

A1 - Analyst Report

INSTRUCTIONS

Assignment #1 will be worth 25% of your final grade. It is due at the end of Week 6.

Author and publish an original competitive analysis of an existing real-world learning technologies product, service, venture or market of special interest to you. For example, your subject could be a new gadget or application you're considering for use in your own work, or a company (large or small) you've heard about, or possibly a set of products competing in an area of learning you're involved with. It could also be a pioneering non-profit learning program within a school district, campus, city, country, etc. It can be any relevant (to you) component or cross-section of the global learning technologies marketplace.

Think of your work as an 'opportunity audit': a critical review of your chosen topic designed to support an investment decision (not a buying decision) by a prospective investor (not a customer). For example, an investor might be a venture capital firm doing due diligence on a new company, a ministry about to fund a new project, a superintendent trying to decide about a new district initiative, or a foundation considering support of a new non-profit program. They want your expert Educational Venture Analyst (EVA) recommendation about whether this is a wise use of their money.

This is not an academic paper. Design a presentation format consistent with prospective investors making a sound decision based on your recommendation. Enhance your analysis with real-world data and original consultations if such are feasible. Employ a medium or media of your choice. If your OER is hosted in an external platform or application please ensure it can live there reliably for at least a few years, and that it is self-contained there (this is the OER that global users will find, and link to), and please be sure to create an informative, inviting launchpad post (this is what will be curated by your peers) when you add it to our blog. Be credible, thorough and insightful, but as concise as possible (2,000 words or 8 minutes maximum). Consult your instructor if in doubt.

To publish your Assignment #1, post it into this blog using the Category "Analyst Reports (A1)". Once posted, notify your instructor via email that you are 'live' and include any links and self-reflection. If your analysis needs to remain private for any reason, consult your instructor for an alternate submission path. Grades will be returned within one week of publication if at all possible.

RUBRIC:

- **Rationale for Analysis (8/25):** A compelling rationale for the choice of subject matter that clearly conveys its resonant value within the learning technologies marketplace and to the author's professional stance as analyst.
- **Critical EVA (8/25):** An engagingly credible analysis that uses criteria and/or methods that are relevant, comprehensive, and incisive to the substance and conclusions.
- **Resource Value (4/25):** Creative and effective design together with excellent presentation for engaging and serving the target audience (primarily professional educators everywhere).
- **Reflections (5/25):** The proponent clearly outlines the relevance of their analysis and the EVA role in relation to their emerging thinking about their own upcoming opportunity pitch (Assignment #3).

PROSPECTIVE INVESTMENT

AI adaptive reading technologies

Viewpoint:

- Should the school board be investing in reading technologies
- Currently, UFLI and SPIRE
 - All missing interventional steps
- Lexia (assess, and tells teacher what's next)

Examples:

- Amira Learning
- Ello
- <https://www.scholastic.com/content/educators/en/learn/ready-for-reading.html>
- Voice.ai
- Article: <https://csteachers.org/ai-meets-the-science-of-reading-and-writing-skill-development/>
- <https://www.soapboxlabs.com/>
- <https://www.mindspark.org/>
- <https://www.engadget.com/microsofts-tool-for-ai-reading-lessons-is-now-a-standalone-app-230520756.html>
-

Rationale

- Pain point: Right to Read Inquiry Report
- What is the value within the learning technology marketplace
- How does it reflect my personal stance as an analyst
- US and Canada market analysis
 - <https://www.edweek.org/teaching-learning/which-states-have-passed-science-of-reading-laws-w-hats-in-them/2022/07>
-

EVA: ([The Cube from W3](#))

- Type of Market (K-12, Higher Education, Commercial)
- Type of Offering (Service, Content or Infrastructure)
- Who is the Buyer? – because learners don't often choose their own learning technology products.
- Global Target -What piece(s) of the global market are we talking about – because learning technology doesn't always "go" everywhere the Internet does.
- Market Status – How developed is the local market? – because the sweet spot for success is in the middle of the development curve.
- Competition – How integrated is learning technology with the rest of the educational system – because without that integration learning technology struggles.

CONTENT:

Splash Page

The Right to Read

In 2023, Ontario educators were introduced to a revised language curriculum. This development, influenced by the 2012 Supreme Court of Canada ruling on *Moore v British Columbia* and the 2022 Right to Read Report, emphasized that the ability to read is not merely a privilege but an inherent human right. We are now tasked with providing comprehensive educational frameworks, based in systematic evidence-based approaches, that cater to students of all abilities.

At the core of this shift lies the potential for integrating adaptive reading technologies that are grounded in the science of reading. These adaptive tools can cater to individual learning styles and abilities, presenting a unique opportunity to explore new pathways for engagement and comprehension. Informed by empirical research, these technologies offer personalized learning experiences, helping students progress reading levels faster and offering educators better insights to areas of interventions.

