

The Active RRITE curriculum in practice: *Pay it Forward for the Blind*

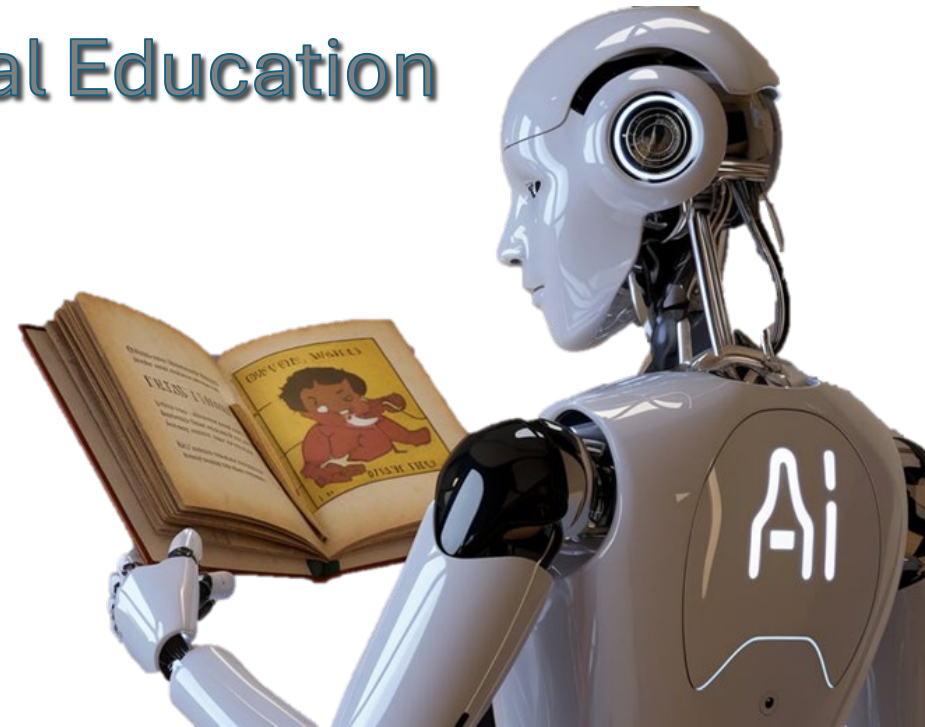
Harnessing AI for an Inclusive Global Education

Charles R. Wiggill

STADIO Higher Education, South
Africa

Wednesday 25 September 2024

16:05 – 16:20



INTRODUCTION & BACKGROUND

STADIO

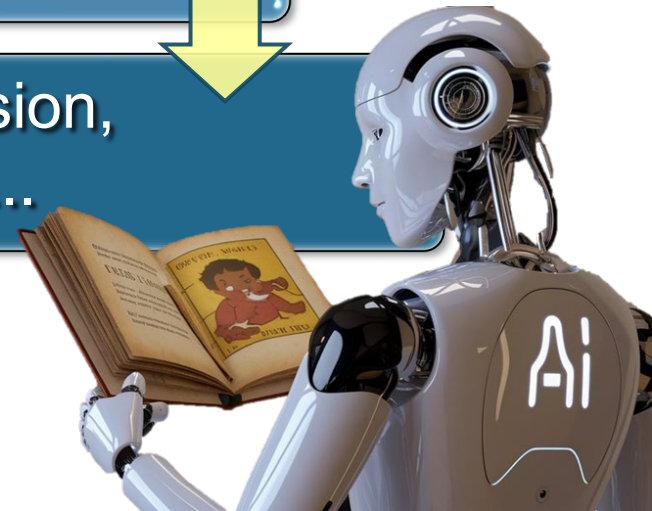
You probably think you're pretty literate, don't you?

(Steedman Thake, 2023)

When younger, were you identified as being behind your reading age, on point, or ahead?

How valid are the reading tests schools use?

Well, that is not exactly the focus of today's session, but is the precursor to what I am about to share...



DEVELOPMENT OF READING

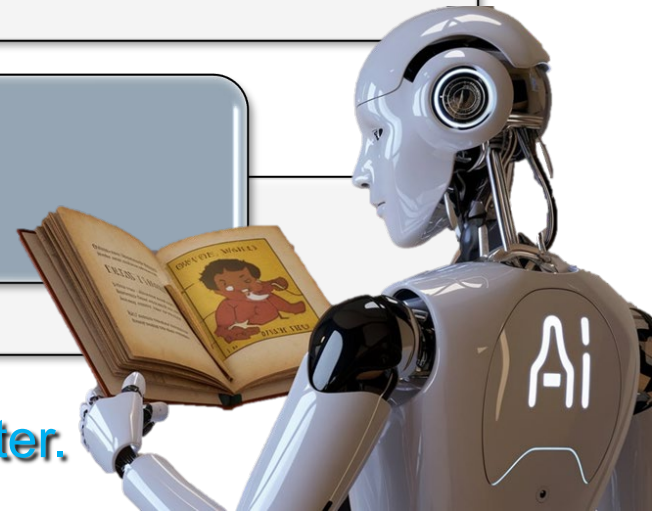
STADIO

Some children learn to read at 4 or 5 years of age.

