



How the Human Spirit, Pope Francis, UN Networks, and Enlightened Partners Can Secure Human Flourishing, Environmental Stewardship, and Upgrade World Politics Quickly

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Abstract

This article discusses the potential of the Global Compact on Education, signed by Pope Francis and religious leaders from various denominations. It highlights the need for a catalyst to engage the human spirit and implement the Compact's goals of quality education, human potential, and belief-independent spiritual growth. It suggests that the Catholic Church, with its vast network of educational institutions, can play a crucial role in fulfilling the Compact's mission. It also proposes recommendations for creating Global Education Centers and leveraging purchasing power to provide affordable access to the internet and educational resources. The article also emphasizes the importance of curriculum development, including the integration of biophilia environmental designs and the implementation of brief observation and thinking exercises for spiritual growth. It concludes by discussing the potential for increased power and impact through advisory councils and collaboration with other denominations.

“The future of the Global Compact on Education is uncertain, but it has the potential to be a powerful force for good in the world. If it is successful, it could help to ensure that everyone has access to a quality education, regardless of their background or circumstances. It could also help to promote peace, understanding, and sustainability on a global scale.”

– Google Bard AI, Query 7/30/2023

Almost unnoticed, new constellations for global progress are moving into alignment. There is a compelling case that a simple catalyst can create, beginning on January 1, 2024, a new Renaissance, a spectacular upgrade for the achievement of human flourishing that is widely shared, environmental stewardship, and an upward shift in the world's political psychology that brings a future of enlightened and trustworthy governments.

* Lloyd Etheredge's recent publications include Lloyd Etheredge, "Wisdom in Politics and History" in Robert J. Sternberg and Judith Glück, eds., *The Cambridge Handbook of Wisdom* (New York: Cambridge University Press, 2019), pp. 721-753.

A catalyst can work because it is possible to engage the human spirit and use digital age technology to implement two world-changing levels of the Compact for Global Education signed two years ago (on October 5, 2021) by Pope Francis and leaders of Orthodox, Jewish, Muslim, Buddhist, Sikh, Jain, Calvinist, Quaker religions, and evangelical representatives.*† The Compact upgrades the Universal Declaration of Human Rights (1948). It includes quality education for everyone, human potential (beyond the conventional K-12 and academic subjects of 1948), lifetime learning, and successful educational methods for belief- and doctrine-independent spiritual growth.‡

Likely, most readers will be unaware of the Compact.§ The Compact’s signers were nominal leaders in denominations for which 85% of the world’s population says they are adherents. And the Pope called for universal partnerships and worldwide commitment to the Compact. He invited partnerships with the world’s cultural leaders, “families, communities, schools, universities, institutions, religions, governments and the entire human family.”¶ However, most leading news media did not report the Compact. Aside from the Catholic-oriented news media, it was likely seen as a standard ritualized statement of institutionalized religions, with press releases filed in the “Wait and See” folder.

The Pope needs a better implementation plan.

For discussion purposes, I will organize this paper into five parts:

1. Recommendation and Overview;
2. Technology and Financing;
3. Current Curriculum;
4. Belief Independent Spiritual Growth (i.e., the Pope’s To Do List for new educational methods);
5. Looking Ahead.

1. Recommendation and Overview

Pope Francis should request that each of the world’s Catholic educational institutions create, within a year, Global Education Centers to fulfill the Compact.

Each Center will be open in the evenings, creating a warm and welcoming space for students and the surrounding community to have free Internet broadband, meet with peers, technical advisers, and educators, and access the world’s digital resources for education. The mission of the Centers and their Directors will be to set local priorities, organize partners and

* The invitation for a dialogue to develop the Compact was issued on 12 September 2019. There are several documents leading to a relaunch and affirmation two years ago. A summary is by the Pope [<https://youtu.be/Tdau9DFtMn8>] and Robin Gomes, “Pope: Global Compact on Education Bears in Itself ‘a Seed of Hope’ - Vatican News,” October 15, 2020, <https://www.vaticannews.va/en/pope/news/2020-10/pope-francis-global-compact-education-video-message-relaunch.html>. Current information is available through <https://www.educationglobalcompact.org/> and the Vatican’s Congregation for Catholic Education.

† “Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory. Technical and professional education shall be made generally available and higher education shall be equally accessible to all on the basis of merit.” United Nations, “Universal Declaration of Human Rights” (United Nations, 1948), art.

‡ <https://www.un.org/en/about-us/universal-declaration-of-human-rights>

§ A similar upgrade is part of the United Nations Development Goal 4: “Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.” See <https://sdgs.un.org/goals/goal4>.

¶ Robin Gomes, “Pope: Global Compact on Education Bears in Itself ‘a Seed of Hope’ - Vatican News,” *Vatican News*, October 15, 2020, <https://www.vaticannews.va/en/pope/news/202010/pope-francis-global-compact-education-video-message-relaunch.html>.

resources for local priorities outreach, and secure the benefits of the Compact now, beginning with this generation.

This catalyst can work. The Pope has a unique “On” switch. He can move globally (more quickly) than anyone else in history or the world’s governments.* Catholic education already operates a vast network of 212,000 institutions with 62 million K-12 students in 105 countries, and the system has become familiar with digital-age technology and resources.†‡ Also, the Pope will bring 212,000 new jobs for inspired activists and give his blessing to these Directors—and then add thousands of their team members for technical and educational services and tutoring coordinators. For the right people, these activist positions can be among the most exciting, challenging, and fulfilling new jobs anywhere.

A defining priority of Center Directors and staff—and supporting Bishops and other levels of the Church hierarchy to help at national, regional, and international levels—will be to create a new context, a warm welcome message to today’s youth generation. The Compact’s testable hypothesis is that the human spirit is the missing force to accelerate progress. Thus, the Pope and the Compact’s implementers must begin to embody and engage this spirit, and their warm welcome message needs to connect emotionally. Starting now, everybody is included. Nobody is left out. Then, the human spirit may be unstoppable and more powerful than all the armies (and the world’s inertia). These framing and other details can be vital for a valid test.

The Pope should also direct the Catholic Church to leverage its purchasing power and the purchasing power of other Compact signers and allies to secure steep discounts. He and his partners can use moral credibility and this historic, future-changing investment in human potential to create the expectation that Internet and cellphone connection fees to education and health sites should be contributed as a public service or waived in low- and middle-income countries during this startup phase.§ Governments, working within the framework of the United Nations Development Goal #4 (Education), have declared an aspirational goal for sustainable development to connect all schools worldwide to the Internet by 2030. However, too many SDG cost estimates and draft budgets assume that everybody will pay retail prices.¶ The Pope can do better. [Also, the Pope, as an actor outside governmental systems, could nudge an organizing process to foster competitive bids from one or several leading global supply chain entrepreneurs (e.g., Walmart, Alibaba, Amazon, etc.) to serve as purchasing cooperative agents for educational and all other resources needed for all SDG goals.

* Even before the COVID-19 pandemic the world’s rate of progress toward Universal Declaration of Human Rights goals was losing ground. Economic recessions and increased debt burdens add to pressures on governments as well as increasing the risk of political instability. A strategic overview

† Quenton Wodon, *Global Catholic Education Report, 2023* (Washington D.C., 2022). Also online:https://www.globalcatholiceducation.org/files/ugd/b9597a_b54239f33dec48ddb4f2d735d1_0cba7c.pdf. Zoom tutoring, distance learning, blended classrooms, Google Classrooms, Microsoft Teams for Education, and other upgrade options for a global system are familiar options with experienced teachers who can teach others.

‡ For this paper I leave aside the potential roles of the 1,800 Catholic higher-education institutions worldwide and Pontifical Universities that enroll about 6 million students. In the United States, for example, these include Georgetown University and Notre Dame. Another dimension are capacities for pre-med, nursing, medical, public health, and other health-related educational opportunities: numbers vary by definitions, but there are about 5,000 Catholic hospitals worldwide, and about

§ Carlos Slim’s mobile networks in Latin America pioneered such discounts to support distance learning.

¶ <https://www.itu.int/en/mediacentre/backgrounders/Pages/digital-inclusion-of-all.aspx> Darrell West, “Six Ways to Improve Global Supply Chains,” Brookings.edu, July 12, 2022, <https://www.brookings.edu/articles/six-ways-to-improve-global-supply-chains/>. A spiritually guided global purchasing system also gains power to improve workers’ health benefits and safety in supplying countries and other benefits.

The World Bank, UN agencies, NGOs, UDC companies, and governments can benefit from the new humanitarian stance that the world's low- and middle-income countries deserve this one-time SDG investment process to engage and support their human potential without paying retail prices. Purchasing cooperatives are acceptable across the political system.]

