# SPARK NO SWHITE PAPER

# **EXECUTIVE SUMMARY**

Sparkki is a lightweight and fast Online Learning Management System created specifically to teach to a variety of learning styles, combining of traditional education research with emerging technology to empower schools and businesses to effectively deliver results without a physical campus.

Sparkki is built by professional educators, for professional educators. Whether the goal is to teach college students or factory employees, Sparkki utilizes proven educational theories, techniques, and practices differentiate material for a variety of learning styles.

Safe, secure, and supported by Amazon web services and blockchain technology, Sparkki is raising the standard of online education platforms.

# **EDUCATION THAT CAN'T WAIT**

As the information age continues to mature, more and more data is able to be delivered faster and faster to a wider audience. This trend has been revolutionizing the way people both consume and learn new information. The rise of Massively Open Online Courses (MOOCs) and online learning management systems (LMS) allows educators to offer digitized products (online courses) to as large of an audience as they wish. Digitized products are easy to scale because

the end user can make unlimited copies with no additional work after publishing the course.

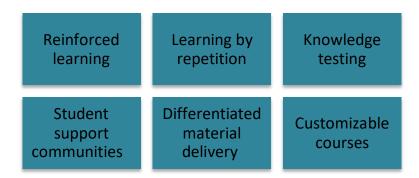
A learning management system (LMS) is a software application for the administration, documentation, tracking, and reporting of training programs,

Sparkki can add value to the following types of organizations: schools, companies, non-profit organizations, franchises, and

classroom and online events, e-learning programs, and training content. MOOCs/LMSs such as Sparkki can add value to the following types of organizations: schools, companies, non-profit organizations, franchises, and more.

Sparkki is a lightweight and fast Online Learning Management System created specifically to teach to a variety of learning styles, combining of traditional education research with emerging technology to empower schools and businesses to effectively deliver results without a physical campus.

Furthermore, Sparkki is different than existing LMS and MOOCs in that in that it uses educational theories, techniques, and practices to ensure student graduation, such as reinforced learning, learning by repetition, knowledge testing, student support communities, and most importantly, differentiating material delivery to cater to all types of learners.



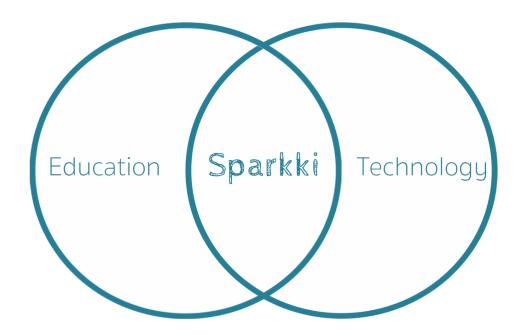
With Sparkki, schools and organizations will be able to create and launch their own "virtual school," where they will be able to control the brand, student enrollment, curriculum, lessons,

assignments, resources, security and be able to provide support to their students with the built-in automation system. No coding required.

Sparkki accomplishes this by utilizing modules that incorporate videos, interactive presentations, audio content, written material, and quizzes/knowledge checks.

On a more technical level, Sparkki creates new virtual machines with an integrated learning management system that is hosted by Amazon Web Services, ensuring that courses are always up and running 24 hours a day for students anywhere across the globe.

By raising the standard of online education platforms, online courses now have the potential to be superior to their offline counterparts. The cost of education is likely to continue to fall as more and more students chose to learn online rather than in a traditional classroom that is likely to leave them burdened with debt.



# LEARNING STYLE DIFFERENTIATION

Just as everyone has a unique fingerprint, every student has an individual learning style. Few people within a course will grasp a subject in the same way or share the same level of ability. Differentiated instruction factors students' individual learning styles and levels of readiness

first before designing a lesson plan. Research on the effectiveness of differentiation shows this method benefits a wide range of students, no matter what the course material, subject, or level. Differentiating instruction means teaching the same material to all students using a variety of instructional strategies.

At Sparkki, we allow our instructors to design lessons based on students' learning styles and continually assess students' learning using formative assessment all in a

# **Educational Strategies Implemented in Sparkki**

At Sparkki, we allow our instructors to design lessons

based on students' learning styles and continually assess students' learning using formative assessment all in a safe and supportive online environment. Our highly customizable courses allow instructors to continually assess and adjust lesson content to meet students' needs.

