

GETTING THE SEQUENCE RIGHT

Governing AI As It Enters Jordan's Classroom

Policy considerations for a new school year

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This brief is an independent contribution to Jordan's national policy conversation. It does not represent the position of any government institution. The brief draws on global evidence, two closed expert dialogue sessions and new national polling. Its argument is one of coherence: in education, the order in which AI arrives matters as much as the speed of its arrival.

Executive Summary

Why this matters now? Artificial intelligence is reshaping work and society faster than institutions can adapt, and a new school year is beginning across Jordan with another cohort of children meeting it in their classrooms and at home. Jordan has moved earlier than most: a national AI tutor is already in schools. Some national evidence exists on how young people use AI, and much of the architecture to govern it is in place. The task now is to build the foundations beneath what has begun, the rules, the evaluation and the preparation of teachers, so that an early start becomes a lasting advantage. How to do that, and in what order, is the subject of this brief.

What is actually happening? Jordan has put AI in front of students through a significant national pilot and plans to scale it further. The foundations that should sit beneath it, teacher preparation and a governance framework, are the natural next stage and are not yet fully announced. So, for the moment, deployment has moved a little ahead of the evidence and the governance architecture that will support it. This is not seen as a setback, but rather the ordinary next step for a programme that moved fast and now has the chance to make itself solid.

The core shift. The debate is often framed as a choice between adopting AI and resisting it. A national poll conducted in June 2026 shows a public that is neither: the majority of Jordanians, close to three in five, are open to AI in the classroom, most of them only if it is done well, while a significant minority, over a third, are not yet convinced. Jordanians believe AI has a place in education and are waiting for their institutions to show it can be done responsibly. So, the real question is not whether AI belongs in education, but in what order and under what conditions it should arrive, and, before that, what education is for in the age of AI.

A balanced direction. Effective policy governs the order in which AI is introduced in schools and attaches conditions to each stage: clear rules, backed by enforcement and independent evaluation, and the teacher preparation and public understanding that let people use the tools well. Teachers are prepared before student-facing tools arrive, and evidence keeps pace with scale. Handled this way, Jordan's early start becomes a durable advantage.

What needs to happen first? Four steps should be prioritised:

- Name** the purpose AI should serve, and the capacities it should prioritise.
- Design** the evaluation Siraj merits and measure the right things.
- Build** AI-specific teacher preparation into the Education Strategic Plan.
- Engage** teachers, students and parents in a continuous manner to shape AI policy in education.

Bottom line. The country that leads on AI in education will be the one whose approach is most coherent: purpose first, foundations second, scale third. Those foundations are concrete: clear rules, an independent evaluation, and teachers who are ready before tools reach the classroom. Jordan has some of the evidence, the institutions, and the stake to be that country. The window to act with that coherence is open now, at the start of this school year.

The Bigger Picture

To see why this matters, we should start wider than the classroom. Artificial intelligence is reshaping work, knowledge and daily life across the world, and it is doing so faster than governments can regulate or societies can adapt. For most of the last century, education has rested on a simple promise: build skills, and a job will follow. That promise is weakening. As whole categories of work are automated, having skills will no longer guarantee a job for a growing share of people, because the jobs may not be there.

This changes what education is for. If the old aim was to prepare young people for stable careers, the new one is to prepare them for constant change: to think, adapt and act well in a world that will not hold still. And it shifts the value onto a different set of capacities; the human ones AI cannot easily replicate such as¹:

- Critical thinking, to question and judge rather than accept.
- Creativity, to make what does not yet exist.
- Empathy, to understand and work with other people.
- Focus, to hold attention in a world built to fragment it.
- Collaboration, to solve problems together.
- Agency, to act with purpose rather than drift.

These are the capacities the AI economy rewards. They are also the same capacities premature AI use is most likely to foreclose. That is why the order in which AI enters educational institutions matters as much as the speed of its arrival.

The Context

Within that global shift, Jordan is already acting. Its response to the digital world runs across several fronts: child protection, wellbeing, national security and education, treating social media and AI as distinct challenges rather than one. This brief concerns AI in education specifically, where the issue is not mainly “screen time” or distraction, but how children learn, think and develop.

