



RECLAIMING COHERENCE, BELONGING AND PUBLIC PURPOSE

For much of modern schooling, the institution controlled a large part of the educational infrastructure. Teachers possessed scarce expertise. Textbooks organized access to knowledge. Libraries concentrated information. Timetables determined when subjects could be encountered, and classrooms determined where most formal learning took place. School was not merely one learning environment among many; for most children, it was the principal gateway through which systematic knowledge became available.

That arrangement has been steadily dissolving.

A student can now learn algebra from an AI tutor at midnight, watch a historian reconstruct an argument on YouTube, participate in a global coding community, translate a difficult text instantly, take an online university course, receive feedback on writing from a generative system, learn a practical skill from a creator, or enter a professional community long before formal schooling has decided that the subject belongs in the timetable. Expertise has become more distributed, explanations more abundant, and instructional support increasingly available beyond the boundaries of the classroom.

This changes the institutional problem facing schools. If knowledge, explanation and increasingly sophisticated forms of tutoring can be accessed elsewhere, then defending school primarily as a place where information is delivered becomes progressively less convincing. The strongest argument for schooling can no longer rest on informational scarcity.

That does not make school obsolete. It makes the purpose of school harder to define.

One response has been to imagine education itself becoming progressively unbundled. Different functions traditionally concentrated inside one institution can be separated and

delivered by different actors: instruction through digital platforms, tutoring through AI, specialist learning through external providers, creative development through community organizations, career preparation through workplaces, social participation through online networks, and assessment through separate credentialing systems. From the perspective of efficiency and personalization, this can appear attractive. Why should one institution attempt to provide everything when learners can assemble an educational experience from an expanding ecosystem of resources?

The difficulty is that education is not simply a collection of services.

A learner may have access to dozens of excellent explanations without possessing a coherent intellectual pathway through them. A teenager may belong to multiple online communities without experiencing the obligations, negotiations and encounters involved in sustained membership of a diverse physical community. A student may personalize almost every learning choice and still encounter too little that was not already compatible with existing interests, assumptions or algorithms. An education assembled entirely around individual preference can become rich in access while poor in common experience.

This is where the distinction between **learning opportunities** and **educational institutions** becomes important. Learning opportunities can proliferate almost indefinitely. Institutions perform another kind of work: they select, sequence, connect, legitimate, challenge and sustain. They decide that some knowledge should be encountered even when a learner would not independently choose it. They bring people into relationship with others they did not select. They establish expectations that extend beyond immediate preference. At their best, they create continuity across experiences that would otherwise remain fragmented.

John Dewey understood schooling in precisely this broader sense. Education, for Dewey, was inseparable from participation in social life. The school was not simply a mechanism for transmitting subject matter but a form of community in which learners encountered the practices, responsibilities and relationships through which democratic life could be experienced. His argument becomes unexpectedly contemporary in an era of radical personalization. The greater the capacity to customize individual experience, the more important it becomes to ask what forms of educational encounter should **not** be left entirely to individual selection.

Gert Biesta offers another useful distinction. His account of education identifies three broad functions: **qualification**, through which learners acquire knowledge and capabilities; **socialization**, through which they encounter traditions, practices and ways of participating in social worlds; and **subjectification**, concerned with becoming a person capable of judgment, responsibility and independent action. Digital systems may increasingly perform parts of the qualification function extraordinarily well. They can explain, practise, adapt, simulate and provide feedback at a scale schools could previously not offer. But the other purposes of education are less easily reduced to efficient delivery.

This is not because technology cannot support belonging, agency or social participation. It can. Nor should traditional schools be romanticized as inherently coherent, relational or democratic. Many are fragmented by subjects, examinations, schedules and institutional routines of their own. Students can spend years physically surrounded by peers and still experience profound disconnection. Schools therefore cannot defend their future simply by pointing to functions they have historically performed imperfectly.

The challenge is more demanding. As learning becomes increasingly distributed, schools must become more deliberate about the forms of value that require **institutional stewardship**.

That may mean relinquishing the assumption that every worthwhile learning experience must originate inside school while becoming much more rigorous about what the institution itself must guarantee: intellectual coherence across fragmented opportunities, relationships strong enough to create genuine belonging, encounters with knowledge and people learners would not necessarily select for themselves, spaces for judgment and deliberation, and a conception of education that extends beyond private advancement toward participation in a shared world.

The future of school may therefore depend less on controlling where learning happens and more on determining what dispersed learning needs an institution to hold together.

FROM ACCESS TO COHERENCE

If access to explanation is becoming abundant, then **coherence becomes more valuable, not less**. The problem facing learners is increasingly not whether they can find something to learn, but whether the things they encounter form an intelligible intellectual trajectory. A student can move rapidly between an AI explanation, a video tutorial, a podcast, an online course, a peer discussion and an interactive simulation, yet still possess only fragments of understanding. Abundance can enlarge opportunity while simultaneously making it harder to distinguish sequence from novelty, prerequisite from enrichment, and conceptual depth from repeated exposure.

This matters because learning is cumulative. New understanding does not simply accumulate beside what came before; it depends on relationships among ideas. Concepts require prerequisites, disciplines develop distinctive ways of knowing, and sophisticated judgment usually rests on structures that have been built over time. Jerome Bruner's work on the structure of disciplines remains relevant here. His argument was not merely that students should encounter important ideas repeatedly, but that education should help them grasp the underlying structures that make further learning possible. Contemporary learners may have access to more instructional material than Bruner could have imagined, but the underlying problem has not disappeared: disconnected encounters do not automatically become organized knowledge.

An unbundled learning environment can therefore create what might be called **educational fragmentation**. Learners become highly active across multiple sources while the responsibility for connecting those experiences increasingly falls on the learner. This can work well for people who already possess substantial background knowledge, strong metacognitive habits and access to knowledgeable adults who can help them navigate choices. For novices, however, choice itself can become cognitively demanding. They may not yet know which concepts are foundational, which explanations are reliable, what should come next, or what important knowledge they are failing to encounter altogether.

