



Co-creation HUB Ltd



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DESIGN
LAB

BETWEEN EXPECTATION AND EXPERIENCE

A Comparative Analysis of EdTech User
Sentiment in Kenya, Africa, and Global Markets



About Design Lab



We are a research and development lab innovating for social impact. We collaborate with global stakeholders to explore the application of technology to solve Africa's systemic problems in Public Health, Education, Governance and the Private Sector. At the core of our philosophy is the belief that people are the heart and soul of our work. We don't merely design for our users; we design alongside them. From brainstorming revolutionary ideas to testing and prototyping solutions, people aren't just recipients; they are our partners. We embrace a human-centric approach to problem-solving, channeling our efforts into creating tangible value for individuals and communities. Design excellence, for us, is a fusion of innovation and social impact. We select projects based on their potential to spark transformative change.

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Abstract



This study examines the tension between user expectations and user experiences in the education technology (EdTech) sector across three analytically distinct geographies, Kenya, Africa, and the global market. The analysis relies on a mixed-methods framework integrating primary sentiment analysis of Google Play Store review data with systematic synthesis of peer-reviewed literature. Deploying AFINN and VADER sentiment scoring alongside review engagement metrics, developer response rate tracking, and topic classification. The study interrogates how structural, infrastructural, and pedagogical variables shape user perception of EdTech Applications across divergent socioeconomic contexts.

Findings reveal a consistent inverse relationship between user expectation sophistication and satisfaction outcomes: markets characterised by higher digital literacy and connectivity, notably Kenya against less connected African countries and global markets against Africa,

produce sharper dissatisfaction despite recording stronger baseline engagement, while users in lower-baseline contexts assign disproportionately higher value to tools meeting minimum pedagogical standards, a dynamic this study terms the scarcity premium effect. Regardless, across all geographies, content quality emerges as the dominant determinant of user sentiment, accounting for 32% of review discourse, while technical performance, particularly offline access and app stability, constitutes the primary driver of negative feedback. Developer responsiveness, which peaked during the COVID-19 pandemic and declined sharply post-2021, is identified as a structural trust variable with measurable implications for adoption continuity and churn rates among first-generation digital learners.

These findings carry direct implications for EdTech product design, monetisation strategy, and developer engagement practice in African markets, where adoption rates are outpacing the infrastructure necessary to sustain them.

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Study Approach

This study relied on integrated review of secondary sources and quantitative content analysis of existing literature and user sentiments on Edtech Applications on Google Playstore. Our methodology utilised a Natural Language Processing (NLP) pipeline to identify geographic trends and central themes by applying zero-shot text classification to more than 2 million education-related review statements from Kenya, Africa, and global markets, alongside 31,670 sampled articles.

We implemented a rigorous rule-based keyword system for abstracts and titles to achieve high geographic accuracy, effectively bypassing vocabulary biases in the zero-shot model that often misidentify general educational content as specific to Kenya. Although VADER was employed for sentiment analysis, the formal structure of academic abstracts resulted in inherently neutral scores. Additionally, in order to maintain data integrity, results from the limited Kenyan sample (n=24) were regarded as directional, and all partial-year data from 2026 were removed to avoid trend distortion. This research pipeline, constructed with Python 3.12 and R 4.5.1, utilised data aggregated from the Google Playstore and EBSCO.



Background

Adoption of education technology (Edtech), just like other technologies, is influenced by multiple factors often with diverging logic but with convergence on user-centricity. Most frameworks emphasise the product's relative advantage and efficiency, compatibility with the user, trialability before adoption, observed evidence of use and non-complexity, as the core influences of user adoption.¹ For instance, the Technology Adoption Model (TAM) identifies perceived usefulness of the product (degree to which use of a product enhances one's productivity) and perceived ease of use (degree to which use of a product requires minimum effort) as the key considerations for users to adopt a technology.²

However, such factors are dependent on preconditions including a user's subjective norms, image, job relevance, output quality, result demonstrability, experience of using the product as well as voluntariness of adoption of a product.

For instance, a user's perception of ease of use of a product also relies on their digital competence, perception of the technology's external control, levels of digital confidence, curiosity, perceived enjoyment and usability of the product.⁴ TAM's exclusion of emotional, social and user-psyche is however a limiting factor. Another major theoretical framework is the Unified Theory of Acceptance and Use of Technology (UTAUT). The theory holds effort expectancy and social influence as critical factors that influence users' decisions in adopting a technology. For instance, students' utilisation of digital learning resources depends on the student's individual technological competence and social influence by peers.⁵

As such a combination of psychosocial needs of the user and technology acceptance factors normatively informs user experience thus showcasing the centrality of integrating users' values, needs, emotions and well being when developing technological products.⁶ Such user needs remain relatively consistent across technology types, and demographic factors such as age, geography, sex etc.

¹ Tractman, L.E., Sprel, M.M., Sparks, G.G., Stohl, S. (1991). Factors Affecting Adoption of Technology. Available [here](#)

² Davis, F.P. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly

³ Timo P., Timo S. (2015). Understanding the most influential user experiences in successful and unsuccessful technology adoptions. Computers in Human Behavior. Volume 53. Pages 381-395. Available [here](#)

⁴ Timo P., Timo S. (2015). Understanding the most influential user experiences in successful and unsuccessful technology adoptions. Computers in Human Behavior. Volume 53. Pages 381-395. Available [here](#)

⁵ Hans, P. V., Daim, T. U., Basoglu, N. A. (2023). Factors Influencing Student Information Technology Adoption," in IEEE Transactions on Engineering Management, vol. 70, no. 2, pp. 631-643. Available [here](#)

⁶ Timo P., Timo S. (2015). Understanding the most influential user experiences in successful and unsuccessful technology adoptions. Computers in Human Behavior. Volume 53. Pages 381-395. Available [here](#)

For instance, in health information technology users prioritise products that demonstrate compelling usefulness and low effort commitment, with affordability seen as an enabling factor and social influence, facilitative conditions, product friendly designs, digital competence/experience and product quality viewed as facilitative. Other core determinants include user privacy, consideration for user's demographic variables and user's habits.⁷ Similarly, in the adoption of Identity Management Systems (IdMS), user willingness is essential for adopting online solutions besides product efficacy.⁸

In the education sector, adoption of technology by teachers rely heavily on the compatibility of the technological product with the experiences and values of potential users. For instance, in instructional education technologies developers are required to have both the know-how of designing instructional materials as well as systems to make such systems applicable in a real classroom set-up.⁹

Consequently, technology adoption appears primarily driven by the interplay between individual disposition, technical competence, product efficacy, and simplicity of use. These determinants can be synthesised into two overarching categories: user expectation and user experience. While user expectation establishes the initial perceived necessity and frames the subsequent encounter with a product, the actual experience provides the

evaluative feedback that refines future expectations for similar technologies.¹⁰

Notably, user experiences are dynamic, evolving alongside the user to produce increasingly sophisticated needs and expectations over time. User expectations are also shaped by the socioeconomic and political context: geography, level of income, literacy levels among others. This cyclical relationship establishes specific conditionalities for adoption: the integration of expectations and experiences, the achievement of critical masses, the development of collective practices, and the influence of lead users.¹¹



⁷ Kavandi, H., Jaana, M. (2020). Factors that affect health information technology adoption by seniors: A systematic review. Available [here](#)

⁸ Mohammed, I.A. Factors Affecting User Adoption of Identity Management Systems: An Empirical Study. Available [here](#)

⁹ Sumner, M., & Hostetler, D. (1999). Factors Influencing the Adoption of Technology in Teaching. Journal of Computer Information Systems, 40(1), 81–87. Available [here](#)

¹⁰ Simo, H. (2013). Expectations and User Experiences as Determinants of Technology Adoption and Continued Use. Available [here](#)

¹¹ Simo, H. (2013). Expectations and User Experiences as Determinants of Technology Adoption and Continued Use. Available [here](#)

EdTech User Landscape: Global, Africa, and Kenya



Edtech products are technological tools that enable acquisition of knowledge through non-traditional formats and enhance learning, teaching and education experience.¹² There are multiple layers, types, formats and kinds of education technologies. For instance in terms of types they may include softwares, hardware, and digital platforms.¹³ As far as target audience there are learner-facing, teacher-facing or system

facing tools while in terms of format there are tools that enable personalised learning, data analytics, gamification, AI integration etc., yet in terms of kinds of technology there are learning management systems (LMS), virtual learning tools (e.g. zoom, google meet etc), digital textbooks/reading materials, examination/grading tools among others.¹⁴

¹² Stefaniak, J. and Carey, K. (2019), "Instilling purpose and value in the implementation of digital badges in higher education", International Journal of Educational Technology in Higher Education, Vol. 16 No. 1, pp. 1-21. Available [here](#).