Most will get the hang of it by age 6 or 7.

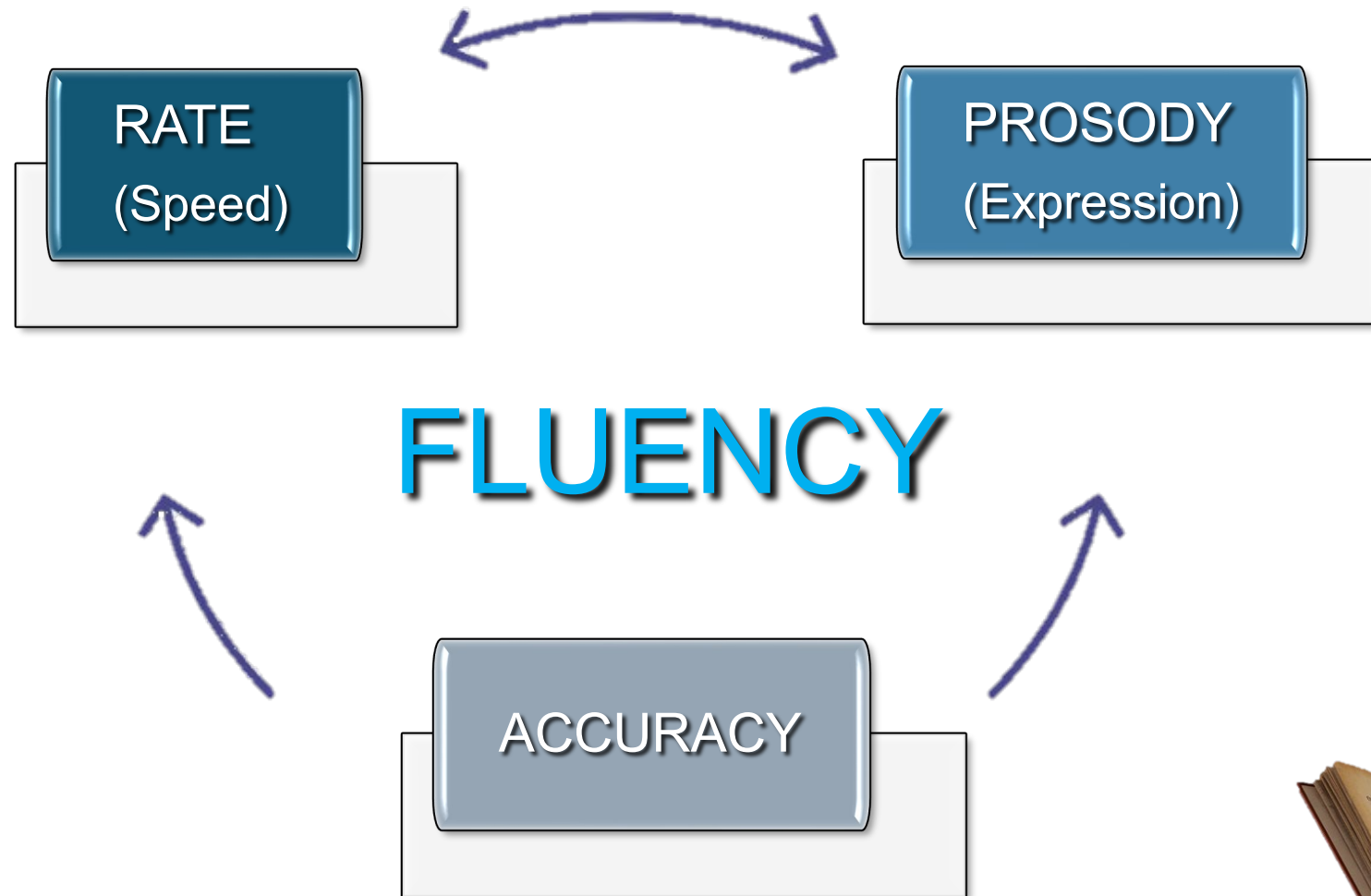
Reading fluency usually develops at ages 7 to 8.

Reading with full comprehension and other critical thinking aspects follow later.