# **Understanding with Repetition**

When it comes to learning a new subject, reading the material twenty times will not be as easy to remember as if you read it ten times over a long period of time as each time improves your chances for memory retention.

With Sparkki, we give the students the option to pause and rewind information that they didn't understand. Sparkki lets course instructors offer videos, quizzes, downloadable documents, links, pictures, and audio content to work with students' different learning styles.

# Testing Knowledge

Sparkki allows students to test their skills with the most reliable knowledge assessment tool built right into the application and to quickly identify areas of weakness and correct them right away.

Sparkki lets instructors design their courses so that content is interspersed with pop quizzes to make sure that the student is learning the material being taught. This ensures that the student cannot move forward until they are proficient enough on the material covered.

#### Student Analytics

As mentioned earlier, Sparkki Teacher Analytics (STA) allows instructors to track progress of students like a horse race- seeing who is ahead and who is behind. STA easily lets teachers see patterns in an individual student compared to global student population. For example, if most students are missing a certain question the first time they take a pop quiz, that lets the instructor know that the material leading up to the pop quiz may not be effectively covering the material or that the question itself is confusing.

# **Positive Perception and Broad Appeal**

As more and more colleges, universities, and companies take their education and training programs online, Sparkki will allow those entities to reach a more widespread audience than ever before. At Sparkki, we want to make sure that we are at the cutting edge of this inevitable trend.

# The Benefits of Creating Online Courses with Sparkki

Some of the numerous benefits of creating online courses with Sparkki include:

- ✓ Focus on a specific topic and explore it deeply, much more so than a single blog post or podcast can cover.
- ✓ Employ a variety of teaching methods, including video, audio, text, and exercises such as worksheets.
- ✓ Ask your students to complete homework that reinforces your teaching.
- ✓ Foster a deeply engaged community around your course's subject.
- ✓ Set up a passive income stream that allows you to determine your level of engagement.
- ✓ Charge a premium price for a quality learning experience.
- ✓ Proven mechanics and practical testing

# **PROBLEMS**

The current problem with online courses is that most of the platforms currently available in the marketplace focus more on teacher monetization and not student success and graduation. Additionally, many schools and organizations do not see the value of online education. Some of the biggest

# **Negative Perception of Online Courses**

Online courses are still often seen and perceived by those that haven't taken any as "a substandard form of education" compared to a brick and mortar school. The value of the traditional school has been perceived and ingrained in American society since the dawn of the industrial era.

# Lack of Flexibility, Rigid Teaching Styles

Traditional LMS, with its rigid static architecture, offers little or no flexibility to instructors and end users, teaching only in one way and not catering to all learning styles, in turn, leading to student frustration. The result is often that users and instructors do not see the value, leading to student attrition and limited adoption within organizations.

# **Time-Consuming for Teachers**

Traditional LMS systems are incredibly time-consuming for teachers and instructors. Teachers and instructors spend more time grading work and navigating complex and often cumbersome platforms and do not get as much time to engage with students as they could.

# **SOLUTIONS**

The main problem that Sparkki solves is providing employers, schools, teachers a way to teach skills and impart knowledge in a manner that students actually learn from. The key to the success of a training initiative is the adoption of a LMS which can support dynamic learning through collaboration, knowledge sharing, and catering to a variety of learning styles. At Sparkki, we have used scientific and market research to address the problems mentioned in the previous section.

At Sparkki, we firmly believe that student-oriented, self-paced learning will lead to higher incomes for all teachers and have ingrained this philosophy into every aspect of our platform.

Sparkki shows value in online education Online courses are not only more lean then traditional school courses, but it's also easier to validate the competency of each instructor by checking their credentials and looking at student testimonials.

At Sparkki, we firmly believe that studentoriented, self-paced learning will lead to

higher incomes for all teachers and have ingrained this philosophy into every aspect of our platform. When a student gets the desired outcome that they were searching for when enrolling in the online courses, he or she is more willing to share their experience with others. Students then become promoters of the courses and the brand.

# **Sparkki Allows Instructors to Teach for Mastery**

Teaching for mastery as the desired outcome is what we want Sparkki to be known for. Our platform's teacher analytics will be the tool that teachers can use to notice patterns in learning in students as a group and as individuals.

This greater focus on the student to teacher relationship will ideally encourage students to ask questions at any point in the learning material through either the peer-to-peer support board or directly to the teacher on the Sparkki platform.