Catholic and human spirit organizations can guard against corruption and ensure that philanthropic or corporate donations will be used well with accountability and performance metrics. It can build a global rapid learning network to create new curricula and methods, including such applications of AI as Khan Academy's new Khanmigo personal tutor.*

About Tutors: As Center staff plan local needs and outreach priorities, they will also help identify the possibility of organizing tutors and the human connections vital for motivation and quality learning. The Compact's fundamental global investment to honor human potential is like the community's commitment to build Medieval European cathedrals. Many people contributed even small parts across many centuries to a magnificent collective achievement. Assuming (conceptually) that a global startup package might add Zoom tutoring to Khan Academy translated videos for K-12 subjects, the Compact movement can find tutors from billions of people who have mastered 12 subjects, alums of Catholic education, and often, as parents, helped school age children with homework.†

The Pope also can assure resources for high-priority populations, including the 260 million K-12 students who do not attend school and disabled students. New technologies that increase participation by female students in male-dominated classes in some cultures can also be available routinely.‡

Selecting technologies and planning full global rollouts can require thoughtful analysis of local circumstances. A caution, underscored by the World Bank's Edtech Readiness Index work, arises from new and candid measurement systems showing deeper problems of performance to be analyzed and solved in UDCs. New World Bank and UNESCO assessments suggest that 53% of all children in low- and middle-income countries cannot read an age-appropriate text with comprehension by age 10.§ The right technology could make a critical difference, or the investments could be unused. Technology may not be the priority—or it could be the most urgent need, or the urgent investment should be in UDC teacher education. Without good diagnosis by experienced educators, the world does not yet know, in these cases, the urgent priority investments needed to get better educational results for today's youth generation.

* Natasha Singer, "Not Just Math Quizzes: Khan Academy's Tutoring Bot Offers Playful Features," *The New York Times*, June 8, 2023, sec. Business, <https://www.nytimes.com/2023/06/08/business/khanmigo-tutor-chat.html>.

† Older students, recent graduates, and retirees who want to make extended commitments and participate in workshops also might receive honoraria or be asked to pay back the Compact system as a volunteer tutor.

‡ The challenge of the 260 million K-12 students needs refined diagnosis and selection of technologies. There are problems of civil strife and scarce resources, governments and cultures that do not care about the education of women or different minorities, language barriers. The World Bank has a useful rapid-learning staff and blog to support EdTech choices, including options for low resource environments. See: <https://blogs.worldbank.org/edutech>. Their rapid-learning strategies include feedback systems for student advice. See: Andrew Jack, "Students Call for Better Pandemic Teaching Methods and Learning Materials," *Financial Times*, June 21, 2022, sec. FT Schools, <https://www.ft.com/content/882970a5-ec53-4ff1-9678-503ee0559238>. The participation technology invites all students in a class or seminar to type comments on keyboards. These are displayed anonymously for everyone to read before a discussion begins. The startup postings also may contribute to an early cross-fertilization process that make class discussions more productive and fun to look forward to.

§ <https://blogs.worldbank.org/developmenttalk/will-every-child-be-able-read-2030>. These data are suggestive. However the sources refer to "simulations" an more refined methods will be needed to determine local diagnoses and investment priorities.

Center Directors also will have more boundary-crossing flexibility than governments. A key role will be to consult and develop partnerships and divisions of labor to secure the benefits of the Compact quickly. For example, Center Directors might be catalysts to have the first year of college available to everyone in their communities as soon as the fall of 2024. If local communities and school systems are interested, students can use their former secondary school buildings in the evenings. Center Directors can also engage the new Google AI Translate capability to translate from 133 languages to local languages, and they can probably find tutors for first-year college subjects who will help to get courses underway and Catholic educators who can give tutoring workshops to new graduates who want to contribute. If local communities are interested, the Pope should be able to deliver an add-on first year of college education for the world beginning in the fall of 2024. The pioneering year is likely to be ragged, with many problems to be solved, and perhaps chaotic, experimental, and a great deal of fun.

2. Technology and Financing

At this point, a reader might ask: “How much is this going to cost?” and “How will the financing be organized?” Many variables are changing and will be affected by the Pope’s firmness with the capitalist system. The essential point for this strategy paper is: “The Compact’s vision is affordable.” And, given the cornucopia and extraordinary quality of the curriculum resources that are available online, it is almost criminal not to provide these to every human being now to help them realize their potential. The Pope’s leadership creates new equations: cost-free Internet and mobile connections to educational and health-related Websites; steep discounts; vehicles for high-visibility and high-impact philanthropy; a human-oriented network with the credibility to guard against corruption in UDCs and assure prudent stewardship of resources; a unique connection to potential volunteers who can contribute to Zoom tutoring as a startup investment for today’s youth generation in UDCs to realize their generation’s potential for economic growth.

Costs also need to be estimated with sophisticated diagnoses of investments required. For example, there are different diagnoses and solutions for subsets of the approximately 260 million K-12-age students who are not in school. Causes include war and civil unrest, cultural values that limit women’s education, insufficient resources to hire capable teachers, cultures favoring early marriage of young girls, national bureaucracies without the resources and expertise to select among new technologies, etc.*

The World Bank’s assessment suggests refined options for low-resource environments. For example, early technology Kindles (or new Kindle Global Education—Student Editions) can be commissioned inexpensively and supply each family and student with a year’s worth of textbooks and other instructional materials in local languages. The local language textbooks are an excellent entry-level investment. In the 17th century, in Colonial New England, teachers with textbooks produced good results (including knowledge of Greek and Latin) in one-room schools, readily using older students to help tutor younger students. It is a

*Jaime Saavedra and Halil Dundar, *Learning Recovery to Acceleration: A Global Update on Country Efforts to Improve Learning and Reduce Inequalities* (Washington D.C: World Bank, 2023). See also: <https://theirworld.org/>

minimum, entry-level investment but can be affordable at a steep discount to each family or even, with financial aid, as a gift for lifelong learning. In a world education system evolving in the spirit of the Pope's catalyst, an entry-level Kindle could be a gift, in the human spirit, to each family when their first child is born. For companies like Amazon, designing an entry-level Kindle-Special Edition for UDC families might also be attractive for corporate or personal philanthropy. A world of literate families hooked on books will be a burgeoning future for purchases from the Kindle Website and sales of many new generations of Kindles. Generosity on this scale, for this global upgrade and human potential, would deserve mention in the history books.

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All prices will be negotiable. However, for example, refurbished early Kindles were available on the Amazon Website in India for about \$25 in 2021.

The World Bank analysis for low-resource environments also notes the swift penetration of UDC markets by mobile devices with educational capabilities. There are billions of mobile devices in the Third World. The International Telecommunications Union (ITU) estimates about 60% market penetration for mobile devices in the world's less developed countries, a usage that has risen sharply from 40% in 2016.*

Moving slightly above this entry level for the new global education system, I attach an estimate by ChatGPT that older model (but Zoom- and tutor-capable) smartphones can be manufactured or refurbished and available for \$30 in UDCs (although the cost may be lower now). Most UDC families have at least one shareable mobile device. Moving upward from a Kindle entry-level device to an early generation Kindle Fire 7 shows a retail refurbished price of \$40 in America (although these may not be available in the quantity required).

For tutors: Potential volunteer tutors are everywhere. Billions of people have mastered K-12 subjects, and many, as parents, will have read stories to children or helped with homework. For tutors, the evolving global education system might provide honoraria of a Kindle Fire equipped with Zoom, Google Classroom, and a lifetime membership in the World Public Library system (discussed later).

3. Curriculum Resources

Recently, the world's online education resources have become superb. It is almost criminal not to make them available to everyone. The Khan Academy modules are free for K-12 subjects (and beyond). Partnerships with learners include partnerships with teachers and translations into several major languages.

* <https://www.itu.int/itu-d/reports/statistics/2022/11/24/f122-mobile-phone-ownership/>

The online resources for a new Renaissance should sell the Pope's vision to everyone. Readers who have not visited leading Websites recently might want to consult several of the more prominent, high-quality organizers – e.g., Khan Academy;

Coursera collaborates with 300+ leading universities and corporations and offers 5,000+ courses; edX (now <https://2you.com>) also provides thousands of courses and new Bootcamps (e.g., for aspiring healthcare professionals), many for free and others with testing and certification fees or charges for student projects.