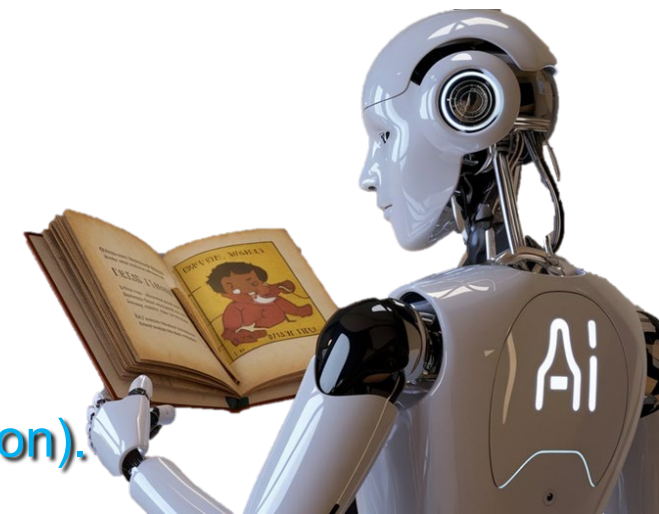


COMPONENTS OF FLUENCY

STADIO



Reading fluency has 3 components: accuracy, rate, and prosody (expression).





The wicked problem...

Finding a solution...



“Here is a fascinating read from 1856. I want the book report submitted next week!”

- Your friendly *traditional* librarian and media centre specialist

Finding a solution...



“Let’s record a story on my cellphone to help blind children!”

- Your friendly and enthusiastic classmates

FINDING A SOLUTION

STADIO

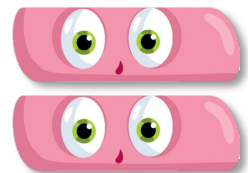
A real-world problem / audience



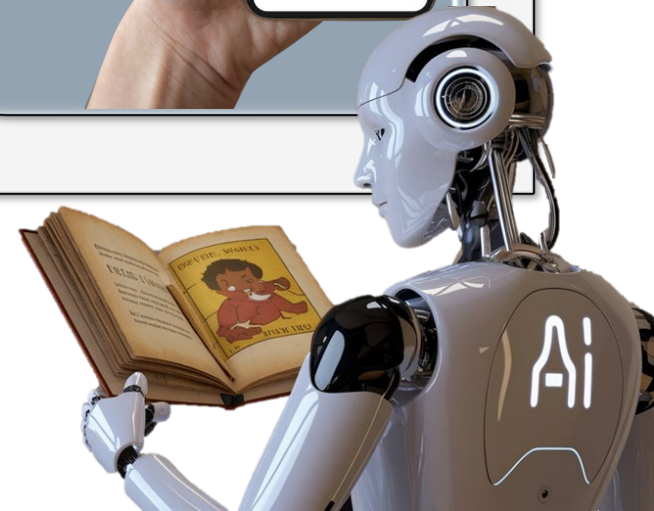
Collaboration for a solution



Fun digital tools



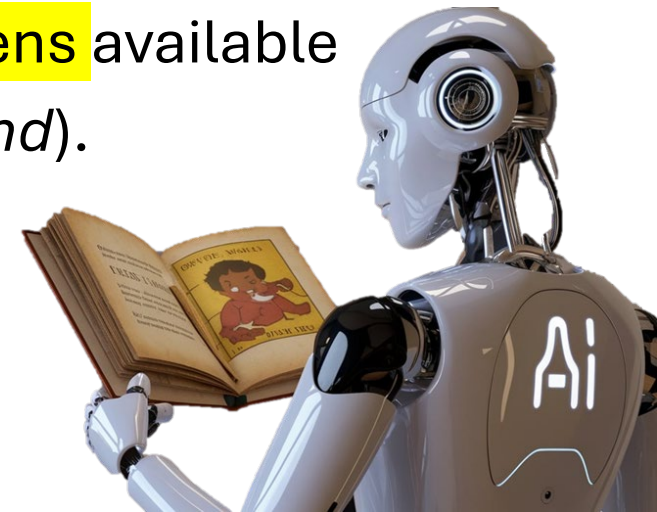
Valuable learning / 'product'



2. PROJECT OVERVIEW

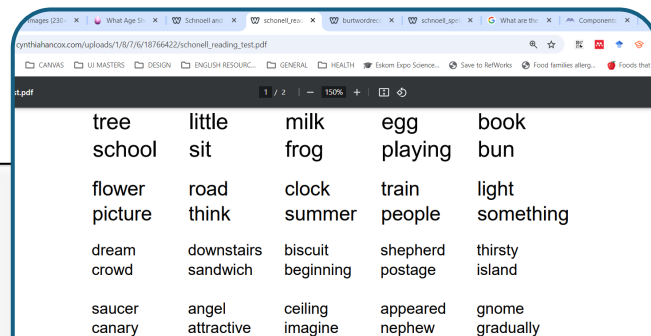
STADIO

- **Introduction:**
 - Originated at Eden College Durban in 2012.
 - Provides blind children access to children's stories in MP3 format globally.
 - Inspired by the *Pay it Forward* philosophy.
- **Primary Goal:** Improve reading of grade 8 learners and offer visually impaired children a digital repository of audio stories (MP3).
- **Global Reach and Appeal:** Stories read authentically by tweens available online, accessible 24/7 (as compared to *Tape Aids for the Blind*).