¹³ Hasan Al-kumaim, N., Mohammed, F., Gazem, N., Fazea, Y., Alhazmi, A.K. and Dakkak, O. (2021), "Information security View project Information overload and its impacts on students well being View project", Article in International Journal of Interactive Mobile Technologies, Vol. 15 No. 05, p. 140. Available [here](#).

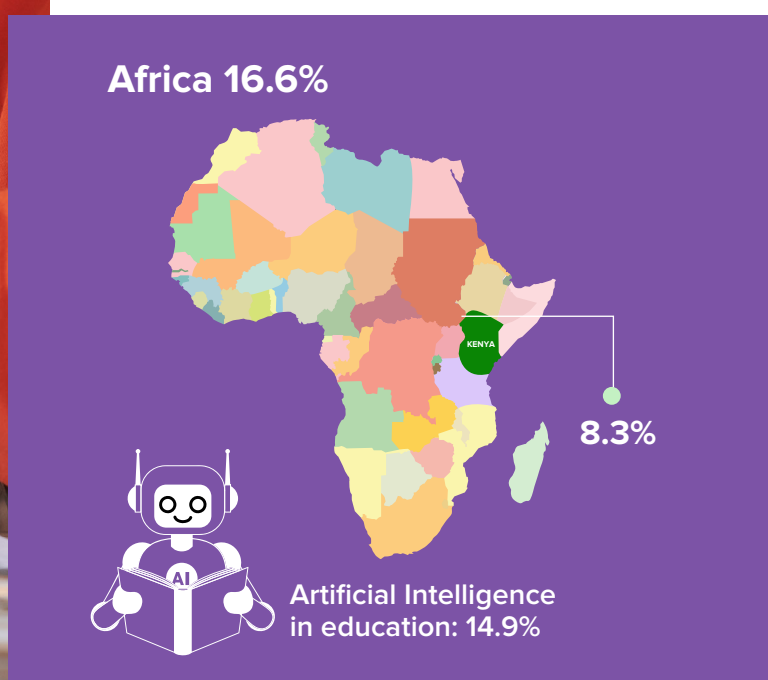
¹⁴ Kathiravan, R., Anita, B.V., Meshach, E.R.S., Samuel, M.V., Ben, M.J. (2024). Moving towards a Blended Tomorrow: The Evolution of EdTech in Education. Available [here](#).

In the last decade, there has been a notable surge in interest on the impact of integration of technology in education, accounting for at least 19.7% of all global education-related research as of 2026.

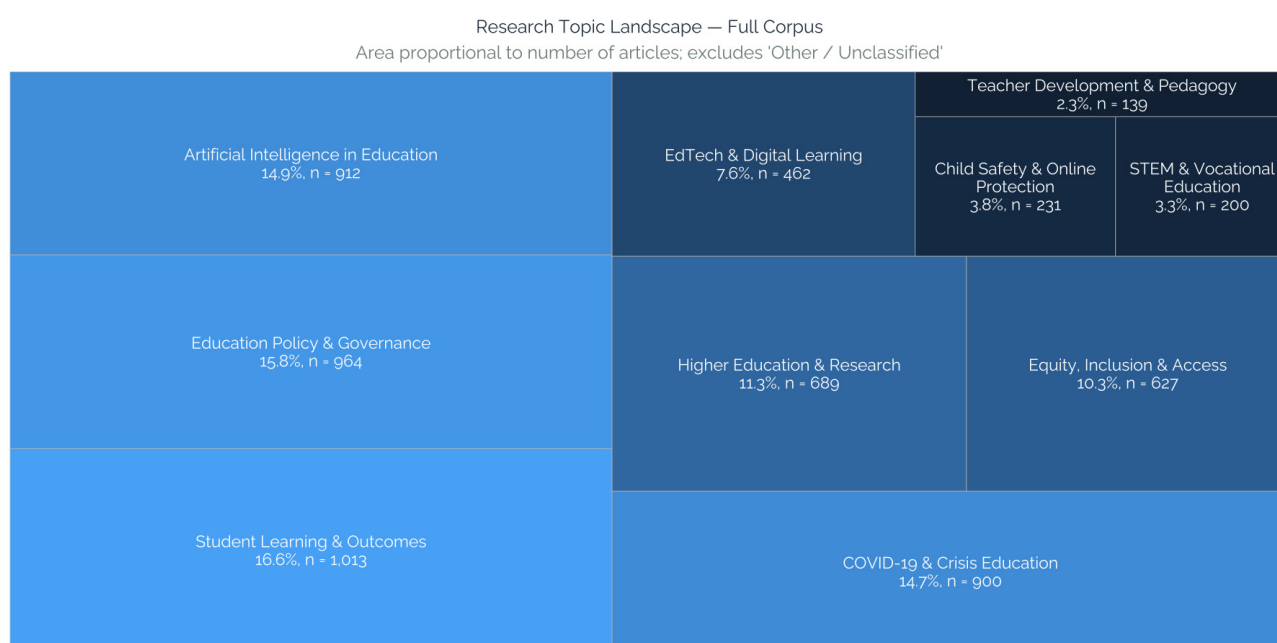
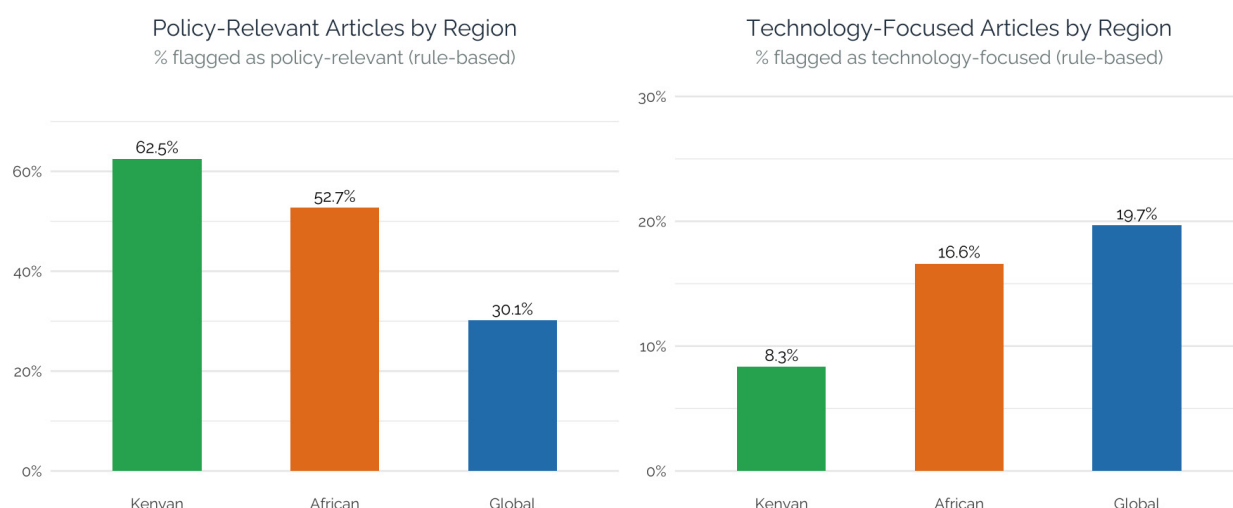


However, this focus is less pronounced in Africa, dropping to 16.6% continentally and just 8.3% within Kenya. Further breakdown of global education-oriented research reveals the growing role of Artificial Intelligence in education: 14.9% of research output is dedicated to application of Artificial Intelligence (AI) in education (third only after student learning outcomes (16.6%) and education policy and governance (15.8%), while 7.6% address EdTech and digital learning in general.¹⁵

Our study queries the tension between users' expectations and user experiences on Edtech products across Kenya, Africa and Globally by analysing live data collected from a sample of user feedback on Edtech Applications on Play Store, Google's official online market for software products designed for use on android products.