This is one reason the language of personalization requires greater precision. Personalization can improve education when it adjusts support, pace, examples or pathways in response to genuine learner needs. It becomes more problematic when it implies that education should be assembled primarily around existing preference. Preferences are partly products of previous exposure. Students cannot choose intelligently among domains they have never encountered, and they cannot request intellectual experiences they do not yet know exist. A system

Michael Young's work on **powerful knowledge** sharpens this issue. Whatever debates surround the term, one of its important implications is that schools provide access to forms of knowledge that extend beyond everyday experience. Disciplines allow learners to think beyond what is immediately familiar, locally available or already known within their social environment. This gives institutional curriculum an important role in an era of personalized learning: not controlling all knowledge, but ensuring that educational opportunity is not reduced to whatever a learner's algorithms, networks, family resources or current interests happen to place within reach.

This shifts the school's role from being primarily a provider of learning to becoming partly an **organizer of learning ecologies**. A student might develop technical expertise through an online course, explore environmental science through a community organization, use an AI tutor for additional mathematics practice, and work with a local business on a design problem. The school need not reproduce each of these experiences internally. Its responsibility is to ask how they connect to larger educational purposes: What knowledge is being deepened? What assumptions are being challenged? What capabilities are developing? What evidence shows progression? What important areas remain absent?



Such questions are particularly important as AI systems become more capable of recommending learning pathways. Recommendation is not the same as educational judgment. An algorithm can optimize for engagement, performance, pace or predicted next steps, but education involves normative decisions about what learners should have the opportunity to encounter, including material that may initially be difficult, unfamiliar or unappealing. A coherent education therefore cannot be entirely delegated to systems designed to respond to existing patterns of behaviour.

The future school may consequently need to exercise **less ownership over learning and greater stewardship over its coherence**. That is a different institutional identity. It accepts that valuable learning will occur across many settings while refusing the assumption that a collection of high-quality learning experiences automatically constitutes an education. What holds those experiences together—intellectually, developmentally and ethically—may become one of the most important reasons for school to continue to exist.

BELONGING CANNOT BE PERSONALIZED AWAY

If coherence is one function that becomes more important as learning disperses, **belonging is another**. The more education becomes individualized through adaptive platforms, AI tutoring, self-paced pathways and personalized recommendation systems, the easier it is to imagine learning as a largely private transaction between a learner and a sequence of resources. Yet education has never been only about access to content. It is also about becoming part of communities in which participation, responsibility, recognition and contribution matter.

Etienne Wenger's work on communities of practice helps illuminate this distinction. Learning, in his account, is not simply the acquisition of information but participation in social practices through which people gradually develop competence and identity. To learn mathematics is not only to master procedures but to begin thinking and acting in ways recognized within mathematical practice. To learn science involves participation in particular norms of evidence, explanation and inquiry. To learn citizenship involves more than knowing institutional facts; it requires experience with disagreement, collective responsibility and participation in shared decisions. These dimensions cannot be reduced to individualized content delivery because they depend on relationships with other people.

This is one reason schools retain a social significance that purely personalized learning environments cannot easily replicate. A school places learners in sustained contact with people they did not choose. They encounter classmates with different abilities, temperaments, languages, histories, beliefs and aspirations. They must negotiate shared space, experience conflict, contribute to collective work, tolerate frustration, depend on others and become dependable themselves. None of this guarantees belonging; schools can be exclusionary, hierarchical and socially painful. But the institutional possibility matters because belonging formed through negotiated membership is different from membership in spaces that can be exited, filtered or customized whenever discomfort appears.

Digital environments complicate this further. They can create genuine communities, especially for learners who struggle to find intellectual or social affinity locally. Online networks can connect a young scientist with mentors, a multilingual learner with language communities, an aspiring artist with global collaborators, or a student with a rare interest to peers who share it. The question is therefore not whether online belonging is authentic. It can be. The deeper issue is whether an education built increasingly around personalized networks gives learners

sufficient experience of **belonging across difference**, rather than belonging primarily through similarity.

This distinction deserves greater attention because personalization often carries an implicit social logic. Recommendation systems learn what users prefer and offer more of it. Educational platforms can identify successful pathways and refine them around individual patterns. Such systems can reduce frustration and increase engagement, but human development also requires encounters that are not optimized for preference. A learner may need to work with someone whose ideas are irritating, listen to an interpretation they would never have selected, participate in an activity that initially feels irrelevant, or remain accountable to a group when withdrawal would be easier. These experiences are inefficient if efficiency means minimizing friction. Educationally, they can be indispensable.

Nel Noddings' work on care in education is relevant here because it reminds us that relationships are not peripheral conditions surrounding "real" learning. Recognition, attention and responsiveness influence whether learners experience themselves as known participants in an educational community. Yet care should not be reduced to warmth or individual support. A caring educational environment also establishes expectations, challenges students seriously and communicates that their contribution to a community matters. Belonging becomes educationally meaningful when learners are not merely included but **needed**.

That difference is easy to overlook. Schools often measure belonging through whether students feel safe, welcomed or connected, all of which matter. But a stronger conception asks whether students perceive themselves as contributors whose presence alters the life of the institution.

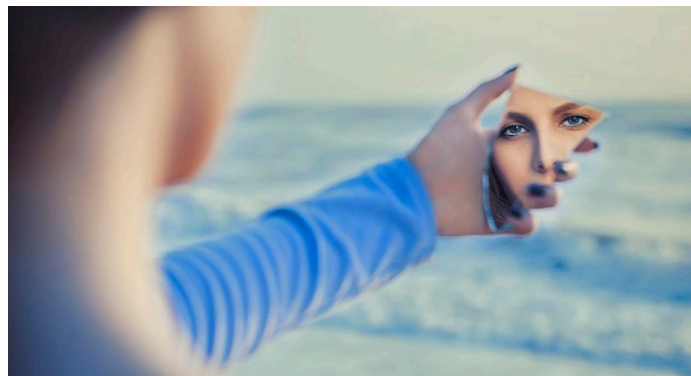
Do they participate in decisions? Are there responsibilities that matter to others? Can their ideas influence the environment? Are they known for something beyond achievement data? Are they entrusted with work whose consequences extend beyond a grade? A learner can be socially comfortable and still experience education as something being delivered to them rather than something they help constitute.