Educational Theories and Research are the Foundation on Which Sparkki was Built At Sparkki, we have spent countless hours interviewing teachers, professional instructors, college and university professors, corporate trainers, and more in an effort to utilize educational theory to develop a set of best practices. The result? An online LMS that focuses on students, not profit.

Sparkki is different in that it uses educational theories, techniques, and practices to ensure student graduation, such as:

Grounded in Educational Theory

**Reinforced Learning:** Sparkki utilizes media rich content such as video, links, pictures, tests, and downloadable documents to make sure students are exposed to the course material in a variety of ways.

**Learning by Repetition:** Sparkki reiterates key ideas and concepts throughout the lessons ensuring that students receive the same message multiple times in a variety of formats.

**Knowledge Testing:** The courses are interspersed with knowledge tests to assess how well students are comprehending the information.

**Student Support Communities:** Sparkki uses "school boards," peer-to-peer learning and support mechanisms. Teachers can reinforce correct answers with a simple, "Correct Answer" and explain incorrect answers in a meaningful, robust manner. Using boards as support instead of mandatory posts hubs ensures communities of trust and mutual success are built.

# Sparkki Helps Teachers Focus on Teaching

Sparkki will automate much of the work that teachers normally would have done in the pastsuch as grading homework and tests. This gives the teacher more time to review student progress, answer questions, and interact in the learning and support community on the course boards.

Additionally, Sparkki provides comprehensive progress views for the instructor. Sparkki Teacher Analytics allows instructors to view student progress much a horse race- seeing which students are ahead, which are struggling, and in return, take action either by sending messages on the

platform or utilizing push notifications. This allows the instructor to support every student every step of the way at a student's own pace.

By raising the standard of online education platforms, online courses now have the potential to be superior to their offline counterparts. The cost of education is likely to continue to fall as more and more students chose to learn online rather than in a traditional classroom that is likely to leave them burdened with debt.

# **FEATURES AND BENEFITS**

Sparkki is a lightweight and fast Online Learning Management System created specifically to allow for teaching at scale without leaving any student behind, combining traditional education and technology to empower schools, organizations, educators, and instructors to deliver one end result: increased student knowledge and comprehension. Sparkki accomplishes this using many key features.

# **Key Features of a Student-Focused Learning Management System**

Interactive, research-based teaching methods designed to engage students and solidify comprehension

- √ Student Enrollment Assessment and Metrics
- √ Customizable modules
- ✓ Richer, more collaborative learning experiences for all users aids in rapid adoption
- √ Custom branding and brand reinforcement
- √ Video/multimedia lessons
- ✓ Transferable achievement/course completion certificates

Sparkki was built around one main idea: to help schools or organizations achieve the outcomes they are seeking: teaching students/users. The average completion rate of online courses is a low 13%. Why is that? We figured it out after countless case studies, it all comes down to not enough help at the right time. With Sparkki, instructors will be able to know where their students are slowing down, struggling, and dropping out, so they can help them succeed. With Sparkki you will be able to create and launch your own "virtual school" where you will be able to control the brand, student enrollment, curriculum, lessons, assignments, resources, security and be able to provide support to all your students with the built-in automation system. No coding required.

#### **Student Enrollment Assessment**

Successful online courses start with students. Acquiring new students is one of the most costly parts of running an online course. Sparkki tracks and measures our clients' social media posts to track engagement and identify what channels are converting the best.

Sparkki gives our clients the power to make better decisions of where to spend their time to acquire and nurture new leads based on engagement in social media channels such as Facebook, Twitter, Instagram, YouTube, Blogging, Snapchat, or brand influencers.

Even if organizations offline promotions in print, radio or television, Sparkki leverages big data to track the journey of each and every potential new student allowing our clients to spend every dollar on the right marketing channels.

- √ Social Media Engagement
- √ Conversion Tracking
- √ Identify Top Performing Channels
- √ Big Data Visualization

# **Branding**

Branding is one of the key components that organizations or schools need to have to acquire new students for their online courses or to reinforce the brand. A personal brand is what does 80% of the lifting when new students are deciding if they should sign up for a course.



Sparkki allows our clients to bring over all of your personal branding assets from logos, personalized messages, color palettes and your custom domain name with an easy to use UI Designer. No design skills required.

