

# EDUCATION FOR THE FUTURE: THE EMERGING PARADIGM OF THRIVABLE EDUCATION

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A new education paradigm is emerging to address the need to educate a planetary citizenry under conditions relevant to the living context of our planet. Key to this new paradigm is the emphasis on lifelong learning and empathy-oriented education—both critical ingredients to the transformative role of education for individual and collective thriving. This article explores the parameters of this role and the indicators that point to its emerging presence in a variety of education contexts, both formal and informal as well as virtual and face-to-face.

*KEYWORDS: Evolutionary learning community, lifelong learning, thriving, empathy-oriented education, sociotechnical systems design, systemic innovation*

## THE EMERGENCE OF THRIVABLE EDUCATION

Education is perhaps the slowest of all sectors of institutionalized human social activity to change (cf. Banathy, 1992). It has often been remarked that if one were to take an educator like Benjamin Franklin and drop him into a contemporary classroom, he would feel perfectly at home with what was going on (although certain technological advances in the delivery and support of the teaching process would indubitably seem outlandish).

Education, in and of itself, is neither irrelevant nor outmoded. However, the current need to educate a planetary citizenry under conditions relevant to the living context of our planet is palpable. A new education paradigm must take its cue from the life sciences—biomimicry, ecosystem studies, permaculture and the like, and from the sciences of complexity—complex adaptive systems theory, second order cybernetics, social systems dynamics, and the emerging field of systemic innovation.

The crumbling educational system of the past disconnects the learner from life through mechanistic worldviews. Factory-style education—where students are grouped according to age, learn at the same pace as determined by the conveyor-belt of course delivery, and have knowledge instilled in them through rote memorization and regular testing—has entirely ceased to serve the needs of our rapidly

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evolving time. Graduation from this system fails to ensure the lifelong learning competencies necessary for constructive engagement with an ever-changing world. Given the technological limitations and cultural constraints of the past, the scaling of education through the mechanization of this process did indeed serve the needs of the time as well as it could. But times have changed, and so have educational technologies and paradigms. New horizons have opened up and a new education system is emerging.

All over the world, more dynamic, systemic, evolutionary systems of learning have begun to flourish. Both young people and adults crave learning that is fun, engaging, challenging, and that connects them to the pulse of life. As we learn more about how the human brain functions, we begin to feed our need for dwelling in stories (how the mind remembers) and playing to human incentives by engaging in game dynamics. What comes about through such processes known as the *gamification of education* is best termed *ludic*<sup>1</sup> learning.

Gaming culture infects learning globally. Massively Multiplayer Online Games bring people together to collaborate for shared wins. The pleasurable rewards from this activity infect the expectations of young people. Where once we were “cheating” by sharing our knowledge with others, we now recognize such behavior as the sort of desirable collaboration and networked intelligence crucial for real world action. Such interactive frames bring with them a new literacy. Icons representing various system states and dynamic read-outs of environmental conditions provide visual analogs of key indicators of the flux and flow of health in the virtual environment, creating a tapestry of symbolic meaning akin to what fighter pilots learn to process from their jet consoles. It should be no surprise then that students who thrive in these dynamic and complex environments, rewiring their brains for such mental gymnastics, suffer and languish when asked to process the stultifying static information that comes off printed text in linear language.

As a species, we now strive toward human and ecosystem flourishing—not as an educational vocation or pastime, but as an increasingly recognized prerequisite for all of humanity to continue to co-exist in and contribute to the web of life on Earth. We crave *thrivability*: integral prosperity and flourishing, for ourselves and our children. The need to be adaptive and agile in changing environments is ever more clear. *Thrivability* gives well-being and conviviality primacy. To thrive is to create more value than you consume; to be generative by expanding, enriching, or evolving the systems within which you live. Rather than static, highly specialized knowledge, which we have learned how to develop quite proficiently, we lean toward requisite variety and integration in service of conviviality with all the living beings and life support systems in our milieu.

*Thrivability* builds on sustainability’s lessons and wisdom. It transcends sustainability partly because it adds a framework for understanding how to navigate complexity in turbulent environments. Drawing on lessons from the life sciences and from quantum field theory and scalar field theory, *thrivable* education teaches about emergence in complex adaptive systems. It does so by preparing learners for multiple roles in their living ecosystems: roles that naturally involve a panarchy of relationships. Panarchy, as an organizing principle of complex adaptive systems,

suggests that all systems embed and are embedded in dynamic contexts involving other systems, and that when effectively—and affectively—aligned, they self-organize for optimal functionality. This intertwining<sup>2</sup> of systemic relations leads to a manifest conviviality in thriving systems and the ecosystems that embed them.

