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Definition

Polymathy

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“Polymathy is a lifelong, expansive approach to the pursuit, development, and application of knowledge, distinguished by the conjunction of breadth, depth, and integration.”

Building on the Developmental Model of Polymathy (Araki, 2015, 2018, 2020; Araki & Cotellessa, 2020), polymathy is conceived here as a mode of engagement with life (particularly with learning, knowing, and doing) rather than as a status label. It describes a patterned way of engaging with knowledge, understood broadly to include formal and informal learning, autodidactic activity, and meaningful personal experience. This framing emphasizes not only how learning is acquired, but how it is developed, refined, and enacted over time. Polymathy as a life project (Araki, 2018) therefore goes beyond an inventory of competencies or achievements to describe a way of living with and through knowledge.

Below, I unpack what each element of the definition is doing and justify its irreplaceable role in the definition.

“Lifelong” points to the persistence of a polymathic orientation across the life course, including cycles of (re-)engagement through changing roles, constraints, motivations, aspirations, opportunities, and projects (see also "networks of enterprise," Gruber, 1988). Thus, polymathy as a life project goes beyond a phase-bound period of broad learning or a single extended project.

“Expansive” foreshadows that a polymathic life project involves growth. Drawing on the Triadic Approach to Polymathy (Araki, 2025), it is not any kind of growth that is polymathic, but one which unfolds along polymathy's three jointly defining dimensions: breadth, depth, and integration.

“Approach” signals that polymathy is an enduring orientation or strategy toward lifelong knowledge, whether deliberately cultivated or emergent over time. It implies a guiding lens that shapes choices about allocation, sequencing, and evaluation of one's polymathic efforts under specific contexts and constraints.

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The expression “pursuit, development, and application of knowledge” should be read as a continuous cycle rather than as three very compartmentalized stages. Pursuit denotes the active seeking of new knowledge, learning opportunities, and experiences. Development denotes the work of honing (Gabora, 2017), deepening, and structuring what is encountered into more useful (or personally meaningful) understanding and skill. Application denotes enactment: using, testing, expressing, and externalizing knowledge through action, problem solving, creation, contribution, or leadership. Application is not the endpoint; it often generates new adjacent possibles (Kaufman, 2000) along with new constraints that influence and can reshape subsequent pursuit and development, rendering the cycle recursive over time.

“Knowledge” specifies the central object of the approach. It is intentionally broad here to encompass conceptual understanding, tacit learning, procedural skill, practical know-how, as well as autodidactic and experiential learning.

“Distinguished by” introduces the differentiating criterion, signaling what makes polymathy specifically polymathy rather than general learning, curiosity, or expertise.

“Conjunction” is a critical logical operator. It denotes co-presence: breadth, depth, and integration are mutually necessary rather than substitutable. One cannot compensate for the absence of depth with additional breadth, or for lack of integration with isolated mastery. Full-range polymathy is therefore not reducible to “many interests” or “much expertise.”

“Breadth” specifies expansion in range, variety, diversity, and coverage, in contrast to narrow specialization.

“Depth” specifies expansion in development within selected areas, referring to movement beyond superficial familiarity toward robust and nuanced understanding or high-level skill.

“Integration” specifies expansion in relational linkage. It refers to the processes that connect knowledge across domains, roles, activities, and identities, generating synergies rather than compartmentlized accumulation. Integration converts a portfolio of knowledges (Burke, 2012) into an internally-connected system capable of distinctive generativity, and is therefore central to creative polymathy (vis a vis passive polymathy and the mere accumulation of knowledge).

Declarations

Potential competing interests: No potential competing interests to declare.