It draws on two closed dialogue sessions held under the Analyseize Lab’s ‘At a Crossroads series’ in June 2026, one with policymakers and international agencies and one with teachers and school leaders, alongside a national poll and a national study both conducted in 2026. Jordan also has much of the institutional architecture this work will need:

- A National Council for Future Technology, coordinating the national approach to AI.
- A National AI Strategy and Implementation Roadmap 2023 to 2027, led by the Ministry of Digital Economy and Entrepreneurship, with an AI Ethics Charter and the Economic Modernisation Vision 2033 setting the wider frame.
- An Education Strategic Plan 2026 to 2030, carrying a digital-transformation pillar.
- Parliamentary and national committees already engaged on communications and technology, and on children and social media.
- And the deployments themselves: the national AI tutor Siraj, Jordan’s place in an international education cohort, and early AI-literacy efforts.

The pieces are available. What is missing is the framework that connects them - the primary subject of this brief. The order argued for throughout is purpose first, foundations second, scale third. Because classrooms carry real developmental stakes, getting that order right is not a procedural preference, but the strongest reason decisions should not be made in isolation. The National Council for Future Technology is the body positioned to ensure that choices about AI in schools align with the National AI Strategy, the Ethics Charter and the country’s data-protection and child-protection rules, so that the sequence adopted in classrooms reinforces rather than contradicts the one adopted across government.

¹ The following capacities are examples/subset of capacities that have been highlighted in different skills frameworks and evidence and are used to illustrate the range of the capacities impacting cognitive, social, and emotional domains.

The Non-Negotiable Anchor: Child Development

In a field that is constantly changing, one thing holds still: what we know about child development. Children build their capacities in windows, each one forming in its own period, through the child's own effort. That effort is not incidental; it is how capacities are formed. Miss the window, something is lost. These stages are among the most solid findings in child development, and they line up with the school-year groupings teachers already use.

A CAPACITY MISSED IN ITS WINDOW DOES NOT ARRIVE LATE. IT FORECLOSES.

At each stage, certain capacities take shape within that window and are hard to build well later:

- In the early years, before and at the start of formal schooling: language, the foundations of literacy, and the ability to manage attention and emotion in a classroom.
- In the primary and middle years: fluent reading and number sense, the discipline of working a difficult problem through to the end, and the habit of productive struggle that real learning depends on.
- In adolescence: reasoning, judgement, and the confidence to think for oneself and defend a view.

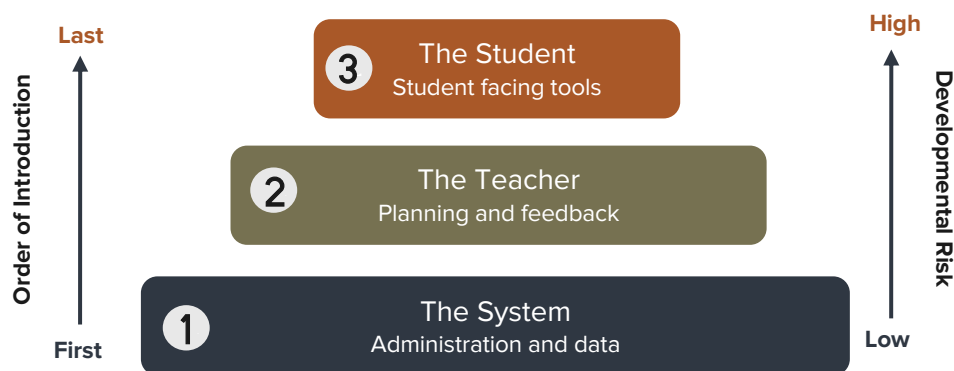
This is where AI differs between a child and an adult. When an adult uses AI to write or decide, the adult hands over a skill already built. Call it offloading: the skill weakens, but it can return, because it was there to begin with. When a child hands over the same work to AI, the skill has not formed yet, and the effort that would have built it is exactly what the AI removes. For adults it is offloading. For children it is foreclosure, and very hard to reverse.

The evidence is starting to show it. In a randomized trial at a Turkish high school, students who practiced with an unguarded AI tool did 48 percent better than their peers while they had it, then 17 percent worse once it was taken away. The ability had been in the tool, not in them. Newer work through 2026 points the same way: heavier AI use in students is consistently associated with weaker critical thinking, an effect sharpest in the youngest and most dependent users. If adults who already built these skills can lose them, children who have not yet built them are more at-risk, not less.