- √ UI Designer
- √ Custom Logo
- √ Color Palettes
- √ Domain Name Mapping
- √ Customizable Messages



#### **Modules**

Modules are the building blocks of all of our courses. They bring big ideas into manageable sections that students can learn from in a variety of ways based on what learning style works best for them. Sparkki gives our clients complete control over each of the modules by allowing our clients to create custom names, images, sorting order, and content. Instructors can add and delete modules easily as well.

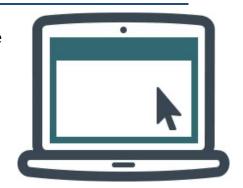
- Manage modules
- Custom names and images
- Create, and delete modules

# ✓ Order modules by weight

#### **Video Lessons**

Video lessons are one of the main features that allow users to scale their courses among thousands of students and free up instructors to focus more on the outcomes for the students instead of the technical concerns that come with video.

Sparkki brings a UI editor that allows users to create as many lessons as you need to with the built-in transcoding service automagically converting all video lessons into 1080p, 720p, and 360p versions.



The adjustable playback speed allows students to go as fast or as slow as they need to make progress and complete the course. Each of the lessons can optionally be made downloadable and with a click of a button, making entire courses can be made available for offline viewing.

- √ 100GB/mo of streaming
- √ Manage Lessons
- √ Define title and description
- √ Attach labs or resources
- √ Unlimited uploads
- √ Automatic transcoding
- ✓ Downloadable Lessons
- √ Adjustable playback speed
- √ Secure and private



#### **Achievements**

Sparkki automatically generates a Certificate of Completion with special rules that determine when the certificate gets delivered to the students. Each of the students is able to see how much progress they are making through the course and how much more is left to complete the course. Instructors can see which students are ahead and which are falling behind- giving them the power to intervene with personal help at the right time.

- √ Certificate of Completion
- √ Unlock Achievements
- √ Track Progress

✓ Deliver extra help at the right time

# **Assignments**

Having a practical assignment where students can apply what they are learning is what brings education to life. Application is key to any course and having the ability to attach Assignments to any given lesson is what delivers the results that both our clients and their students are looking for.

Instructors can either import existing (PDF) assignments or generate assignments with the built-in Markdown online editor that exports to PDF. Even if instructors have existing assignments in other locations, they can link to them directly with the external linking tool.

- √ Unlimited Assignments
- √ Online Editor
- ✓ Markdown Support
- √ Export as PDF
- √ External Linking





#### Resources

If our clients are teaching video game development or sharing large CAD files they all require extra resources for their students.

Sparkki provides our clients with 100GB of space to securely and privately share files among students with the built in Access Control List. Even if users are working with larger files than 100GB, they can optionally link to them using the external linking tool.

- ✓ ACL Access Control List
- √ 100GB Storage
- √ Secure and Private Sharing
- √ External File Linking

# Security

Our clients' content and students are valuable this is why Sparkki takes every security precaution to keep all of our clients' data private and secure. We also understand that our clients have a wide range of security needs and have taken every step to address each concern. If students are paying our clients directly or indirectly, our clients have a set of tools available including OAuth 2.0 support, Multi-factor Authentication, Private Key Authentication, or Social Media Authentication. Clients can also roll over their own solution with our open API Support.

- ✓ OAuth 2.0 support
- ✓ Multi-factor Authentication
- ✓ Private Key Authentication
- √ Social Media Authentication
- √ API Support

# Support

Whether a course consists of 10 or 1,000 students, users will need a way to manage all of the messages and interactions between them and their students. Sparkki provides our clients with contact forms, refund requests, and the option to collect feedback on the course from students.

This helps our clients improve and create more valuable content for all of their students. This is the feedback loop that will help our users evolve their course overtime to deliver the maximum value possible