ESTABLISHING THE READING AGE OF PARTICIPANTS

STADIO



tree	little	milk	egg	book
school	sit	frog	playing	bun
flower	road	clock	train	light
picture	think	summer	people	something
dream	downstairs	biscuit	shepherd	thirsty
crowd	sandwich	beginning	postage	island
saucer	angel	ceiling	appeared	gnome
canary	attractive	imagine	nephew	gradually

Schonell Reading Test (1971)

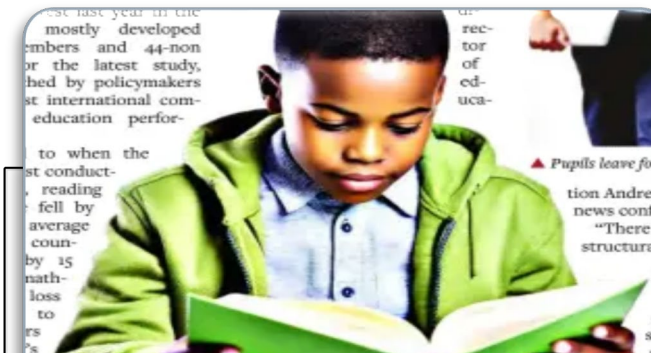
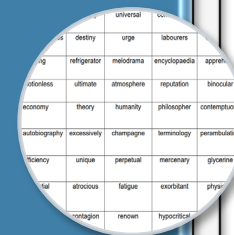
For ages:
5 -14+ years



formulate	scarcely	universal	commenced	overwhelmed
circumstances	destiny	urge	labourers	exhausted
trudging	refrigerator	melodrama	encyclopaedia	apprehend
motionless	ultimate	atmosphere	reputation	binocular
economy	theory	humanity	philosopher	contemptuous
autobiography	excessively	champagne	terminology	perambulating
efficiency	unique	perpetual	mercenary	glycerine

Burt Word Recognition Test (1974)

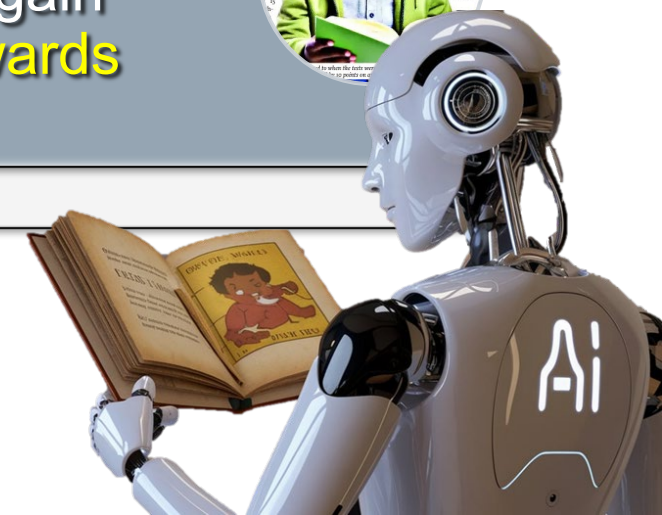
For ages:
6 - 13 years



Established
reading age
beforehand
and again
afterwards



In most cases, there was a dramatic improvement in reading age over 5 months.



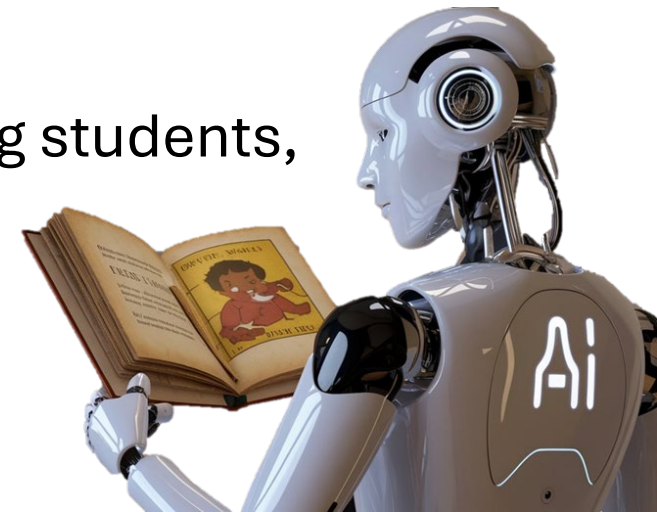
3. PROJECT DEVELOPMENT

- **Origins:**






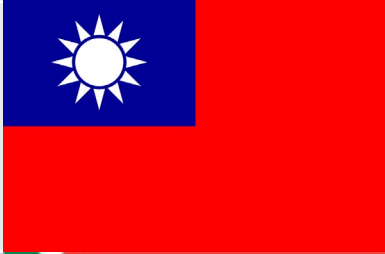





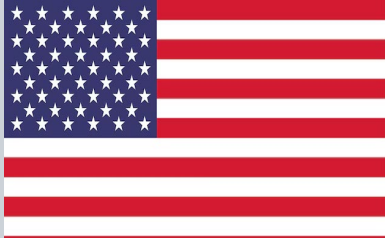








- Began with a Grade 8 English class to improve reading skills using mobile phone recordings (MP3).
- Learners had to adapt stories to incorporate the visual elements.
- Expanded from a classroom initiative to an international project endorsed by global organisations.