From this, the order follows. AI's risk rises the closer it comes to a window that is still open, so AI should enter education from the outside in, furthest from where the child sits. AI for the system (in administration and data) is low risk and delivers quick benefit. Next sits AI in the hands of teachers, for planning and feedback, where the teacher remains the one who is teaching. Closest to the child, and last, sits AI facing the student directly, at the very moment a capacity is forming. That is the order the science asks for: systems, then teachers, then students. The teacher is the layer between the system and the child, which is why AI should reach the teacher before it reaches the student.

How AI Should Enter the Classroom

From the outside in, furthest from the child first



The closer AI comes to the child, the later it should arrive

What The World Is Doing

As of September 2026, no country has the full answer yet, but a pattern is forming, and what divides these approaches is as telling as what they share. None are acting blindly: each is reasoning from its own evidence, even where that reasoning leads to different conclusions.

- Norway has gone furthest toward restriction. When its school year began in late August 2026, it brought in a near-total ban on generative AI for children aged 6 to 13, with supervised use for ages 14 to 16, on the reasoning that AI lets young children skip the foundational steps of reading, writing and reasoning.
- The United Arab Emirates restricts generative AI for under-13s while making AI a mandatory subject from kindergarten, pairing early caution with early adoption.
- The European Union treats AI used in education access and assessment as high-risk under its AI Act, a binding rule rather than guidance.
- China restricts emotional dependence and companion services for minors under its 2026 measures on human-like AI, addressing the relational risk rather than access alone.

A closer look: New York City, September 2026

New York City, the USA's largest school district, has drawn the most detailed lines of any jurisdiction so far, and the distinctive part is the method: instead of treating AI as a single thing to allow or ban, it sorted access by a child's age and by what the tool is for. It paused student-facing AI through grade eight for a year while it studies the effects but kept AI in teachers' hands for planning. It also let older students use a few approved tools under supervision and tight limits. It banned companion chatbots, the kind built to be a friend or confidant, at every age, with an exception for assistive tools that help students with disabilities or those still learning English.

The picture is not only one of restriction. Across the Global South, countries closer to Jordan's own circumstances are choosing to adopt AI in education, and the instructive difference is in how. Rwanda trained more than five thousand teachers in AI literacy before placing tools in front of students, and its national platform is built in both Kinyarwanda and English and tied to the curriculum, an approach close to Siraj's own. India is introducing AI into the curriculum from the third grade in 2026, treating teacher preparation as the first task rather than the last. Kenya's national AI strategy is explicitly phased, beginning with teacher training and curriculum pilots. And a World Bank trial in Nigeria produced some of the largest learning gains yet recorded, precisely because teachers, not the tool alone, carried the lesson.

The clearest caution comes from a high-income country that moved in the opposite order. South Korea made AI-powered digital textbooks mandatory across its schools in early 2025; within months, after objections from teachers and parents, its parliament removed their official status and left adoption to each school, and take-up fell by about half. The thread running through these cases is consistent: teachers and structure first, student-facing tools second.

Beneath the differences sits a shared instinct, and it runs in the direction this brief argues for: the closer a use sits to the child, the more caution it attracts. UNESCO's global guidance points the same way, urging that AI should strengthen rather than replace teachers, that human agency be protected, and that children's direct use carry an age limit. Countries are reaching pieces of the same sequence from different directions.

For Jordan, the implication is not to copy the strictest example. No country has settled this, so there is no finished model to import. Jordan's surest guide is its own national evidence, gathered in its own classrooms. Research and honest engagement are part of the policy, not a step before it.

