine the conditions needed to implement them. Management provides access to relevant information, sets limits on what can be delegated, and assigns responsibility for the criteria used and the proposals presented.

During this work, someone who previously prepared sales documentation begins contributing to solution design. This possibility requires examining their knowledge, decision-making authority, and how their contribution is recognized. If the resulting proposals involve services the firm does not yet offer, the strategic and production conditions needed to deliver them must also be reviewed.

The next intervention depends on what is observed. It could address that professional contribution, a coordination problem, or the conditions needed to develop the new offering. The three questions in the next section guide this decision. If the new contribution remains confined to the person's own work and does not inform the team's proposals or decisions, it has not yet acquired organizational scope. If the team can use and review it in shared work and reconstruct who decided what, it has developed a capability. That capability may still depend on the person's specific knowledge and need not extend beyond the team. The person's professional position has changed if they now participate in design decisions with authority and recognition. Value is assessed by comparing clients' responses to the new proposals with their responses to the firm's usual proposals, considering acceptance, fit with client needs, time, and cost.

Assessing what has developed

The assessment distinguishes three related questions.

1. What capability has developed? What the unit can now conceive or accomplish compared with its earlier situation, how that possibility took shape, and what allows it to be used again, adapted, and reviewed collectively. For example, problems the unit can now solve that it previously referred elsewhere or declined to take on.

2. What has changed in people's professional position? What contributions people can make, with what knowledge and responsibilities, what recognition they receive, and how they participate in decisions. For example, newly assigned decision-making authority or formally recognized responsibilities.

3. What value do the responses provide? What difference they make for their recipients compared with available alternatives, and under what conditions that difference can be sustained. For example, proposal acceptance, response times, or costs compared with previous practice.

The findings from these assessments may differ. Higher performance can coexist with an unchanged professional position. A new contribution may require changes in production before it creates value for its recipients. Recognizing these differences helps guide the next intervention.

GChM's three emergents help interpret what has developed through the relationships among the dimensions and address management questions.

- The innovation core makes it possible to examine the distinctive ways of conceiving and producing solutions that develop through professional contributions and the organization of production. It shows whether the unit has developed a distinctive way of producing solutions.
- Professional transformation makes it possible to identify changes in expertise, people's understanding of their own capabilities, and their actual ability to decide what to learn, propose, take on, or delegate. It shows whether the person's professional position has changed or they are simply working faster.
- Symbolic-algorithmic culture makes it possible to examine the shared criteria for validity, recognition, and belonging that sustain human and algorithmic participation in the organizational project. It shows how working criteria are shared, contributions are recognized, and participation is sustained. It also helps assess what sustains this way of working when participants change.

Taken together, they help us see that a pilot can succeed without a capability having developed.

These emergents also change the conditions for subsequent development: a recognized contribution may enable new decisions; a way of organizing production may make it possible to address another demand; and a shared criterion may allow more participants to help develop and review responses.

What each intervention provides

Each intervention provides the organization with results it can review and use in subsequent decisions:

- A baseline for the unit: what it could do, how it framed problems, how it organized production, and who made decisions.
- Management decisions on access, what is delegated, limits of autonomy, and recognition of new contributions.
- Evidence of which capabilities developed, what changed in people's professional position, and what value the responses provide, including conditions that still need to be addressed.
- A map showing where what has developed is retained, which people and resources it depends on, and who controls the instructions and criteria.
- A recommendation for the next intervention: address another axis within the same unit, revisit the demand, or apply the same pattern in another unit.

An organization that works this way invests in capabilities as well as tools, develops its professionals through work with AI, and can reconstruct its decisions. Hybrid competitiveness becomes evident when those capabilities generate responses that recipients find valuable in comparison with available alternatives.

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