- **Growth:**

- Collaborations with local and global participants, including students, teachers, youth groups and some celebrities.



Some schools that collaborated on this project

Eden College, Durban, South Africa			Dilworth School, Auckland, New Zealand		
Deguang Catholic School, Tainan, Taiwan			Uplands College, White River, South Africa		
Bishops Diocesan College, Cape Town			Kalamazoo College, Michigan, USA		
Torquay Boys' Grammar School, Devon, UK			St Mary's DSG, Kloof, South Africa		
The Rock Academy, Fish Hoek, South Africa			Victoria Girls' High School, Makhanda, South Africa		

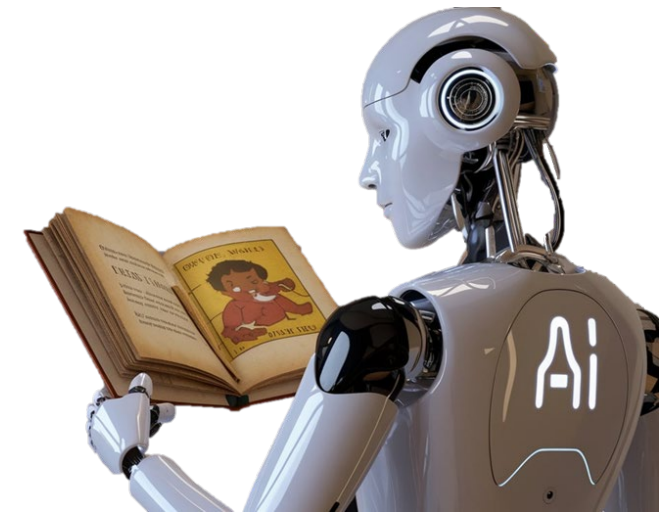
Some organisations that endorsed this project and media that reported on it

Pay it Forward Foundation, San Luis Obispo, California, USA			Sunday Tribune, Greyville, Durban, South Africa		
World Blind Union, Toronto Ontario, Canada			Gazeta Wyborcza, Warsaw, Poland		
SA National Council for the Blind, Pretoria, South Africa			Proudly South African, Johannesburg, South Africa		
KwaZulu-Natal Society for the Blind, Durban, South Africa			China Times (中國報), Taipei, Taiwan		
Microsoft Global Education, Redmond, Washington, USA			Mpower FM, Mbombela, Mpumalanga, South Africa		

4. KEY ACHIEVEMENTS

STADIO

- **SA Winner:** South African Partners in Learning Conference (May, 2012).
- **Regional Presentation:** A winning project at the Middle East and Africa Partners in Learning Regional Conference (MEA PIL), Marrakech, Morocco (September, 2012).
- **Global Recognition:** Invited to present at the Global PIL Forum in Prague, Czech Republic, a.k.a. the "Olympics of Teaching" (November, 2012).
- **Replication:** The project was rolled-out in Taiwan and then 9 other countries.
- **Online repository of titles:** Over 500 existing and original stories were recorded in 26 languages from over 20 countries.





An inspired teacher could create an engaging, interdisciplinary project that blends real-world problem-solving with collaboration and technology.

- Executive Principal of St. Mary's DSG, Kloof, Jonathon Manley commented on Twitter (now X),

“Cellphones in the hands of children and a visionary teacher influences a blind world. Outstanding!”

- (29 May 2012). This project is now operating in 10 countries.

Students gain digital literacy skills through the use of various tools. The project is grounded in a real-world issue, encouraging creative problem-solving while making learning fun and relevant. The combination of real-world relevance, collaboration, and digital tools can result in an innovative and meaningful learning experience.

“Digital literacy goes beyond merely operating technology tools and devices. It includes the cognitive and social processes that take place when reading, writing, and communicating in digital spaces and with digital tools.” – Branson, 2023



THE ROLE OF AI IN RE-IMAGINING THE PROJECT

STADIO



SIMPLIFIED METHODOLOGY, RE-IMAGINED

STADIO

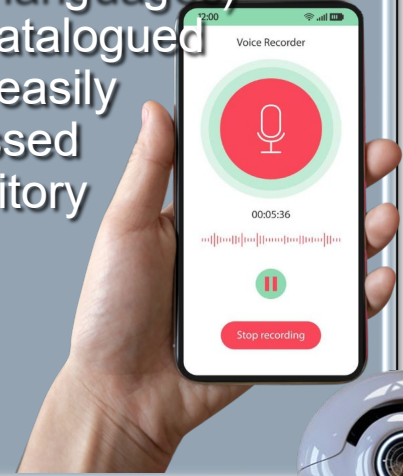
AI-generated stories following **judicious use** of carefully structured AI prompts