One of the interesting insights into thriving systems from contemporary science has to do with the phenomenon of coherence in thriving systems. It is now understood that liquid water is made up of networks of “coherence domains”—regions in which the molecules act in phase. This is called coherence. What is interesting and particularly significant for the dynamics of thriving systems that give rise to conviviality is that when sets of coherence domains come into coherence among themselves, an emergent phenomenon known as “super-coherence” occurs. As it turns out, only dissipative systems—ones capable of exporting to their environment the entropy they produce—are capable of super-coherence. A system composed of super-coherent sub-systems is highly resonant. That is, it carries, sustains, and conveys patterns of health and wellbeing so long as it is not actively destabilized in its resonant milieu (cf. Laszlo & Laszlo 2016). When brought to the level of human social and societal systems, this phenomenon is expressed in terms of hyper-connectivity.

Ross Dawson (2010) describes the phenomenon of hyper-connectivity as an emergent property of our globalizing sets of relationships. As we become ever more intertwined, the potential for super-coherence among the social systems in which we live, conduct business, and manipulate our environment offers the promise of deep conviviality with such high levels of thriving systems as could only be ascribed to the emergence of societal super-organisms. These living networks of convivial communities of practice, of interest, and of place lay the foundation for a global eco-civilization in which humanity takes on the role of curators of planetary thriving.

But it could just as easily go in the other direction. What emerges as synergetic intertwining when thriving systems is consciously curated can degrade toward negative synergetic entanglement when myopic and ego-centric perspectives dominate. Without an educational framework that nurtures super-coherence in our societal systems, and coherence at the individual level of our psycho-emotional selves, we run the risk of creating ever larger networks of dysfunctionality.

Key to thriving education is the focus on the coherence domains of the learner in the context of their living environment. There are four coherence domains for human thriving:

1. At the first coherence domain—conviviality with oneself; personal or internal thriving systems—the practices involve centering, quieting the monkey-mind, listening with every cell of our being. These practices cultivate intuition, empathy, compassion, insight that matches insight, and a willingness to explore and follow our deepest calling.
2. At the second coherence domain—conviviality with others; community or interpersonal thriving systems—the practice involves deep dialogue and collaboration. Coming together to learn with and from each other and to engage in

coordinated action with considerateness, openness, and joy to enable collective wisdom.

3. At the third coherence domain—conviviality with nature; ecosystemic or transpersonal sustainability—the practices involve communing; listening to the messages of all beings (whether they be waterfalls, animals, or galaxies) and acknowledging our interdependence and ultimate unity.
4. At the fourth coherence domain—conviviality with the flows of being and becoming; evolutionary or integral thriving—the practices involve learning to read the patterns of change of which we are a part; becoming familiar with the improvisational jam session that nature has been playing since time immemorial. These practices cultivate our ability to sing and dance our own path into existence in harmony with the grand patterns of cosmic creation and to participate in the ongoing flourishing of life.

Super-coherence occurs when all four coherence domains become coherently aligned in daily practice, resulting in an integral engagement with thriving. As such, thriving education is keyed to these practices—always promoting a spirit of innovation in the learner. Just as the survival imperative for every business is to have a clear answer to the question, “innovate for what?,” so the thriving imperative for every educational institution is to have a clear answer to the question, “educate for what?” (For more on the thriving imperative, see Paul Radde’s, 2002 book *Thrival!*)

The Massive Open Online Course of the early second decade of the 21st century is giving way to more direction, generating educational models now and in the decades to come (see McAuley, Stewart, Siemens, & Cormier, 2010). There have already been many efforts to massify and democratize education in the early 2010s, ranging from online academies to prestigious multi-university collaborations that offer free and remarkable online libraries of lessons worth sharing. Additionally, cross-organizational standards are now being devised to help learners and those who work with them to understand proficiencies across various programs, online or offline.

Yet few provide education with an explicit purpose dedicated to thriving. One example of this educational orientation that emerged at the beginning of the 2010s was the revolutionary educational offering of the Giordano Bruno University (GBU; aka, the Giordano Bruno Global*Shift* University; the Giordano Bruno World University). The stated educational purpose of GBU was “to create informed and ethical agents of change who will bring a new consciousness, a fresh voice and up-to-date thinking to the international community, transforming obsolete paradigms and empowering the co-creation of an equitable, responsible and sustainable world.” Such an education creates futures—specifically, thriving futures. More and more, this will become the pathway for a post-relativistic, visionary, and future-creating educational paradigm that reverses the trend toward “feel good” education based on teaching whatever the market demands, as has been well documented in the research article, “Virtual Learning in a Socially Digitized World” (Laszlo, Rowland, Johnston, & Taylor, 2012).