At this new level of educational opportunity, many have more than a million regular enrollees online, built only with word-of-mouth advertising. Center staff also might add their own “staff recommendation” lists. Barbara Oakley's Learning How to Learn on Coursera has 3.5 million enrollees worldwide. Nobelist Robert Shiller's Financial Markets has 1.6 million, and Laurie Santos has a word-of-mouth global enrollment of 4.5 million for The Science of Well-Being. One of the most popular courses at Harvard and almost in the upper tier—and an unmet global need—is Michael Sandel's Justice, with about 550,000 enrollees (new features include the availability of German, Chinese, Spanish, Portuguese, and English video transcripts). Also, Harvard now contributes to an emerging global Divinity School vision, with its X Series Program of seven courses in World Religions Through Their Scriptures with leading-edge perspectives on interpreting sacred texts. Hopefully, it is the beginning of a global Divinity School that the world needs. Beyond these offerings, each Center's staff might want to list their discoveries on their website: It is difficult to imagine a better literature teacher than a YouTube offering like Hardcore Literature Book Club.¹⁸

Translation capabilities, now boosted by Google Translate and AI, can change resources into any language with the technical guidance that Center staff can provide. One of the great strengths of Catholic education has been its deep experience in developing teaching materials in local languages and cultures. Now, a total of 133+ widespread and local languages. Video dubbing is available online in more than a dozen major languages. (I attach a further discussion from ChatGPT-4's AI resource).*

Catholic nursing education and hospitals can develop mini-certification resources and upgrade a nation's public health system with First-Aid or medic-level training for outreach clinics or disaster workers. Health programming, rather than seeking mass audiences, can recognize a flow of new patients with unmet basic needs each year: mini-courses for mothers who are pregnant for the first time or with a newborn infant. The Compact Centers can stimulate creative thinking: Instructional videos for patients who are newly diagnosed with chronic diseases or care-givers to help bed-ridden or wheelchair patients transfer safely or show how to repair wheelchairs.†

* “The time, accuracy, and cost of using Google Translate or a similar program to translate a 350-page English language textbook into another language can vary based on several factors. Let's break these down:

† Time:

· Immediate Translation: If you were to copy and paste content from the textbook into Google Translate, the actual translation would be nearly instantaneous for smaller sections. However, there's a character limit per translation request, so you'd need to break down the content into smaller chunks and paste them individually. If you're doing this manually, the time it would take largely depends on how fast you can copy and paste.

· API Usage: Google Cloud Translation and other services offer APIs where you can programmatically send content for translation. Using this method, you could theoretically automate the translation of the entire book more quickly, but you'd still be limited by API rate limits and quotas. Depending on these constraints, translating a 350-page textbook might take anywhere from a few minutes to several hours.

The Google Translate API service charges about \$20 per million characters. As needed, the Catholic Church can negotiate Creative Commons copyrights and rights for individual users for educational and research purposes.

There are many areas for further curriculum development. UDC priorities require a solid pre-med curriculum. Medic-level training by military forces can assist public health clinics and disaster relief and pandemic relief capabilities. UDCs need clinics, doctors, nurses, public health workers, and specialists; a strong pipeline needs construction. A more complete Agricultural School curriculum can open extraordinary doors for sustainable agriculture progress. A World Divinity School is overdue, partly because the human spirit that figures in the Pope's more educated perspective is linked, for much of humankind, with tribal, authoritarian, and conformist psychologies that should be part of spiritual education. The historical record is that God issued the Ten Commandments, not a Universal Declaration of Human Rights, and the evolution of spiritual truth from authoritarian and punishing deities to the Pope's new Compact enlightenment still needs explaining. Political admixtures with these tribal and authoritarian expressions still fuel wars and terrorism and it may be wise to engage. Institutionalized religions that span these forms have work to do for the Compact's truths to be a fully inclusive vehicle. Environmental education needs improvement: the data systems that show most students the forces shaping their future are not yet available in most public schools. Creative and performing arts diminish in education after Kindergarten—possibly they should not. Civil engineering architecture, materials scientists, and construction skills are urgently needed to create affordable and attractive housing in urban areas without the spiritual death designed for public housing in earlier decades. The design of the ideal curriculum for human flourishing remains on the To-Do List.

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4. Belief-Independent Spiritual Growth

The greatest challenge of the Compact is the transformational vision for a second educational track, belief-independent spiritual growth. The new trans-denomination curriculum is not about God but common humanity, the human spirit, and relationships with nature and God's creations. Older, more divisive doctrines and beliefs are part of the historical education process. They were mistaken justifications for human divisiveness and harm to one another.

A distinction between the existing, institutionalized Catholic education and the new, Compact-inspired and Compact-organized global education system is fundamental. Catholic education has been belief-linked, and the Pope is already under fire for his more enlightened views that the Christian message might put God, the crucified Christ, and the Virgin Mary to the side and substitute the “human spirit” for the “Holy Spirit.” Catholic schools remain open, available, and can thrive.

The Pope does not deny God's existence, the crucified Christ, or the Virgin Mary. However, they are not the compelling message for an upgraded education at a new level

that awakens and brings their spirit to a needful and injured world. The engaged human spirit (without requiring the label Holy Spirit) can change everything, including the level of maturity of governments.

Specifically, however, Catholic education and theologians want to teach about the Old Testament God who unleashed Joshua, and the genocides described in the Book of Joshua's conquest narrative will be institutionally separate from a Compact-inspired curriculum. Likewise, teaching about the Crusades. Or about burning heretics at the stake.

The Pope's second-tier spirit guidance is: "If in the past our differences set us at odds, nowadays we see in them the richness of different ways of coming to God and of educating young people for peaceful coexistence in mutual respect. For this reason, education commits us never to use God's name to justify violence and hatred toward other religious traditions, to condemn all forms of fanaticism and fundamentalism, and to defend the right of each individual to choose and act in accordance with his or her conscience. . . . If in the past, also in the name of religion, discrimination was practiced against ethnic, cultural, political, and other minorities today we want to be defenders of the identity and dignity of every individual and to teach young people to accept everybody without discrimination." *

The Pope's criticism, expressed with spiritual pain and urgency, is that two millennia of conventional religious education across all denominations have not yet produced governments with the mature leadership to keep the planet from environmental catastrophe. The same is true of the world's secular education. The Pope, at least, is willing to talk about the problem, and he has a solution that could work well and quickly.

The Vatican's publications still do not explain how to create a second-tier curriculum. Good people with good values teaching conventional courses on behalf of good outcomes are just the beginning. However, these can reflect a conceptual vagueness in the Universal Declaration of Human Rights.† It, too, sometimes crossed the line to confuse education with indoctrination and marching orders for the good intentions of the framers. However, the Church also has adherents who recognize what the human spirit can do and know they can do much better.

The Pope's new education methods must eschew indoctrination and be belief-independent, a term that needs explaining.‡ In this section, I use touchstone observations that suggest confirming evidence for the Pope's hypothesis and clues to the new universe of educational methods. I use touchstones because, otherwise, a discussion starts to sound like mysticism (perhaps appropriately so, as spiritual Enlightenment probably is a post-linguistic way of Being).

* Pope Francis, "Address of His Holiness Pope Francis to the Participants in the Meeting: "Religions and Education: Towards a Global Compact on Education" (Descartero per la Comunicazione, October 5, 2021). <https://www.vatican.va/content/francesco/en/speeches/2021/october/documents/20211005pattroeducativo-globale.html#:~:text=Today%20we%20want%20to%20state,we%20are%20feeling%20and%20doing>

† "Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms. It shall promote understanding, tolerance and friendship among all nations, racial or religious groups, and shall further the activities of the United Nations for the maintenance of peace." United Nations, "Universal Declaration of Human Rights" (United Nations, 1948), art. 26:2, <https://www.un.org/en/about-us/universaldeclaration-of-human-rights>."

‡ To some Christian theologians, this pre-Christian touchstone also captured a more universal religious truth. It can be seen simply by substituting God and God's love for the light of the Sun. 26 Martin Heidegger, *The Essence of Truth: On Plato's Cave Allegory and Theaetetus*, trans. Ted Sadler (New York: Athlone Pr, 2002); Martin Heidegger, *What Is Called Thinking?*, Reprint edition (New York: Harper Perennial, 1976).

4.1. Four Touchstones

4.1.1. Ancient philosophy contributes several observations of spiritual growth and similar educational methods across different traditions. Plato’s allegory of human beings who have lived in a cave and their ascent to the light of the Sun is a widely honored touchstone. (The allegory develops in Plato’s *Republic*, book VII, 514a – 521d, in a dialogue between Socrates and Plato’s older brother, Glaucon.) The physical story is a model of the awakening of the soul in the process of Enlightenment. Plato’s Academy taught the standard school subjects by traditional methods in the early years of schooling, then invented and used a specialized teaching method as midwifery of the soul. The teaching method, beginning with the rigorous analytic process of Socratic dialogues, seems to imply an analytical theory of truth. Yet, the process also has a logic that moves in a different realm toward a powerful unconcealment theory of truth (i.e., Enlightenment).²⁶ (This spiritual Enlightenment, once attained, was widely assessed as irreversible. As signers of the Compact have in mind, it is the much-needed educational result to realize the potential for humankind’s wise (Guardian) leaders and governments.)^{*} † A range of later Christian thinkers came to honor Plato, Socrates, and Aristotle as kindred spirits: A simple substitution of God and for the Sun showed, in their view, a pre-Christian language for the same discovery.

