WHAT CHILD MUST KEEP WITHIN HIMSELF.

MANIFESTO ON EDUCATION IN THE AGE OF GENERATIVE ARTIFICIAL INTELLIGENCE.

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Introduction

Dear parents, if you see your children growing up in a world where technologies take up more space in their daily lives with each passing day, then this manifesto is for you.

A father of three children and a professional in new technologies, I ask myself questions. In a world where artificial intelligence would do better than any human, what is the place of our children, and what must they learn?

To be entirely honest, this question did not come from me. It was my son who asked it to me, one day, in the most natural way possible: "What is the point of learning my lessons, since I can ask an AI for the answer?" It surprised me. Because in my profession, I prepare the largest companies to use the latest technologies, and I realize today that my own child is not prepared for them. This case is not anecdotal: by talking with other parents of pupils, I understood that we were facing a fundamental problem.

When conversational agents become omnipresent, the temptation is great to entrust them with our tasks before even having taken the time to think. For a child, this reflex can be dangerous: by delegating too early, he risks no longer exercising the very effort of reflection. Our children must be the architects of their thinking, and not the docile workers of plans drawn by their tools.

While writing this manifesto, I asked myself again what learning means. And there is a beauty in the origin of this word: to learn — apprendre. To learn is to grasp, to take into oneself a piece of knowledge, a gesture, a skill. To take into oneself is to choose the bricks that shape us. It is to forge oneself. So, at a time when AI shapes our thoughts, by delegating to it more than an answer, we delegate to it what builds us as human beings. That is why it is fundamental to ask the question again, so that our children adopt the right reflexes.

In this manifesto, you will not find a magic recipe. The objective is not to give you prompts to gain productivity, nor to evaluate the latest fashionable model. It is a vision: that of a father and a professional, in which I lay out a reflection. I wish to pass on to you a conviction: that of children who show discernment and judgment very early, ready to build their thinking in a world where it will be increasingly easy to delegate one's own.

The question

That morning had started like all the others.

I was in the kitchen with my son. It was still dark outside. The house was waking up in its familiar sounds: the plates on the table, the running water, the hurried steps between the bedrooms and the hallway. I was preparing breakfast with the slightly absurd seriousness of parents who want to do things right, convinced that a good day is built from the very first hour.

It was a Friday. There was a dictation. So I asked him to go over his words one last time.

He looked up at me and asked a question.

"Dad, what's the point of learning, if I can ask artificial intelligence? If it can answer all my questions, why do I still have to learn?"

What surprised me is that I have been working in new technologies for nearly twenty years, having spent the last seven years at the cloud leader building complex systems for companies, and I had just been put in check by a nine-year-old child, between a piece of toast and a glass of milk.

He was not asking me how a machine works. He was asking me: why learn? And behind this question, all the others that followed: why memorize, if a machine retrieves? Why write, if a machine drafts? Why search, if a machine finds? Why school, if knowledge is available everywhere, all the time, immediately?

For generations, we have answered our children: you learn to get good grades; to succeed later; to have a good job; because it is important. But look at them closely: these phrases no longer hold. They no longer hold because we already see that we have before us a tool that produces texts, solves problems, creates images, music... And all of this without effort.

That morning, I understood that my son's question was not a child's question, and that it did not concern only my family. It concerns you. It concerns every parent who, tonight, will watch their child do their homework.

Learning has never been answering

We often believe that learning is obtaining a piece of information. And the school system is built on this idea. Finding an answer, retaining a rule, learning a poem by heart, doing mental arithmetic, reciting dates... Each time, learning is assessed on the capacity to memorize and to provide an answer.

Learning, in the deepest sense, is not possessing an answer. It is transforming oneself. It is taking into oneself something that, until then, was external to oneself. Learning is letting the world enter us so that we can act more freely in the world.

Think of a child learning to walk. No one gives him the answer. We can encourage him, hold out our arms to him, move a dangerous object out of the way, but he must live for himself the balance, the fall, the momentum. He must take walking into himself. And when he succeeds, something changes: he does not merely possess a skill, he possesses a freedom. He can explore, move away and come back. He is no longer carried. He carries himself, and he frees himself.

Learning is above all reducing a dependency. He who cannot read depends on the one who reads for him. He who cannot formulate his thought depends on the one who will formulate it in his place. He who does not learn from the past will depend on the same mistakes, which will repeat themselves. With each real learning, a freedom is created.

That is why my son's question was so powerful. Beneath "why review this dictation?", he was really asking: why take a piece of knowledge into myself, if a machine can keep it outside for me?

