Kids.AI personalized learning – FORNY2020 StudENT funding

1. The project idea

Artificial Intelligence (AI) has gained much popularity the past year with recent breakthroughs and warnings by Stephen Hawking, Elon Musk and Bill Gates. AI makes self-driving cars possible, but artificial intelligence can also be applied to improve education. Information about how others successfully absorb education can with a detailed profile about kids enable the possibility for personalized learning. The shift from classroom education to digital learning opens up a world of possibilities. The technological infrastructure has matured. The market size is already huge and growing, both in the developing and the developed countries.

135 teams compete in The Global Learning XPRIZE challenge to develop open source and scalable software that will enable children in developing countries to teach themselves basic reading, writing and arithmetic within 18 months. The winner will walk away with $15 million. The competition seeks to empower children to take control of their own learning.

Kids.AI has its focus on two countries with most social mobility. Time Magazine published in 2011 the article "What Ever Happened To Upward Mobility?", explaining how the US has become the land of less opportunity. The article claimed that the American Dream had moved to Denmark, with Norway coming in 2nd.

Kids.AI came to life after I attended a Singularity University bootcamp in Denmark, while learning about exponential technologies in the context of Global Grand Challenges. The challenge was to impact a billion people. During 5 days of discussing challenges related to Education for solving global challenges like Water, my team realized that Artificial Intelligence for personalized learning was the way to go forward.

Spotify has become a platform for music. Amazon has become a platform for books. Netflix has become a platform for movies and TV shows. They all have excellent recommendation engines, which improve with the amount of user interactions. Kids still need to visit multi sources for relevant content. Kids.AI seeks to become the preferred subscription platform which feature high quality content so that parents and schools can feel safe about what kids have access to through our platform. Kids.AI will have a particular focus on educational content and build a recommendation engine on the artificial intelligence methodology Case-Based Reasoning (CBR).

My supervisor is an expert in the CBR methodology. She is part of a Horizon 2020 project called selfBACK (a decision support system for self-management of low back pain), which includes 23 researchers in Europe that use Case-Based Reasoning to incentivize those with lower back pain to engage in more physical activity through a mobile and wristband app (www.selfBACK.EU).

2. Commercial potential

Kids.AI is a personalized learning subscription platform featuring content for kids. By leveraging the exponential potential of artificial intelligence we seek to deliver the best and most personalized experience, which will help us surpass competitors and maintain our long-term competitive advantages. The network effects of connecting all the dots within our platform towards the joy of continuously mastering new skills will create a strong lock-in as more user interaction further improves the personalized experience. A low monthly fee ensures scalability and the perception of deriving much value, allowing for strong retention of users.

Associate partner Silvija Seres at the Norwegian investment firm TechnoRocks has already been introduced to Kids.AI after she participated in a panel discussion about artificial intelligence. She has a PhD in Math, having lived in Silicon Valley while working for the search engine AltaVista in the 90s. She has four kids of her own, and having brought one of them to the panel discussion – who entertained herself with a tablet. So Silvija Seres understands the market potential here as a technologist, a parent and an investor. We hope to bring Silvija Seres onboard as a Business Advisor and eventually an investor.

3. Customer insight

Kids.AI seeks to be the preferred choice for providing personalized education for children, offering a subscription for parents and schools to offer kids. The subscription includes personalized content, games and apps for kids. Kids.AI will through the power of artificial intelligence, offer a personalized experience with a recommendation engine that improves as the activity level increases. We will continuously development our offerings through the monitoring preferences of our users, periodically doing focus group studies of both users and customers to ensure that our service meet expectations. Through our particular focus on developing a service for kids we expect to deliver high quality while enjoying the same economics of scale as Spotify and Netflix.

One Laptop Per Child (OLPC) has ensured that even kids in the developing world are equipped with devices that can feature our software. The availability of soft funding in Nordic countries ensures that Kids.AI will grow a wide range of offerings covering everything from literacy education in developing countries, to Nordic school and parents worldwide. As a platform for kids we will have a unique offering compared to pure content developers and offerings directed towards adults. Ever since Apple brought iPad to the market in 2010, parents around the world have embraced this innovation as a way to entertain their kids. Parents nowadays have fewer kids, which means fewer siblings to play with. The tablet is compensating for this to some extent, while still requiring frequent intervention by the parents as kids in their playful way press something they are not supposed to or somehow get stuck. The app environment is also very static, which works well for adults that download an app for a specific purpose - while kids are seeking for that continuous stimulus. In the US it is already common to pay $1000 per month for their children to attend the best school available in the neighborhood, so we expect many parents to see value our subscription service. Which quickly amounts to a profitable business model when our expenses are primarily costs related research and development (R&D).