As a Ministry we need to be investing in Adaptive Reading Technologies.

Page 1

Where we are and where we need to go - We Are Ready

- Who is the Buyer? – because learners don't often choose their own learning technology products.
- Global Target -What piece(s) of the global market are we talking about – because learning technology doesn't always "go" everywhere the Internet does.

- Pain point: Right to Read Inquiry Report
- What is the value within the learning technology marketplace
- How does it reflect my personal stance as an analyst
- US and Canada market analysis
 - <https://www.edweek.org/teaching-learning/which-states-have-passed-science-of-reading-laws-whats-in-them/2022/07>

Center - <https://www.youtube.com/watch?v=iney0cEpx24>

- Universal, evidence based reading tools

The Science of Reading

"The science of reading includes results from thousands of peer-reviewed studies and meta-analyses that use rigorous scientific methods. The science of reading is based on expertise from many fields including education, special education, developmental psychology, educational psychology, cognitive science and more."

Right to Read Report Results

In February on 2022, the Ontario Human Rights Commission released the [Right to Read Inquiry Report](#) providing an analysis of the reading issues in Ontario and 157 recommendations to address the systemic issues affecting our children's right to read. Key findings have found that:

"According to the EQAO's 2018–19 Provincial Elementary School Report,[331] only 74% of all Grade 3 students met the provincial reading standard on the primary-division assessment.[332] This means that one-quarter of Grade 3 students in Ontario are not good readers and are already at risk of, or have started to experience, the negative impacts described earlier in this report. As well, only 62% of students met the standard unassisted (without scribing or assistive technology).[333]

On the junior-division assessment, 81% of Grade 6 students met the provincial reading standard.[334] In other words, in 2018–2019, one in five Grade 6 students struggled with reading. Only 72% of students met the standard unassisted.[335] As it becomes increasingly hard to address reading difficulties after Grade 6, even with the best interventions in place, many of these students will never catch up.[336]"

The Five Big Ideas in Beginning Reading

<https://www.ohrc.on.ca/en/right-to-read-inquiry-report/curriculum-and-instruction>

Overall:

"Several key reports synthesize the large body of scientific research on how children learn to read and the most effective instructional approaches: the National Reading Panel Report in the United States; the Ontario Expert Panel Report on Early Reading; the Rose Reports in England; and the Canadian Language and Literacy Research Network Report. These influential reports all endorse systematically teaching the foundational skills that will lead to efficient word reading: phonemic awareness, phonics to teach grapheme to phoneme relationships[653] and using these to decode and spell words and meaningful parts of words (morphemes), and practice with reading words in stories to build word-reading accuracy and speed."

Why technology:

<https://www.edweek.org/technology/measuring-reading-comprehension-is-hard-can-ai-and-adaptive-tools-help/2023/03>

Too few teachers are trained, how can we standardize fast?

Viewpoint:

- Should the school board be investing in reading technologies
- Currently, UFLI and SPIRE
 - All missing interventional steps
- Lexia (assess, and tells teacher what's next)

Catch Up Your Code

R2R recommends:

"The OHRC has identified an urgent need for standardized provincewide action to protect the rights of students with reading difficulties. Several inquiry school boards said they would welcome more Ministry guidance and standardization based on the best scientific evidence to date. Boards said they have limited capacity to review scientific research and determine what approaches are supported by the most current evidence. Inquiry boards also noted benefits to having co-terminus boards (public and Catholic school boards that share the same geographic boundaries) using the same approaches. They noted this may avoid families switching boards to gain access to different services. Efficiencies can also be gained through consistency such as bulk-purchasing opportunities, partnering to provide professional development on common programs and supports, and other forms of co-operation between neighbouring and co-terminus boards."

"Boards need procedures to monitor the effectiveness of schools' early identification practices and take corrective action where they have not been effective."

- Market Status – How developed is the local market? – because the sweet spot for success is in the middle of the development curve
- Competition – How integrated is learning technology with the rest of the educational system – because without that integration learning technology struggles.
- How do they work?

Elementary and Middle School Markets

The elementary and middle school markets are poised for adaptive reading technology interventions as soon as possible. Our current investments are programs that either do a pre-assessment and stream students into a learning pathway or require the teacher to be individually assessing and adapting the programs for students. This works for 1-2 students in small group settings, but this is not realistic in our current landscape.

- Our current investments are teacher heavy:
- Currently, UFLI and SPIRE
 - All missing interventional steps
- Lexia (assess, and tells teacher what's next)

S.P.I.R.E.