¹⁵ Landscape Analysis of Education-related Publications. (2026). CCHUB



Landscape of Education Related Research Global, Africa, Kenya
Source: CcHUB Meta Analysis of Education-related Publications, 2026

Edtech developers and designers continuously improve products to stay competitive and innovative. This continuous state of building relies heavily on a predictable and sustained feedback loop: where users remit feedback through various means, formats, and on diverse issues. User needs on Edtech products entail queries on the effectiveness of the edtech tool, platform usability and performance, as well as perceived value of learning content. Product developers often need to act on user feedback in a timely and efficacious manner to avoid loss of product competitiveness and market edge.¹⁶

¹⁶ Dingre, S.S. (2022). Understanding User Journeys in EdTech Startups: The Role of Analytics Integration. Available [here](#)

The core sources for user feedback across Edtech products include user satisfaction surveys, Net Promoter Score (NPS) surveys, which gauge recommendations trends, as well as user personalisation trends through adaptive learning as well user biodata—important for product customisation. Additionally, user support tickets and inquiries also provide critical information necessary for product improvement. User tickets often include concerns on content quality, product performance, and general customer experience.¹⁷

In 2025, Google Play Store had about 2.1 million apps with at least 41000 new apps added to the playstore monthly.^{18 19} The most preferred apps were utility applications that support core everyday needs e.g. education, business, commerce etc. (39.4%), personalisation apps (20.2%), photography apps (12.8%), productivity (9.6%), health and fitness (7.4%), communication apps (4.3%), arts and design (3.2%) and entertainment apps (2.1%).²⁰ Comparatively, the distribution of user engagement via ratings is split exactly in half: 50% of applications possess at least one rating, while the remaining 50% are yet to be rated.²¹



39.4%
Commerce



20.2%
Personalisation Apps



12.8%
Photography Apps



9.6%
Productivity



7.4%
Health and Fitness



4.3%
Communication Apps



3.2%
Arts and Design

2.1 million Apps
In 2025

¹⁷ Dingre, S.S. (2022). Understanding User Journeys in EdTech Startups: The Role of Analytics Integration. Available [here](#)

¹⁸ Itransition. Available [here](#)

¹⁹ SQ Magazine. (2025). Google Play Store Statistics 2026: Mobile App Trends, Revenue & Top Charts. Available [here](#)

²⁰ SQ Magazine. (2025). Google Play Store Statistics 2026: Mobile App Trends, Revenue & Top Charts. Available [here](#)

²¹ SQ Magazine. (2025). Google Play Store Statistics 2026: Mobile App Trends, Revenue & Top Charts. Available [here](#)

- Applications that maintain a 4-star rating or higher generally see a significant increase in download volume.
- Since the 2023 enforcement of privacy standards on Google Store, products that demonstrate strict policy compliance and emphasise data protection have attracted more favourable user reviews.
- Maintaining frequent software updates and providing transparent product descriptions are essential for strengthening user trust and improving average scores.
- Conversely, apps that require excessive permissions or raise privacy alarms are frequently penalized with lower scores from users.



Similarly, the Edtech applications ecosystem is also vibrant. In 2025 the global edtech apps market inclusive of apps on Google Play Store and iOS app store, as well as other digital stores was valued at USD 7.27Billion from USD 6.08Billion in 2024. During the same period the volume of Edtech Apps grew by 19.3%, significant but relatively trailing adjacent sectors such as gaming apps (45%), publications (30.8%) and utilities (27%).

**Google
Playstore**

2025

\$7.27Billion



**IOS App
Store**

2024

\$6.08Billion

²² Educational App Store. Available [here](#)

²³ Straits Research. Available [here](#)

²⁴ Ittransition. Available [here](#)

Google play store provides a rare, unmediated record of users experiences of EdTech products in their daily lives. Unlike survey data or institutional reports, these reviews are unsolicited, emotionally unfiltered, and often written at the moment of use, making them a rich signal of real adoption behaviour, friction points, and genuine satisfaction. Recent cumulative data based on google playstore reveals users' priority as follows:

- 82% prioritise app stability with 81% switching to competitors due to poor performance and 63% deleting apps after just three crashes.²⁵
- Interface issues like broken buttons cause 73% to abandon apps and 72% expect regular updates.
- Integration of AI terminology can boost downloads by 4.1% over two months.
- Similarly, data security is vital with 16.3% of users avoiding unprotected apps, and 62.5% quitting services due to privacy fears.²⁶

Users also prioritise product efficacy. For instance when choosing a navigation tool, a majority of users rely primarily on its precision and dependable routing:²⁷

- 25% opt for their preferred navigation app due to the clarity of its directions, which provide reliable and accurate guidance.
- 20% are motivated by specific high-value features.
- 20% favour the intuitive interface and user-friendly design, which simplify app navigation.
- 17% prioritise tools that offer superior routing for non-drivers, including cyclists and pedestrians.
- 14% exhibit deep loyalty, having never utilised an alternative navigation application.
- These sentiments demonstrate how user expectations on product features define their experience and eventually adoption behaviours.²⁷

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²⁵ Itransition. Available [here](#) ²⁶ Itransition. Available [here](#)

²⁷ SQ Magazine. (2025). Google Play Store Statistics 2026: Mobile App Trends, Revenue & Top Charts. Available [here](#)

COMPARATIVE SECTOR ANALYSIS: EDTECH VS. FINTECH, AGRITECH, AND HEALTHTECH

A comparative assessment of EdTech app reviews alongside FinTech, AgriTech, and HealthTech sectors in Kenya presents a varied landscape. While EdTech offers approximately 2,145 apps with a strong mean rating of 4.38, the sector is constrained by a significant six-month maintenance lag and a 40% reliance on ads and in-app purchases for monetisation. This contributes to high cognitive friction, reflected in a modest 0.93% review-to-download engagement rate. Studies also show that pervasive in-app advertisements is a leading cause of high user churn rates on applications.^{28 29}

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In contrast, other sectors demonstrate different strengths and challenges:



- **FinTech** represents the most established industry, with adoption volumes ten times those of its peers. The industry maintains high agility through more regular updates, every 2.6 months compared to 6 months for Edtech, and achieves 31% higher engagement than EdTech, despite a slightly lower average rating of 4.22.

²⁸ Logan, K. (2017). Attitudes towards in-app advertising: A uses and gratifications perspective . International Journal of Mobile Communications. Available [here](#)

²⁹ Eseosa, A. (2026). The Impact of In-App Ads on User Experience. Available [here](#)



- **AgriTech** remains the least developed sector with only 1,345 apps and minimal maintenance activity. Despite this, it achieves a notable 1.24% engagement rate, indicating successful niche experimentation within the market.

- **HealthTech** sets the benchmark for quality and market reach, boasting the highest average rating (4.47) and a peak engagement ratio of 1.61%. However, its 40.4% in-app purchase rate suggests a more commercially-driven market that may present equity barriers for lower-income households.

