Lefa AI

RAPID RESEARCH · THEME 9 OF 9

Digital Citizenship

What we're learning

THE QUESTION THIS BRIEF EXPLORES

How can South African basic education build learners' awareness and capacity to engage safely, ethically and critically in the digital world, including with AI?



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ABOUT THIS BRIEF

Rapid Research Theme: Digital Citizenship

This is one of nine rapid research themes in Lefa AI, exploring what AI means for South African basic education. The research brings together existing evidence and expert perspectives to inform decision-making in a rapidly changing field. It does not present new empirical research.

This brief is written to support decisions about AI in education for the Department of Basic Education and its partners. It is not a guide to classroom practice, though teachers, school leaders and parents may find the context useful.

1 rapid review

of existing research, drawing on academic articles, government reports and non-governmental organisation reports, mostly from South Africa

Expert interviews

Interviews with South African AI, technology and online safety specialists, from organisations including Tales of Turning, JET Education Services and Injini

Throughout, we set out to weigh the opportunities and risks fairly, rather than advocate for or against AI.

This brief draws on research by Freda Walters of JET Education Services, Building learners' awareness and capacity to engage safely, ethically and critically in the digital world.

Where this conversation starts

Many South African learners are already online, mostly through a phone, with AI tools such as ChatGPT only a tap away. Yet access to devices, connectivity and skilled support at school remains deeply unequal, and learners are often finding their way through the digital world before their schools, teachers or families feel ready to guide them.

Access is only the first step. At the centre of this brief is digital learner agency: learners' capacity to act with intention, autonomy and reflection when they use technology, including AI. It brings together digital competence, confidence and accountability, and goes beyond skills to include critical thinking, judgement and the ability to question how digital tools are designed and governed. Without it, learners risk becoming passive users, and the inequalities they face carry over into the world of work.

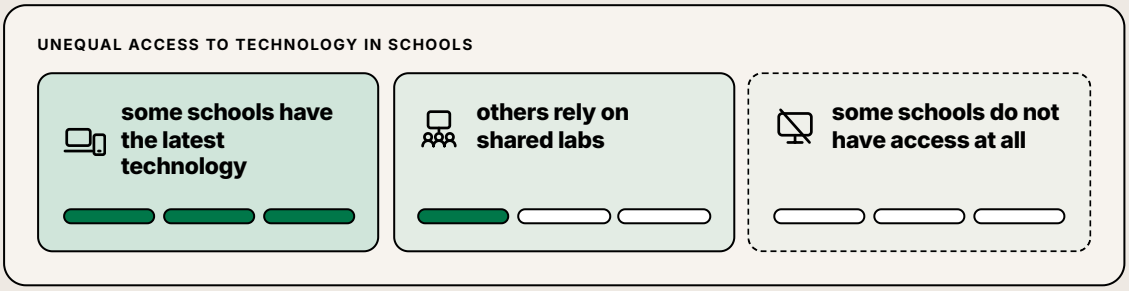
Learner digital agency does not grow on its own. It is shaped by many things, inside and beyond school. The five findings below highlight some of the conditions the research points to in South Africa: access to digital tools, teachers who are supported to guide learners, inclusive policy that supports schools to put it into practice, safe online spaces, and digital citizenship.

Source: Engeness and Gamlem, 2025; Passey et al., 2018; Adorni, 2025.