4.1.2. Groundhog Day (a movie) is a second touchstone that allows viewers to observe a process of spiritual growth from a Buddhist perspective that, unaided, might require (although the words might be said with a twinkle in the eye) 10,000 cycles or lifetimes of death and rebirth. Since many spiritual teachers seem to agree that the process is valid, their agreement about stages can be a form of measurement and, then, the possibility of scientific research to distill active ingredients, test hypotheses, and accelerate the world’s spiritual growth.[‡] As an unaided human being, Buddha may have achieved his breakthrough in 49 days of concentrated meditation (although his background included six earlier years of seeking that might or might not have contributed). In his tradition, he is honored for showing the path is open to everyone (i.e. and may not require the 10,000 lifetimes claimed by twinkle-in-the-eye gurus.) An advanced possibility is that awakening may be instantaneous and may or may not need time—i.e., this remains an open-ended research question.

By the movie’s end, Phil, the main character, illustrates a saying about awakening: “Nothing has changed, but everything is different.”

[As part of this new curriculum R&D, it should be possible to determine whether methods distilled from the California human potential movement shorten the “10,000 lifetimes” process. For example, a curriculum evolved across several decades and working in many cultures (www.landmarkworldwide.org) suggests that skilled coaches achieve similar results

^{*} However Aristotle and others did not see a practical way to implement this method, a challenge renewed in the Compact’s To Do List for the second level of curriculum.

[†] Plato’s teaching notes about the upward journey to post-conventional truth include testable hypotheses about auditory and visual effects and aroused painful emotions. Neuroscience methods may be able to test these hypotheses and refine the specialized teaching methods that might be improved.

[‡] Alex Kuczynski, “Groundhog Almighty,” *The New York Times*, December 7, 2003, sec. Style, <https://www.nytimes.com/2003/12/07/style/groundhog-almighty.html>; *Groundhog Day* (Columbia Pictures, 1993); Ryan Gilbey, *Groundhog Day*, 2004th edition (London: British Film Institute, 2005); James Parker, “Reliving Groundhog Day,” *The Atlantic*, March 2013, <https://www.theatlantic.com/magazine/archive/2013/03/reliving-groundhog-day/309223/>.

with different linguistic packaging ranging from Zen-Buddhism to Heidegger and modern neuroscience in a few days.]

4.1.3. Pattern Interrupts A third example of touchstones for curriculum development derives from comparative studies of religions that show, across centuries, similar belief-independent spiritual exercises. For example, “pattern interrupts” distinguish an emerging spiritual Being from attachments to conventional identity. If you are attached to making money, you get the vow of poverty. If you are attached to using your analytic mind, you get “What is the sound of one hand clapping?” If you are drawn to hedonism, you take the vow of chastity and refrain from alcohol. If you are social, verbal, and quickly bored, you get to sit quietly and follow your breathing. If you are preoccupied and engaged in secular life, you must disconnect and prioritize the Sabbath. Or, during the day, interrupt secular activities for higher-priority spiritual activities such as prayer.

Gifted teachers deploy these practices as “skillful means,” rafts to cross the river.

Hadot’s scholarship gives further historical examples of spiritual exercises in ancient philosophy (that also are mental health and therapeutic exercises.) These exercises were adapted in Christianity by monastic orders and other traditions—for example, by Saint Ignatius.*

Wilber’s integrated theory of comparative religion adds to the evidence that almost all religious denominations have identical psychological stages (e.g., tribal identity or authoritarian structure), and similar evolution sequences occur across denominations. Thus, he also hypothesizes that belief-dependent spiritual growth happens in steps that, perhaps, can be accelerated without invalidating earlier stages.†

4.1.4. Meditation (and related methods like breathing exercises)‡ is a pattern-interrupt method. However, I give it a separate entry because it includes refined and advanced practices that can spark further ideas for second-tier curricula. A universe of Apps (e.g., Headspace and Calm) is available to support these spiritual exercises and open paths beyond the stress reduction supported strongly by medical evidence.§

Beyond these four touchstones, I turn to evidence of new methods for belief-independent spiritual growth that can inform a cornucopia of second-tier methods.

4.2. Evidence for Belief-Independent Spiritual Growth: New Methods

4.2.1. Kindergarten and Infant Development

The Kindergarten movement may have proven Pope Francis is brilliantly correct about

* Pierre Hadot, *Philosophy as a Way of Life: Spiritual Exercises from Socrates to Foucault*, trans. Michael Chase (London: Blackwell, 1995); Pierre Hadot and Michael Chase, *What Is Ancient Philosophy?*, New Ed edition (Cambridge, Mass: London: Belknap Press, 2004); Matthew Sharpe, “Pierre Hadot (19222010),” in *Internet Encyclopedia of Philosophy*, ed. James Fieser and Bradley Dowden, March 13, 2022, <https://iep.utm.edu/hadot/>; Pierre Hadot, *The Present Alone Is Our Happiness, Second Edition: Conversations with Jeannie Carlier and Arnold I. Davidson*, trans. Marc Djaballah and Michael Chase, 2nd edition (Stanford, Calif: Stanford University Press, 2011).

† Ken Wilber, *The Fourth Turning: Imagining the Evolution of an Integral Buddhism* (Shambhala, 2014).

‡ Andrew Weil MD, *Breathing: The Master Key to Self Healing*, Unabridged edition (Sounds True, 1999).

§ References to the medical literature are available through the National Center for Complementary and Integrative Health: Meditation and Mindfulness: What You Need To Know | NCCIH (nih.gov).

the possibility of world-reforming educational reforms for the human spirit. Although the public-school bureaucracies of the world were partly successful with a wall of containment at the existing first-grade line, Kindergarten has become a global phenomenon. Its creator, Froebel, explicitly drew from Christian insight to recognize each child's spark as a spiritual being and the creative power of this spirit for education that, often with joy, realizes the child's potential. In the 19th century, Froebel created this enlightened framework in a culture dominated by Prussian thinking about human nature. Children were uncivilized and undisciplined. Educational institutions expected them to be uninterested in what they were required to learn. They properly sat at fixed desks, facing forward, and were drilled in tasks with grades certifying them for lifetime employment and reasonable reliability for performing work for which they had no inherent interest in institutions that did not inherently care about them.*

Froebel's Christianity gave parents a different message: "Your children upon whom you early impress form and vocation against their nature and who therefore wander around you in languor and unnaturalness might also become beautiful, self-unfolding, and all-sided self-developing beings.† He created a welcoming and warm program built in the spirit of a garden for raising children and emphasizing play.‡ His schools were coeducational because both men and women were God's creations. His spirit of freedom and play (and discovery through play) used specific methods and applied rigorous logic and observations. Although he never could quite explain how he saw the connections, he produced a series of gifts for engaging the spirit and introducing children to the world as God's creation: for example, a carefully selected set of diverse blocks for building and motor skills and play as an engagement with nature's forms, or clay for molding objects or activities in nature.‡ It may not yet be clear why color and fingerpainting engage the human spirit in a child. However, the response of children observed by parents worldwide has quickly produced universal Kindergarten in many countries. Large muscle equipment in outdoor playgrounds, simple musical instruments, read-aloud and story-telling time with gifted selections of material, nature walks, and activities (including, sometimes, caring for a class hamster and talking about what hamsters need) are an early expression of a Christian enlightened belief-independent growth process in the background of the new To Do list for the world's second tier of education and extension to a natural spirit that upgrades governments.

Froebel saw Kindergarten as a child's first experience outside the home, working and playing with peers who were God's creation. In these years, teachers would introduce a core set of values that could be readily understood and accepted: working together, taking turns, fairness, "please" and "thank you," enthusiastically helping a teacher clean a blackboard and clean up the classroom after an activity. The Golden Rule might be an advanced level of human moral development (e.g., via Kant's categorical imperative). Still, rather than centuries of sermonizing at adults to limited political benefit, the insight could awaken earlier if introduced at the kindergarten level in an environment where everyone came quickly

* Norman Brosterman, *Inventing Kindergarten*, 1st edition (New York, N.Y.: Harry N. Abrams, 1997).