Summary comparison: ▲ = better than baseline (EdTech); ▼ = weaker; ≈ = comparable

Dimension (Metric)	EdTech (Baseline)	FinTech	AgriTech	HealthTech
App Catalogue Size	2,145 (largest)	1,840	1,345 (smallest)	1,694
Avg User Rating	4.38	4.22 ▼ (-0.16)	4.35 ≈	4.47 ▲ (+0.09)
Median Installs	10,000	100,000 ▲ (10x)	10,000 ≈	10,000 ≈
Free Apps	99.1%	99.7% ≈	99.3% ≈	99.5% ≈
Contains Ads	41.0%	12.9% ▲ cleaner	17.2% ▲ cleaner	22% ▲ cleaner
In-App Purchases	40.0%	15.2% ▲ simpler	21.4%	40.4%
Privacy Policy Coverage	100%	100%	99.9%	100%
Updated Since Jan 2024 (%)	52.3%	63.0% ▲	42.8% ▼	51.2% ≈
Update Recency (Mean)	6 Months	2.6 Months ▲ (Recently Updated)	3.4 Months ▲ (Recently Updated)	5 Months ≈
Content Rating (mean)	Rated 3+	Rated 4+ ▲ (+33%)	Rated 4+ ▲ (+33%)	Rated 4+ ▲ (+33%)
Review Volume (Median)	2,196	3,908 ▲ (+77%)	4,866 ▲ (+122%)	10,842 ▲ (+394%)
Engagement Rates (Reviews/Downloads)	0.93%	1.22% ▲ (+31%)	1.24% ▲ (+33%)	1.61% ▲ (+73%)
Genre Concentration	Diverse	Moderate	Very Diffuse	Highly Focused

Benchmarking EdTech App Reviews against Fintech, Agritech, and Healthtech

User Experiences on Google Playstore-based Education Technology Applications

The Google Play Store currently hosts over 237,000 EdTech apps, accounting for 11% of its total offerings and ranking as the second-largest category. The Edtech catalogue expanded notably in 2025, adding 34,000 new applications. From a regional perspective, Africa, the Middle East, and Latin America collectively represented 12.8% of the global EdTech app inventory in 2025, with a 17.8% Compound Annual Growth Rate (CAGR).³⁰

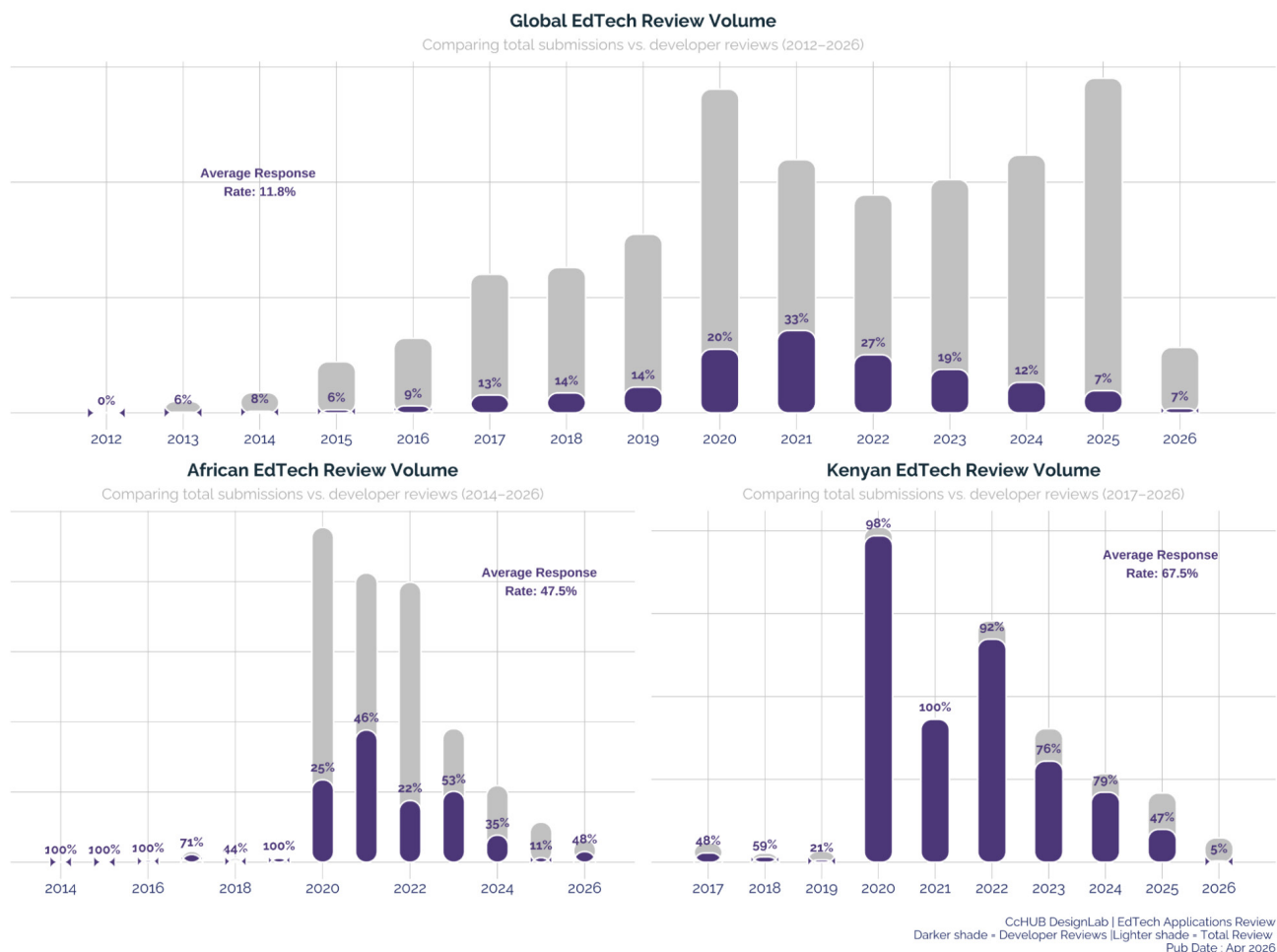


■ Application Review and Response Rates

- Kenya consistently lead in developer responsiveness across the three geographies covered, peaking at near-total engagement (~98–100%) in 2020 and 2021, though it has since pulled back sharply to just 5% in early 2026, suggesting either a deliberate deprioritisation of local user engagement or a resourcing shift.
- Africa's response pattern was erratic but strong in the early years (100% response rates from 2014–2016 and again in 2019), likely reflecting a small review base where every comment was individually addressed; once volumes scaled up beginning in 2020, rates dropped and became more volatile, reaching just 11% in 2025 before partially recovering to 48% in 2026.

³⁰ Data Intelio. Education Apps Market. [Available here](#)

- Global response rates were far more measured and gradual, climbing steadily from near zero in 2012 to a peak of about 33% in 2021 but have since declined consistently to under 7% in 2025–2026, thus maintaining a broader retreat in developer engagement with user responses.
- What's striking across all three regions is the shared post-2021 decline after what appears to have been a pandemic-era surge in developer attention, all geographies, including Kenya, where engagement was once near wholesome have seen response rates fall back toward or below pre-2020 levels, raising questions about whether that heightened responsiveness was sustainable or situational.



The 2020–2021 surge in both review volume and developer responsiveness coincides precisely with the period documented in the academic literature as the most intensive moment of remote learning adoption globally.³¹ Research on Sub-Saharan African EdTech during the COVID-19 school closures found that developer and institutional responsiveness was a critical trust-building factor, particularly in contexts where users lacked prior familiarity with digital learning tools.^{32 33}

Kenya's near-total response rate during this window is consistent with the Kenyan government's digital learning push under the Digital Literacy Programme and subsequent emergency remote learning policies, a period when EdTech companies operating in Kenya had strong institutional and reputational incentives to appear engaged.^{32 33}

The post-2021 retreat, however, aligns with a documented pattern in African EdTech, a “burst-and-retreat” cycle in which crisis-driven investment in user engagement is not sustained once emergency conditions subside.