WHAT WE FOUND

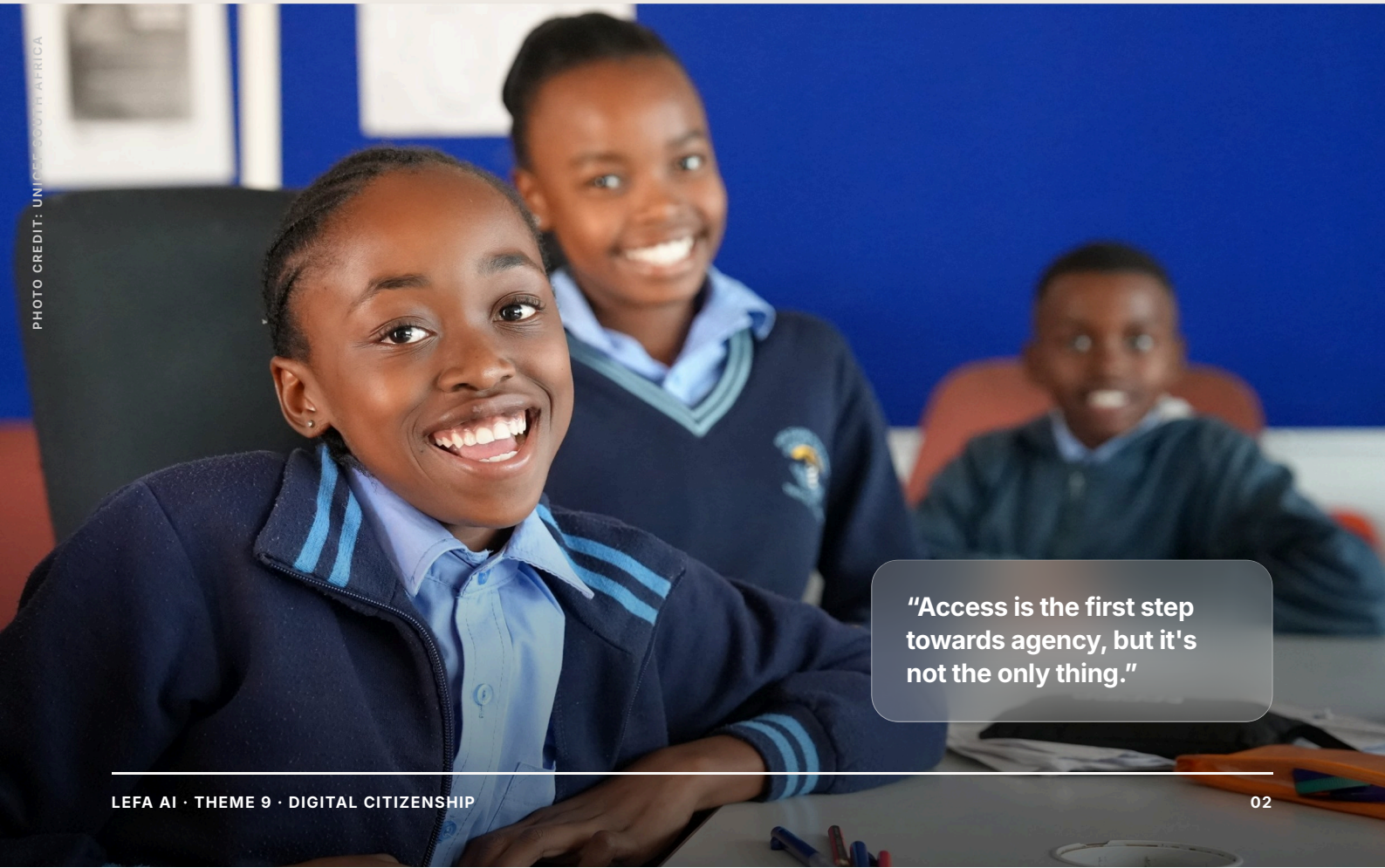
Key findings

01 Access: many learners are online, but mostly through phones though access is uneven.



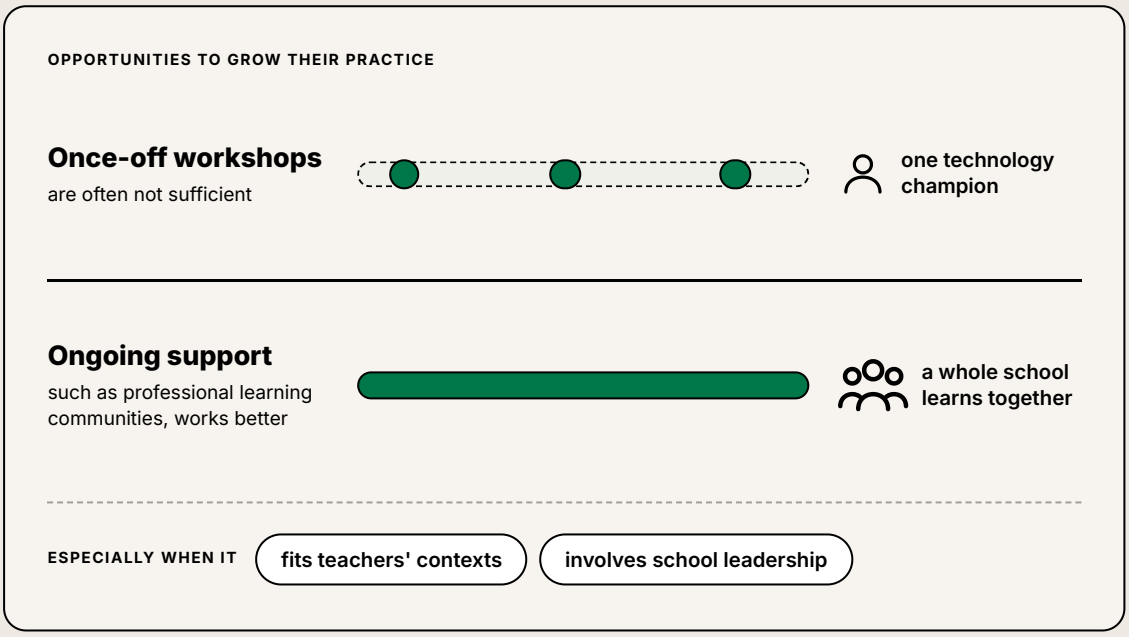
Most South African learners who go online do so through a phone. Around 92% of households own at least one mobile phone, and 40% of children have unrestricted internet access. In one study in Gauteng and Limpopo, around half of learners aged 9 to 16 went online daily, most often on their own devices. At school, access to devices and connectivity is limited and unequal: some schools have the latest technology, while others rely on shared labs, or have none. Access is the first step towards agency, but it's not the only thing.