This is where student agency acquires a social dimension. Agency is sometimes framed almost entirely as choice: choosing topics, pathways, tools, pace or formats. Choice matters, but it is only one form of agency. A deeper form involves **consequence**. Students exercise agency when their judgments affect real decisions, their work contributes to genuine purposes and their participation changes something beyond the completion of an assignment. In a distributed learning ecosystem, school may become particularly important as the place where individual learning is connected to collective responsibility.

The implications extend to AI-mediated education. An AI tutor can provide extraordinary responsiveness. It can wait indefinitely, adjust explanation, offer feedback without embarrassment and personalize practice at a level difficult for one teacher serving thirty students. Those benefits should not be minimized. But perfect responsiveness can also conceal what human learning communities uniquely demand: reciprocity. The learner is not only receiving support; they must also learn to support, listen, compromise, explain, mentor, collaborate and sometimes subordinate immediate preference to a shared purpose. Human relationships place claims on us that intelligent systems do not.

For schools, the strategic question is therefore not how to compete with the personalization that technology can provide. It is where personalization should stop. A future-ready school can use individualized technologies aggressively where they remove unnecessary barriers, extend practice or provide access that teachers alone cannot scale. At the same time, it should deliberately protect experiences that require shared presence, negotiated meaning and mutual obligation.

This produces an important institutional distinction. **Personalization should individualize support without privatizing education.** Schools can become more responsive to individual learners while still preserving common spaces in which young people learn what it means to belong to something they did not design entirely around themselves. In an increasingly customizable world, that may be one of schooling's least fashionable but most important public functions.



PUBLIC PURPOSE IN A PERSONALIZED WORLD

The strongest case for school may ultimately depend on something broader than coherence or belonging. It may depend on whether education still has a **public purpose** in a culture increasingly organized around individual preference, personalized pathways and privately optimized experience. If learning becomes progressively unbundled, then one of the most important questions is not simply who teaches what, but what forms of knowledge, encounter and responsibility should remain shared.

Personalization has obvious educational advantages. Learners differ in prior knowledge, pace, language, confidence, motivation and support needs. Technologies can help schools respond to those differences with greater precision than standardized systems often permit. But personalization becomes conceptually weaker when it shifts from adapting education to learners toward constructing education almost entirely around individual preference. A school is not only a service provider responding to demand. It is also one of the few institutions in which young people encounter knowledge, people and obligations that they did not choose in advance.

This distinction matters because education has always involved an element of **encounter with what lies beyond the self**. Gert Biesta's work is useful here because he consistently resists reducing education to learning outcomes or individualized acquisition. His broader argument is that education also concerns how a person comes into relationship with the world, including the demands, limits and realities that cannot simply be customized away. That perspective becomes especially important when algorithmic systems are increasingly capable of shaping environments around preference. An education designed entirely around what learners already like, select or successfully engage with may become highly responsive while simultaneously becoming intellectually and socially narrow.

Schools therefore have a role in protecting what might be called the **educational value of the unchosen**. Students should sometimes encounter literature they would not search for, historical perspectives that disturb familiar narratives, scientific problems whose importance is not immediately obvious, artistic traditions outside their cultural experience, classmates whose assumptions differ from their own, and social questions that cannot be solved by withdrawing into affinity groups. These encounters need not be coercive or indifferent to learner agency. Their value lies in recognizing that education should enlarge the field of possible attention rather than merely optimize what already attracts it.

A shared curriculum contributes to this public function when it creates some common intellectual reference points without insisting upon intellectual uniformity. The purpose is not to make every learner think alike, but to ensure that students have enough overlapping knowledge and experience to deliberate, disagree and collaborate meaningfully. A society in which individuals possess increasingly personalized information environments may need institutions that deliberately create common ground precisely because common ground can no longer be assumed.

This is also where schools differ from many commercial learning platforms. A platform can legitimately optimize for engagement, completion, user preference or demonstrated performance. A school must consider additional questions.

What knowledge should young people encounter because it matters beyond immediate utility? Which forms of cultural and scientific inheritance should remain broadly accessible? What responsibilities should accompany individual opportunity? What should learners understand about people and experiences outside their own social worlds? These are not questions that can be settled by recommendation engines because they involve judgments about educational purpose rather than predictions about user behaviour.

The public role of schooling should not, however, be romanticized. Common curriculum can become exclusionary when it represents only dominant traditions or treats particular histories and identities as universal. Shared experience can become conformity if schools confuse participation with obedience. Public purpose can become rhetorical if students are taught about citizenship, sustainability, justice or community while having almost no meaningful influence over the institutions they inhabit. The solution is therefore not simply to defend “common schooling” against personalization, but to reconstruct commonality in ways that are intellectually serious, plural and participatory.

This requires schools to distinguish **common entitlement from identical experience**. Every learner may deserve access to powerful disciplinary knowledge, sustained reading, scientific inquiry, artistic experience, civic understanding and opportunities for public contribution, while the pathways through which those experiences are developed can legitimately vary. A common curriculum does not require a common pace, a single pedagogical method or uniform products. What needs protection is the entitlement itself: the expectation that some intellectual and social opportunities should not depend on family income, algorithmic recommendation, personal networks or whether students already know enough to seek them out.

Public purpose also changes the meaning of student agency. If agency is interpreted only as personal choice, then education risks becoming another domain of customized consumption. A more demanding conception asks whether learners can exercise judgment in relation to other people and shared consequences. Students might investigate a local environmental problem,

contribute to decisions about school life, produce work for authentic audiences, mentor younger learners, collaborate with community organizations or deliberate over competing solutions to a real institutional challenge. These experiences move agency beyond “choosing my topic” toward participation in something larger than individual preference.