For centuries, humans had to learn because information was far away and difficult to access. Access to knowledge was a mountain to climb. I remember going to the library to look for books: it required a physical effort from me, namely covering kilometers to get to the municipal library and walking along the aisles to find the right source of information. Today, information is everywhere, and it is within arm's reach.

The Internet had already brought knowledge closer. But it left us a visible task: formulating a query, opening results, comparing them, building a reflection. Generative artificial intelligence goes one step further. It no longer gives only results: it constructs their form. In a way, it no longer merely shows the roads, it proposes an arrival, and in doing so it prevents the child from discovering the multiple paths that exist and the frictions that would allow him to build his own itinerary.

I sometimes sum it up to my children with a simple image. Artificial intelligence can become an extraordinary compass. But a compass only has meaning for the one who knows how to walk, read the landscape, choose a direction, recognize obstacles, decide to move forward despite fatigue. The compass is not the journey.

So, when your child asks you, too, why learn, do not answer too quickly to push the question away. Answer him: you learn because the answer is not the goal. You learn because you build yourself with it and because every piece of knowledge makes you free. Because every piece of knowledge you take into yourself becomes a strength that no one will ever be able to take away from you.

The real danger : that he delegates his mind

The danger is not that your child uses artificial intelligence. AI is already omnipresent[1], including among the youngest: according to the CREDOC's Baromètre du numérique 2026, among 12-17 year-olds who use generative AI, 68% use it for their homework. But, as with the arrival of the Internet, it is imperative to put guardrails in place, and to understand precisely where the advantages end and where the risks begin. Generative AI must be an amplifier, never a substitute for our children's thinking.

Still, one must know what it amplifies. I would therefore like to dwell on three advantages that I consider among the most precious for our children. But to each, I will oppose its counterweight: for without a framework, these assets become a risk for our children:

The personalization of learning

Thanks to a conversational agent configured with an optimized prompt, a child who struggles to understand a lesson can be assisted in real time by a tool capable of adjusting to his level, his pace and his specific gaps. The intuition is not new: as early as 1984, Benjamin Bloom showed that a pupil supported individually progresses far more than in an ordinary classroom, which is difficult and costly to achieve for every pupil. This is now made possible at scale thanks to AI. A Harvard study, conducted on students and still undergoing validation, measured that pupils followed by an AI tutor made roughly twice as much progress as in an active-pedagogy classroom, in less time[2].

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[1] CREDOC, Baromètre du numérique – édition 2026, conducted for Arcep, Arcom, the Conseil général de l'économie and ANCT. Survey carried out in June 2025 among approximately 4,000 people aged 12 and over. Data cited: "68% of users aged 12 to 17" report using generative AI for homework help. Available on economie.gouv.fr.
[2] Kestin, Miller, Klales et al., "AI Tutoring Outperforms Active Learning," Harvard, 2024-2025 (preprint 2024; PS2 physics course). 194 undergraduate students; learning gains roughly doubled compared to an active-pedagogy classroom, in less time.

I have experienced it myself. I developed a small application, "Ma Dictée," designed to fit the difficulty specific to each child: it scans the copy through image recognition, spots recurring mistakes, then generates tailor-made dictations that precisely target these weaknesses. The AI does not correct in the child's place and does not whisper the spelling to him: it leads him to practice where he stumbles, again and again. Personalization, here, does not remove the effort.

But this ease of personalization has a cost. If AI systematically adapts to the difficulty in the child's place, it takes away from him a fundamental capacity, that of adapting himself in the face of effort. It is this capacity to persevere, to fail and to start again that we must precisely build in our children. The Brookings Institution report A New Direction for Students in an AI World (January 2026) warns on this point: used without a framework, AI can harm long-term cognitive development, precisely because it removes the productive frictions of learning[3].

Resilience in the face of effort is not a flaw of the classic education system: it is one of its most precious virtues. And it is this mechanism that we must make evolve. We will come back to it.

The tireless interlocutor, without judgment

The second major advantage of AI is to offer the child an interlocutor who is always available, never tired, and above all entirely devoid of judgment. Facing a machine, the child is no longer subject to the gaze of others, to the fear of being wrong in public, nor to the shame of the "stupid question." For introverted children, this characteristic is transformative: they dare to ask more questions.

I see it with my children. I used a Mini Reachy robot from Pollen Robotics[i], paired with an LLM whose prompt was set up as a Socratic agent: its goal was to ask questions and invite the children to complete their answers. I was surprised by the speed with which my children started asking all sorts of questions, and this without fear of being judged, including on notions I believed they had mastered. What is magma? And what is the difference with lava? The relationship is one to one, with no audience to judge.

