V 1.0
3 August 2020

Termeric
PROJECT PROPOSAL

Introduction

This is a startup project proposal codenamed *Termeric*. Termeric is a crowdsourced online marketplace offering schools, teachers, and homeschooling parents ready-to-teach curriculums in all subjects and topics for primary and secondary schools (grades 1-12). Each offered course curriculum includes everything a teacher (or a parent) needs to teach the subject to the students, including course plans, lesson plans, presentation slides, assignments, tests, solutions, and any other content supporting a lesson: PDF documents,

links to videos and webpages, etc., all following a consistent, easy-to-use format. The content can optionally include instructional videos of the lessons, which the teacher can use as a guide on how to teach the lesson, or to directly show to the students. The latter case is useful when the teacher is not adequately versed in the subject matter, or if the lesson is being offered online and without live interaction with the teacher.

The Problem

The days of rigid, nationally-enforced school curriculums and textbooks are (thankfully) over. More and more, education systems and schools are striving to offer their students specialized programs and diversified curriculums, realizing that individual students thrive best when the curriculum is more suited to their times and their individual preferences, talents, and potentials. At the same time, there are national- and internationally recognized curriculum standards that educators strive to meet when designing their curriculums. As a result, there is a shift towards ever-changing and -expanding, specialized curriculums. For instance, schools around the world are recognizing the pressing need for incorporating more computer and technology fluency into their curriculums. Many schools are offering opt-in, speciality courses to their students; such as various foreign languages, environmental studies, digital arts, data science, etc.

However, this expanding and fluid school curriculum is usually poorly matched by the school's financial and human resources. Schools have limited resources to hire teachers, and no matter how versed in their own subjects, teachers might not have the knowledge and teaching experience in all the specialized or diversified topics they're been asked to teach.

Moreover, as every teacher knows, preparing all the necessary content to have a ready-to-teach curriculum is usually quite a time-consuming endeavor. Teachers often spend more time during and outside office hours preparing lesson plans and presentation slides for their upcoming classes, than the time they spend inside classrooms teaching. The workload is exacerbated as every new school term brings fresh requests and requirements from the school for new and specialty subjects. Teachers sometimes put a lot of time preparing content to teach a course, only to toss it all out the next term. That tedious work,

which could be reused by another teacher at another school for another term, is too often wasted away.

On another front, homeschooling is on the rise in many areas around the world. Parents, who have limited knowledge on the subjects, are looking for suitable and relevant subjects to teach their kids. Once they know what they want, they are looking for ready-made curriculums to help ease the weight of playing the role of a teacher.

And finally, in light of the recent pandemic, schools and parents are better realizing the need for more fluidity and adaptability in education systems between in-person schooling and online learning. The current trends point to a near future where at least some of the learning happens remotely and online. Obviously, the need for more self-sustained and ready-to-consume curriculums are much greater when the learning happens away from the teacher.

All these facts and trends point to a growing need for ways to plug-and-play ready-to-teach new curriculums, on a diverse range of subjects and topics, into existing education systems.

Existing Solutions

Over the last decade a growing number of websites and platforms offering various forms of curriculums and teacher resources have appeared. For example, Tes.com, Twinkl.co.th, and teacherspayteachers.com have vast repositories of teaching resources in many subjects and topics, and allow teachers to add new content to their platform. Code.org has curriculums in the form of interactive web pages and videos for various grade groups on a number of topics in computer science. Brilliant.org offers interactive online projects to learn about topics in math, science, and more.

However, based on our survey of all the available platforms that we could find, there are considerable limitations, preventing them from being able to serve as a go-to platform to solve the above problems for teachers. The existing platforms suffer from one or more of the following limitations:

Incomplete Product

Sites like Tes , Twinkl, and TeachersPayTeachers offer a plethora of teaching resources (slides, quizzes, activity cards, etc.), yet the onus remains on the teacher to choose something from these platforms--as a piece of the puzzle--and work them into a complete, ready-to-teach curriculum. That work includes writing lesson plans, creating or adapting presentation slides, and so on.

Limited Subject Scope

Sites such as Code.org have well-designed curriculums with attractive and consistent graphic design and supporting material. However, their scope is limited to one or more subjects, for instance, computer science and programming.

Lack of Consistency in Contents & Formats

Because crowdsourced websites like Tes and Twinkl are quite lax about the kind of content any teacher can add to the platform, there is no consistency in the design, format, or the nature of the content found there; one resource might be a homework assignment in the form of a PDF, another a quiz presented as PowerPoint slides, another a set of activity card image files, and so on. Searching and browsing through such a vast repository of random and inconsistent resources could feel similar to searching for a resource on Google: at times more daunting than empowering. Once a useful resource is found, it is often a long way to adapt it in the form the teacher desires, and to supplement it with everything else that needs to accompany a curriculum.

Lack of Quality

Existing crowdsourced platforms' lax requirements for teacher resource submissions result in hit and miss content quality. While great material can be found there, the inconsistencies in standards, formats, and quality of the content do not afford teachers as much confidence as they need in knowing that they can rely on these platforms to build their curriculums in any given subject.

Lack of Scalability

The content on Code.org, Brilliant.org and other non-crowdsourced platforms is created by a limited team of experts, so the platform cannot scale up in the way a crowdsourced platform can. As a result, schools and teachers have to invest in multiple places and platforms to satisfy their various curriculum needs.