† Friedrich Froebel and Josephine Jarvis, *The Education of Man* (Legare Street Press, 2022), 8.

‡ Kate Douglas Wiggin, *Froebel's Gifts* (Legare Street Press, 2022).

to grasp and experience the benefits of living in systems fulfilling this principle from the beginning.

The kindergarten movement remains one of the extraordinary Christianity assisted breakthroughs for a new education that naturally nourishes the human spirit and potential. It is a firm counterweight to Prussian mindset planners who want the world's students taught employable skills. By contrast, American public schools have so-called "extra-curricular" activities that allow almost every student to become engaged in activities for which a student has a talent and can make a contribution, are fun and have a strong work ethic (often, practice in competitive sports that exceeds the motivation that classroom teachers could instill by discipline). Typically, they are social activities involving cooperation skills, organized complexity, and pride in standards of excellence (e.g., a high school musical). Yes, standardized tests are worthwhile measures of education. However, the Pope is right: the bureaucratic and Prussian mindsets should never win.

Evidence for spiritual growth and multi-sensory joyful engagement with God's creations extends backward from Froebel. It points to universal preschool benefits and infant development from birth to age four, with new brain connections creating inner-world and out-world capacities for engagement and learning. Halvorson reports evidence that, unless adults read to a child frequently before age 4, later school-age and lifetime achievements diminish. A baseline of caring for infants and letting children play independently can be improved upon by a world of being read to or reading-readiness beginnings, singing, dancing, talking to young children, and playing with genuine educational games. Every family in underdeveloped countries should have a Kindle for global education equipped with basic graphics and audio and pre-stocked by Catholic kindergarten teachers and parents with a cornucopia of the world's 1,000 best books (translated by Google Translate into local languages) for reading to young children. With the Pope's leadership and creative thinking by 212,000 Center Directors, every child in the world, beginning now, should have a similar legacy cornucopia (including Dr. Seuss!) available to them through their parents. The new senior adviser to the Pope and working groups at 212,000 leading-edge sites for global track one and track two innovations should be George Halvorson and the neuroscience insights for humankind's future for the age 0-4 curriculum.*

The potential of AI research for second-tier methods may be extraordinary. What can ChatGPT discover if trained by a treasure trove of billions of kindergarten finger paintings? We do not know how superb coaches work—is it partly the sound of Sal Khan's voice on Khan Academy? How do kindergarten teachers serve as the best coaches, see emergent properties in fingerpainting, and know what to say?†

4.2.2. Biophilia Environmental Designs

Evidence for E. O. Wilson's biophilia hypothesis suggests another set of spiritual growth

* George C. Halvorson, *Three Key Years: Talk - Read - Play - Sing to Support & Help Every Child in America* (Sausalito, California: Institute for Intergroup Understanding, 2015).

† See also: Viktor Lowenfeld and W. Lambert Brittain, *Creative and Mental Growth*, 8th edition (New York : London: Prentice Hall, 1987); Rhoda Kellogg, *Analyzing Children's Art*, Reprint ed. edition (Echo Point Books & Media, 2015); Elliot W. Eisner, Nel Noddings, and P. Bruce Uhrmacher, *The Enlightened Eye: Qualitative Inquiry and the Enhancement of Educational Practice, Reissued with a New Prologue and Foreword*, 1st edition (Teachers College Press, 2017).

insights and potential second-tier educational applications of biophilic changes in reality. Wilson hypothesized that human beings are drawn to elements of nature as a natural home: more natural light, greenery, flowing water, open vistas, secluded and protected areas, variety and mystery, the variabilities of the breeze, birds, an end to right-angle architecture, etc. A growing body of suggestive research identifies stress reduction, better subjective quality of life, and human gathering spots for sociability and interactions.* Also, there are rich traditions of Zen gardens, Islamic gardens (including Paradise gardens), Christian maze gardens, and other sources for research, experimentation, and discovery.

By contrast, as the Pope might agree, capitalism manipulated most of humanity to crowded concrete jungles with poor ventilation, “modern” architecture of right angles, steel, and concrete, no greenery and open spaces, no protected places for calm and recovery, etc. It is time to reverse the trend towards huge urban megacities that are the current fate of the human spirit and a politics that no longer serves the human spirit.

History suggests that biophilic designs might also upgrade governments. The Progressive Era in America grew as a political movement that was part of a package of urban parks for families and healthy recreation, building codes enforcing requirements for windows and natural light, the early environment movement (and Kindergarten), etc. Suppose the biophilia hypothesis diagnoses the modern world. In this case, the spiritual health of much of humankind has been moving in the wrong direction with crowded megacities, slums and concrete jungles, buildings crafted as rectangles with unnatural concrete and steel (etc.). An engaged human spirit probably cannot eliminate unhealthy slums overnight. Still, it could shift human habitats—and then politics—at the margin toward small green areas in slums, delivering a truckload of enriched soil and seedlings or garden plots with raised beds.

4.2.3. Brief Observation & Thinking Exercises

A third type of evidence for new methods of spiritual education comes from brief thinking exercises and observations.

4.2.3.1. What worked well yesterday?

Rather than remain at the level of bold generalities like “An unexamined life is not worth living,” a new method for spiritual growth and daily life uses simple exercises. For example, in the field of positive psychology, students keep a private journal. At the beginning of each day, the assignment is to write three answers to the question: “What went well yesterday?” and then, for each, a brief explanation: “Why do you say this?” The results were remarkable: After keeping such a journal for a week, students felt better about their lives and were less depressed six months later.† People became happier and more centered and recorded that what they spent their time on gave them greater satisfaction in their lives and relationships.⁴²

* William Browning, Catherine Ryan, and Joseph Clancy, “14 Patterns of Biophilic Design: Improving Health and Well-Being in the Built Environment” (New York: Terrapin Bright Green, 2014), <https://www.terrapinbrightgreen.com/report/14-patterns/>.

† Martin E. P. Seligman et al., “Positive Psychology Progress: Empirical Validation of Interventions,” *American Psychologist* 60, no. 5 (2005): 410–21, <https://doi.org/10.1037/0003-066X.60.5.410>. 42 For Nietzsche’s recommendation of a similar spiritual exercise see the discussion of his “Schopenhauer as Educator” in Babette Babich, “‘Who Do You Think You Are?’ On Nietzsche’s Schopenhauer, *Illich’s Hugh of St. Victor, and Kleist’s Kant*,” *Journal for the Philosophical Study of Education*, no. 2 (2014): 2.

4.2.3.2. Focused Awareness: New Types of Prayer

A second example of new discoveries about brief exercises for spiritual growth concerns the experience and effects of different methods of prayer. Likely, many religious traditions do not have refined prayer and spiritual growth education. However, the 1970s creation of Centering Prayer by three Trappist monks (Thomas Keating, William Meninger, and Basil Pennington) builds on earlier traditions by creating silence and a (mostly) language-independent inner experience.* A critic might object that Centering Prayer crosses the line, as the invoked presence of God as an invisible (yet real) spiritual Being adds a traditional marker of suggestion, socialization, and indoctrination rather than a completely independent education.† Still, the essence of the new method may be to foster spiritual growth: an active influence is Buddhist meditation informed by the friendship of Thomas Merton and Thich Nhat Hanh. Critics of Centering Prayer also cite the caution of Pope Benedict: he maintained that the gifts of this form of contemplative prayer are Christian and from the Holy Spirit.

[However, it is unclear whether the Holy Spirit only grants gifts if one believes in the Holy Spirit.]‡ Another line of investigation for the brief encounter and self-reflection universe of new methods might adapt a YouTube video by a priest (e.g., “Most Common Problems I See in Confession (and How to Fix!)”). This Francis can perspective responds to the baseline observation that many Catholics confess sins they do not need to discuss explicitly. This perspective is, in effect, the Franciscan monk’s whistleblowing assessment of Catholic spiritual education. He suggests that priests have discovered under-used methods to conduct tutorials for spiritual growth—i.e., in confessionals and perhaps in the wider educational world of the Pope’s invitation/marching orders for a powerful and effective second-tier education.

4.2.3.3. Focused Awareness – Unjustified Suffering

A third example of a focused awareness exercise for belief-independent spiritual growth comes from the sociologist Max Weber, who sought insight for professional politicians who had to make compacts with the devil and evil at the risk of their souls and the welfare of human beings who needed to trust them. Weber distinguished between the ethics of means and the ethics of ends. The ethics of means was a choice to be a saint—and, in the emerging politics of the 20th century, to be crucified. Observing European wars that required violence against predators, Weber sought an enlightened alternative to the opposite, the so-called ethic of ends, which typically meant a Realpolitik brutality mindset. He recommended the construction of a new professional identity for politicians that would allow violent or evil methods when necessary for an ethical objective while preserving their soul and human spirit more broadly. However, a professional politician could achieve such grace only by observing the world and recognizing the ubiquity of unjustified human suffering—i.e., perhaps in brief daily journal exercises (?). Only when such recognition of human tragedy touches his spirit can a leader achieve the Enlightenment to be politically wise.§

* See the “Centering Prayer” entry in Wikipedia.