Source: Basson, 2024; Kotze, 2024; Sikhakhane et al., 2021; Cross and Feldman, 2025.



02

Teachers: teachers are a key lever for strengthening learners' digital agency, and the opportunities to grow their practice work best when they are ongoing, not once-off.



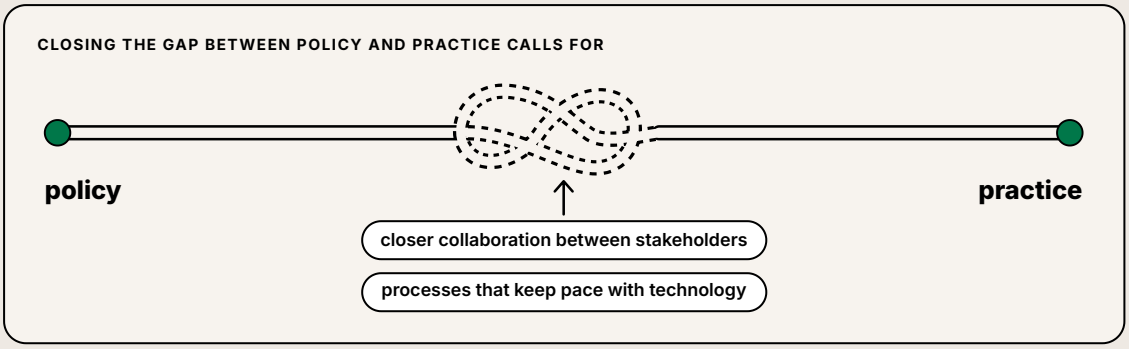
Learners' digital agency depends greatly on their teachers, yet many teachers, especially in rural provinces, report gaps in digital skills, few development opportunities and little guidance on online safety. Among South African teachers not using AI, 57% say they lack the knowledge and skills to do so (see brief 4b on AI and Pedagogy and TALIS 2024).