This has direct implications for user trust and long-term retention, particularly among first-generation digital learners who may interpret declining developer responsiveness as product abandonment.³⁵



³¹ Noor, M.N. (2026). The Impact of Educational Technology on Distance Learning in The Era of Post-Covid-19. International Journal on E-Learning Practices. Available [here](#)

³³ Faturoti, B. (2022). Online learning during COVID19 and beyond: a human right based approach to internet access in Africa. International Review of Law, Computers & Technology, 36(1), 68-90. Available [here](#)

³⁵ EdTech Hub. (2020). EdTech and COVID-19 response. Background paper prepared for the Save Our Future white paper Averting an Education Catastrophe for the World's Children. Save Our Future. Available [here](#)

³² Edtech Hub. (2021). Covid-19 and EdTech in Africa: A Country-Level Review Based on eLearning Africa Data Available [here](#)

³⁴ Ochieng, V.O., Waithanji N. M. (2022). Adoption of Education Technologies for Learning During COVID-19 Pandemic: The Experiences of Marginalized and Vulnerable Learner Populations in Kenya. International Journal of Educational Reform. Available [here](#)

■ Developer Response Time by Sentiment

- The data highlights a significant “patience tax” for regional users, as response times vary between the express-lane efficiency of global support and the much slower turnaround across the continent.
- Kenya sits in the middle; while it is roughly 25% slower than the global standard, it remains twice as fast as the continental average. Relatably, while a global user with a complaint might get a resolution by the next morning, a Kenyan user is left waiting nearly two full days, suggesting that while local engagement is high, the infrastructure for rapid troubleshooting still has ground to cover.
- Globally, the support team operates with impressive speed, averaging a 24-hour turnaround and prioritizing negative feedback to resolve issues within roughly a day. In contrast, the broader African segment experiences a “scenic route” of support, where overall wait times climb to nearly 60 hours, and neutral feedback can languish for four days.
- Additionally, Kenyan EdTech builders prioritise positive reviews over negative reviews (28.77 vs 43.93) a unique feature as compared to global realities where negative reviews are given faster response (25.67 vs 35.35).



These response time disparities carry implications that extend beyond customer service metrics. Research on EdTech adoption in low- and middle-income countries has consistently identified perceived developer responsiveness as a proxy for product quality and institutional trustworthiness. Developer responsiveness signal: ³⁶

EdTech App Review Response Times				
Average time (hours) to respond to client reviews by sentiment category				
Region	Average Response Time	Negative Reviews	Neutral Reviews	Positive Reviews
African	59.69	65.02	97.90	61.80
Global	24.27	25.67	23.89	35.35
Kenyan	30.36	43.93	37.99	28.77

- System reliability; where quick response times in solving software bugs and network lags indicate to administrators, teachers and learners that such platforms are actively maintained.
- Strengthens trust in data protection mechanisms by the EdTech company both for the users and commercial interests.
- Acts as proof of contextual adaptation on the unique socioeconomic, linguistic and cultural realities in Africa. ³⁷

Therefore, when African users raising neutral or exploratory queries, often the profile of a new or uncertain adopter, wait upward of four days for a response, the window for converting a tentative user into an active one closes well before any reply arrives. This is particularly consequential as a substantial share of EdTech users in Africa are often accessing digital learning tools for the first time and where social proof and responsiveness significantly shape adoption decisions. ³⁸



³⁶ Sabiteka, M., Yu, X., & Sun, C. (2025). A Model for Educational Technology Adoption in Developing Countries. Preprints. Available [here](#)

³⁷ Rajasekam, S., Adam, T., Times, K. (2024). Digital Pathways for Education: Enabling Greater Impact for All. World Bank. Available [here](#)

The African EdTech market has been characterised by high churn rates relative to comparable markets in Asia and Latin America, and slow support turnarounds, especially for non-urgent queries, are a structural contributor to that churn.³⁹ The promisingly tighter disparity between response times in Kenya and the global average for urgent feedback suggests that local teams are capable of hitting international standards for high-priority concerns. Nevertheless, the real challenge remains broadening this efficiency across all user touchpoints; a gap of 18 hours is still stark and continues to represent a significant lag that requires additional reduction to truly close the divide.

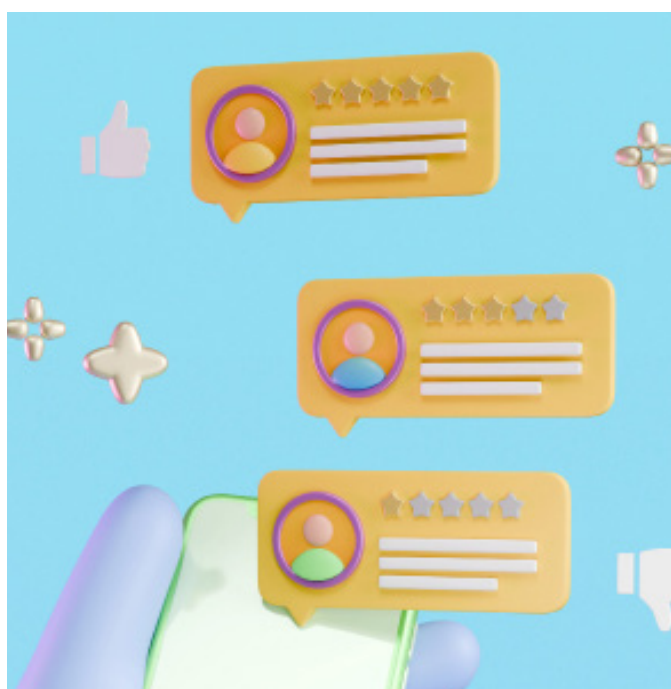


³⁸ Rajasekam, S., Adam, T., Times, K. (2024). Digital Pathways for Education: Enabling Greater Impact for All. World Bank. Available [here](#)

³⁹ Hughes, H. (2025). Education Technology & Digital Upskilling in Emerging Economies: Utilizing Innovation for Growth & Development. Available [here](#)

■ App Ratings, Engagement, and Sentiment Scores

- With a 3.85 out of 5 rating, African users rated EdTech apps the highest. This enthusiasm was also mirrored in their written feedback, which achieved an AFINN sentiment score of 3.10, AFINN is a metric used to measure sentiment of a text, indicating that their language was actively positive rather than merely indifferent. Additionally, a thumbs-up count of 6.86 reflects a moderate level of peer consensus regarding these perspectives.
- Conversely, ratings of EdTech Apps by global audiences was the lowest. With a marginal average rating of 2.88, a sentiment score of just 1.47, and a mere 2.75 thumbs-up count. The global audience also appears largely indifferent, showing little passion for the applications or the motivation to provide detailed feedback.
- In Kenya, the data revealed a distinct narrative. Although the average rating of 3.56 was slightly lower than the broader continental average, Kenyan reviews earned the highest thumbs-up count at 8.63. This suggests that local reviewers have a significant influence, as their peers frequently endorsed their insights.



EdTech Apps — Google Play Store Metrics

Average app rating, review thumbs-up count, and AFINN sentiment score by region

Region	App Rating	Thumbs-Up Count	AFINN Score
African	★★★★☆ 3.85	6.86	3.10
Global	★★★☆☆ 2.88	2.75	1.47
Kenyan	★★★★☆ 3.56	8.63	2.24

These contrasting trends are informative: global EdTech users remain generally detached and more critical, those in Kenya and across Africa demonstrate higher ambivalence, satisfaction and a much deeper commitment to engaging and endorsing EdTech products. The higher satisfaction and engagement observed among African and Kenyan users is consistent with findings from EdTech adoption studies across Sub-Saharan Africa, which document a “scarcity premium” effect: in contexts where quality educational resources are less abundant, users assign greater perceived value to digital tools that deliver substantive learning content.⁴⁰ This is not merely a function of lowered expectations; rather, it reflects genuinely different use contexts.

For instance, research on Kenyan learners’ use of digital education platforms consistently finds that apps perceived as delivering curriculum-aligned content attract strong loyalty,

even when those apps carry technical limitations that would be disqualifying in higher-income markets.⁴¹ The Kenyan thumbs-up count being the highest across all three geographies is a particularly meaningful signal; it indicates not just individual satisfaction but community endorsement, a social validation mechanism that carries significant weight in the peer-led adoption networks documented in African EdTech diffusion research.