† See Luhmann’s respectful inventory: T. M. Luhmann, *How God Becomes Real: Kindling the Presence of Invisible Others* (Princeton, New Jersey: Princeton University Press, 2020).

‡ See also Jung’s view, inscribed above the entrance to his house in Kusnacht: “Vocatus atque non vocatus, Deus aderit.” – i.e., “Bidden or not bidden God is present.”

§ Max Weber, “The Profession and Vocation of Politics [Politics as a Profession],” in Weber: *Political Writings*, ed. Peter Lassman and Ronald Speirs (New York: Cambridge University Press, 1994), 309–69; William F. Muir, *Police: Streetcorner Politicians* (Chicago, IL: University of Chicago Press, 1979).

5. Looking Ahead

The potential of the Compact initiative and the world's educational system can evolve in different dimensions at different speeds in different areas. And perhaps more quickly than any earlier world leader could imagine. This section highlights three issues for discussion: 1.) Increasing Power and Impact; 2.) Research-Informed Strategy and Rapid Learning; 3.) The Home Page and Director's Visions.

5.1. Power and Impact

The Pope and Directors can increase the power and impact of the movement by having advisory councils, including other denominations signing the Compact. Nominally, the families of 85% of the adults and children in the world identify themselves as affiliated with one of these denominations. [There are 1.4 billion Catholics (and 2.2 billion Christians), 30% of the world's population, 1.6 billion Muslims, 1 billion Hindus, about 500 million Buddhists, and 14 million Jews]. Compact signers can be part of Advisory Councils organized at the Pope's level and by Center Directors in each country. Once all Catholic educational institutions offer their communities free Internet connections in the evenings, the human spirit might move each synagogue, temple, mosque, or other site to implement the Compact. And add benefits to their constituencies and communities of steeply discounted connection technology for lifetime learning and a free first year of college. Another benefit can be the steeply discounted prices for new technology available to billions of denominational members worldwide, including for lifelong learning. (I will return to this discussion.)

5.2. Rapid Learning: Research for Strategic Priorities

New research can refine strategic priorities for maximum impact. For example, there may be two critical developmental stages that a global educational system needs to get right. The 0-4, preschool, and Kindergarten years (discussed earlier) are one target where investments for success pay dividends for later school years and life. A second developmental period with lifetime impact occurs when educational institutions must focus on the opportunity, triggered by hormonal changes at puberty, to build new brain circuits for abstraction, integrated complexity, and foresight. Usually, institutional failures are formally recognized much later when they invoke so-called "remedial math" requirements. A comparison of cognitive requirements for employment and navigating the modern world illustrates the problem. Elementary school arithmetic—tied to physical objects like three apples plus two apples—contrasts with the potential for abstract reasoning in algebra and thinking about x and y without caring about what x or y represents.

For example, a private in the army needs only the cognitive development to deal directly with physical objects and models—to disassemble, clean, and reassemble a gun after a step-by-step demonstration. However, a successful store manager must live a substantial part of the day referring mentally to ideal abstractions with an integrated complexity—hiring good employees, fully-staffed work shifts, restocking shelves, plans for seasonal sales, worrying about making a profit, etc.

5.3. Home Pages and Vistas for the Future

Although there will be a shared Home Page architecture (hopefully, it will be enrolling, like Amazon.com rather than an institutional Vatican bureaucracy presentation), each Center's Home Page can include a Director's Corner in its upper-right space. I suggest six click-boxes to engage users in the new Renaissance's exciting, unfolding world: 1.) News, Conferences, Plans, and Reports; 2.) LearnStorm Challenge; 3.) Inventions Wanted; 4.) Peace and Security; 5.) World Public Library; and 6.) Staff Recommendations

5.3.1. News, Conferences, Plans, and Reports [Clickbox 1]

Clickbox 1 will open a stream of news stories and announcements of relevant conferences, plans, and reports. A link to Google News can allow users to create customized searches across almost all of the world's public communications media with near-instant translation.

5.3.2. LearnStorm Challenge [Clickbox 2]

Each Center might wish to organize, beginning in the fall of 2024, partnerships with Khan Academy for its LearnStorm Challenge designs.* These engage outside sponsors and entire communities in high-visibility, high-impact, limited-time projects for investments, competition, and spirited commitments to raise performance levels in fundamental areas. Also, they can extend the unique strength of Catholic institutions to create social capital and community cohesion for good values.† The beneficiaries include all students who have slipped behind due to the COVID pandemic and students who have slowly fallen behind grade levels over several years. LearnStorm Challenge awards Badges and Raffle Awards for the highest scoring classes in several areas, including "Grit," which sends the Khan Academy's message to students that anyone can learn anything if they put in the hours for their futures. Community involvement adds a statement of societal support and freshness beyond business-as-usual schools. In Fall 2024, a Learnstorm Challenge—Mathematics can go first. Given the World Bank's performance data, the LearnStorm Challenges—Reading might be next for Fall 2025. As experience evolves, local Directors might shift to other non-academic community-level engagements in the Spring.

It would be unusual, but in the Pope's spirit, to have a LearnStorm Challenge—Singing and Dancing in the Spring of 2025, perhaps followed by the LearnStorm Challenge—Soccer [or other national sport or, simply—Athletic Skills] for the human potential boost in the Spring of 2026.

5.3.3. Inventions Wanted [Clickbox 3]

Inventions Wanted will be the global education system's portal to a new realm of graduate and professional research seminars for large-scale collaboration, learning, and rapid innovation for the world's future. By invitation, leading scientists (perhaps with support from groups of corporate sponsors) will organize a series of Tuesday lunches for interested

* <https://www.khanacademy.org/khan-for-educators/k4e-us-demo/xb78db74671c953a7:implementing-khan-with-students/xb78db74671c953a7:encouraging-student-motivation/a/national-learnstorm-challenge>

† Margaret F. Brinig and Nicole Stelle Garnett, *Lost Classroom: Catholic Schools' Importance in Urban America*, Illustrated edition (University of Chicago Press, 2014).

worldwide audiences for each of a priority list of wanted inventions or breakthrough experiments. A first lunch discussion might describe the inventions. Next, leading researchers can explain what they are doing, where they are stuck, and what might be promising. Then, viewers can contribute ideas to a fast, cross-fertilizing creative process. The research seminars will be for leading-edge sciences rather than for public education, although there might be tie-ins for college and high school students.

Visionary groups of scientists and for-profit representatives have already done preliminary work with an inventory of possible inventions to reduce costs by up to 40% and accelerate SDG goals.* The conventional ideas about scientific progress focus on scientific geniuses making individual breakthroughs in labs. The new possibilities of the Compact era add a new dimension of focus on fast, cross-breeding information systems and a theory of combinatorial innovations that bring together ideas or discoveries in wider networks.

Here are four examples:

1. Khan Academy Khanmigo
2. How Can I Make Money?
3. Sustainable Agriculture
4. Affordable Housing in UDCs

5.3.3.1. Khan Academy Khanmigo. Khan Academy has announced an extraordinary, open-ended project to build AI applications for personal assistants and tutors. An Inventions-Wanted oriented investment can stimulate ideas and identify basic toolkits for worldwide audiences. For example, a Benjamin Franklin tutor can be programmed with everything that Franklin thought, said, observed, and wrote—and students could learn by asking questions about whether he believed that the King of England was evil or whether it made sense to go to war about a tax on tea. It might be interesting to have a St. Augustine or St. Thomas Aquinas Khanmigo informed by research observing what students want to discuss.