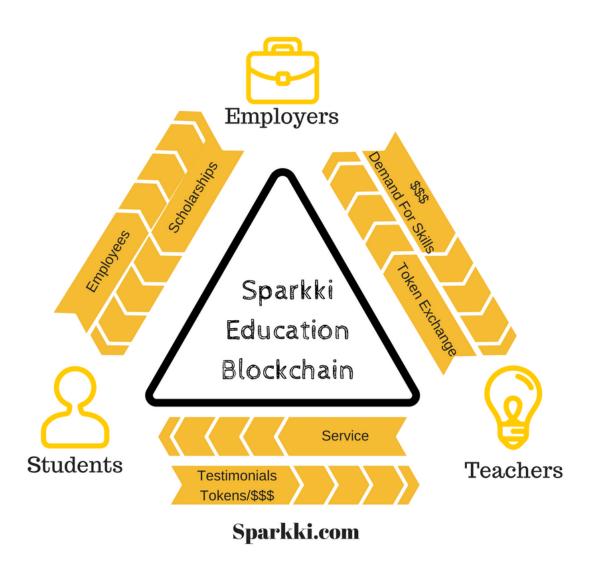
- √ Measure Student's Happiness
- √ Contact Forms
- √ Refund Requests
- √ Collect Feedback

### A Sustainable Revenue Model

Online courses, just like any other digital product, are scalable. Once the product is finished, email marketing campaigns written, and a sales page created, the courses can be scaled very easily just by sending it to more users.

# **FUNCTIONALITY**

Sparkki works with accredited learning institutions, vocational schools, non-profit organizations, businesses, franchises, coaches, trainers, authors, consultants, speakers, and more. In a typical dynamic, an employer is the sponsor, the aforementioned entities are the third party, and students are either students, new hire employees, or employees going through uptraining/topgrading/continuing education programs.



#### SaaS

Sparkki is a Software-as-a-Service (SaaS) platform. SaaS platforms have been shown to provide reliability, on-demand scalability, thus driving organizational efficiency and cutting down on operational expenses. This learning environment is backed up by analytics that track the content accessed along with the demographic and psychographic profile of the user to provide for specific and relevant content that fits the user's learning preferences

# **Amazon Web Hosting**

On a more technical level, Sparkki creates new virtual machines with an integrated learning management system that is hosted by Amazon Web Services, ensuring that courses are always up and running 24 hours a day for students anywhere across the globe.

# **Braintree Payments**

We have integrated Braintree payment system into our platform.

# SPARKKI ROADMAP

**January 2018: Sparkki Presentation:** In January 2018, we delivered a series of presentations to potential customers to validate if Sparkki had a demand with the Marketplace. We hosted focused groups with teachers, consultants, speakers, instructors, and industry professionals validating the demand for this type of product.



**February 2018: Sparkki SRS:** In February 2018, we reached out to potential customers and started to grow our monthly recurring revenue by pre-selling early access to the platform with alpha and beta tester programs, creating the Software Requirements Specifications document to start working on the minimal viable product.



March 2018: Sparkki Alpha V1: In March 2018, we will deliver the Sparkki Alpha version to our alpha testers, to provide a "proof of concept" prototype. By this point we will have successfully demonstrated a demand with the market place with a growing customer list.



**April 2018: Sparkki Alpha V2:** In April 2018, we will deliver the Sparkki Alpha version 2.0 and continue to host focus groups from our existing customers to add and remove features to the minimum viable product.



May 2018: Sparkki Beta V1: In May 2018, we will complete the minimum viable product Sparkki and offer the software to wider ranges of companies with the beta tester program.



**Mid 2018: Sparkki Beta V2:** In Mid 2018, we will deliver iterations of the beta tester program to our existing customers, collect feedback and implement any new revisions into the software.



**Late 2018: Team Expansion:** In late 2018, we will start to expand the team by recruiting top talent across all fields, including experienced engineers, marketing experts, advisors and community organizers.



**End of 2018: Sparkki Blockchain Planning:** In late 2018, we will start feature planning for the process of creating a Sparkki coin using the blockchain. The Sparkki coin will solve the consensus between employer, student, and teacher

# References

IEEE http://ieeexplore.ieee.org/document/720574/

Our team believes in the potential ofmassively open online courses, but we're frustrated by the state and direction of its public perception. We genuinely believe that education, an accessible user experience, and practical application are the missing factors for broader adoption. We strive to communicate this belief with Sparkki.

Despite numerous advantages in the industry, we still see opportunities to innovate and improve education technology. Sparkki is the world's first reinforced learning management system that is open to the public. Sparkki makes online learning and learning management system creation more approachable for the everyday consumer and brings us but a small step closer to widespread adoption of personalized learning and training programs.

We can't be sure that Sparkki will be a runaway success, a flash in the pan, or a blip on the online education journey.

Like all things related to Sparkki, the future is in flux, but we do believe that we are the future.