The global audience’s disengagement, meanwhile, likely reflects the structural reality that in high-income markets, users have a broader menu of high-quality EdTech alternatives, reducing the relative value proposition of any single app and compressing ratings toward indifference rather than enthusiasm.⁴²



⁴⁰ Hughes, H. (2025). Education Technology & Digital Upskilling in Emerging Economies: Utilizing Innovation for Growth & Development. Available [here](#)

⁴² Austria, G. (2025). Stick to Free or Pay for More? A Marketing-Technology Perspective on Upgrade Intentions in Freemium AI-Powered EdTech Tools. Available [here](#)

⁴¹ Mwangi, J. (2024). Impact of Digital Learning Tools on Student Performance in Kenya. Available [here](#)

■ Distribution of User Reviews based on Topic

The most prominent issues of concern to users are as follows:



36%

of user feedbacks
centre on general
satisfaction



32%

on the quality of
learning content
on the app



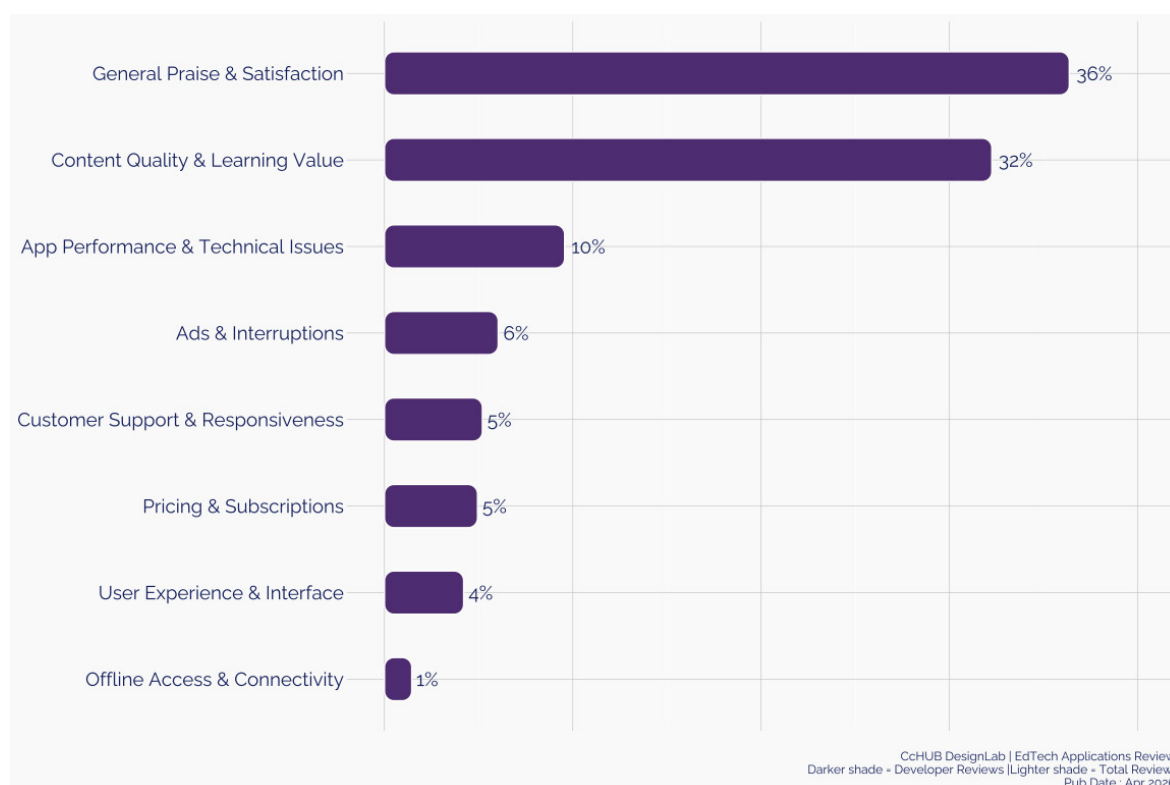
10%

of reviews flag
performance issues



6%

are focused on the
intrusiveness of ads.



Consequently, user feedback seems to be driven more by the educational-value of the EdTech apps with the more “functional” aspects of the service, such as customer support, subscription pricing, and the user interface, receiving limited attention, ranging between 4% and 5% respectively. Even connectivity concerns remain a negligible part of the user concerns at just under 2%. The prevailing sentiment among users indicates that while they deeply value the educational impact of these tools, their overall experience is often marginally affected by technical constraints. This is especially true for African and Kenyan users.

- The dominance of content-centred feedback is a finding with direct implications for EdTech product strategy. It reflects the pedagogical primacy principle documented in user research across African digital learning platforms: users evaluate EdTech products first and foremost as educational instruments, not as software products.⁴³ This means that content quality, curriculum alignment, and instructional clarity carry significantly more weight in user perception than interface polish or feature richness.
- The relatively muted concern around connectivity (under 2% of reviews) is somewhat counterintuitive given the well-documented infrastructure challenges in many African markets,⁴⁴ but it likely reflects two dynamics: first, that users who cannot connect do not write reviews which brings to the fore the centrality of offline-first product design and engineering solutions e.g. offline caching, local data synchronisation, and asynchronous processing in Edtech; and second, that the reviewed applications may have made sufficient offline accommodations to suppress connectivity as a visible friction point.
- The 6% ad-related commentary, while modest in aggregate, is worth monitoring in the African and Kenyan context specifically. While Ad-supported models have become the dominant monetisation approach for EdTech products targeting lower-income markets, some studies have found that intrusive advertising is one of the most commonly cited barriers to sustained use among students, particularly on shared or low-end devices.⁴⁵



⁴³ Mwangi, J. (2024). Impact of Digital Learning Tools on Student Performance in Kenya. Available [here](#)

⁴⁵ Shim, H., Lee, J., Park, Y.S. (2025). Watching Ad or Paying Premium: Optimal Monetization of Online Platforms. Available [here](#)

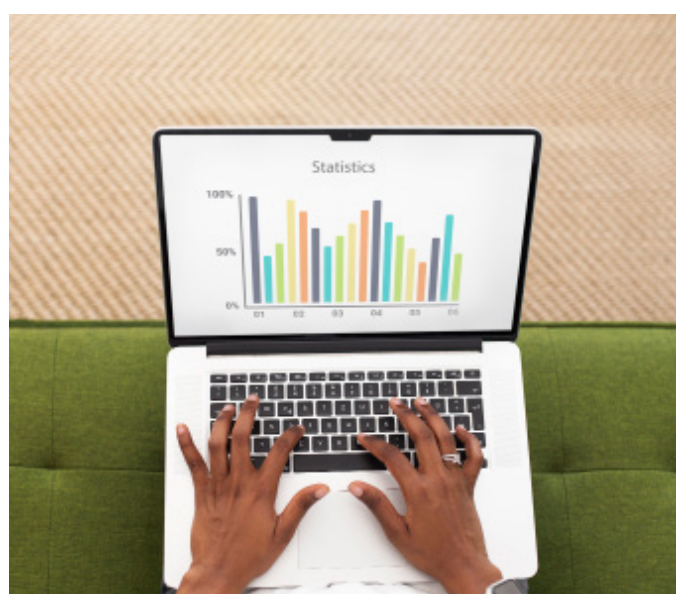
⁴⁴ Diplo. (2024). Status of Internet Access and Connectivity in Africa. Available [here](#)

■ Negative Sentiment: Topic Breakdown by Region

EdTech Review — Topic Classification by Region			
Proportion of reviews classified under each topic · darker cells indicate higher concentration			
Topic Classification	Kenyan EdTech Products	African EdTech Products	Global EdTech Products
Customer Support & Responsiveness	0.3%	0.2%	0.5%
User Experience & Interface	0.4%	0.1%	1.1%
Pricing & Subscriptions	0.5%	0.7%	2.0%
Offline Access & Connectivity	0.8%	0.6%	0.4%
Ads & Interruptions	0.8%	0.7%	2.6%
Content Quality & Learning Value	1.8%	1.4%	5.1%
App Performance & Technical Issues	3.2%	2.9%	3.4%

An analysis of negative sentiment across the three geographies reveals that technical stability is the primary driver of dissatisfaction.