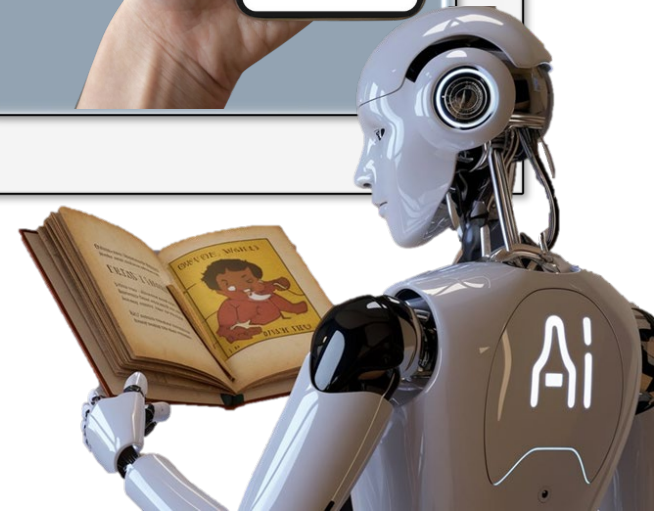
Human oversight to remove bias and ensure educational value



African stories recorded in English (and other languages) and catalogued in an easily accessed repository



Valuable learning / 'product'



5. THE ROLE OF AI IN RE-IMAGINING PAY IT FORWARD FOR THE BLIND

- **Harnessing AI:**

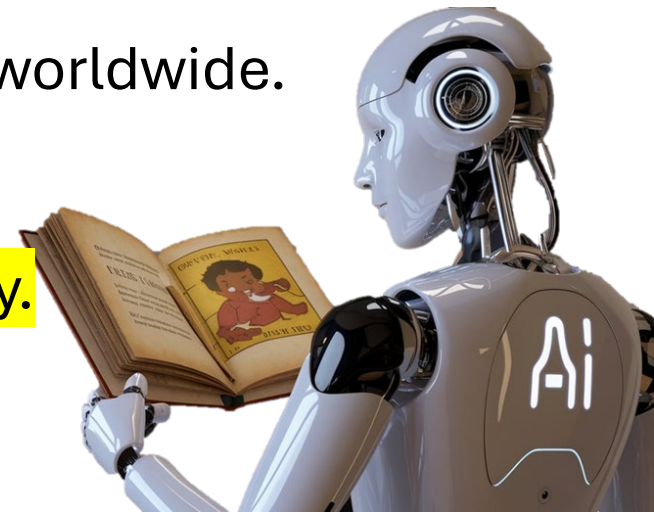
- AI helps create an international repository of African children's stories.
- AI-assisted story generation and recording.
- Human oversight ensures accuracy, cultural relevance, and removal of AI biases.

- **Reimagined Goal:**

- Leverage AI to expand access to African children's stories worldwide.

- **Value for Stadio students:**

- Stadio students gain skills in critical thinking and AI literacy.
- Stadio students and alumni have access to the repository.



6. GLOBAL REPOSITORY OF AFRICAN CHILDREN'S STORIES

STADIO

AI-powered E-Library:

Free resource for African children's stories in audio format.

Target audience: The blind, ECD and Foundation Phase teachers, globally accessible.

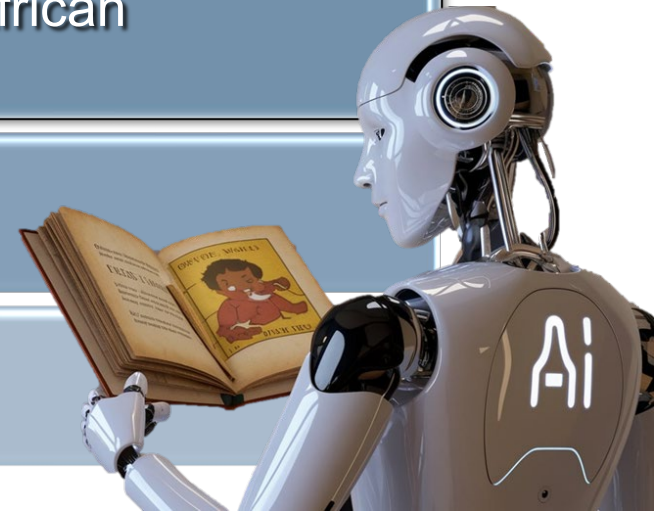
Inclusive Reach:

Accessible to visually impaired children worldwide.

Stories available in English and eventually, multiple languages, including African languages.

Opportunities for transformation:

Stadio students could help train LLMs from an African perspective, possibly reducing WASPish biases.