But, here again, with every advantage one must find the right balance. Removing the fear of judgment is one thing; systematically avoiding it is another. And it is precisely this slide that we must dread. In the world that awaits our children, the capacity to communicate with others, to convince, to come to an agreement are fundamental skills. Speaking in public, holding someone's gaze, taking in contrary opinions: these are muscles that develop only through real exposure and through controlled discomfort.

AI must therefore be a springboard, not a refuge. It can constitute a low-risk training wall on which the child hits his first balls, but the match is played on the court. But it must imperatively be coupled with real, human, and progressively demanding situations.

Augmented creativity

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[3] Mary Burns, Rebecca Winthrop et al., A New Direction for Students in an AI World: Prosper, Prepare, Protect, Center for Universal Education, Brookings Institution, January 2026. A year-long global study based on interviews and panels (pupils, parents, teachers, education leaders and tech professionals) in more than 50 countries, supplemented by a review of hundreds of studies. Report available on brookings.edu.

Before AI, the child often had an idea bigger than his means. He imagined something, but his hand did not follow. His vocabulary was not yet sufficient. Laying out pages, illustrating, composing music, drawing a cover: all of this remained constrained by his age and by his tools. AI finally allows everyone to give shape to their imagination — provided it does not imagine in their place. It must come after the first attempts, after the first reflection.

That is why the order is decisive. The child thinks first. He says what he wants to do, even clumsily. Then the AI arrives like one more pair of eyes, a bit like us, parents, who refrain from imposing our point of view and seek rather to guide, to reveal the nuances and the possible paths. Well configured, AI does not extinguish creativity: it amplifies it.

I have tested it at home, at two ages. For my youngest, four years old and with an inexhaustible thirst for coloring pages, I set up a voice interface connected to a printer: he asks an AI for his coloring pages. But it is configured to never accept the first idea. "A dinosaur" is not enough: it needs a scene, an action, a setting. The child must clarify his thinking to obtain his image and, without knowing it, he learns that words shape the world. For my eldest, passionate about trains, the AI goes further: it complexifies the shapes, proposes angles, universes, variations that he would not have imagined alone, starting from what he had in mind.

I have also seen it in workshops. The children had to create their own story. The heart of the work came from them: the characters, the universe, the beginning of the tale. It was only for the cover that we used AI — not through a single request, but through iterations. You try a prompt, you look, you search for what is missing, you reformulate. Little by little, the child discovers it for himself: the more precise his thinking, the closer the image gets to his intention. Prompts are an original way of teaching grammar to my children. It is no longer an abstract lesson on adjectives. If his request is vague, he gets vagueness. If he is precise, the world becomes sharp. Language is a tool of creation.

There lies the difference: a creativity that is augmented, not replaced. The child does not press a button to consume what a system spits out; he starts from his inner world and uses AI to explore it further. And from it is born a pride in seeing his idea become a cover, lyrics becoming a song, a script a video. He no longer stays in the imaginary: he makes a thought tangible.

But the balance is fragile, for I believe it rests on the order one imposes. If AI arrives too early, the child stops searching within himself: he asks and waits... then he chooses the already-formed answer, and produces in the end what everyone produces. Work on assisted ideation confirms it: receiving the machine's proposals before having thought for oneself fixes the mind on the first example and impoverishes both the number and the originality of ideas[4].

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[4] Samangi Wadinambiarachchi, Ryan M. Kelly, Saumya Pareek, Qiushi Zhou & Eduardo Velloso, "The Effects of Generative AI on Design Fixation and Divergent Thinking," Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI '24), 2024. Between-subjects experiment (N = 60): exposure to AI-generated images during ideation increases fixation and reduces the fluency, variety and originality of ideas compared to a condition without AI. This effect is part of an older literature on fixation by example (Agogué et al., 2014; Jansson & Smith, 1991).

Should we therefore do without it? No. These benefits are real — I see them in workshops, I see them in my children. Well used, AI opens doors: it makes one want to write, to create, to start again. It can even restore confidence to a child horrified by dictations, like mine.

But it is precisely because these assets are powerful that they call for a deeper question. It is no longer enough to demand "a framework": the framework is necessary. The real question is interior: what must the child, despite everything, continue to build within himself while AI generates?

What one must keep within oneself

Our societies have always rested on a form of delegation. We do not know how to do everything, and it is not our calling to master everything. We go to see a doctor because he has taken into himself a knowledge that we have not developed. We rely on an architect, a lawyer, a craftsman, a teacher, because each has chosen to embody knowledge to the point of making it a reliable capacity.

