Team 12

Global Enterprise Experience

2019

Elliot Cina / Victoria University of Wellington / New Zealand / Team Leader
Steven Aiello / Debate for Peace / Israel
Laura Frederiks / University of Applied Sciences Utrecht / The Netherlands
Amy Shan Liu / North China Institute of Science and Technology / China / ESL
Ameen Olumide Ayobami / University of Lagos / Nigeria / Design
# Table of Contents

1 Executive Summary ............................................................................................................. 2

2 Business Overview .............................................................................................................. 2

2.1 Issue ............................................................................................................................... 2

2.2 Objectives ....................................................................................................................... 2

3 Product Overview .............................................................................................................. 2

3.1 Product Description ...................................................................................................... 2

3.2 Technical Design ......................................................................................................... 3

3.3 Product Creation ......................................................................................................... 4

4 Market Analysis ................................................................................................................ 4

4.1 Target Market ............................................................................................................... 4

4.2 Target Consumers ....................................................................................................... 4

4.3 Advertising .................................................................................................................. 4

4.4 Current Competitors .................................................................................................... 5

5 Financials .......................................................................................................................... 5

5.1 Initial Investment .......................................................................................................... 5

5.2 Forecasted Sales and Costs .......................................................................................... 5

6 Future Outlook .................................................................................................................. 6

7 References ......................................................................................................................... 6
1. Executive Summary
Imagine you are a college student. You are currently in your exam week and you really need to study for tomorrow’s economics exam, but there is also a lot of housework you need to do, such as grocery shopping and laundry. You really need to get them done today since you have already procrastinated for a while, but you also really need to study. You desperately try to combine the housework with your studying. The next day you fail your exam.

We’ve come up with an idea to revolutionize students’ lives. Smartphones, mobile apps and the internet are part of every student’s life. The technology surrounding these products has evolved greatly, and the world is still working on improving it. Technology is often used in education, including apps like PressReader, Quizlet, Duolingo etc.

Our idea is to create an app which allows students to study while doing other things like traveling, cooking or writing. Readio is a service to access the readings/set texts of university and high school courses in audio, read-aloud format. The recordings are accessible through an app which tailors your available readings to your course. Readio pays publishers for the rights to reproduce their content, then takes a percentage off the top of its fees/prices for profits.

Education is central to humanity’s development. A United Nations Sustainable Development Goal is ‘Quality Education’. If we can increase the achievement of students worldwide studying to create solutions for today’s great problems, we can directly contribute to the betterment of humanity for the future.

2. Business Overview

2.1 Issue
1: Persons/students with visual impairment are unable to read most texts. People with disabilities, especially visually impaired, warrant extra efforts to integrate them into mainstream education (and eventually the workforce). Everyone has the same thirst for knowledge, but the blind or visually impaired cannot read important texts for purely technical reasons.

2: Most students work and study for long hours, which leads to eye fatigue and lack of energy to read texts. Changes to modern society, such as increased work intensity and less sleep, have led people in modern society to spend more time using their eyes, often causing eye fatigue and not enough energy to read. Even if they want to do well in school, their physical condition thus does not allow them to do so.

3: Some students are too busy to read the text
Time is the most precious commodity in life. Some people who want to be knowledgeable just can’t find the time to pick up a paper book to read. Daily chores and requirements keep them from getting through reading they aspire to.

4. Some prefer listening. Some students have an easier time digesting spoken explanations as opposed to written texts.

2.2 Objectives
How we will solve these problems:
Create an audiobook app that allows readers to access the same content from a book through voice.

1: Audio source
(1) Work with relevant publishers to obtain redistribution licensing for academic resources
(2) Work with relevant university departments to curate audio texts to courses
(3) Recruitment of readers and engineers from the community, according to the volume of texts required to record

2: The operation of the app & web platform
(1) Cooperate with an app platform design company to build our learning platform
(2) Cooperate with school authorities to allow students to log in to create an initial user base
(3) Make use of the original users for distribution, growing the pool of users, and providing additional audio books and audio resources

3: Application maintenance
(1) Hire relevant technical personnel to update and maintain the app regularly
(2) Make it easier for lecturers and course maintainers to access the system and upload relevant course audio resources.
(3) Check the audio content regularly to keep the audio and APP clean
3. Product Overview

3.1 Product Description

Readio co-ordinates between textbook publishers, academic journals and other academic sources and tertiary academic institutions to license content to produce audio readings of academic course content. We package these in an app that curates readings in a week-by-week course learning programme with assistive tools to help students learn. Those that learn through listening, are short on time to do extensive readings, struggle to concentrate or afford expensive textbooks, or have reading-based learning disabilities can benefit from Readio. Students are charged a small term-by-term subscription flat fee and a course-specific fee. Most of this goes to content producers, but Readio takes a percentage off the top of these services to produce profit.