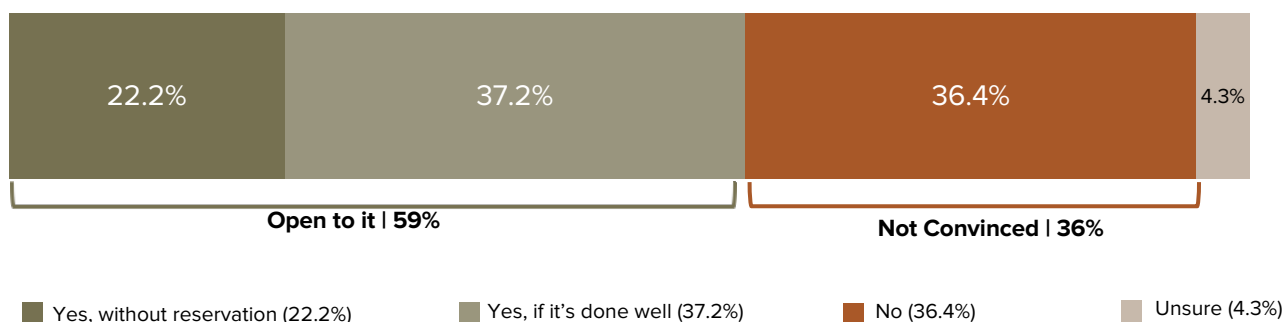
What Jordan Already Knows, And What Is In Motion

Jordan is not starting from nothing. It has already acted on the ground, and separately, this brief can draw on evidence that few countries in the region have.

The evidence: Analyseize's 2026 national poll found that 93 percent of Jordanians feel AI is moving too fast, most sharply among the young. On having AI in the classroom, 22 percent say yes without reservation, 37 percent say yes if it is done well, and 36 percent say no. The findings show a public leaning towards conditional openness, with a substantial minority opposed. This matters more than sentiment: education rests on the trust of parents, students and teachers, and securing that trust is part of the work itself.

Openness to AI in the Classroom

National poll of Jordanians, June 2026



An earlier national study of 1,471 people across all twelve governorates indicates that many young Jordanians, most strikingly those aged fifteen to twenty-four, are already turning, on their own, to consumer AI tools for emotional support, personal advice and health information, usually with no framework around them. The finding concerns the tools young people reach for themselves, not any classroom programme. The pull is easy to understand: studies find that such tools can make people feel more heard than another person does, and the youngest of them are the least able to sense that the warmth is not real. Jordan has evidence few countries in the region can draw on, most are left to assume the behaviour rather than measure it.

What Jordan has built. Jordan has done something few in the region have. Siraj, the national AI tutor, is Arabic-first, tied to the national curriculum, and built in Jordan. By design, it is a curriculum-tied tutor rather than a companion chatbot, which places it on the educational side of the line that systems such as New York's are now drawing. It has so far reached a significant number of students and teachers across the country. It began as a pilot and is planned to grow further, and it was built for good reasons: to support teachers in overcrowded classrooms and to reach children the system struggles to serve. A programme of that ambition has now earned an evidence base to match. An independent evaluation is being prepared, which is the correct next step and a sign of the programme maturing. What matters most is that this stage is about the evidence, and evidence is only as good as what it measures. Measuring the right things, learning and development together, calls for education and child-development expertise working alongside the technical. Jordan also sits in the founding cohort of OpenAI's education-for-countries initiative. The task now is to let the evidence catch up with the ambition.

Why the tool cannot carry the system alone: Siraj's rationale is also the strongest case for putting AI in front of students: overcrowded classrooms, uneven teaching, stretched resources, and a tireless tutor that promises to reach every child. It is a serious hope, and the evidence gives it a serious answer. AI does not replace the teacher; it amplifies the classroom it enters.

AI MAKES A STRONG TEACHER STRONGER AND A WEAK TEACHER WEAKER.

The evidence bears this out. In the same Turkish trial, a version of the tool rebuilt with teacher-designed safeguards (offering hints rather than answers), removed the harm the unguarded version had caused. In Nigeria, a World Bank randomised trial showed how large the benefit can be when the conditions are right: teacher-supervised AI tutoring, tied to the curriculum, produced learning gains equivalent to as much as two

years of ordinary schooling, and the researchers credited the mix of technology, teaching and structure rather than the tool alone. The benefit depends less on a child having help than on that help being well designed and well timed, keeping the child working rather than handing over the answer. AI multiplies the teaching already in the room and does least where that teaching is weakest. Looked at this way, that is encouraging: prepare the teacher first, and the same tool becomes the multiplier Jordan is looking for.

The paradox at the centre. There is a deeper reason to get this right. Jordan's schools, like many, still reward memorisation, which is exactly what AI does most easily. The job market now rewards the opposite: judgement, originality, the ability to think for oneself. And those are the very capacities that early student-facing AI is most likely to foreclose. So, a country that reaches for classroom AI to win an economic edge but does so in a way that forecloses those capacities, undercuts the very edge it is chasing.