5.3.3.2. How Can I Make Money? A second high-priority Inventions Wanted Challenge might be a much-needed How Can I Make Money? AI program for UDCs. The World Bank, leading business schools, and the UN Development Program can invite designs for GPT programs trained on the published knowledge of economists and the World Bank, Business Schools, venture capitalists, and the history of economic development in UDCs. Can it reconfigure this knowledge so that today's youth generations graduating in Latin America, Africa, Afghanistan, or Palestinian Refugee camps can get practical answers? Can they input GPS coordinates and see, for example, ten good money-making ideas they and their friends might organize? Especially ideas that might not occur to them. A universe of franchise models with bank financing available: does the Third World need more Starbucks, Subways, and McDonalds or new local franchises of the best foods of street vendors in its cities? Are the microenterprise finance ideas used up or available in abundance, almost anywhere?†

* <https://forcegood.org>. See also Garry Jacobs, Oppenheimer: The Untold Story on YouTube. the work of the United Nations Trust Fund for Human Security and the Human Security for All (HS4A) movement, <https://humansecurity.world>

† To develop a Compact-inspired suggestion discussed elsewhere: In this same spirit, an Inventions Wanted discussion could pursue the Pope's agenda for a transformed capitalism aligned with human flourishing and environmental health. Once the Catholic Church organizes the market power of it-

A further challenge for an AI program might be working backward from a goal to business solutions. For example, Coca-Cola International may have created a bold solution to achieve several SDG goals that need to organize financing. Their invention adapts a standard storage container for users and for-profit, non-profit, and community investors. The side of the storage container folds down to reveal a counter for retail sales. The Center has Dean Kamen's water purification technology to deliver clean and affordable drinking water anywhere globally (resupplied with Coca-Cola's formidable delivery system for UDC rural areas). It has electric power from included photovoltaics. It is, anywhere in the world, a communication hub for mobile devices and the Internet with its own VSAT dish. Refrigeration supports vaccine supplies for public health projects. It sells Coca-Cola products and a selected number of other consumer products. During the day and evenings, it can be an education center with Internet connections for K-12 students and lifelong learning. Adding photovoltaic devices gives enough electric lighting for a community center and after-dark community sports on a new, adjacent playing field.*

Another high priority Invention Wanted might be:

5.3.3.3. Sustainable Agriculture – with numerous challenges that could enroll researchers and investors. (The Gates Foundation's vision to improve the productivity of photosynthesis might change large sections of the economy).†

5.3.3.4. An Affordable Housing series could also accelerate a universe of inventions that, in combination, could impact lives worldwide.

- Adjusting bamboo species to different climates gives fast-growing, substantial building material: some species achieve a total height of 20-30 meters in 60 days; next, it requires 3-7 years of thickening and toughening before harvest.
- A Catholic Church with a moderate plot of land could supply building materials for starter houses for its congregation.
- A small cadre trained in building trades can support volunteer community-building commitments on evenings and weekends. It can have an enhanced spirit if volunteers also earn credits toward the community by constructing a simple, good-quality starter home for themselves or a family member.
- Innovative financing can divide ownership of urban land with a Catholic land trust (giving home ownership to individuals while assuring that the land remains a resource for community housing.)

Every family should have a home that it owns—and can, as soon as there is a global system that can connect the human spirit to the potential for cooperation and problem-solving.

* The innovation appeared to be brilliant. However, Coca-Cola wanted the EKOCENTERS to make a profit, be independent, and spread to multiple sites with venture capital and local microenterprise investors. It probably remains ahead of its time as a solution to rural clean water, mobile and Internet access, and education in the most rural areas. Part of the challenge for ChatGPT, could be to work backward, perhaps with one strong and assuredly profitable part of the package. Providing refrigeration and a nation-wide resupply system might attract a brewery that suddenly could sell cold beer in the evenings in national systems including the more rural areas. And, serving also as a community Center, have refrigeration to sell ice-cold water? Coca-Cola's original idea – to use a franchise model for efficient training and design – may be a successful formula for UDCs that is not yet in World Bank databases for ChatGPT to know about. See: <https://www.designboom.com/architecture/coca-cola-ekocenter-water-purification-shippingcontainer-10-9-2013/>

† https://www.gatesagone.org/wp-content/uploads/2022/12/Release_GatesAgOne_RIPE-Portfolio-Announcement-121322.pdf

[A parallel discussion of an Experiments Wanted project is outside the scope of this paper. However, I enclose a recent assessment by ChatGPT 4.0 of 10 experiments that could yield profound breakthroughs. Other experiments to tap zero-state energy in the universe could open doors for a transformed future relatively quickly.] *

5.3.4. Peace and Security [Clickbox 4]

The potential pathways opened by Clickbox 4 deserve extended discussion beyond the scope of this paper. Given the importance of peace and security, it is puzzling that humankind does not yet have an established K-12 digital curriculum. Even cross-disciplinary college-level education requires students to take the initiative to find unique professors or discover the many relevant pieces for their path.

These are open-ended and unresolved questions, and the Pope's advocacy for a Compact-inspired global educational system is a joint critique of the inadequacy of millennia of both secular and religious education. Two World Wars of the 20th century began on the mainland of Europe in civilized countries where Mozart played in cafes. Nazi Germany was overwhelmingly Christian, primarily Protestant (especially Lutheran), with a Catholic minority.

Given this demography, the substantial membership of the Nazi Party would have been from these backgrounds or identified themselves with these denominations. Among other door-opening entries, I suggest 1.) Violence, Nuclear Disarmament, and Arms Control, 2.) World Divinity School and Spiritual Growth, 3.) Relationship Building and Changemaking, and 4.) Sustaining Peace.

* Can you design ten experiments in the physical sciences whose results are likely to transform how we think about the physical world and its processes?

Designing groundbreaking experiments requires not only deep knowledge of current physical theories but also the ability to imagine novel approaches or anticipate shifts in understanding. That said, here are ten potential experimental ideas, across various domains of the physical sciences, that could have transformative impacts if their outcomes were to challenge existing knowledge:

1. Quantum Gravity Experiments: Develop experiments to directly test theories of quantum gravity. Observing phenomena where general relativity and quantum mechanics intersect, perhaps using ultra-precise measurements of black hole evaporation or examining the behavior of particles in extreme gravitational fields, could shed light on the true nature of gravity.
2. Room Temperature Superconductors: Find and test materials that demonstrate superconductivity at room temperature. Such materials would revolutionize electronics, power transmission, and transportation systems.
3. Dark Matter Direct Detection: Design detectors sensitive enough to capture direct interactions with dark matter particles, perhaps through specialized cryogenic systems or using novel materials. Identifying dark matter's nature would transform cosmology and particle physics.
4. Quantum Entanglement at Macroscopic Scales: Push the limits of quantum entanglement by trying to entangle larger and larger systems, up to macroscopic scales. Observing entanglement at such scales could challenge our understanding of the boundary between the classical and quantum realms.
5. Probing the Planck Scale: Use advanced particle accelerators or other experimental setups to probe distances on the order of the Planck length, potentially revealing new physics or dimensions.
6. Recreating Primordial Conditions: In advanced lab conditions, recreate the environment believed to be present just moments after the Big Bang. Observing and understanding primordial nucleosynthesis or other early-universe processes could refine cosmological theories.
7. Verifying the Existence of Magnetic Monopoles: Design experiments to hunt for these theoretical solitary magnetic charges, which, if found, would validate certain grand unified theories and possibly lead to novel technologies.
8. Examining the Speed of Light: While the speed of light is currently viewed as constant in a vacuum, experiments that can challenge this assumption under various conditions or dimensions might offer insights into fundamental physics.
9. Studying Consciousness in Quantum Mechanics: Explore the controversial idea that consciousness affects quantum outcomes. Set up double-slit experiments or other quantum setups where the observer's conscious awareness (or lack thereof) is the primary variable.
10. Exploring the Nature of Time: Design experiments that attempt to understand time as an emergent property or explore its directionality. For instance, trying to create conditions where entropy decreases could challenge our understanding of the arrow of time.

Please note: These ideas are speculative and based on the frontiers of current knowledge. Whether they can be realized with present or near-future technology, and whether their outcomes would indeed be transformative, remains uncertain. However, pushing the boundaries of our understanding often leads to the most profound discoveries.