- App performance & technical issues account for a dominant share of complaints, peaking at 3.2% in Kenya and 3.4% globally.
- Global users are significantly more critical of content quality and Ads, which together comprise over 7.7% of their negative feedback.
- Generally, local markets highlight more foundational infrastructure hurdles with offline access & connectivity concerns being twice as prevalent in Kenya (0.8%) compared to the global average (0.4%), reflecting a unique regional reliance on stable low-bandwidth performance. Across all regions.
- Customer support remains the least cited concern at under 1%, suggesting that while users are frustrated by “how” the app runs and the interruptions within it, their negative sentiment is rarely directed at the quality of service interactions themselves.



The elevated share of performance-related negative sentiment in Kenya, slightly above the global rate despite Kenya's generally higher overall satisfaction, reflects a structural tension that is well-documented in African EdTech research the gap between application design environments and deployment environments.⁴⁶ Most EdTech applications are built and tested on high-specification hardware in well-connected contexts, then deployed to users on mid-range or budget Android devices over variable mobile data connections.⁴⁷

The offline access and connectivity signal being twice as prevalent in Kenya as globally is not a marginal data point; it is consistent existing data which document that while mobile internet penetration in Kenya is high by regional standards, data costs and network reliability remain significant barriers to consistent digital learning, particularly outside urban centres.⁴⁸ For EdTech developers operating in Kenya and Africa, this creates a product design imperative that goes beyond feature parity with global versions, it requires active optimisation for low-bandwidth environments, reduced application size, and robust offline functionality.

Similarly, the muted customer support negativity, meanwhile, should be read not as a positive signal about support quality but rather as evidence of learned helplessness, users who face persistent technical issues on affordable devices are unlikely to perceive developer support as a viable resolution channel, and so stop reporting that frustration through review mechanisms.



⁴⁶ Hughes, H. (2025). Education Technology & Digital Upskilling in Emerging Economies: Utilizing Innovation for Growth & Development. Available [here](#)

⁴⁸ Diplo. (2024). Status of Internet Access and Connectivity in Africa. Available [here](#)

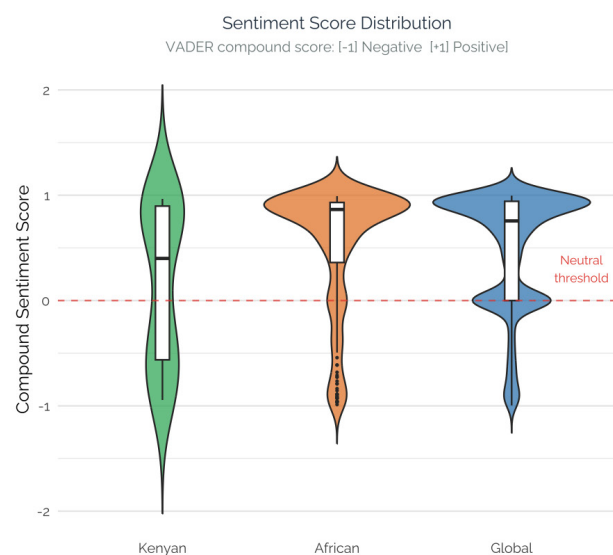
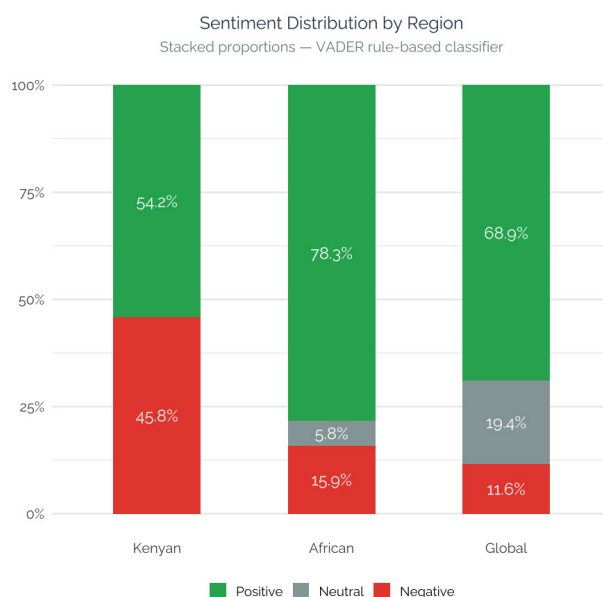
⁴⁷ Hughes, H. (2025). Education Technology & Digital Upskilling in Emerging Economies: Utilizing Innovation for Growth & Development. Available [here](#)

■ Sentiment Breakdown by Region and Topic

EdTech Apps — Sentiment-Level Breakdown by Region									
Proportion of reviews per topic and sentiment across Kenyan, African, and Global regions									
Topic	Kenyan			African			Global		
	Negative	Neutral	Positive	Negative	Neutral	Positive	Negative	Neutral	Positive
Ads & Interruptions	28.3%	13.8%	57.9%	27.1%	6.5%	66.4%	45.9%	38.4%	15.6%
App Performance & Technical Issues	52.8%	14.4%	32.8%	53.1%	9.7%	37.2%	47.7%	44.3%	8.0%
Content Quality & Learning Value	16.0%	8.5%	75.5%	10.9%	5.0%	84.0%	22.4%	32.8%	44.8%
Customer Support & Responsiveness	20.1%	7.4%	72.5%	10.7%	5.3%	84.0%	28.2%	33.3%	38.5%
General Praise & Satisfaction	25.5%	6.1%	68.4%	22.1%	4.4%	73.5%	35.0%	27.8%	37.2%
Offline Access & Connectivity	67.9%	7.4%	24.7%	41.0%	16.8%	42.2%	51.0%	40.3%	8.7%
Pricing & Subscriptions	44.9%	5.1%	50.0%	41.9%	12.3%	45.8%	51.5%	38.9%	9.5%
User Experience & Interface	21.1%	7.4%	71.6%	10.4%	5.2%	84.4%	27.5%	38.4%	34.0%
Values are proportions (%) of all reviews within each region falling into the topic × sentiment cell									

- Content quality, customer support, and user experience demonstrate the highest positive user sentiment across all three regions with African and Kenyan users showcasing strong ratings for content quality, at 84% and 76% respectively, significantly outperforming the 45% global average.
- This pattern of user goodwill is further evidenced through similarly strong general praise for the EdTech products, at 74% in Africa and 68% in Kenya, compared to just 37% globally, suggesting that educational tools could be more effectively tailored to African markets.
- Commercial and technical challenges persist; regional satisfaction scores may be elevated by a scarcity of high-quality local EdTech benchmarks for comparison.
- However, significant commercial and technical frictions remain. The high regional ratings may partially be due to a lack of high-quality EdTech benchmarks for local users to use as a comparison.
- The strong positive sentiment among African and Kenyan users indicates a significant opportunity for developers to further customize educational tools for regional markets.
- Technical performance is a major driver of dissatisfaction, generating negative sentiment for 53% of African and Kenyan users and 48% of the global audience.