This may become particularly important as AI makes individualized academic support increasingly sophisticated. If students can receive explanation, practice and feedback privately and on demand, schools have an opportunity to use more of their collective time for the forms of education that individual technologies cannot fully reproduce: sustained discussion, collaborative inquiry, public presentation, ethical deliberation, interdisciplinary projects, cultural participation, mentorship and work whose value depends on contribution to others. The mistake would be to use powerful personalization technologies merely to make an already individualized model of schooling more efficient.

The emerging institutional question is therefore not whether schools should remain centralized providers of every learning experience. They probably should not. It is whether they can become **stewards of a common educational world** while learning itself becomes more distributed. Such stewardship requires schools to preserve shared intellectual entitlement, deliberately create encounters across difference, and connect individual development to responsibilities that extend beyond the individual.

A future-ready school should allow learning to become more distributed without allowing education itself to become entirely private.

School as a Coherence Hub in a Distributed Learning Ecosystem

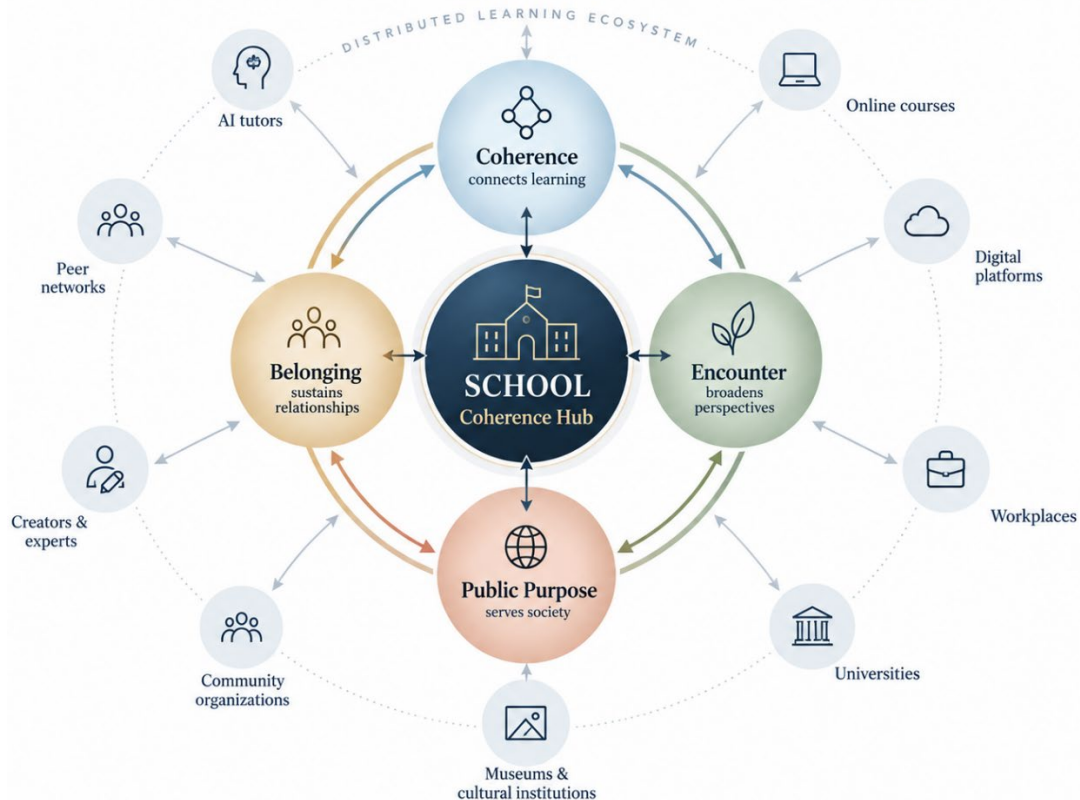


Figure 1. School as a Coherence Hub in a Distributed Learning Ecosystem.

Conceptualized by Javeria Rana. The model illustrates a future-ready school that does not monopolize learning but stewards coherence, belonging, encounter and public purpose across an increasingly distributed ecosystem of learning opportunities.

REBUNDLING THE SCHOOL: A DESIGN AGENDA

If learning is becoming more distributed, the answer is not to defend the traditional school by pulling every educational function back inside its walls. Nor is it to dissolve the institution into a marketplace of disconnected providers. The more promising response is **selective rebundling**: deciding which functions can be distributed across a wider learning ecosystem and which require deliberate institutional stewardship if education is to remain coherent, equitable and socially meaningful.

This requires schools to become much clearer about the difference between **delivery and responsibility**. A school does not need to deliver every explanation, course, mentorship opportunity or specialist experience itself. It does, however, remain responsible for ensuring that learners encounter a coherent body of knowledge, develop relationships of belonging, receive equitable access to opportunities, and connect individual learning to broader educational purposes. In other words, schools can distribute provision without distributing accountability for the quality and integrity of the whole experience.

A practical starting point is to map school functions according to whether they can be distributed, shared, or institutionally protected:

Educational Function	What can be Distributed	What the School should Continue to Steward
Instruction and explanation	AI tutors, online courses, specialist platforms, external experts	Sequence, conceptual coherence, quality assurance, equitable access
Practice and feedback	Adaptive systems, peer networks, simulations, digital tools	Standards, progression, feedback quality, evidence of learning
Specialist and enrichment learning	Community organizations, museums, universities, workplaces, creators	Alignment with educational goals, access, safeguarding, recognition
Belonging and participation	Online communities and interest networks can extend connection	Sustained relationships, inclusion, reciprocity, responsibility across difference
Curriculum entitlement	Resources and examples can come from many sources	What every learner should have the opportunity to know and experience
Public contribution	Partnerships can expand authentic audiences and contexts	Ethical purpose, reflection, civic responsibility, connection to learning

The above table exposes an important principle: **unbundling should occur at the level of provision, not at the level of educational purpose**. A school may use external mathematics tutoring without outsourcing decisions about what mathematical understanding matters. It may partner with a local environmental organization without surrendering responsibility for whether students are developing scientific reasoning rather than merely participating in an activity. It may allow students to use AI extensively while retaining responsibility for determining what forms of human reasoning, authorship and judgment must still be demonstrated independently.