THE CHILD TAUGHT BY AI IS THE CHILD WHO MAY NOT COMPETE IN THE LABOUR MARKET.

Seen this way, protecting how children develop is the surest route to the economic edge Jordan is seeking.

What The Dialogue Surfaced

Evidence and international comparison say only so much. In June 2026, the "At a Crossroads" series convened two closed sessions to hear from those this most affects: one with policymakers, technology and AI experts, and international agencies, and another with teachers and school leaders, with young people present in both. Their testimony is treated here as evidence. Three groups spoke to the same thing from different vantage points: the teachers closest to the change, the young people living inside it, and the policymakers weighing the decisions.

What The Teachers Told Us

Teachers kept returning to one idea: what matters in learning is the process, and AI lets students skip it. A humanities teacher described watching this shift happen over three years. Her students' first drafts used to arrive rough, and something formed in the child between that rough draft and the finished one. Now the first draft arrives polished, and the forming no longer happens. A drama teacher said AI is killing creativity, because so much of learning is the process, and that it shortcuts exactly that. An English teacher put it hardest: her students, she said, can no longer think, and when told not to use AI, they use it anyway, because they no longer know how to begin without it. One teacher captured the loss of control in a single line: *with this technology, we are the cows, not the farmers.*

None of them wanted AI banned. They wanted to know who was governing it, and to help decide how it is used. The teachers are ready to be partners; what is missing is the channel that would let them, and few countries have built one.

What The Young People Told Us

The striking thing about the young people is that they see AI's effect on themselves. Across three ages, the same worry surfaced. A high-school student said that some students are beginning to feel what AI is doing to their minds, even as many of them keep using it for the easy way out. A university student said most of her peers now offload their thinking onto AI and asked how you build AI into education when people will always take the easier path, the youngest most of all. A young professional in her twenties said she was grateful to be among the last to learn without AI, because otherwise, she thought, her mind would have formed differently.

This is not adults worrying on the young's behalf; the young are worried about themselves, at every stage, and honest enough to admit they reach for the shortcut anyway. Few things make a clearer case for giving learners a voice in the policy that is shaping them.

What The Policymakers Told Us

The first session brought together policymakers, senior officials, international agencies and technologists, with young people present. From very different starting points, one conclusion formed: the gap in Jordan is one of governance, not of technology. A participant with senior government experience argued that sovereign AI is a myth for a country of Jordan's size, and that the value of a national tool lies not in owning the model, but in controlling its content, which is what Siraj does. A second theme was a difference in how risk and reward are weighed, with economic promise often placed above the protection of children. That trade-off is a false one. As the paradox above shows, the child whose development is foreclosed is the child who may not compete economically. Protecting the one secures the other.

Recommendations

The argument of this brief points to a clear set of actions. None asks Jordan to slow its ambition; each helps turn a fast start into a durable, developmentally sound model, and several can begin now, in parallel. They follow the same logic as the brief: purpose first, then the foundations, then scale.

1. **Name the purpose and develop capacities.** Decide what education in Jordan is for in the age of AI, and name the human capacities it should now prioritise, the ones set out at the start of this brief: critical thinking, creativity, empathy, focus, collaboration and agency. Commit to developing them deliberately, through both formal and non-formal education and at all ages, so that building these human capacities is a stated national aim and not left to chance.
2. **Sequence by developmental risk.** Introduce AI from the outside in for the system first, for teachers next, and for students last and most carefully. Do not scale student-facing tools ahead of teacher readiness.
3. **Evaluate and measure the right things.** Let the current stage be about evidence. Design the evaluation of Siraj, and of any student-facing tool, to measure learning and development together, not use and satisfaction alone. Make sure education and child-development experts shape it alongside the technical team; absence of evidence of harm is not evidence of safety.
4. **Put education expertise at the head of the table.** The people leading Jordan's AI-in-education effort should include educators and child-development specialists alongside technologists, so that the questions asked are pedagogical first and technical second.
5. **Prepare teachers, fully.** Build AI-specific teacher preparation into the Education Strategic Plan 2026 to 2030, which does not yet include it. Preparation means two things: fluency with the tools (their strengths and their limits) and strong grounding in child development and social-emotional learning. No student-facing tool should reach a classroom before its teachers are ready.
6. **Give teachers and learners a standing voice and keep talking.** Build a lasting channel through which teachers, students and parents shape AI-in-education policy, not a single consultation. In a field this fast and this personal, communication with the public must be continual.
7. **Learn from others, in person.** Convene conversations with countries already making these choices, Norway, the UAE and the EU, and peers across the Global South such as Rwanda, India and Kenya, to understand how they reasoned, and localise rather than import.
8. **Build governance on three pillars.** Pair rules with enforcement and independent evaluation, and with the literacy and training that let people use the tools well. Include age-appropriate design standards, procurement criteria, and a way to roll a tool back when the evidence requires it. Treat content control, data residency and platform choice as part of the education conversation, not separate from it. Design that framework to work with the instruments Jordan already has or is building the National AI Strategy, the Ethics Charter and the data-protection regime, so that the rules for AI in the classroom and the rules for AI across government read as one system rather than two.