Readio distributes content on two platforms, a web application and a mobile application. Lecturers, course-coordinators, tutors etc. all have ‘backdoor’ administrative access to their course content, and can monitor student progress, course adherence, and modify their course content. They can also choose to opt out of the program and prevent Readio from supplying their students with certain readings of their course. Content creators (like textbook authors) and publishers also have open access to Readio’s recordings and can negotiate back-pay programs to redistribute the recordings. Thus, Readio becomes a general audio content producer as well as a student service, generating alternative, renewable revenue streams.

3.2 Technical Design

These applications require logging into a Readio account, which links students’ university accounts and Readio subscriptions, granting access to restricted course content, so that access to curated readings of a particular university’s course is limited.

After login, Readio presents the user with a list of courses they have purchased. If there are courses they take which they have not purchased, these are shown, greyed out, with the option to unlock them. Selecting a course, they can see a week by week feed of their readings in chronological order, under subsections of the current week of study, with unheard readings highlighted. The lecturer can choose to restrict/grey out the sections of the course they do not yet wish to be available for consumption. Selecting a reading, the user is taken to the main play screen, shown in Figure 1 below.

![Fig. 1: The main ‘play’ page of the Readio app.](image-url)
This screen is the main centre of study activity. It includes all necessary information about the reading content, as well as assistive features, like ‘hold to highlight’, ‘timestamp note’, ‘add to learn-list’, ‘add to favourites’, and suchlike, as shown in the graphic above. If graphics or images are involved, these could also be a part of a time-stamp feature, appearing when relevant on the screen during playback. There is a query icon that gives additional information about the reading supplied by the lecturer or tutor, as well as information provided by Readio, such as FAQs about the service, and a customer support line.

### 3.3 Product Creation

Contus Vplay is a media application platform that develops custom media distribution solutions for clients based on its streaming-on-demand cloud framework. The advantage of using Contus Vplay is that we would not need to communicate with multiple partners and connect different services to develop the cloud storage, on-demand media streaming and database management solutions – they are all supplied by the same organization, and this lowers costs. They supply the streaming platform, develop the mobile and web apps, provide cheap cloud storage, and perform regular maintenance as required. Regarding the student recognition database, access to university databases is widespread in services like this. Services supplying learning tools, such as Microsoft Office 365 and Adobe Creative Suite, as well as student-recognition services for discounted services and goods all use cloud-access database systems, matching a given ID code from a listed university to their own verified ID information, which a university readily supplies.

Alternatively, a cheaper solution would be using an open-source RSS-feed based system on a podcast hosting platform, available for download through the Readio website upon select purchase. This would be a less refined, less accessible solution. We would have control over less of the infrastructure and less ground-up ability to implement features. This would be good for a proof of concept, to develop a cheap pilot program, but in the long run would result in much lower engagement and subscriber numbers.

Audio engineers would likely not be full professionals, instead, Readio would recruit from music schools, technical schools and semi-professional music communities for engineers who know the basics of recording and editing, who will be much cheaper and more available than professional engineers, as their more advanced skills are not required for the basic voice work. This is also an industry with surplus workers, so skilled audio engineers are available in abundance for any consistent work. Likewise, readers would not be professional voice actors or voice talent. Readio could recruit from semi-retired, middle aged or elderly folk who are looking for additional or primary income. This would also serve to help communities with unemployed elderly suffering from ageism in the workplace, or bored retirees looking for easy, leisurely work with reasonable income, helping students and disabled folk along the way.

### 4. Market Analysis

#### 4.1 Target Market

Our target market is university students and universities themselves to commission Readio for their students, as well as the general public for external audiobook sales. Readio is especially helpful for students who are dyslexic, disabled or have difficulty concentrating. As the readings are read out loud the student doesn’t have to focus only on reading which is especially helpful for such students. Readio also makes it possible to get the right information from their textbooks for people who have visual impairments.

Readio works via a subscription and a purchase system. Students would have to sign up for the service for a term-by-term subscription fee and pay a flat fee per course. If they register via their university, they receive a discount voucher. If they purchase a physical textbook, they also receive a heavily discounted promo code for a premium subscription. Lower tiered costs could also include electronic readings by NaturalReader™ e-voices.

We performed a small online survey to ascertain the willingness and the enthusiasm with which students responded to the idea. We received 32 responses in 3 days, which was enough to give us a small but predictive dataset. Currently, more than 60% of students report that they complete only “a few” or none of their weekly assigned readings, as shown in figure 2, meaning students generally are unable to find the time to complete their readings. Over three-
quarters of students feel they would academically benefit from this service (fig. 3). Most students, when informed of the possibility of this service, respond with something akin to “How is that not already a thing?”. Thus, we can see the market is ready, willing and able to use Readio.