- In Kenya, infrastructure gaps are particularly noticeable, with negative ratings for connectivity and offline access reaching 68%, far exceeding the 41% average across Africa.
- Yet Kenya possesses one of Africa's most competitive internet infrastructure, these results thus suggest that higher user expectations in Kenya may influence their perceptions compared to other African countries with lower performance baselines.
- 46% of global users expressed a dislike for advertisements, African and Kenyan users were more tolerant, with positive reactions at 66% and 58% respectively. Pricing was a greater concern for global users (52% negative), whereas regional sentiment on cost remained split.
- Ultimately, user experience scores remained high in Africa (84%) and Kenya (72%) but fell to 34% globally, underscoring a key divergence: regional users place a high value on EdTech utility despite infrastructure hurdles, while global audiences appear more indifferent.
- Africa remains more optimistic about the education sector's trajectory (78.3% positive), as compared to Kenyan and global markers, likely due to narratives focused on development achievements. For instance, global scope is moderately positive at 68.9% while Kenyans show the lowest positivity and greatest variance, reflecting a discourse balanced between progress and systemic inequality.



The divergence in sentiment regarding content quality aligns with comparative EdTech research, which suggests that perceived value is mediated by the availability of alternatives. In regions like Sub-Saharan Africa, where curriculum-aligned digital content is scarce, users place a higher premium on tools that meet essential standards.

The 84% positive sentiment in Africa reflects genuine pedagogical satisfaction within a less competitive market landscape. In Kenya, the 68% negative sentiment regarding connectivity highlights a digital profile where high mobile penetration has driven user expectations for reliability beyond what current infrastructure can provide. This creates an “expectation gap” where digital literacy outpaces infrastructure. Finally, the local tolerance for advertising is consistent with the prevalence of ad-supported free-tier models in Africa, necessitated by income constraints and the use of prepaid mobile data.

In conclusion, there appears to be a direct correlation between user expectations and the perceived quality of their experience with EdTech products in all three studied regions. Specifically, in areas where users maintain higher expectations, they are more likely to document negative experiences than users in regions characterized by lower performance baselines.



Strategic Priorities for Developers of Future African EdTech Solutions



01 Build for the deployment environment, not the development environment.

The performance gap driving negative sentiment in Kenya and Africa is not an accident; it reflects apps designed and tested on high-spec devices in well-connected settings, then pushed to budget Android handsets on variable mobile data. Developers must embed offline-first architecture, aggressive app-size reduction, and low-bandwidth optimisation as baseline requirements, not afterthoughts. Kenya's connectivity negativity reaching 68% despite having relatively strong African internet infrastructure makes this urgent.

02 Treat content quality as the primary product, not the feature.

Users across all three geographies centre their feedback on learning content (32% of reviews) over interface, pricing, or support. This is the pedagogical primacy principle at work. Developers chasing feature parity with global competitors are solving the wrong problem for African markets — curriculum alignment, approved by relevant government bodies, and instructional clarity are the real differentiators and retention drivers.

03 Sustain developer responsiveness beyond crisis cycles.

The post-2021 collapse in response rates across all regions, from near-100% in Kenya to just 5% by early 2026, signals that the pandemic-era engagement surge was situational rather than structural. For first-generation digital learners specifically, declining responsiveness reads as product abandonment. Sustained, systematic engagement with user reviews is a trust infrastructure investment, not a customer service overhead.

05 Close the expectation gap through transparent communication, not just product improvement.

The study identifies a recurring pattern: where digital literacy, connectivity are high and options for quality products abound, user expectations outpace what infrastructure can currently deliver. Kenya exemplifies this; higher engagement and sophistication producing sharper disappointment. Developers should actively manage expectations through transparent product descriptions, honest capability disclosures, and roadmap communication. This is particularly important because the analysis shows that global users with higher expectations are the most skeptical, critical, meaning expectation management is as consequential as performance improvement itself.

04 Rethink ad monetisation strategies for shared and low-end devices.

While African and Kenyan users show higher tolerance for advertising than global audiences, the evidence is clear that intrusive ads are a primary driver of churn, particularly on shared or low-end devices where screen interruptions compound an already degraded experience. The dominant ad-supported free-tier model needs rethinking. For instance, tiered community pricing, institutional licensing, or government partnership models are more sustainable alternatives for lower-income markets.



References

- Austria, G. (2025). Stick to Free or Pay for More? A Marketing-Technology Perspective on Upgrade Intentions in Freemium AI-Powered EdTech Tools. Available [here](#)
- Davis, F.P. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly
- Dingre, S.S. (2022). Understanding User Journeys in EdTech Startups: The Role of Analytics Integration. Available [here](#)
- Diplo. (2024). Status of Internet Access and Connectivity in Africa. Available [here](#)
- EdTech Hub. (2020). EdTech and COVID-19 response. Background paper prepared for the Save Our Future white paper Averting an Education Catastrophe for the World's Children. Save Our Future. Available [here](#)
- EdTech Hub. (2021). Covid-19 and EdTech in Africa: A Country-Level Review Based on eLearning Africa Data . Available [here](#)
- Faturoti, B. (2022). Online learning during COVID19 and beyond: a human right based approach to internet access in Africa. International Review of Law, Computers & Technology, 36(1), 68-90. Available [here](#)
- Hans, P. V., Daim, T. U., Basoglu, N. A. (2023). Factors Influencing Student Information Technology Adoption," in IEEE Transactions on Engineering Management, vol. 70, no. 2, pp. 631-643. Available [here](#)
- Hasan Al-kumaim, N., Mohammed, F., Gazem, N., Fazea, Y., Alhazmi, A.K. and Dakkak, O. (2021), "Information security View project Information overload and its impacts on students well being View project", Article in International Journal of Interactive Mobile Technologies, Vol. 15 No. 05, p. 140. Available [here](#)
- Hughes, H. (2025). Education Technology & Digital Upskilling in Emerging Economies: Utilizing Innovation for Growth & Development. Available [here](#)
- Kathiravan, R., Anita, B.V., Meshach, E.R.S., Samuel, M.V., Ben, M.J. (2024). Moving towards a Blended Tomorrow: The Evolution of EdTech in Education. Available [here](#)
- Kavandi, H., Jaana, M. (2020). Factors that affect health information technology adoption by seniors: A systematic review. Available [here](#)
- Logan, K. (2017). Attitudes towards in-app advertising: A uses and gratifications perspective . International Journal of Mobile Communications. Available [here](#)
- Mohammed, I.A. Factors Affecting User Adoption of Identity Management Systems: An Empirical Study. Available [here](#)
- Mwangi, J. (2024). Impact of Digital Learning Tools on Student Performance in Kenya. Available [here](#)
- Noor, M.N. (2026). The Impact of Educational Technology on Distance Learning in The Era of Post-Covid-19. International Journal on E-Learning Practices. Available [here](#)
- Ochieng, V.O., Waithanji N. M. (2022). Adoption of Education Technologies for Learning During COVID-19 Pandemic: The Experiences of Marginalized and Vulnerable Learner Populations in Kenya. International Journal of Educational Reform. Available [here](#)

- Rajasekam, S., Adam, T., Times, K. (2024). Digital Pathways for Education: Enabling Greater Impact for All. World Bank. Available [here](#)
- Sabiteka, M., Yu, X., & Sun, C. (2025). A Model for Educational Technology Adoption in Developing Countries. Preprints. Available [here](#)
- Simo, H. (2013). Expectations and User Experiences as Determinants of Technology Adoption and Continued Use. Available [here](#)
- SQ Magazine. (2025). Google Play Store Statistics 2026: Mobile App Trends, Revenue & Top Charts. Available [here](#)
- Stefaniak, J. and Carey, K. (2019), "Instilling purpose and value in the implementation of digital badges in higher education", International Journal of Educational Technology in Higher Education, Vol. 16 No. 1, pp. 1-21. Available [here](#)
- Sumner, M., & Hostetler, D. (1999). Factors Influencing the Adoption of Technology in Teaching. Journal of Computer Information Systems, 40(1), 81–87. Available [here](#)
- Timo P., Timo S. (2015). Understanding the most influential user experiences in successful and unsuccessful technology adoptions. Computers in Human Behavior. Volume 53. Pages 381-395. Available [here](#)
- Trachtman, L.E., Sprel, M.M., Sparks, G.G., Stohl, S. (1991). Factors Affecting Adoption of Technology. Available [here](#)