Supporting learners with AI asks for more than technical skill: it also takes an understanding of AI ethics and the confidence to evaluate digital resources critically.

Once-off workshops are often not sufficient for this. Ongoing support, such as professional learning communities, works better, especially when it fits teachers' contexts and involves school leadership, so that a whole school learns together rather than relying on one technology champion.

Source: Passey et al., 2018; Sikhakhane et al., 2021; Kotze, 2024; Mokoena and Seeletse, 2025; Saal et al., 2025; Engeness and Gamlem, 2025; OECD, 2024 (TALIS); Injini, 2026; expert interview (Dr Craig Gibbs, JET Education Services)

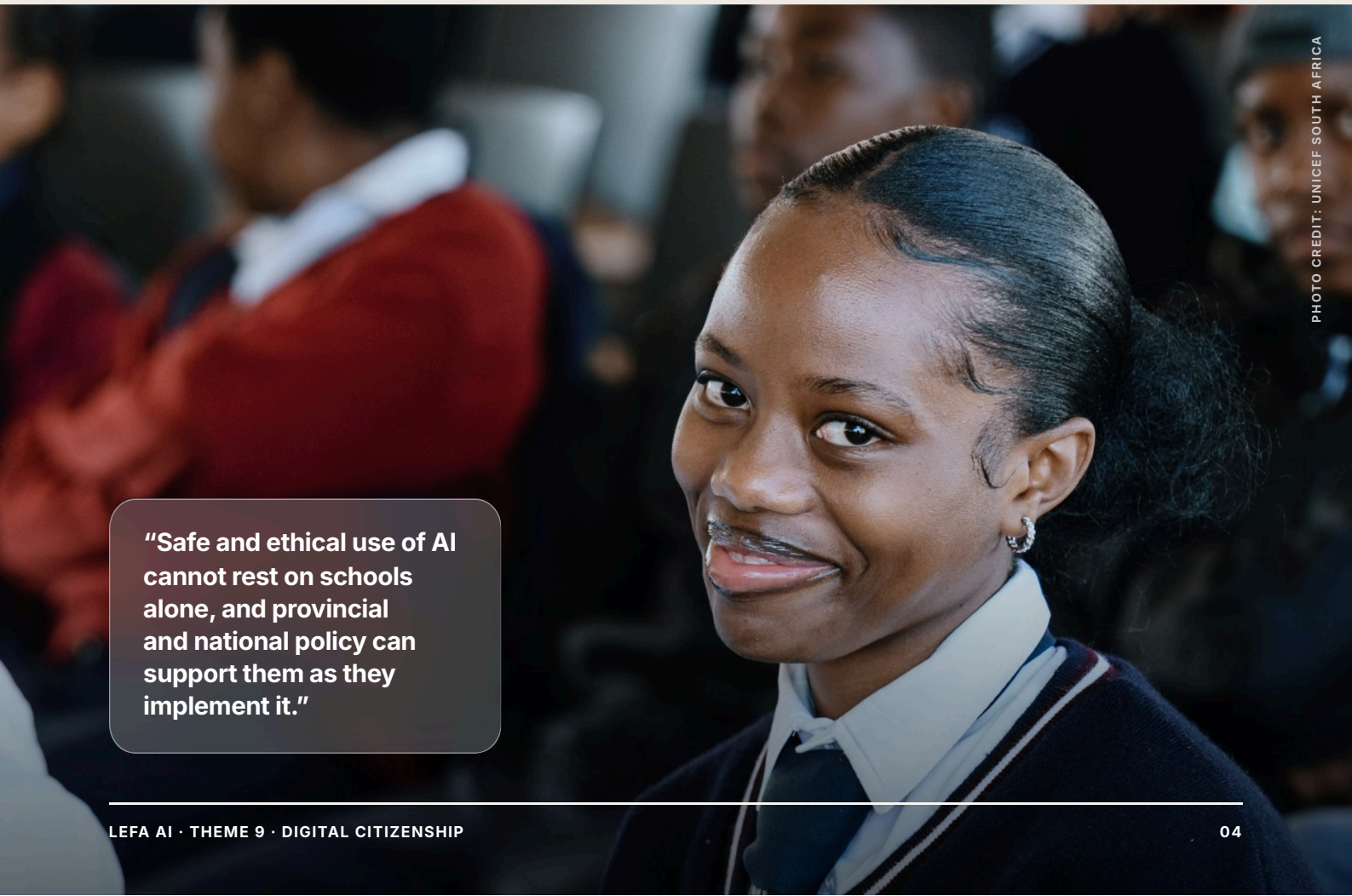
03 Policy: policy can support learners and schools, but it needs to stay flexible as technology changes.