But this delegation only has meaning if it is conscious. What I do not master, I can entrust to someone else. What I master, on the other hand, gives me a form of freedom.

This is exactly the point that artificial intelligence makes crucial for our children. The question is not only to know what they can ask a machine. The real question is to know what they must build within themselves so as not to depend entirely on it. What is non-negotiable? What knowledge must a child have taken into himself? For he who delegates those bricks too early deprives himself of the foundations on which everything else is built.

We learn, because the world never stops changing. In a world where the machine produces and answers, what will distinguish the child will not be his capacity to recite information. But quite simply to be more human.

That is why I consider that certain pillars must become priorities again in learning, for they form the child's foundations.

I distinguish five pillars:

Adaptability.

It is without doubt the first thing a child must keep within himself, because it is the one the world will put most to the test. Tomorrow, certainties will change faster than today, and AI further accelerates this movement. For example, in 2023, ChatGPT reached one hundred million users in two months. My eldest will enter the job market around 2035 — which is to say that the tools that will dominate do not yet exist. What we can help build for our children is not the mastery of tools, it is the capacity to adapt to those they do not yet know. This can come through simple activities.

Imagine a group being told: you have enough to fund three projects, but six are on the table. There is no right answer. You have to evaluate, defend a choice, accept being wrong. It is

precisely this situation of ambiguity that I place at the heart of my workshops, in the spirit of the schools that train children through dilemmas rather than through right answers. For in the face of uncertainty, AI does exactly the opposite of what is needed: it delivers an assured and immediate answer, and teaches the child that there always exists a ready-made solution to ask for. Yet adaptability is knowing how to act when there is no certainty. In its Future of Jobs 2025 report, the World Economic Forum places analytical thinking at the top rank of essential skills, and among the aptitudes whose demand will grow the most by 2030, it cites curiosity and continuous learning; in other words, the capacity to adapt without cease[5].

Systems thinking.

Adapting is not enough if one is wrong about the objective; we must prepare our children to see rightly. And seeing rightly, today, means accepting something the world tends to make us forget: the world is not linear. The problems our children will have to face almost never have the form "one cause, one solution." They are made of multiple variables, of constraints, of deep causes. Understanding them requires a particular capacity, systems thinking: that of going back beyond the symptom to the true cause.

It is exactly this capacity that AI, badly used, atrophies. Pose it a problem: it will return to you, in a few seconds, a clean, convincing and linear answer. One cause, one solution. Yet that is not how reality works. By dint of receiving answers in a straight line, the child may stop asking himself whether the problem might not have another origin. In this scenario, the machine narrows the field, it steers thinking in the most probable direction, where, on the contrary, widening it would allow one to understand its real complexity.

That is why I want to train children, very early, to see the network where the machine shows only a line. The schools that practice systems thinking, foremost among them the Waters Center for Systems Thinking, whose tools are used in school settings, always start from a real problem and have it explored like a four-level iceberg. Let us take a case every child encounters: "our cafeteria wastes significant quantities of food." At the surface, the event: nearly full trays are thrown away. Below, the trends: does this happen every day, is it only certain dishes, and since when? If we keep going down in the reflection, the structures that produce them: is the time to eat too short? Are the imposed portions too large, is the waiting line discouraging? Is feedback passed back up to the cooks? And if we go down even lower, the beliefs: "a good meal must be copious" or "in a school setting, waste is inevitable." The lesson is immediate: reacting to the symptom — "let's cook less" — changes nothing if the cause lies lower down.

The best management schools make this truth lived rather than stated. The most famous example is the Beer Game[6], created at the end of the 1950s at MIT by Jay Forrester, founder of system dynamics, and which has been for a quarter of a century the rite of passage of its new students. The principle is simple: four links of one same chain — the factory, the distributor, the

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[5] World Economic Forum, Future of Jobs Report 2025, January 2025 (survey of more than 1,000 employers representing some 14 million workers in 55 economies). Analytical thinking remains the most cited core skill; resilience, flexibility and agility figure among the next ones, and curiosity and lifelong learning count among the skills growing the most in importance by 2030.

[6] The Beer Game was developed at the MIT Sloan School of Management by Jay Forrester at the end of the 1950s; used worldwide to teach system dynamics, it has remained for more than twenty years a rite of integration for MIT's new students. See MIT Technology Review, "The Beer Game" (2013).

wholesaler, the store — supply themselves with a single product, each seeing only the orders of its neighbor. The lesson is tangible: the alternation of shortages and gluts amplifies as one goes up the chain, which causes the "bullwhip effect."