Termeric Platform & Product

To conceive and design the platform, product, and business model for Termeric, we borrow a lot from the successful, crowdsourced online learning platform *Udemy*. By taking advantage of the strengths of the Udemy platform model, and introducing new tweaks, Termeric is designed from the ground up to address all the limitations stated above.

As a learning platform, Udemy's products are video instructions and its users are students, while Termeric's products are course curriculums and its users teachers. Despite the distinction, the platform model of Termeric can closely resemble Udemy's.

As in Udemy, Termeric is a crowdsourced marketplace, i.e., the products on the platform are submitted by the users. This opens the door for a fast- and ever-growing curriculum repository (addressing the scalability issue). Also following Udemy, Termeric doesn't limit the scope of subjects and topics submitted to the system (addressing the limited subject scope issue), while also carefully categorizing the content on the platform, so that browsing by subject category, grade range, and other metrics can be easily done.

As in any other crowdsourced online platform, Termeric will have two types of users: the content *creators* and the content *consumers*, where in this case the content is a course curriculum as a resource for teachers. Each content on the platform is created and submitted (which involves filling out online forms and uploading documents) by a teacher, as a content creator.

Unlike existing teacher resource platforms, a mere "teacher resource" is never accepted into the platform. As in Udemy, the content submission forms follow rather strict requirements and formats to ensure the curriculum being submitted has all the necessary

parts to serve as a stand-alone course curriculum (addressing the lack of product completeness issue), and each part conforms to the same exact formats and standards as every other content on the platform (addressing the consistency in contents and formats issue). Each submission is then vetted by an expert review team working for the platform (addressing the lack of quality). Upon approval, the curriculum becomes available for the platform consumers.

The consumers of the platform, who will pay a fee to buy and access each course curriculum, are other teachers, schools, or homeschooling parents.

Each content is tagged with various information, such as the course plan, the target grade level, numbers of lessons per term, and as it is usual with crowdsourced content, a current user rating and download count for the content. The latter items help the consumers build confidence in the content.

Unlike Udemy, which allows anybody to self-publish a course, at Termeric we require that not only the publisher of a curriculum is actually a teacher, but he/she must have actually taught the given curriculum in a real classroom. The content creators are required to tag the course curriculum with the name of the school and terms/school years where they have taught the course. This information is verifiable, and it gives the consumers a degree of trust that the content creator has real experience with and confidence in the content.

These standard formats, strict requirements, and the vetting process will give the consumer teachers a sense of confidence, familiarity, and ease that they can rely on the platform for all their curriculum needs.

Business Model

We believe Udemy's business model is suitable for Termeric as well. Udemy's success (50M student users, 50K teacher users, $200M in venture capital [6-7]) is owed to the ease in self-publishing courses while ensuring a generally high quality of products, super-low prices, and volume sales. Product prices are always drastically discounted, and typically no one ever pays more than US $20 for enrolling in a course. However, because of the low prices and aggressive marketing, successful courses can have tens or hundreds of thousands of sales.

The curriculums offered on Termeric can similarly be priced low, although since the customers are teachers rather than students (say a 20-1 ratio), and given the amount of time teachers can save by purchasing ready-made curriculums, reasonable discounted prices could be in the US $100 range.

As in Udemy, the proceedings from each sale gets split between the content creator and the platform. In cases when users find the content on their own (searching and browsing) most of the sale proceedings goes to the content creator (for example, 70%-30%). The platform does its own marketing for the contents, and for sales arising from them the platform takes more (for example, 30%-70%).

Udemy also has "Udemy for Business", which caters to businesses and sectors as a workforce training service by selling them personalized, packaged course selections from their highest quality contents. For this they charge much higher prices. Similarly, Termeric can package course curriculums into larger coherent curriculums (for example, a Computer Science curriculum for grades 7-9) sold to schools.

Business Outlook

More discussions as well as experiments are needed to evaluate the chances of success for such a startup online marketplace. However, at the moment, we see several indicators that we think point to a reasonable chance for the availability of adequate demand and chances of success for this startup venture.

The success of Udemy's business model and its increasing user-base and revenue give us a degree of confidence in following a similar approach.

For reasons that we alluded to in the beginning of this writing, there's a growing trend of schools reaching outside, for instance to agencies that recruit specialty subject teachers, and to companies offering ready-to-use technology and online curriculums. (See for example BSD Education, BrainPop, and Brilliant.) Schools typically pay these companies and platforms curriculum subscriptions in thousands and tens of thousands of dollars to give all their students access to the offered contents. There's a real demand for curriculums and teaching resources that schools and teachers themselves do not have and want for their students.

At the level of teachers themselves, however, there's little evidence of sharing of the curriculum-building workload, beyond the bits and pieces in the teacher resource repositories such as Tes and Twinkl. We believe the availability of a trustworthy, high-quality, crowdsourced, direct curriculum-sharing marketplace may lead to an unprecedented level of collaboration and workload-sharing between teachers from around the world.

References

1. Tes https://www.tes.com/
2. Twinkl https://www.twinkl.co.th/
3. TeachersPayTeachers https://www.teacherspayteachers.com/
4. Code.org https://code.org/
5. Brilliant https://brilliant.org/
6. BrainPop https://www.brainpop.com/
7. BSD Education https://bsd.education/
8. Udemy https://www.udemy.com/
9. Udemy Finances
   https://techcrunch.com/2020/02/19/online-learning-marketplace-udemy-raises-50m-at-a-2b-valuation-from-japanese-publisher-benesse/
   https://iblnews.org/udemy-claims-a-valuation-of-2b-billion-and-announces-5000-corporate-clients-on-its-business-division/