As we shift from single solution, positivistic forms of learning to evolutionary biomimetic frames where learners co-evolve solutions in all four coherence domains mentioned above, students learn in the moment with fewer pre-set answers and more open inquiries. Both young students and adult learners learn in peer groups: peer-to-peer discovery facilitated by learning guides and active listeners rather than by traditional subject matter experts. Organizations such as the Peer to Peer Foundation (<http://p2pfoundation.net/>) are leading the way with processes that facilitate the self-knowledge and self-awareness of this movement toward peer learning and practice. Self-organizing initiatives can evolve rapidly and powerfully with such new orientations, with organizations like Escuela Nueva (see <http://www.escuelanueva.org/portal/>) enabling child-centered collaborative learning to more than 5 million educationally disenfranchised people living in rural and urban poverty.

Decades from now, we will consider thrivable education as that which enables us to curate and nurture the past, present, and future of ecosystem relationships and health. As we develop greater relational intelligence of flows, using pattern languages and evolutionary systems frameworks, we move away from static and ego-centric knowledge production. We become a manifest form of networked intelligence, avoiding the myopia that resulted from factory-based education and specialization.

Thrivable education, while encouraging access to facts and data, focuses on how information is integrated and discerned. Rather than producing many graduates with the same knowledge, thrivable education nurtures diverse forms of intelligence and the ability to connect these forms in myriad ways to adapt to current and emerging conditions as needed. The shift comes, not from imposed changes from the management sector of education, but rather as demanded and prototyped at the edges of contemporary learning environments. This is exactly what is happening, as we witness exciting innovations emerging the world over.

Will Varey is a professional practitioner from Australia in sustainability and social strategic planning specializing in the psychodynamics of generative organizational change. He has created an area of learning based on “the systemic study of the nature of wellness and its causes, processes, development and consequences in emergent systems,” in contrast to the prevalent study of sick and dying systems and how to prevent them (cf. <http://www.apithology.com/>). This shift from a focus on pathology is termed *apithology*, combining the Latin prefix *apic-* (indicating apex) with the suffix *-logy* (meaning “the study of”). When applied to the area of educational concerns, apithology becomes *apithagogy*: “an inquiry into learning to discover the learning needs of a changing humanity as it learns about itself” (as defined by Varey on <http://apithagogy.blogspot.com/>).

Another example of emerging innovation in thrivable education comes from the work of systemic thinker and social entrepreneur Violeta Bulc of Slovenia and the InCo Movement she has started (cf. <http://www.incomovement.eu/>). As she says, the InCo Movement arose as “a movement for an innovative breakthrough whose aim is to promote active interstructural dialogue and development of tools for sustainable development of an innovative society” (<http://www.incomovement.eu/basic-info>). Yet another example comes from

management consultant and educator Stefan Blachfellner’s work out of Austria on the Change The Game Initiative, which was conceived as an umbrella movement for initiatives of all types that seek to “discover the interdependence between ethics and innovation and its impact on the social, ecological and economic sustainability of business models, organizations and societies at large” (<http://www.bcsss.org/research/fields-and-groups/change-the-game-innovation-lab/>). And the Mycelium School of Asheville, North Carolina (<http://www.myceliumschool.org/>) fosters the skills for learners to address root causes of social and environmental concerns while encouraging a rich, textured awareness of self.

In 2013 an initiative of the International Society for the Systems Sciences (ISSS) focused on scaffolding a World Evolutionary Learning Tribe for planetary thriving (<http://weltribe.weebly.com>). As a fundamentally educational initiative, the 57th annual conference of the ISSS focused on *Curating the Conditions for a Thrivable Planet: Systemic Leverage Points for Emerging a Global Eco-Civilization*. It sought to “contribute to an evolutionary narrative of the next phase of human civilization in a time of global personal awakening” (from the ISSS website, [http://iss.org/world/Hai\\_Phong\\_City\\_2013](http://iss.org/world/Hai_Phong_City_2013)). Efforts such as these are becoming increasingly prevalent and serve to underscore the need for thrivable education. The International Conferences on Collaboration and Intelligence in Blended Learning provide yet another example of emerging orientations to thrivable systems based on convivial relationships in learning processes (<https://conferencealerts.com/show-event?id=96525>). And in 2014, the 22nd European Meeting of Cybernetics and Systems Research was convened in Vienna, Austria, to focus on the topic of *Civilization at the Crossroads: Response and Responsibility of the Systems Sciences*, with special sessions dedicated to “The World Evolutionary Learning Tribe—Project Prospects, Plans and Promise” (cf. <http://emcsr.net/programme-2014/world-evolutionary-learning-tribe/>).