Policy needs to be inclusive, keeping AI accessible across socio-economic groups. It also needs to go beyond handing out devices, to planning for the infrastructure, resources, ongoing technical support and local relevance that schools, teachers and learners need.

Safe and ethical use of AI cannot rest on schools alone, and provincial and national policy can support them as they implement it. Closing the gap between policy and practice calls for closer collaboration between stakeholders, and processes that keep pace with technology. The Department of Basic Education's Digital Education Strategy, now going through approval, aims to address both equal access and the skills to use digital resources.

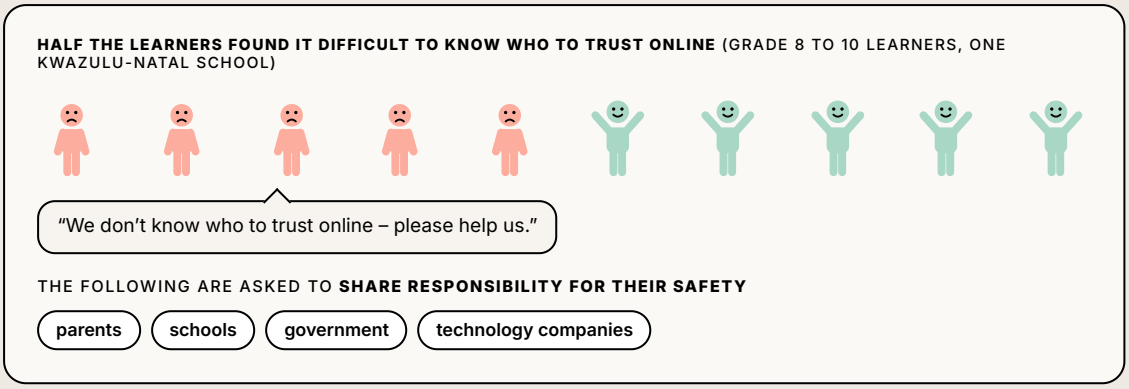
Source: Mokoena and Seeletse, 2025; Phokoye et al., 2025; Cross and Feldman, 2025; DBE, 2026.



"Safe and ethical use of AI cannot rest on schools alone, and provincial and national policy can support them as they implement it."

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04 Online safety: children want to be online, and they want to be safe.

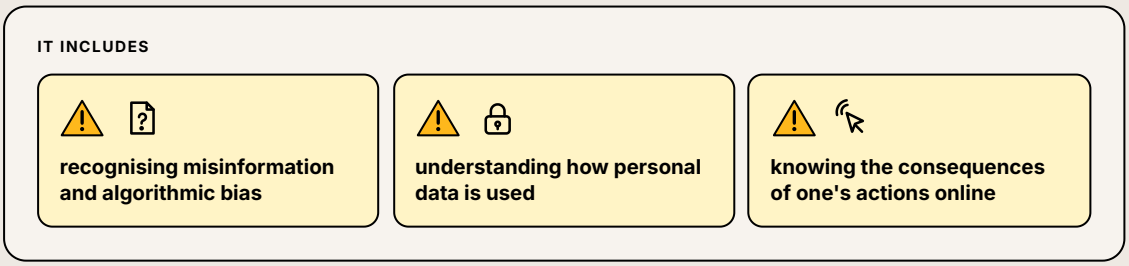


Being online brings risks such as grooming, cyberbullying and inappropriate content, and half of surveyed Grade 8 to 10 learners in one KwaZulu-Natal school found it difficult to know who to trust online. Learners do not want to be cut off. They are asking parents, schools, government and technology companies to share responsibility for their safety, and to include them in shaping the policies that affect them. Peer support and trusted adults that learners choose themselves help them speak up without shame or fear of punishment.