7. KEY FEATURES AND CHALLENGES

Global Reach: African stories in English and other languages

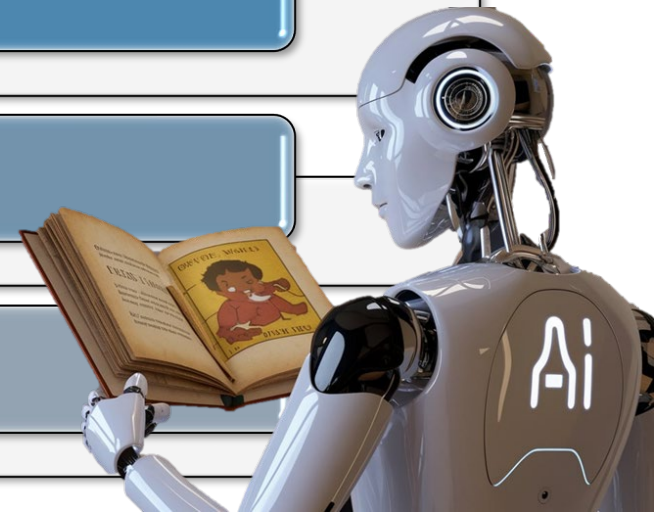
Accessible via digital and mobile devices 24/7.

AI & Human Collaboration: AI assists in story creation, human review ensures educational value.

Technical challenges: Glitches and noise during recording, slow internet speeds.

AI challenges: Mitigating biases, improving story accuracy.

Highlight: Encourages judicious use/users of generative-AI.



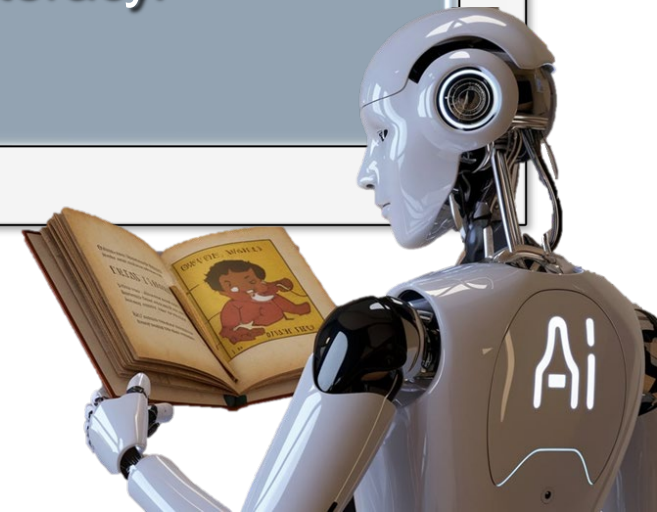
8. FUTURE GOALS AND EDUCATIONAL IMPACT

STADIO

Enhances AI literacy, promotes African stories and inclusivity for blind children

Encourages global collaboration and international partnerships in education and technology

Stadio students gain skills in critical thinking, global collaboration, digital- and AI-literacy.

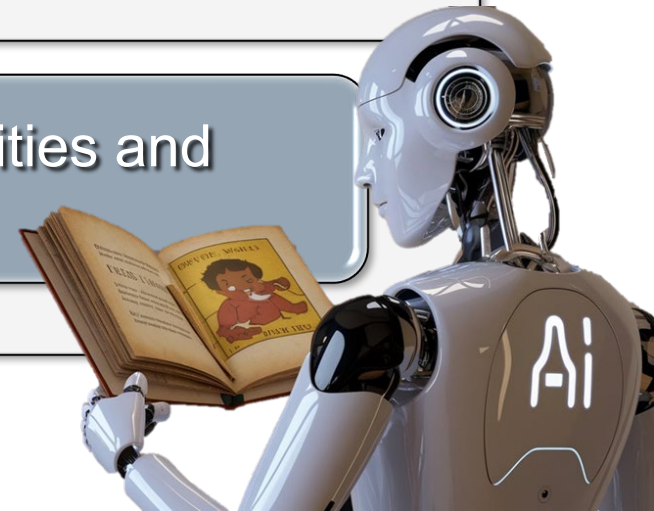


9. CONCLUSION

Key Takeaway: *Pay it Forward for the Blind* will be an evolving project that exemplifies how AI and human creativity can intersect to create inclusive, transformative educational resources.

The blind spot: Stadio students will focus on helping blind children while unwittingly optimising their critical thinking and AI literacy skills

Call to Action: Inviting educators, technologists, sister universities and organisations to collaborate in expanding this project further.





Thank you!