In a world where any documented fact can reach the fingers and minds of anyone with access to the Internet, the memorization of facts ceases to be a differentiator between individuals. Instead, the limited resource has become the creative combination, integration, and useful application of knowledge into networked production and customization. Research into the Thrivable Education Paradigm addresses the need for attention to this resource, and cultivates it through learning platforms that situate life-long learners in a world that is relevant and meaningful to them—now and into the future.

## RESEARCH INITIATIVES CURRENTLY UNDERWAY

Current research is being carried out through the establishment of a dedicated vehicle that picks up where the educational development and delivery model of the GBU (mentioned above) left off. Through a collaborative alliance between Kyung Hee University in South Korea (<http://www.khu.ac.kr/eng/outreach/vision.jsp>) and the Laszlo Institute for New Paradigm Research (<http://www.laszloinstitute.com/the-mission/>), groundwork is being laid for the establishment of a “GlobalShift University Leadership

Programme” that forwards a research agenda dedicated to the emergence of New Paradigm Education. This effort brings together a multicultural action-research team to curate the emergence of educational models, methods, curricula, and delivery platforms that both reflect the emerging cosmovision derived from cutting edge thinking in the sciences, while at the same time meeting the needs of a global generation of learners faced with the challenges of our times (Laszlo & Laszlo 2016).

Another fascinating and highly promising initiative is that of the *Global Education Futures* (GEF) forum (<http://edu2035.org>). GEF originated from many discussions, unconferences, workshops, and learning games held by the Russian educational innovator community from 2008 to 2010. Under the leadership of Pavel Luksha and Dmitry Peskov, GEF developed hundreds of systemic innovation projects in higher, vocational, and complementary education in Russia. Since 2014 it fostered collaboration on international projects in Africa, East Asia, and Latin America. Since then, GEF has become a truly international, transcultural, multidisciplinary, and transgenerational community of global visionaries and practitioners, internationally renowned educators, administrators of global educational institutions, ed tech entrepreneurs, national policy makers, international policy advisors, and more. In recent years, it has engaged over 500 leaders of education from over 50 countries of the world in over a dozen vision-building sessions on the future of education. These sessions have taken place in all parts of the planet, from Menlo Park, California and Buenos Aires, Argentina, to Auckland, New Zealand and Johannesburg, South Africa. A truly global “core” community of like-minded practice-oriented visionaries has started to emerge from these conversation events, with the groundbreaking 2017 Global Education Futures Report on *Educational Ecosystems for Societal Transformation* serving as an excellent example of a multi-author collaborative initiative, involving Pavel Luksha, Alexander Laszlo, Joshua Cubista, Mila Popovich, and Ivan Ninenko (soon to be posted in the Results section of the GEF website <http://edu2035.org/#results>).

Curating the emergence of a Community of Evolutionary Learning Labs (CELL) is one of the objectives of a spinoff project from GEF. The idea began at the 2016 GEF Conference in Moscow, Russia, and soon took on a life of its own. Would it be possible to bring together a living network of interconnected initiatives that are each exploring—in their own ways—what thriving learning environments look/feel/function like? Such a community of evolutionary learning communities could be, in and of itself, a living learning lab that both expresses and charts the characteristics of an emerging paradigm in education at the same time as it begins to manifest in the world. To this end, the Protopia Lab initiative was launched in 2016 (<http://www.protopialabs.org>) with a focus on action-connection meetings and events that synergize the interests and efforts of experimental, exploratory, and innovative educational initiatives—both formal and informal—from around the world. These events were called *Futurizers* (<http://www.protopialabs.org/futuriser.html>) as a way to distinguish them from less action-oriented events such as conferences, symposia, congresses, colloquia, conventions, and the like.