The first design move, therefore, is to build a **coherence function** explicitly into the institution. Schools already invest substantial effort in timetables, assessment schedules and curriculum documents, yet fewer structures exist for helping learners connect experiences across subjects and settings. Advisory systems, interdisciplinary seminars, portfolio conferences, exhibitions of learning and structured reflection can provide opportunities for students to ask how separate experiences relate to one another. The purpose is not to add another programme but to ensure that dispersed learning is periodically brought back into an intelligible whole.

A second move is to protect **common intellectual entitlement**. As pathways become more personalized, schools should define what no learner should miss simply because their interests, family resources or digital environments lead elsewhere. This does not require identical tasks or identical pacing. It requires clarity about the knowledge, cultural experiences, forms of reasoning and opportunities for participation that the institution considers too important to leave to chance. Without such an entitlement, personalization can quietly become a mechanism through which already advantaged learners accumulate richer educational experiences while others receive increasingly narrow pathways optimized around current performance.

A third move is to redesign collective time around what **benefits from being collective**. If technology can handle some explanation, rehearsal and individualized practice efficiently, schools should resist using the time released merely to increase the volume of independent digital work. Shared time becomes more valuable when it is used for seminar discussion, collaborative inquiry, practical investigation, performance, debate, critique, peer teaching, ethical deliberation and public presentation. The aim is not to eliminate individual learning but to become more deliberate about which educational experiences gain value from the presence of other people.

A fourth move is to strengthen the school's role as a **broker of encounters**. Students should gain access not only to resources they can locate independently but to people, disciplines, communities and experiences they might never reach on their own. Partnerships with universities, cultural institutions, civic organizations, businesses, scientists, artists and community leaders can widen the educational field considerably. Yet brokerage must remain more than event coordination. The school should help learners prepare for those encounters, connect them to curriculum, interrogate what they have learned and recognize how different forms of expertise operate.

A fifth move concerns evidence. In a distributed ecosystem, schools can no longer assume that all important learning will occur in teacher-controlled spaces. Assessment therefore needs to become capable of recognizing learning developed across projects, external courses, community experiences and digitally mediated environments while still maintaining credible standards. Portfolios, demonstrations, oral defence, authentic products and supervised application can help institutions evaluate what students can actually explain, transfer and use. The objective is not to credential every informal experience, but to create pathways through which significant learning beyond the classroom can become visible without reducing standards.

These changes also require a different conception of the teacher. The distributed school does not make teachers less important; it makes their role more intellectually demanding. Teachers become not only instructors but **curators, connectors, interpreters and designers of progression**. Their expertise is needed to decide which external resources are educationally sound, where misconceptions are emerging, which experiences require deeper disciplinary grounding and when a learner's apparently rich pathway is actually becoming fragmented. Technology may reduce some forms of routine explanation, but it cannot remove the need for professional judgment about what counts as worthwhile educational development.

Leadership, in turn, must resist both institutional defensiveness and indiscriminate outsourcing. The relevant question is not, "Can someone else provide this?" but "What happens to coherence, equity, belonging and educational purpose if someone else provides it?" Some functions will improve when opened to wider ecosystems. Others will deteriorate if the school withdraws too far. The task is to determine where institutional boundaries should become more porous and where they should remain deliberately firm.

The school of the future may therefore look less like a self-contained provider and more like a coherence hub within a distributed learning ecosystem.

It can connect learners to a wider world without surrendering the responsibility to help them make sense of that world. The institution becomes valuable not because it monopolizes learning, but because it holds together what personalization, platforms and external opportunities cannot reliably hold together on their own: intellectual continuity, common entitlement, reciprocal belonging and public purpose.

CONCLUSION: WHAT SCHOOL IS FOR WHEN LEARNING IS EVERYWHERE

The unbundling of learning does not make school irrelevant. It exposes the weakness of defining school primarily by the functions that technology and external providers can increasingly perform elsewhere. Explanation, practice, specialist instruction and access to information no longer belong exclusively to educational institutions. Defending school by insisting that these activities remain inside the building would mistake institutional continuity for educational purpose. The more consequential task is to identify what becomes more important precisely because learning is no longer contained within one institution.

Throughout this article, four such responsibilities have emerged: **coherence, belonging, encounter and public purpose**. Coherence helps learners transform scattered experiences into cumulative understanding. Belonging gives education a relational dimension that cannot be reduced to individualized support. Encounter brings students into contact with knowledge, perspectives and people they might not independently choose. Public purpose connects personal development to participation, responsibility and life with others. None of these functions requires schools to monopolize learning, but each requires deliberate stewardship if it is not to be weakened by fragmentation.

This also suggests a different way of thinking about personalization. The question is not whether education should become more personalized; in many respects, it should. Learners benefit when barriers are reduced, support responds to genuine need, and pathways can

accommodate difference. The problem begins when personalization becomes the organizing philosophy of the entire educational experience. A school that adapts everything to the individual may inadvertently remove the very experiences through which individuals learn to negotiate a world that will not always adapt to them.

The same caution applies to artificial intelligence. AI can extend tutoring, explanation, accessibility and feedback at extraordinary scale, and schools should make intelligent use of those capacities. But using AI well may require institutions to become more rather than less intentional about human association. If some individual learning can occur more efficiently through intelligent systems, collective educational time becomes more valuable for the activities that depend upon presence, reciprocity, disagreement, mentorship, collaboration and contribution. The future-ready school should not compete with AI where machines are strongest; it should redesign itself around purposes that become more consequential when intelligent assistance is abundant.