Source: Basson, 2024; Third et al., 2025; Nelson Mandela Children's Fund, 2025; Janse van Rensburg and Kok, 2023; expert interview (Jenna-Lee Strugell, Tales of Turning).

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05 Digital citizenship: learners need judgement and ethics, not only digital skills.



Digital citizenship is the knowledge, skills and attitudes needed to take part in the online world responsibly. It includes recognising misinformation and algorithmic bias, understanding how personal data is used, and knowing the consequences of one's actions online. International evidence shows these capacities develop unevenly: learners were more confident rewriting a prompt than reworking an AI draft into their own voice, and tended to lean on AI for answers rather than think with it.

Source: Habibulloh, 2026; Gonzales and Sanchez, 2026; Adorni, 2025; UNESCO, 2024; expert interview (Oliver Dick, Injini).

WHAT THIS MEANS

Decisions for South African basic education

Learners are already finding their way through the digital world, so the real question is how the system can walk alongside them, across schools with very different resources.

The following decisions follow from the findings above:

01

Where should digital citizenship, including online safety and AI ethics, sit in the curriculum?

The Basic Education Framework already names critical thinking and digital literacy, and could be one avenue for weaving digital citizenship through learners' schooling (see brief 4a on AI and Curriculum).

02

How can digital and AI solutions in education be human-centred, evidence-led and grounded in South Africa's realities?

This means responding to local barriers while reflecting what matters to us as a nation, rather than adopting solutions designed elsewhere.

03

How can teachers be supported to build learners' digital capabilities over time, and who else forms part of that support?

Ongoing professional learning matters, alongside schools, families and communities that offer peer support and trusted adults. With those around them, learners can speak about challenges or mistakes without shame or fear of punishment.

04

How can responsibility for learners' online safety be shared?

Schools, parents, government, technology companies and learners themselves each have a part to play. Child-friendly materials and campaigns can help learners make the most of technology while protecting themselves.

05

How can children take a meaningful part in shaping the digital policies that affect them, at school and nationally?

Children are best placed to understand their own needs. Including them is likely to achieve more than punitive rules or policing.



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LOOKING AHEAD

Areas for further *research*

South African evidence on how learners engage with AI is still limited. The areas alongside are where local research could most strengthen future decisions.

01 **How South African learners use AI.** What are learners doing with AI tools, and what support do they need to use them ethically and responsibly? Research across school types and provinces would show where learners are starting from.

02 **Language and culture.** Digital learning platforms are mostly in English, which can leave out learners whose identities are rooted in indigenous languages. How can digital citizenship be taught in learners' home languages and grounded in local cultural contexts?

03 **Parents and caregivers.** What do families need to support children online, especially where children's digital skills already outpace their own?

Lefa AI

Children want to be online, and they want to be *safe*.

Digital citizenship helps learners think about how they use technology, and for what, with adults who walk alongside them.

NOTES

SCOPE

Rapid review
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Expert interviews
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LIMITATIONS

What this research covered, and what it did not

The review covers school-aged learners only. Early childhood and post-school education were not considered.

Learner voices come from existing studies and summit statements. No new interviews with learners were conducted for this theme.

Expert interviews reflect the views of a small number of South African specialists. They are included to add local perspective, not as representative findings.

Some evidence on AI literacy and digital citizenship comes from international studies and frameworks, and may not fully reflect South African conditions.

This was a rapid review, not an exhaustive one. AI in education is moving quickly, and relevant research may have been published after this brief was finalised.

USE AND RIGHTS

Views expressed are those of the programme and its contributors, and do not necessarily reflect the positions of NASCEE, JET Education Services, DGMT or UNICEF.

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For corrections or to request the underlying source list, contact the Lefa AI programme team at connect@humanstudios.org.

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