In addition to focus on the Norwegian and Danish market, we are already in dialog about a partnership with the Norwegian startup LiteracyApp.org that is participating in the $15 million Global Learning XPRIZE challenge. Kids.AI will help LiteracyApp enable children in developing countries to teach themselves basic reading, writing and arithmetic within 18 months with the help of artificial intelligence.

4. Project team and implementation capacity

The original project team consisted of 6 passionate Danish people and myself. All with a deep interest in education and emerging technologies. Janus Madsen, Jakob Jørgensen, Nicolai Moltke-Leth, Mikkel Krogsholm, Louise Dejgaard-Wandbæk and Oana Maries. Both Mikkel and Louise has kids, having recognized a market need. Nicolai is the CEO and founder of True North (www.TrueNorth.dk), an educational company that focuses on social and emotional development for youth offering programs that prepare young people to meet the challenges of society. His bootcamps help youth develop a set of competencies for social and personal development.

In Norway we've connected with Marianne Johnsen who is the founder of People U Know, passionate about improving education at schools – with a particular focus on emotional development. Marianne has for many years been running a design bureau (www.Tusj.no) in Trondheim and hopes to one day be able to work full-time on her startup. Kids.AI considers partnering with Marianne to build the underlying recommendation engine powered by artificial intelligence. Another partner is Gunnar Gangstø, the founder of U:turn Trondheim, an organization started a year ago with focus on education and social entrepreneurship facilitated by technology.

Jo Grimstad already have plans for improving the learning experience in his Literacy App, interested in a collaboration with Kids.AI on how to implement the best AI methodology.

Through LiteracyApp we can quickly dedicate development resources on a strictly defined app for learning, while we would do an extensive design methodology process with partners in Norway and Denmark to clearly define challenges and how Kids.AI with our artificial intelligence expertize can make a contribution. Based on my effort in establishing a student organization at NTNU for improving access to clean water (www.NTNU.Water.Gift), I was invited to make a presentation at a social innovation seminar hosted by NTNU and Sintef through a European collaboration called SOCRATIC. A Horizon 2020 project focused on building a SOcial CReATive IntelligenCe (SOCRATIC) Platform for achieving the Sustainable Development Goals.

SOCRATIC aligns strongly with another initiative I'm working on called Impact Management University (IMU), which I was invited to present for Sintef Information, Communication and Technology (ICT) group. SOCRATIC is a European collaboration funded by EU which includes the Spanish non-profit CyberVolunteers and is centered around 3 Sustainable Development Goals (SDG):

- **Good Health and Well-being** (SDG 3)
  "Ensuring healthy lives and promote wellbeing for all at all ages"
- **Quality Education** (SDG 4)
  "Ensuring inclusive and equitable quality education and promote lifelong learning opportunities for all"
- **Decent Work and Economic Growth** (SDG 8)
  "Promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all".

Goals that fit well with the ambition of Kids.AI to improve personalized learning, while there already are many resources here in Trondheim allocated towards complimentary efforts. Kids.AI will continue building these relationships, so that we can remain focused on the challenges related to data analysis and developing artificial intelligence for making appropriate and timely recommendations. Our long-term goals is to secure more funding for bigger research projects which can for instance include Alexandra Institute in Denmark.

5. Contributions from the university/university college

My supervisor Kerstin Bach has agreed to provide guidance going forward. My involvement with selfBACK already provides insight into the artificial intelligence methodology Case-Based Reasoning (CBR). And NTNU already has dedicated resources toward Quality Education (SDG 4) through the Horizon 2020 project SOCRATIC, so it is likely that Kids.AI will get involved with the use of artificial intelligence for more personalized learning and improved education quality.

6. Project plan and budget, and general quality of the grant proposal

See electronic grant application form.