Stephen Lloyds Award Application

Project Mission

Developing, piloting, and launching a breastfeeding App that utilises the best of cutting-edge technology to reduce the barriers to support for successful breastfeeding. We aim to help mothers everywhere (starting in the UK) to learn breastfeeding skills and to connect with other mothers and breastfeeding professionals for peer-to-peer and expert support anywhere and anytime.

Situation

Breastfeeding has significant benefits [1][2] to mothers (i.e. lowering risks of various diseases including breast cancer, improving the bonding with babies), babies (i.e. saving 823000 children's lives per year according to The Lancet [3], better immune systems, longer life expectancy, better IQ and EQ), and society (i.e. higher cognition, significant savings of government and healthcare providers) (All references in https://bit.ly/2FspIIn)

However, breastfeeding drop-out rates are steep during the early weeks and months after the child birth [4][5]; often due to pain and issues caused by incorrect latching and lack of appropriate support [6]. The UK has the *worst* breastfeeding rate in the world: although 81% mothers attempt to breastfeed after giving birth, only 1% of women are exclusively breastfeeding after 6 months (as recommented by the World Health Organisation) and only 0.5% of women are still doing any breastfeeding after a year, comparing with 23% in Germany and 56% in Brazil [4][5][7].

Latching-on is not as easy as it seemed and a skill that needs to be learned and practised after or even before the child's birth, poor latching causes sore nipples, mastitis, thrush, and anxiety for mothers and weight gain issues for babies. [8] New mothers often feel anxious, frustrated, and isolated without consistent and on-demand support from breastfeeding professionals and struggle to reach out to breastfeeding support groups due to physical and emotional constraints, or have to wait days until the next breastfeeding support group running only weekly. [6][9]

A UNICEF report [12] states, "breastfeeding is critical for the achievement of many UN's Sustainable Development Goals [1]". Failing to breastfeeding costs global economy US$302 billion every year [13][3]; costs the NHS £50 million per year by excess appointments for babies fed on formula milk, who are more prone to illness [14]; and costs a new family £60 pounds per month on purchasing formula milk alone.

Complication

It is difficult for mothers to diagnose and improve their latching on techniques without the breastfeeding professional and support group's 24/7 and 1-to-1 help, as well as sufficient peer-to-peer support [10]. However, the current breastfeeding support is patchy (midwives and health visitors are busy and cannot guarantee frequent and on-demand visits), inconsistent (different breastfeeding professionals might teach different latching-on positions/techniques), service-centred and expensive (for government and for families).

According to the UK-wide Better Breastfeeding campaign [15], at least 44% of local authority areas in England are affected by recent cuts to breastfeeding services resulting in even fewer and more infrequent breastfeeding support available to new mums. The minimum antenatal breastfeeding education and insufficient postnatal breastfeeding support are failing new mums despite them being informed of multiple breastfeeding benefits. A study found that women who

plan to breastfeed their babies but couldn't are 2 times as likely to suffer depression as mothers who decide in advance to use formula [10] and research shows that 90% of mums who stop breastfeeding in the early days do so before they wanted to [15]. A 2016 survey of 300 mothers found that 60% of women who gave up breastfeeding did so at least in part as a result of lack of support. [16]

There is an *urgent* need for the 21st century technology and innovation in the breastfeeding field to make breastfeeding learning and support cheaper, easier, and more accessible 24/7.

Solution

LatchAid is the world's 1st breastfeeding app that utilises interactive 3D technology and virtual breastfeeding support groups to help mothers to learn breastfeeding skills and to connect with others anywhere and anytime. (Please see competitor's analysis in https://bit.ly/2uqq1hL) They can use 3D interactive animations in different breastfeeding positions, flexible camera angles, anatomical views with varied breast and nipples sizes to visually learn and improve latching on skills. Virtual breastfeeding peer-to-peer support groups are designed to help breastfeeding mums everywhere to connect and support each other and to connect with breastfeeding professionals for 1-to-1 support. LatchAid also provides interactive and tailored information for breastfeeding FAQ and mother/baby care.

LatchAid was incorporated in July 2018 and has been incubated at Cambridge Social Ventures and supported by Academic Health Science Network, and UnLtd. In 2018, we conducted a formal user study among 100+ mothers, mothers-to-be, and breastfeeding professionals from 6 different countries (https://bit.ly/2RPBr9i) to investigate breastfeeding needs, to verify/improve LatchAid's problem-solution fit and business model, and to prioritise the product development roadmap. According to the study, 70% of mothers said that their interest level in using LatchAid was a rating of 6/8 or above. We are continuously building strong relationships with a network of breastfeeding professionals from organisations including the NHS, NCT, Association of Breastfeeding Mothers, and La Lache Legue and has been commentated as revolutionary and filling-the-gap (https://bit.ly/2uqq1hL).