One of the many concrete manifestations of the CELL is emerging in Argentina in the shape of a doctoral program that seeks to prepare societal change leaders with an understanding of and appreciation for the complexities of truly integral systemic innovation. The Doctoral Program in *Leadership and Systemic Innovation* (LaSI) at the Buenos Aires Institute of Technology (ITBA) is grounded in the study of how sociocultural change is linked to the dynamics of innovation (<https://www.itba.edu.ar/doctoradoinnovacion/en.html>). This program is designed to incorporate the learning frames of systems thinking, collective intelligence, disruptive innovation, design thinking, biomimicry, and experimental prototyping in both course content as well as the structure and function of the evolutionary learning community that constitutes the interactive student/faculty base of the program itself. Such an operational framework of coherence, consonance, and connection expresses the goal of LaSI learners to “be the systems you wish to see in the world.” A solid grounding in the applied epistemology of systems thinking and the sciences of complexity, along with a core didactic axiology of empathy-based learning, make it possible for students in this program to explain what they see and experience as well as to work with each other on collective meaning-making frames for shared decision taking. As a result, decisions and actions regarding social and technological innovations that help cope with and address the challenges of change are taken from positions that are informed by feasible and desirable visions for emerging futures—ones that are not only sustainable, but also desirable and even thrivable, as well.

Education innovation that fosters systemic responses to the complexity of contemporary global and local challenges—personal, societal, planetary—require an expanded perspective: a way of recognizing interconnections, of perceiving wholes and parts, of acknowledging processes and structures, of blending apparent opposites. But most important for the new paradigm of thrivable education to take root and spread are learning environments that foster collaboration and an appreciation of reciprocity. This is the domain of Empathy Oriented Education (EOE) and Empathy Based Learning (EBL). As detailed in the article “Systemic Innovation, Education and the Social Impact of the Systems Sciences” (Laszlo, Luksha, & Karabeg, 2017), EOE focuses “on encouraging empathy and the ability to both listen and hear oneself and others in addition to such practical learning as financial literacy and how to deal with emergencies.” In an emerging global environment characterized by unprecedented information flows that foster new levels of connection, collaboration, consciousness, and compassion, there is a resounding need for such new paradigm education. The emerging paradigm of thrivable education fosters this sort of EBL—both personally and in the sense of our larger humanity—such that learners take on the mantle of evolutionary co-creator of a connected, compassionate, coherent, and consonant World Narrative.

In the 1960s, the Club of Rome coined the term “global problematique” to describe the complex entanglement of the collective challenges humanity faces at any given point in time. Initiatives such as the Doctoral Program in *Leadership and Systemic Innovation* of ITBA, Protopia Labs, the Global Education Futures forum, and the GlobalShift University Leadership Programme are emerging examples of a culture of new education offers that seek to create “solutionatiques”—systems



of shared solutions that arise from the connected intelligence of thriving education. They offer an ecology of new ways of learning, experiencing, internalizing, enacting, and empowering solutionatics that embody social values, technological creativity, economic opportunity, and environmental integrity in favor of a thriving humanity and a flourishing world.

## CONCLUDING REFLECTION

The emerging paradigm in the sciences suggests that we live in a holographic and highly integral and interdependent world (Laszlo & Laszlo 2016). The picture of reality depicted by this paradigm is like a dance of Universe and Cosmos—with the universe comprising the entirety of manifest being (all phenomena we experience and know through our five senses), and the cosmos comprising a deeper and even broader reality (the noumena that undergird and give rise to the universe). We cannot access the cosmos through our five senses alone, but we can know it as an expression of primordial consciousness beyond space and time. Metaphorically, this is the dance of heaven and earth. As educators, our axiology tends to veer more toward one or the other. In this metaphorical context, which would be important for a flourishing garden: the seeds or the greenhouse? Without the seeds (which represent “earth”—the systemic leverage points for creative synergy), nothing grows and no potential is realized. Without the greenhouse (which represents “heaven”—the requisite systemic nurturance space), nothing grows and no potential is realized. To curate the dynamics of thriving education, it is necessary to create opportunities for seeds to grow and the roots to connect such that new visions may emerge and flourishing interdependencies arise. It is also necessary to set attractors that provide individual inspiration for collective aspiration, showering light, water, air, and fertile soil in delicious combinations and quantities for the garden to come into full flourishing. The constant dance between doing and being—between creating conditions for learners to flourish and getting out of the way so that they can thrive authentically—this is the same dance of Universe and Cosmos, expressed on a different scale. And just as the dynamics of the quantum world are at a different scale than the dynamics of our experiential world, they operate according to different parameters and produce different patterns. But the music of the dance is the same.

## NOTES

1. Ludic l'loḍdīkl—from Latin *ludere* “to play,” from *ludus* “sport.” [New Oxford American Dictionary 3rd edition © 2010 by Oxford University Press, Inc.]
2. A term coined by Theodor Holm Nelson in 1974 that conjoins “mingled” and “intertwined” to indicate a state of deep, complex, and joyful connectedness and interpenetration.

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