PROMPT:
AI Thank you

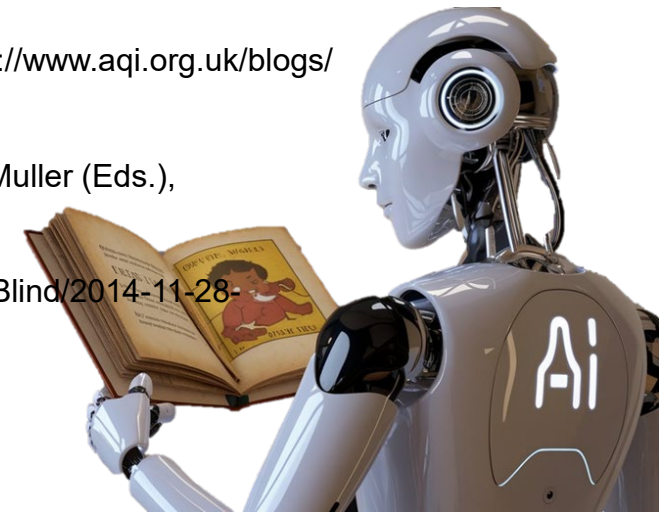
 ideogram

https://ideogram.ai/g/09_lkXh4TSWWQPvFBWigrA/0

REFERENCES

STADIO

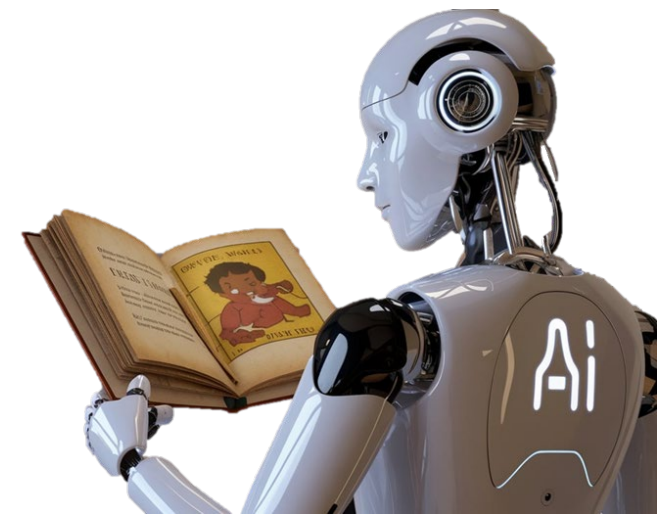
- Branson, S. M. (2023). Chasing a Moving Target: Examining Shifts in Elementary Teachers' Language and Conceptions of Digital Literacy During Professional Learning. Academic Press.
- Holstein, K. (2021). The promise and challenge of AI in education. *Educational Researcher*, 50(4), 257–264.
- Hruby, G. G., & Burns, L. D. (2020). The Science of Adolescent Literacy. *Journal of Adolescent & Adult Literacy*, 63(6), 693-696.
- Lauterbach, A., & Bonime-Blanc, A. (2018). The artificial intelligence imperative: A practical roadmap for business. Bloomsbury Publishing USA.
- Luckin, R. (2018). Enhancing learning and teaching with technology: What the research says. Education Development Trust. /media/EDT/Insights/Enhancing. <https://www.educationdevelopmenttrust.com/>
- Marwala, T. (2023, December 8). Tshilidzi Marwala. South Africa is standing at the crossroads with AI. News24. <https://www.news24.com/news24/opinions/fridaybriefing/tshilidzi-marwala-south-africa-is-standing-at-the-crossroads-with-ai-20231207>
- Paris, S.G. & HAMILTON, E. E. (2009). The development of children's reading comprehension. In Israel, S.E. & Duffy, G.G. (Eds.). *Handbook of research on reading comprehension*. New York, NY: Routledge.
- Schonell, F.J. (1966). *The psychology of teaching reading*. London, UK: Oliver & Boyd.
- Steedman Thake, A. (2023, March 3). Are reading ages old hat? AQi Powered by AQA. Retrieved September 19, 2024, from <https://www.aqi.org.uk/blogs/are-reading-ages-old-hat/>
- Wiggill, C., & Batchelor, J. (2024). The Impact of AI Requires Integration Across K-12 and Tertiary Learning. In O. O. Eybers & A. Muller (Eds.), *AI Approaches to Literacy in Higher Education* (pp. 49-75). IGI Global.
- Wu, P. (2014, November 28). Pay it forward for the blind 為盲童錄製有聲書. <http://w2.tkgsh.tn.edu.tw/iEarn/Pay-it-forward-for-the-Blind/2014-11-28-%E5%9D%87%E8%B3%AA%E5%8C%96-%E8%87%AA%E7%94%B1%E5%A0%B1%E5%90%8D/index.htm>



REFERENCES

STADIO

- Link 1: <https://literarytourism.co.za/pay-it-forward-for-the-blind/>
- Link 2: <https://www.schoolnet.org.za/news/success-in-morocco/>
- <https://www.pressreader.com/south-africa/sunday-tribune-south-africa/20120909/281835755887145>
- <https://literarytourism.co.za/pay-it-forward-for-the-blind/>
- <https://www.schoolnet.org.za/news/success-in-morocco/>
- <https://www.schoolnet.org.za/blog/teachers-ever-wondered-what-takes-place/>
- <https://www.pressreader.com/south-africa/sunday-tribune-south-africa/20120909/281835755887145>



STADIO