- Lesson-based intervention program
- Grounded in science of reading
- Most effective for students with dyslexia
- Well studied and widely used
- Physical or digital
- Requires teacher-led and one-to-one
- [A comprehensive research-backed review](#)
- NEW: Adaptive Reading Assistant just introduced

UFLI

- Lesson-based whole class instruction program
- Can be used as intervention
- Grounded in science of reading
- Targets foundational reading skills
- Accompanying powerpoints, but is physical

Catch Up Your Code

- Lesson-based whole class instruction program
- Can be used with small groups
- Requires assessment up front
- Teacher can choose pathways based on lesson
- 10 minutes a day
- Backed by research, no specific reference to science of reading

Market indicates a shift towards using AI interventions.

The North American market is ready for a shift towards using AI interventions. In May of 2023, the Office of Educational Technology from the US Department of Education officially released its insights and recommendations on [Artificial Intelligence and the Future of Teaching and Learning](#). One key insight highlighted the research-backed recognition that AI enables adaptivity in learning. Even more interesting to note is the specific mention of using adaptive reading technologies (p39) in the report as well. As evident in the graphic shown, AI is not going to replace the teacher. The research suggests that humans must be at the center of the educational loop in order to be most effective.

. *Artificial Intelligence (AI) in Education: What Is Artificial Intelligence? (AI) and How Is It Used in Education?*
May 2023, URL: <https://www2.ed.gov/documents/ai-report/ai-report.pdf>.

- <https://www2.ed.gov/documents/ai-report/ai-report.pdf>

Specifically makes mention of the use of adaptive reading technologies - the market is growing and initiatives cannot be left behind.

[Voice AI technology](#) advancements are paving the way for adaptive reading programs such as the ones below:

Amira Learning

- Amira Learning's adaptive reading technology combines artificial intelligence with insights from the science of reading to provide personalized literacy support. Unlike traditional methods, Amira dynamically adjusts content and difficulty based on individual progress, offering interactive experiences akin to human tutoring. This innovative approach aims to enhance literacy skills by tailoring learning to each student's needs and learning style, ultimately fostering greater proficiency and success.
- Amira is an adaptive reading technology that brands itself as a personal reading tutor for students. Using adaptive artificial intelligence it continuously monitors and assesses students as they read to the program and adjusts the next activities and instructions - the highest level of literacy support. Amira's dynamic adjustments are grounded in the [science of reading](#), with specific references to Scarborough's reading rope. The Amira program is used by more than 2 million students around the globe and can expect to grow.
- Directly aligned to reading rope

Ello

Ello harnesses the power of Adaptive Learn™, its proprietary AI engine, to provide personalized reading instruction akin to a 1:1 instructor. By incorporating child speech recognition technology and a proprietary AI that adapts to each child's abilities and interests, Ello delivers tailored learning experiences. Rooted in the science of reading, Ello's responses are designed to optimize literacy learning outcomes. Through large generative models, Ello creates personalized stories and teaching materials that evolve and interact with each child, meeting them at their optimal learning level.

SPIRE Reading Assistant

- <https://www.epslearning.com/products/eps-reading-assistant>

The Reading Assistant for S.P.I.R.E.

Reading Assistant is an AI-driven tutor that offers adaptive reading practice and intervention to improve progress for students. Utilizing voice AI and speech recognition technology, students engage in oral reading while an avatar, Amira, provides real-time personalized feedback and micro-interventions. This process generates valuable data insights for educators, facilitating a deeper understanding of each student's reading skill development. By adhering to its implementation guidelines, Reading Assistant proves to be a potent

tool for expediting reading proficiency. This comprehensive approach to reading instruction is based on the science of reading and will reduce educator effort and wait time for results, covering universal screening, dyslexia identification, benchmarking, progress monitoring, and placement.

Ready 4 Reading

- <https://www.scholastic.com/content/educators/en/learn/ready-for-reading.html>

Ready4Reading is a science of reading based literacy tool for K-3 students that uses systematic instruction to guide students through the sequential acquisition and practice of foundational reading skills crucial for literacy development. This phonics system offers flexible modules that seamlessly integrate into existing reading programs, enhancing whole group, small group, and learning centre activities. Moreover, Ready4Reading provides powerful data insights through its adaptive assessment tool, Letters2Meaning. This assessment offers Grade Level Scores aligned with the program's Scope and Sequence, aiding teachers in student placement, progress tracking, and success monitoring.

Harnessing Voice AI (SoapBox Labs' speech recognition technology) Ready4Reading empowers students to independently practice phonics and reading skills using their voices. This feature accurately understands students' speech regardless of background, ethnicity, or age, providing educators with real-time, skills-level reporting to personalize instruction effectively. By leveraging adaptive AI, Ready4Reading ensures that every student has the opportunity to succeed in literacy.