So far, we have won the EU regional development match funding through Swindon & Wiltshire Health & Life Science Innovation Hub and the UnLtd DoIt Award. With these grants, we are accelerating the app development and working with a team 12 contractors including 6 world-class 3D artists from the film VFX industry, 2 lactation consultants, 2 UI/UX designers, and 2 app developers towards a Minimum Marketable Product. (Please see https://bit.ly/2HTIScJ for infographics and video showing LatchAid's app wireframe & 3D scanning demo)

We plan to complete the MMP by this July, conduct beta testing and piloting in August/September, and launch LatchAid app (using a Freemimum subscription model) at the Apple AppStore in October 2019. We plan to raise private investment after initial releases and gain commissions from large organisations (e.g. the NHS) once we prove user traction and gather evidence of effectiveness of the app. The investment, commission income, sponsorship, and app revenues will be used to continuously develop and improve LatchAid app and grow its business to ultimately fulfill our social mission of helping mothers and babies (130 million born worldwide and 775k born in the UK annually) everywhere to breastfeed.

LatchAid has established an online presence and early followers via our website, FB (@latchaid), Twitter (@latchaid), and LinkedIn. We have press coverage at https://bit.ly/2wRwDaj and is featured in a 4-pages interview artile https://bit.ly/2HEsei5 in the British Computer Society's ITNow magazine last December.

How Stephen Lloyds Award network of partners' support be benefitial to your project?

LatchAid is currently going through an accelerated app development period towards its Minimum Marketable Product, app piloting (August/September), and app launch (October). During this crutial and exciting time, we need a wide range of support from the Stephen Lloyds Award network of partners in the following areas:

Pilot: We need expertise and support to design the methodology and framework of the app pilot and beta testing. We need support to acquire pilot partners and participants. We also need expertise and guidance on how to analyse the pilot results and to utilise it for iterative app improvements and future app promotion.

Launch: App launch is a complex project which requires careful planning and execution in many key areas including marketing/sales, PR, branding and website re-work (to be launch ready with product demos, testimonial, App Store link, etc), and AppStore optimisation. We really need a wide range of support from the Stephen Lloyds Award network to ensure that the LatchAid launch is a success despite a minimum budget!

Legal support: We need expertise and guidance on IP protection, GDPR, and Terms & Conditions of the app.

Investment raising: To maintain the constant/rapid development, we need to raise private investment after the app launch once we start to gain the steady traction. We need the substantial support and network for finding investors and securing investment. (financial management)

B-to-B business model & sponsorship: Although lauching at the consumers' market first via AppStore, we plan to establish partnership with large healthcare organisations and charities including the NHS, NCT, and private hospitals for group software and service contracts. We also aim to to gain sponsorship from mother/baby care corporates. However, these are new areas we have no expertise and prior experience in among LatchAid's current core team. This is where the expert support would really make a huge difference.

Please explain how the funding would be used for your project

The funding of 20k will be used in the following key areas:

App development: developing virtual breastfeeding support groups where mothers (up to 12 in each group) can give each other peer-to-peer support via a WhatsApp like discussion group with the support from a breastfeeding professional; expanding the 3D interactive animation collection to include different ages of virtual babies and more breastfeeding animations; maintaining and improving the app based on customer feedback

App pilot: designing, developing, running the app pilot; analysing the app pilot outcome to be utilised by following-up app development

App launch: branding and website re-work to be launch ready; sales/marketing, PR, AppStore optimisaition and user acquisition

Legal support: IP protection, GDPR, app Terms & Conditions

How would you budget/spend the award grant

The funding of 20k will be approximately distributed in the following key areas as below:

App development: £12500
App pilot: £2500
App launch: £3500
Legal support: £1500

We would like to learn a little more about the indiviual or team invested into the project. What are your indivisual credentials? Is there a story of how you and your team all come together to support the project?

Dr. Chen Mao Davies, co-founder & CEO (https://www.linkedin.com/in/chen-mao-davies-59a82514/) Chen holds a PhD in Computer Graphics and has 15 years software R&D experience, with past 7 years working on visual effects of blockbuster movies including the Oscar-winning Gravity and Blade Runner 2049. She is a mother of two and had 1st hand experience as an once-struggling but later successful breastfeeding mother. Her personal experience motivated her to develop the LatchAid app to help other mothers to succeed in breastfeeding.

Dr Ana Burman, co-founder (https://www.linkedin.com/in/anaburman/) Ana joined LatchAid as a co-founder in 2019. Ana is a researcher in Information Systems, a medical device quality engineer, and a trained breastfeeding supporter. Her PhD research was focused on the impact of online social support on breastfeeding outcomes.

Sharon Banham (https://www.linkedin.com/in/sharon-banham-5b571a35/) is LatchAid's marketing lead focusing on social media and content marketing

In LatchAid's advisory board, Mark Goodson, business advisor from Cambridge Social Ventures (https://www.linkedin.com/in/markwgoodson/) is LatchAid's business advisor. Dr. Natalie Shenker, co-founder at the Human Milk Foundation and Human Milk Foundation (https://www.linkedin.com/in/natalie-shenker-7494898/) is LatchAid's clinical advisor.

LatchAid crew is formed by 6 world-class 3D artists in the film VFX industry with Chris Cook as the crew supervisor (https://www.linkedin.com/in/chris-cook-81b7131b). We are working closely with a network of breastfeeding professionals and are supported by Cambridge Social Ventures, UnLtd, Academic Health Science Network, and Swindon & Wiltshire Health & Life Science Innovation Hub.