Rebundling therefore does not mean reconstructing the self-contained school of the past. It means creating a more porous institution with clearer responsibilities. Learning may move across classrooms, digital systems, communities, workplaces, cultural institutions and global networks, while the school continues to protect common intellectual entitlement, connect experiences into meaningful trajectories and ensure that opportunity does not depend entirely on what learners can assemble for themselves.



The future of schooling may ultimately depend on this shift in institutional identity. Schools will matter less because they are where all learning happens, and more because they can help determine what dispersed learning adds up to, whom it connects us to, and what kind of shared world it prepares us to inhabit.

FROM IDEAS TO PRACTICE

The argument developed here has implications for school design, leadership, curriculum, professional learning and the use of artificial intelligence. If learning is increasingly distributed across digital platforms, AI systems, communities, workplaces and external experts, then school leaders need practical ways to decide what should remain institutionally protected, what can be opened to wider learning ecosystems, and how coherence can be maintained across increasingly diverse experiences.

This work forms the basis of my professional-learning masterclass, *School, Rebundled: Designing Coherent Learning Ecosystems*, for school leaders, academic teams and system-level decision makers. The masterclass would help participants examine their own institutions through the four responsibilities developed in this article—**coherence, belonging, encounter and public purpose**—and identify where current structures strengthen or weaken each one. Participants could map which educational functions their schools should continue to steward directly, which can be shared with external partners or technologies, and where greater personalization risks producing fragmentation or inequitable access.

The practical work would move beyond discussion of whether technology will “replace” schools. Leadership teams would instead examine questions such as how collective time should be redesigned when individualized support becomes more available, how external learning can be connected to curricular progression, how schools can protect common intellectual entitlement while permitting flexible pathways, and how student agency can extend beyond choice toward meaningful contribution.

For schools and education systems reconsidering their institutional purpose in an increasingly distributed learning environment, this masterclass can provide a structured space to move from philosophical questions about the future of schooling to concrete decisions about what their own institutions should **distribute, protect and deliberately hold together**.

FURTHER READING

John Dewey — *Democracy and Education*. Dewey’s classic remains highly relevant to contemporary debates about the purpose of schooling because he treats education as participation in social life rather than the transmission of information alone. His account of experience, community and democratic participation offers an important counterpoint to models of education that increasingly frame learning as an individualized service. For the argument developed in this article, Dewey helps illuminate why the value of school cannot be reduced to what happens between a learner and instructional content.

Gert Biesta — *The Beautiful Risk of Education*. Biesta challenges the tendency to conceptualize education primarily through measurable learning outcomes, efficiency and control. He argues that genuine education necessarily contains uncertainty because learners are subjects rather than objects to be optimized. His work is particularly valuable for understanding the distinction between education as personalized acquisition and education as encounter—with knowledge, other people and a world that cannot always be organized around individual preference.

Etienne Wenger — *Communities of Practice: Learning, Meaning, and Identity*. Wenger provides a powerful account of learning as participation in social practices rather than simply the acquisition of knowledge. His work helps explain why belonging, identity, contribution and membership are educational phenomena in their own right. As learning becomes increasingly mediated by platforms

and AI systems, the book offers an important reminder that becoming knowledgeable also involves learning how to participate in communities that give knowledge meaning.

Michael Young — *Bringing Knowledge Back In: From Social Constructivism to Social Realism in the Sociology of Education*. Young's work is especially important for thinking about what schools should continue to guarantee when learning opportunities become more distributed. His argument for access to forms of knowledge that extend beyond everyday experience raises difficult questions about curriculum entitlement, inequality and the risks of assuming that learners can construct sufficiently rich educational pathways from whatever resources happen to surround them.

Nel Noddings — *Caring: A Relational Approach to Ethics and Moral Education*. Noddings places relationships and responsiveness at the centre of education, challenging the assumption that care is merely an emotional supplement to academic learning. Her work is useful for considering what forms of human relationship schools should preserve as education becomes more technologically mediated, and why belonging requires more than physical presence or access to supportive services.

Ivan Illich — *Deschooling Society*. Illich offers one of the most radical critiques of institutional schooling, arguing for learning networks and forms of education that are less dependent on conventional school structures. Many of his proposals remain contentious, but that is precisely why the book is valuable here. Read alongside contemporary developments in AI, online learning and distributed expertise, it forces a serious question: if learning can increasingly occur beyond school, what institutional purposes remain important enough to defend—and which inherited assumptions about schooling deserve reconsideration?

These books approach the future of schooling from sharply different intellectual traditions. Taken together, they prevent the debate from collapsing into a simple contest between traditional schools and technological disruption. They instead direct attention toward the more consequential question at the heart of this article: **what forms of knowledge, relationship, encounter and public responsibility still require an institution to hold them together?**

Continue the Conversation

For schools, leadership teams, and professional learning communities interested in taking these ideas further, my masterclass [**School, Rebundled: Designing Coherent Learning Ecosystems**](#) dives deeper into the significant shifts that have to take place, as discussed in this week's thoughtpiece, providing you with the skills and understandings needed to help lead this transformation in how schools are designed and function.

The masterclass can be booked for facilitated professional learning with school and system leadership teams. It is designed for educators navigating conditions in which established routines are no longer sufficient, but indiscriminate change is not the answer either.

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A public brief connecting research, field experience and future-ready school design.



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& Advocate

Javeria provides academic leadership across a network of 500+ schools in Pakistan. Her work spans educational leadership, curriculum, teacher development, system improvement, AI-aware learning and future-ready school design.

Her professional learning has reached thousands of educators, leaders and trainers. This brief distils a central question in her current work: how can schools become more porous without becoming less coherent?

HOW TO USE THIS BRIEF

Read it individually, discuss it with a leadership team, or use it to identify questions you want to take into a facilitated masterclass.

This public edition will help you

- 01 Distinguish abundant learning access from coherent educational experience.
- 02 Identify what schools can distribute, what they should share, and what they must protect.
- 03 Use coherence, belonging, encounter and public purpose as institutional design responsibilities.
- 04 Recognize the leadership questions that sit underneath ecosystem redesign.