Soapbox Labs

- Voice AI
-

Extra

- Article: <https://csteachers.org/ai-meets-the-science-of-reading-and-writing-skill-development/>
- <https://www.soapboxlabs.com/>
- <https://www.mindspark.org/>
- <https://www.engadget.com/microsofts-tool-for-ai-reading-lessons-is-now-a-standalone-app-230520756.html>

Page 3

Will it work? Outlook

Fun to Note

<https://www.harriswilliams.com/our-insights/tech-literacy-technology-the-science-of-reading>
Harris Williams Global Investment Bank has provided their own insights to Literacy Technology. They say, "In recent years, more than half of all states have passed laws encouraging or incorporating the science of reading in classroom instruction, marking a major shift away from the previously pervasive balanced literacy approach. This transformative movement is creating strong tailwinds for literacy technology businesses."

- Type of Market (K-12, Higher Education, Commercial)
- Type of Offering (Service, Content or Infrastructure)
- Who is the Buyer? – because learners don't often choose their own learning technology products.

- Global Target -What piece(s) of the global market are we talking about – because learning technology doesn't always "go" everywhere the Internet does.
- Market Status – How developed is the local market? – because the sweet spot for success is in the middle of the development curve.
- Competition – How integrated is learning technology with the rest of the educational system – because without that integration learning technology struggles.

Final Words

Educational companies are always vying to create more space in the learning technology market and school boards will continue to invest in them - especially when we see reports like The Right to Read. It is clear the gap for this specific emerging technology exists. I am currently working in schools that are struggling to implement a consistent literacy program for students for various logistical reasons. When reflecting upon opportunities for new companies, it is clear that although there are large educational companies in the literacy space, the application of adaptive reading technologies is still blooming. The voice AI technology used to create these programs is readily available. Experts in the science of reading and those with hands-on experience in education, specifically literacy, might see this as a viable gap and opportunity.

That being said, when looking specifically at the application to Canada and even more locally in Ontario, the organizational structure of teachers makes it difficult to provide province-wide interventions because of union guidelines. This may create a barrier to bulk sales within school boards as they cannot guarantee programs will be adopted by teachers who have the freedom to choose.

Works Cited

Amira Learning. "Homepage." *Amiralearning.com*, 2023, amiralearning.com/. Accessed 15 Feb. 2024.

Cardona, Miguel A., et al. *Artificial Intelligence and the Future of Teaching and Learning Insights and Recommendations*. Office of Educational Technology, May 2023.

Ello Technology, Inc. "Read with Ello." *Www.ello.com*, 2024, www.ello.com/. Accessed 13 Feb. 2024.

EPS Learning. "Reading Assistant - EPS Learning." *Www.epslearning.com*, 2024, www.epslearning.com/products/eps-reading-assistant. Accessed 8 Feb. 2024.

EPS Learning. "S.P.I.R.E. Overview - EPS Learning." *Www.epslearning.com*, 2024, www.epslearning.com/products/spire-overview.

Harris Williams. "Literacy Technology: The Science of Reading." *Www.harriswilliams.com*, 11 Sept. 2023, www.harriswilliams.com/our-insights/tech-literacy-technology-the-science-of-reading. Accessed 17 Feb. 2024.

- Klein, Alyson. "Measuring Reading Comprehension Is Hard. Can AI and Adaptive Tools Help?" *Education Week*, 15 Mar. 2023,
www.edweek.org/technology/measuring-reading-comprehension-is-hard-can-ai-and-adaptive-tools-help/2023/03.
- Magallanez, Michelle. "AI Meets the Science of Reading and Writing Skill Development." *Computer Science Teachers Association*, 15 May 2023,
csteachers.org/ai-meets-the-science-of-reading-and-writing-skill-development/. Accessed 7 Feb. 2024.
- National Center on Improving Literacy. "The Science of Reading: The Basics." *National Center on Improving Literacy*, 31 Aug. 2022, improvingliteracy.org/brief/science-reading-basics. Accessed 12 Feb. 2024.
- Nessy's Dyslexia Explained. "The Science of Reading." *Wwww.youtube.com*, 24 Mar. 2022,
www.youtube.com/watch?v=KCmbVl4x6M8.
- Ontario Human Rights Commission. *Inquiry Report: Right to Read*. Government of Ontario, Feb. 2022.
- Scholastic. "Phonics Instruction Ready4Reading." *Scholastic.com*, 2024,
www.scholastic.com/content/educators/en/learn/ready-for-reading.html. Accessed 8 Feb. 2024.
- Scholastic Education. "Catch up Your Code | Scholastic Education Canada." *Wwww.scholastic.ca*, 2024,
www.scholastic.ca/education/catch-up-your-code/. Accessed 11 Feb. 2024.
- University of Florida Literacy Institute. "UFLI Foundations: UF Literacy Institute." *UFLI Foundations*,
University of Florida Literacy Institute, ufli.education.ufl.edu/foundations/. Accessed 10 Feb. 2024.