The child who has trained himself to descend the iceberg, to put a system to the test, no longer looks at AI the same way. He no longer asks it for the answer; he uses it to explore the multiple facets of a problem — "and if the cause were elsewhere? What other factors can influence the problem?" The tool, proposing without guardrails, flattens the world of possibilities, whereas on the contrary it can become an instrument for probing its depth.

Resilience.

Seeing a project through to the end, weighing an uncertain decision: all of this presupposes encountering, sooner or later, the moment when it does not work. And whether one is an adult or a child, the frustration this can generate is sometimes difficult to manage. The child must understand that failing is only the step that precedes success. Childhood in the age of AI must stimulate this self-confidence with the will to experiment, to make mistakes, and not to settle for the first answer.

The child must be galvanized by attempts and understand the impacts; he does not say to himself "I can't do it"; he asks himself "why didn't it work, and what do I need to change?". This capacity does not come naturally, and it is exactly there that AI takes a shortcut: by succeeding on the first try in the child's place, it removes failure itself.

And this is no accident: this distinction matches a solid intuition of pedagogy. Nearly a century ago, the psychologist Lev Vygotsky described the zone of proximal development — that space between what a child can do alone and what he can accomplish with the help of an adult or a more advanced peer[7]. It is in this zone that learning occurs. But on one condition, specified later under the name of "scaffolding": the help must take the form of hints and questions, never of the ready-made solution, and it must fade away as the child progresses. We find here the mechanism I set up with the Mini Reachy robot. An AI that gives the answer takes the child out of this zone: it does in his place. An AI that questions, suggests, then withdraws keeps him in it. Let us allow the child to fail, to search, to start again — it is in this friction that he builds himself.

Communication.

A child can adapt, see rightly, persevere: all of this remains locked inside him if he does not know how to give it back to others. And in a world where the machine will produce a growing share of words, what will distinguish a child will not be speaking the machine's language, but thinking on his feet in front of others, convincing, listening, holding on to an idea.

It is a skill acquired through real exposure, which is why it occupies a central place in what I am building: debate games where one must defend a position and hear the contrary, pitches presented in front of parents with a structured speech, projects carried out in teams where one

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[7] Lev S. Vygotsky, Mind in Society: The Development of Higher Psychological Processes, Harvard University Press, 1978.

learns to work with those who do not think like us. AI can help to prepare, to structure, to train at low risk, but it will never replace the moment when the child faces others.

Judgment.

And all of this converges toward one last capacity, the one that holds the others together. Adapting, Understanding, Acting, Failing, Communicating: at every step, the child has had to make a decision: choosing the right action, at the right moment and for the right reasons. This virtue is executive; it liberates in the sense of moving to action and not leaving an idea that evaporates. Judgment goes beyond critical thinking; judgment decides. It is this capacity that determines what one takes into oneself and what one amplifies with AI. It is therefore a capacity that pilots the use of AI in a conscious way.

A child must be trained to ask himself the questions: "Do I really understand? Would I know how to do it again without the machine? Does this idea come from me, or am I in the process of accepting it?" These questions, asked early and often, separate the child who uses AI from the child whom AI uses. We find here parental fundamentals such as "explain it to me, without looking" to validate understanding.

Conclusion

I hold the deep conviction that every child carries within him a potential to be revealed, and that AI, well employed, can amplify it rather than smother it.

Every parent wants the best for their children. What I want for my children is for them to flourish and build themselves through their successes as well as their failures; for their childhood to prepare them, in the best conditions, to build their compass.

That, in ten years, they will have forgotten the date of the Edict of Nantes — my eldest's lesson as I write these lines — and that they ask the AI to retrieve it will in no way be a failure for me. What I wish for them is to have understood its substance: why this moment was forged into history, what delicate choices, what strategy led to this signature, and to have asked themselves what they themselves would have done. Reading Treasure Island is a beautiful thing; but feeling, with empathy and humanity, what a being seized by the thirst for adventure can experience is another. Deep down, I want them to live these emotions and truly feel them, provided they have kept what matters: enough to navigate a world of ambiguity and in motion, with tools that never stop evolving.

We do not raise our children to become the human prostheses of an artificial intelligence, but so that they use it to think better and to open new horizons.

This is what I propose to you, you who are reading me. AI must be an amplifier, never a substitute. It is not about fearing a future where our children would be controlled by AIs, but about preparing them differently, in keeping with their time. Starting with a single sentence:

"First, tell me what you think."

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[i] Reachy Mini, an open-source conversational robot developed by Pollen Robotics. See https://www.pollen-robotics.com/