PUBLIC EDITION BOUNDARY • The full masterclass adds contextual cases, diagnostics, facilitation protocols and implementation support.

THE LEARNING LANDSCAPE

Learning has escaped the building

Access is expanding faster than institutions are redesigning the educational experience around it.

A collection of learning opportunities does not automatically become an education.

Evidence of a distributed learning landscape

54%

of U.S. teens report using AI chatbots for help with schoolwork.

Pew Research Center, 2026

86%

of surveyed university students across 16 countries regularly use AI in their studies.

Digital Education Council, 2024

220M

MOOC learners worldwide by 2021 - one marker of learning moving beyond institutions.

UNESCO GEM Report, 2023



Access remains unequal

Globally connected to the internet for pedagogical purposes:

40% primary • 50% lower secondary • 65% upper secondary

Source: UNESCO Global Education Monitoring Report, 2023.



Belonging still matters

Across OECD countries in PISA 2022, about

16% of students reported feeling lonely at school.

Source: OECD, PISA 2022 Results (Volume II).

THE LEADERSHIP IMPLICATION

The strategic challenge is no longer access alone. Leaders must decide what gives dispersed learning sequence, common entitlement, trusted relationships, evidence and a shared purpose.

INSTITUTIONAL STEWARDSHIP

What schools must deliberately hold together

The case for school becomes stronger when it is framed around responsibilities that fragmented learning cannot reliably guarantee.



Coherence

Connect fragmented experiences into cumulative understanding.

Sequence • progression • intellectual continuity

Bruner • Young



Belonging

Create sustained membership, reciprocity and responsibility across difference.

Recognition • contribution • mutual obligation

Noddings • Wenger



Encounter

Expose learners to knowledge, people and perspectives they may not independently select.

Breadth • challenge • intellectual expansion

Young • Biesta



Public Purpose

Connect individual development to participation, contribution and a shared world.

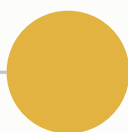
Common entitlement • civic responsibility • consequence

Dewey • Biesta

A school can outsource provision. It cannot outsource responsibility for whether the experience becomes coherent, equitable and educationally defensible.



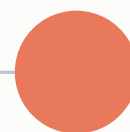
COHERENCE



BELONGING



ENCOUNTER



PUBLIC PURPOSE

Institutional stewardship is the work of keeping these responsibilities connected.

THE COHERENCE HUB

From provider to coherence hub

The future-ready school need not monopolize learning. It must ensure that dispersed learning becomes a coherent education.



DESIGN PRINCIPLE • Unbundling should occur at the level of provision, not at the level of educational purpose.

PERSONALIZATION WITH BOUNDARIES

Personalization should not privatize education

Adapt support to learners without allowing the educational experience to collapse into individual preference.

Personalize support. Protect entitlement, encounter and shared purpose.

USE PERSONALIZATION TO...

- ✓ adjust pace and scaffolding
- ✓ remove unnecessary barriers
- ✓ extend practice and feedback
- ✓ support accessibility and language
- ✓ offer flexible pathways to ambitious goals

DO NOT LET IT...

- ✗ narrow what students encounter
- ✗ replace common intellectual entitlement
- ✗ optimize only for current preference
- ✗ reduce shared time to isolated screen time
- ✗ make opportunity depend on family resources

AI USE ≠ AI READINESS

In the 2024 Global AI Student Survey, 86% reported regular AI use in their studies, yet 58% said they lacked sufficient AI knowledge and skills.

Design implication: personalization must be accompanied by explicit AI literacy, human judgment and equitable access.

Source: Digital Education Council, Global AI Student Survey 2024.

The question is not “How much can we personalize?” but “Which dimensions of education gain value from personalization - and which lose value when they become private?”

DECISION ARCHITECTURE

Distribute. Share. Protect.

A practical test for deciding what can move across the wider learning ecosystem and what still requires strong institutional stewardship.

DISTRIBUTE

External or digital actors can provide this function effectively.

SHARE

Partners add value while the school retains design responsibility.

PROTECT

Too consequential to leave entirely to market, platform or preference.

FUNCTION	CAN DISTRIBUTE	CAN SHARE	MUST PROTECT
Instruction & explanation	AI tutors, online courses	Specialist input	Sequence + conceptual coherence
Practice & feedback	Adaptive systems	Peer / mentor feedback	Standards + evidence of learning
Enrichment	Creators, external courses	Museums, universities, workplaces	Equitable access + alignment
Belonging	Affinity networks	Community partnerships	Sustained reciprocity across difference
Curriculum entitlement	Resources + examples	External expertise	What every learner deserves to know
Public contribution	External audiences	Civic + community projects	Purpose, reflection + ethical responsibility

DECISION QUESTION

If this function moves outside the school, what happens to coherence, equity, belonging, evidence and educational purpose?

The point is not to keep everything inside school. It is to know what responsibility must remain inside the institution even when provision moves elsewhere.

REBUNDLING DESIGN

Five moves for a more porous, purposeful school

The aim is not to rebuild the closed institution of the past. It is to redesign school around what gains value from institutional stewardship.



01 BUILD A COHERENCE FUNCTION

Create advisory, portfolio, seminar or reflection structures that reconnect learning across settings.

What helps learners see progression and meaning across experiences?



02 PROTECT COMMON ENTITLEMENT

Define what every learner should encounter regardless of pathway, algorithm or family resources.

What remains non-negotiable because equity depends on it?



03 REDESIGN COLLECTIVE TIME

Use shared time for discussion, inquiry, critique, performance, mentorship and contribution.

What becomes more valuable when students do it together?



04 BROKER HIGH-VALUE ENCOUNTERS

Connect students to disciplines, people, communities and experiences they would not reach alone.

Who or what should enter the learning ecosystem that is missing now?