4.3 Advertising
Readio will be advertised through universities in lectures, showing it on campus, handing out flyers with information etc. Publishers could promote the accessibility of their products on Readio for their own benefit to produce additional revenue streams. It could be advertised on websites where you can buy your study books and in study guides. Readio could also be promoted by universities themselves as a learning tool. The service will promote itself through sponsoring YouTube channels that attract local university students. There are many forms of communication between students, in classes, clubs, unions, socially and academically, online and in real life, thus popular ideas spread rapidly. We hope that the effectiveness and usefulness of Readio will mean it becomes an oft discussed subject, and thus could grow rapidly and organically via widespread adoption by students that benefit from additional learning tools.

4.4 Current Competitors
As far as we are aware, there are no other services like this in mainstream universities. Some textbooks are available as audiobooks, but these are sparse and mostly outdated. A common practice for disability services is to use text-to-speech technology such as NaturalReader™, along with OCR (Optical Character Recognition) to read aloud textbook material, but this has never been packaged in a curated app form, and must be manually created for every book by staff to serve the needs of disabled students. Therefore, we do not consider this form of books-aloud to be a competitor in the marketplace. There are obviously other educational media formats on the market, such as video content and podcasts, but these are rarely tailored to the specific programs offered by university students, and may teach differing content to that prescribed by the lecturer.

5. Financials

5.1 Initial Investment
In our first year of operation, we require funding for both the initial production of 20 courses worth of content, as well as the creation and set up of our app and web platforms. The former has been calculated at approximately $2080 per course, which is based on average out loud reading speeds, editing times, average amounts of course content, with both a reader and an engineer being paid $20NZD per hour for their work. We have projected that the scale needed to break even with ~20-25% of the student population in every course adopting the program (30% of survey respondents stated they would pay for this service; the median price they indicated was $50) would be 50 courses with 1000 students each. Thus, we aim to be producing content for 60 courses, thus approximately 14,000 students, estimated to break even within 3 years. We would create 20 new courses every year for a cost of $41,600 per year. We estimate that each course would need about 25% of content amendment per year – a higher percent than a natural degree of evolution throughout courses year-by-year to account for occasional textbook changes.

Contus Vplay have been reluctant to supply a quote because fluctuations in market needs, resource availability and even currency flux can influence pricing, but they have informed us that $30,000USD would be sufficient to provide us with the full, custom Readio app and all features we wished to implement, and $10,000USD would be sufficient to develop the web solution. The RSS and podcast-network based solution would be a much cheaper estimated $15,000 USD to pay for the developer labour to modify the open-source app and develop a basic subscription database and web application.

In the table below, we have cost of production listed as an annual expense, however we haven’t included web or app development costs as this is a variable factor and not an ongoing expense, simply an up-front start-up cost. Readio would ideally require an initial capital investment of $81,600 USD if we pursued the ideal Contus-based system, as well as subsequent loans or cash infusions in the following two years to pay off debts until we break even, as projected, in our third year.
5.1 Forecasted Sales and Costs

In the table below, we have calculated the income-expense forecast for Readio in the first 4 years of existence. This table makes several statistical assumptions that may not be wholly accurate, such as having only one course per user, and assuming a growing adoption rate of ~25% of a 1000 student course over the course of 4 years (peaking at 30%, beginning at 20%), and a consistent licensing cost. However, we feel confident that additional, unlisted sources of income would counterbalance this, such as redistribution contracts with publishers, external sales, university contracts, and even children’s or high school programs. Although some major, recent texts would be more expensive to license, others would be cheap or open-access, meaning their access fees are almost entirely profitable.

With 20 courses needing production, staff salary, advertising fees, and miscellaneous expenses, we expect a $69000 deficit in the first year of operation. However, with additional course production, growing profits from previous years’ courses with higher adoption rates, and a more flat line of company expenses, income quickly begins to approach expenses, breaking even in the third year and making over 6 figures of profit in the forth year, paying off debts almost immediately. We have forecasted a 20k p.a. growth in salary payments, and a 2.5k p.a. in expenses. Note: Although our start-up costs (app and web development) are in USD due to the industry operating largely on this scale, taxes and wages are calculated in NZD, as Readio would be based in NZ.

6. Future Outlook

In the future we plan to expand Readio to include additional courses and extra features. We also want to expand it so that it becomes available for countries from all over the world, and eventually we want Readio to be available in different languages. This program is meant for making the lives of students easier and we will keep innovating to keep Readio up to date with education and add more features to make the program even more user friendly.

We could potentially expand to children’s books and high school classes. Parents might enjoy having access to a ‘program’ of read-aloud books for their child to enjoy that they can access for a subscription fee and a simple flat fare. For high school courses, teachers might appreciate audio texts as a useful component of homework assignments, and set texts for humanities courses, provided either through the school to students or independent consumers. We could democratize the Readio platform by allowing anybody to access the ‘backdoor’ administrative library for people to create custom libraries and courses for texts they purchase. We could expand the Readio library to become akin to Amazon’s Audible, but for academic texts.

7. References


Calculating reading speeds - <https://virtualspeech.com/blog/average-speaking-rate-words-per-minute>