A Choice, At The Start Of A School Year

Jordan does not have to choose between embracing AI and refusing it. The choice is about coherence. The country that gets this right will be the one that moves in the right order: purpose first, then the foundations, then scale.

NOT THE FASTEST, NOT THE MOST CAUTIOUS, BUT THE MOST COHERENT.

Jordan has already taken the hardest step. It has begun, with ambition. What remains is to build, in order, the foundations that turn a fast start into regional leadership. It has what it takes: the first national evidence in the region, the institutions to act, and a real stake in what its young people become. A new group of children is starting school this month, and meeting AI as they do. The question Jordan can now answer with confidence is whether it is shaping AI in education, or whether AI is shaping Jordan.

Evidence base

National evidence: Analyseize national poll, 2026 (n=748); Analyseize national study, 2026 (n=1,471, all twelve governorates). Jordanian frameworks: National AI Strategy and Implementation Roadmap 2023 to 2027 and AI Ethics Charter (Ministry of Digital Economy and Entrepreneurship, 2022); Economic Modernisation Vision 2033. Child development: Piaget (1958); Vygotsky (1978); Bowlby (1988); Blakemore (2008, <https://doi.org/10.1038/nrn2353>); Diamond (2013, <https://doi.org/10.1146/annurev-psych-113011-143750>); on developmental windows and sensitive periods. AI and learning: high-school study on skill dependence (Bastani et al., 2025, <https://doi.org/10.1073/pnas.2422633122>); Gerlich (2025, <https://doi.org/10.3390/soc15010006>) and further 2025 to 2026 studies linking AI dependence to weaker critical thinking, including Tian and Zhang (2025, n=580, <https://doi.org/10.1016/j.actpsy.2025.105725>) and a systematic review by Nasr et al. (2026, <https://doi.org/10.1007/s40692-026-00396-z>); classroom and meta-analytic studies on teacher-facilitated AI use, including a World Bank randomised trial in Nigeria (De Simone et al., 2025, <https://doi.org/10.1596/1813-9450-11125>). AI and emotional response: Yin et al. (2024, <https://doi.org/10.1073/pnas.2319112121>). International landscape: Government of Norway announcement, 2026; New York City Public Schools AI moratorium, 2026 (<https://www.schools.nyc.gov/about-us/vision-and-mission/artificial-intelligence/guidance-on-artificial-intelligence>); UAE Ministry of Education AI guidance, 2026, and Cabinet decision making AI a mandatory school subject, 2025; EU AI Act, 2024 (<https://eur-lex.europa.eu/eli/reg/2024/1689/oj>); China's 2026 measures on human-like AI services; South Korea Ministry of Education and National Assembly, 2025; Rwanda Ministry of Education and MIT RAISE, 2025; India Ministry of Education and CBSE, 2025; Kenya National AI Strategy 2025 to 2030; UNESCO Guidance for Generative AI in Education and Research (2023, updated 2024; <https://www.unesco.org/en/articles/guidance-generative-ai-education-and-research>). Skills: World Economic Forum, Future of Jobs 2025 (<https://www.weforum.org/publications/the-future-of-jobs-report-2025/>). Companion working paper in preparation: Cook and Nasir, Before the Window Closes (2026). Dialogue: The At a Crossroads session, June 2026. Siraj figures are drawn from public reporting and are approximate.