05 REBUILD EVIDENCE ARCHITECTURE

Recognize learning across settings through portfolios, demonstrations, oral defence and authentic application.

How will the school know that dispersed learning is deep, transferable and equitable?

LEADERSHIP STRESS TEST

Questions that reveal whether the ecosystem is coherent

These are public conversation starters - not the full diagnostic used in the facilitated masterclass.



COHERENCE

- Where are students repeating learning without progression?
- Where does learning happen that the school does not yet recognize?
- What structures help learners connect one experience to the next?



BELONGING

- Who is known, needed and trusted here - and who is not?
- Where has personalization reduced reciprocity or shared experience?
- Which relationships survive when schedules, platforms or pathways change?



EQUITY + ENTITLEMENT

- Which opportunities depend on family resources, transport or digital access?
- What should every learner encounter regardless of pathway?
- Where could outsourcing quietly widen opportunity gaps?



STEWARDSHIP

- Which decisions are being delegated without clear accountability?
- What evidence will show whether a partnership is educationally valuable?
- What must the school continue to protect even when provision moves outward?

The strongest ecosystems are not those with the most partners, platforms or pathways. They are those in which leaders can explain what each element contributes - and what the institution still guarantees.

PUBLIC-EDITION NOTE

In the full masterclass, these questions are used alongside contextual evidence, team interpretation and decision protocols so that inquiry leads to action rather than another checklist.

THE REBUNDLING CANVAS

Make the architecture visible before changing it

A school can become more porous without becoming less coherent - if leaders can see what is moving, what is protected and what connects the whole.

DISTRIBUTE

What can others provide better, faster or more flexibly?

PROTECT

What must remain a common institutional entitlement?

CONNECT

What structures make dispersed experiences add up?

EVIDENCE

How will we know learning is deep, transferable and equitable?

ENCOUNTER

Which people, disciplines and communities should learners meet?

SAFEGUARD

What remains accountable to school: quality, equity, privacy, care?

PURPOSE

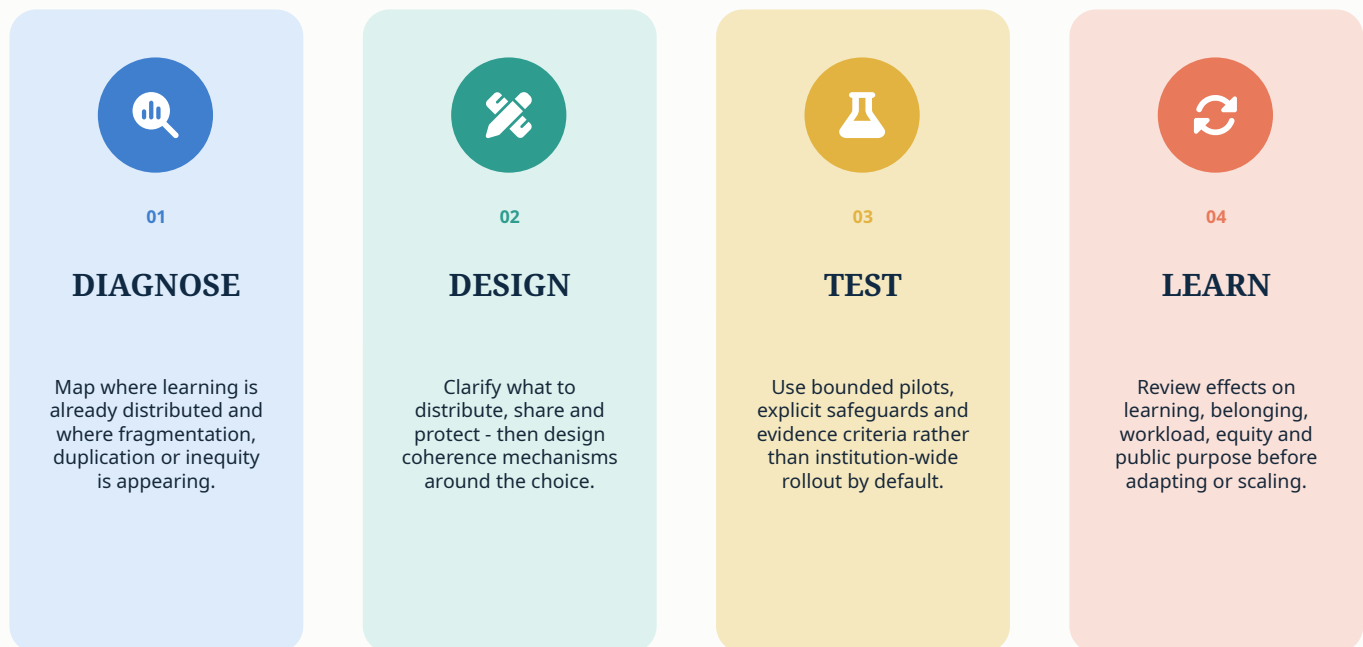
What is school for?

FACILITATION PROMPT • What are we delivering ourselves that could be distributed - and what are we accidentally outsourcing that the institution should still protect?

FROM INSIGHT TO IMPLEMENTATION

What the facilitated masterclass enables

The public brief names the design problem. The full experience helps a leadership team diagnose its own ecosystem and make disciplined choices.



The masterclass is designed for

- ✓ School principals and academic leaders
- ✓ Leadership and curriculum teams
- ✓ School networks and education systems
- ✓ Organizations redesigning learning partnerships

**BRING THE
MASTERCLASS
TO YOUR SCHOOL OR
SYSTEM**

Facilitated learning • contextual cases • team
diagnostics • implementation support

BOOK A CONVERSATION

**A coherent learning ecosystem is not one in which school does everything.
It is one in which leaders know what must remain connected, protected
and publicly accountable.**

RESEARCH AND ATTRIBUTION

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ATTRIBUTION

The School as a Coherence Hub concept and the rebundling design synthesis in this brief are author-developed applications by Javeria Rana, informed by the scholarship cited above.

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