5.3.4.1. Violence, Nuclear Disarmament, and Arms Control. Many students will be unaware of peace studies resources, so Website entries for the SIPRI Yearbook and White's historical database will be helpful.* The first chapter of the SIPRI Yearbook on nuclear armaments might be assigned reading in any relevant Compact-inspired curriculum for peace studies: arms control and nuclear disarmament have become challenges for which the highest priorities of humankind co-exist with silence in a public agenda-setting process.†

5.3.4.2. World Divinity School and Spiritual Growth. The world probably needs a good divinity school to engage with the remarkably bold (and perhaps brilliant) claims of the Pope and other Compact signers about education and learning for spiritual growth. An upgrade could be new AI Khanmigo tutors trained with the published work of spiritual guides and teachers. (For example, ChatGPT-4 says that it is familiar with the publications and work of Sri Aurobindo.) Schools of philosophy and psychotherapy designed to support the growth of individuals and their potential (e.g., person-centered therapy and classics of Chinese philosophy in some modern interpretations) can broaden traditional curricula in the spirit of Compact-inspired second-tier education.‡

5.3.4.3. Relationship Building and Changemaking. An emerging focus for the peace and security curriculum: Perhaps 50% or more of the decisions to go to war or escalate a conflict have involved major misperceptions since the beginning of the 20th century. Thus, an essential quiet dimension of work for peace lives in growing networks of institutions like the US Institute of Peace and the development of relationship-building groups and networks.§ A vital lesson of the Cold War experience is that specialized but somewhat independent organizations and networks with similar organizations in other countries are essential to long-term relationships with good outcomes. (Typically, policy planning staffs in mainline agencies default to short-term priorities and large in-baskets of papers marked Urgent.) Rather than rely upon formal diplomacy based on the court protocols of monarchs at the time of the Congress of Vienna, contact groups of influential individuals on both sides have sustained dialogues to prevent misperceptions and lay the groundwork for preventive diplomacy. The

* Stockholm International Peace Research Institute, *SIPRI Yearbook 2023: Armaments, Disarmament and International Security* (Oxford University Press, 2023); Matthew White, *Atrocities: The 100 Deadliest Episodes in Human History*, Paperback (New York: W. W. Norton, 2013).

† An obvious comparison of the trillions of dollars of annual world expenditures for military capabilities and armaments against other SDG goals for human benefit is the beginning of a thoughtful discussion about better long-term balance in investment portfolios with educated analysis of different causal pathways to achieve sustainable peace and security. Military expenditures

‡ See Michael Puett's interpretations in his interview by Nigel Warburton, "The Best Chinese Philosophy Books" on fivebooks.com. Note that the distinction between Eastern traditions and Western intellectual history is, in the light of scholarship, less clear than presented in traditional textbooks. The observations and appreciations of Chinese philosophy (notably Confucius) conveyed by Jesuit priests (Matteo Ricci and Nicols Trigault) in China engaged Voltaire's thinking as he stimulated the Western Enlightenment. Schoepenaer channeled Buddhist sensibilities to other Western philosophers. Even within Western philosophy, Nietzsche was engaged, as a young man, by Emerson. Voltaire was engaged by the possibility of Confucian ethics and achievements of Chinese civilization, apparently without knowledge of an authoritarian Christian God. Also by a Confucian view of human potential and public service entrusted to educated individuals selected by merit.

§ H. Saunders, *Politics Is about Relationship: A Blueprint for the Citizens' Century*, 2005th edition (Houndmills, Basingstoke, Hampshire ; New York: Palgrave Macmillan, 2014). <https://sustaineddialogue.org/>⁵⁸ <https://www.ashoka.org/en-us/program/ashoka-changemaker-schools>

USIP is also one source of ideas for a new global conflict and conflict resolution curriculum in secondary schools. (If offered online, these skills can also be a valuable part of a new changemaker curriculum that strengthens domestic and community capabilities with empathy for stakeholder interests.)*

The curriculum for effective peace advocacy has several emerging dimensions that are not yet in digital format.† Similarly, the curriculum for relationship building is not yet available in digital format.‡

5.3.4.4. Sustaining Peace. An updated focus for the curriculum might be case studies of sustained periods of international peace (although with some residual warfare). How to create and maintain these—and how (all of them) fell apart are informative for today’s challenge. [Possible candidates include the Middle Kingdom in Ancient Egypt (2050BC-1650BC), the Pax Sinica in China (206BC-220AD), especially under Emperor Wu, the Roman Peace (from the reign of Augustus (27BC) to Marcus Aurelius (180AD), the Gupta Empire peace in India (320AD-550AD), the Edo Period in Japan under the Tokugawa Shogunate (1603AD-1868AD), and the Post World War II Major Power Peace in Europe with its new and joint experiments in collective security and shared economic prosperity, democracy, human rights, and other possible lessons.] (One sobering explanation may be that history’s hegemonic regimes brutally crushed potential opponents before creating new stakeholders with trade and shared economic prosperity.) The most relevant immediate case for education and learning is the post-WWII peace that—a miracle in world history—has sustained peace and prosperity without a major war on the mainland of Europe involving (for example) France, Germany, and England for 75 years. But there are notable erosions (e.g., the war in Ukraine, in which the Pope has called for peace without being effective). A continuing high-level research seminar, Ending the Ukraine War: Why We Have Not Yet Succeeded, with the Pope’s representatives and candid participation, may improve global education and scientific theory about these challenges.

5.3.5. World Public Library [Clickbox 5]

The Pope and other Compact signers also can bring to life the overdue World Public Library of the digital era. Delays reflect legal battles under outdated American copyright laws written before the new digital age. A light touch of statesmanship (including requests to President Biden for a fast-track solution to create the Division of Children’s Literature, discussed below) can raise the arguments to a higher level and break the log-jam. The key is to organize the equivalent of ASCAP (ascap.com, organized in 1914), the global copyright payment system for music. It collects worldwide performance data (e.g., when a radio station plays copyrighted music) by sophisticated sampling and other means, receives any copyright fees, and pays artists. Once this clearance system becomes available, most of the services of the World Public Library in the digital era will be free to individuals who have borrowing cards for any participating public library, educational institution library, or government or

* See also leading edge projects for cultural diplomacy, science diplomacy, and sustained relationship building like the Pugwash Conferences.

† See <https://youtu.be/CIpEHVFcXzY?si=VM47O7wewPpObw9j>: “The Power and Potential of Youth Advocacy to Build Peace.” This curriculum expands the Pope’s guidance to listen to young people. See also ecdpeace.org.

‡ David Brooks, *How to Know a Person: The Art of Seeing Others Deeply and Being Deeply Seen* (Random House, 2023).

corporate libraries (etc.). The libraries pay legitimate copyright fees, an overhead charge for the system, and a share of an R&D fund to expand all digital holdings across all languages. (All fees will include ability-to-pay adjustments that make the resources accessible to all users in lower- and middle-income countries who access through Center Websites.)* Some areas of the online digital collection (e.g., current fiction, books on best-seller lists) may add fees.† Copyright fees, payable to authors or publishers, can be negotiated by the Pope with an assurance that all works will be available, in perpetuity, to billions of potential users. Click-thru links to amazon.com or other sellers will permit data collection of online purchases of printed copies, perhaps with boosted sales producing revenue-sharing.‡

The Pope's organizers might address a challenging issue: periodicals, especially student access to high-quality newspapers. There is no turning back once thinking readers discover first-rate newspapers and other print publications. Specialized student editions might be distributed worldwide without charge, perhaps with Google News and Google Translate expanding readership to local languages. Ideally, in the service of the human spirit, the Pope will encourage boldness.

Based on research evidence presented by Holverson and others (discussed earlier), the Center Websites can underscore the Compact's values and the shared values of democracies by **beginning with the Children's Literature Division** and prepopulated (for example) with the top 1,000 books for adults to read to children from birth through age four and that children love to read in elementary school years.§ Ideally, they will be available in color, and every child should have a library card as soon as they are ready. The Board of Directors should prioritize the new Google-assisted professional translations to all local languages.¶ The global Children's Division sends another strong message about the values of the human spirit.

5.3.6. Staff Recommendations [Clickbox 6]

A strategic dimension of an effective Compact-inspired global education system should be enrollment and resources to stimulate human potential. Thus, a final Clickbox can include personal recommendations from a Center's staff. Also, staff members may select lists of recommended books, movies, or music from various organizations. Guest columns and specialized services can help readers to make discoveries—and services like fivebooks.com have discovered recommendations relevant to the Pope's higher purposes and infectious enthusiasm (e.g., Karen Lord, "The Best Books About Gods and Godlike Beings"). Cross-over YouTube discoveries can be as good as any university lecture by a leading scholar (e.g., the Hardcore Literature Book Club).

* An emerging formula is to "waive" copyright for digital uses of the number of physical edition copies that have been purchased and currently are uncirculated on shelves in participating institutions.

† Fees to other public libraries can be adapted to pay overhead costs, for an investment plan to digitize all resources in all languages, and for an R&D partnership with Google translate to meet demands or potential demands for translation to local languages. Another level is to train a new generation on First-Contact Reference Librarians.

‡ Alternatively, the Board of Trustees of the World Public Library might include voluntary participation in online advertising (e.g., 40% off on selected e-books) in return for waiving or reducing copyright charges for the public. The World Public Library Board will also include pre-paid memberships in Kanopy.com, Wondrium.com, Discovery Channel libraries, and other global services.

§ George C. Halvorson, *Three Key Years: Talk - Read - Play - Sing to Support & Help Every Child in America* (Sausalito, California: Institute for Intergroup Understanding, 2015).

¶ Another early entry should be Special Needs users.

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