Assessment of multi-crew communication skills in simulation training environments using paper based behavioural marker systems is labour intensive, inefficient and open to challenge

Biographies

Mr. Conor McKenna (CEO)

Product management executive with over 20 years' mobile and web technology companies. Conor has been involved in founding and growing a number of mobile and web services companies both in Ireland, UK and Australia.

Dr. Brian Vaughan (CTO)

Speech scientist and new media expert (DIT and Trinity College Dublin)

Dr. Celine DeLooze (CSO)

Speech scientist with several publications on prosodic aspects of speech. Trinity College Dublin.

All three people are now co-founders of the CrewFactors based of Dublin, Ireland.

The Pitch

We have developed a technology platform that can automatically assess core non-technical skills of teams training in simulated environments, namely communication and teamwork skills. People operating in mission and safety critical environments rely on a range of communication methods, where interpersonal communication is required, these are verbal and non-verbal communication.

These non-verbal cues (speech signals) exhibited in any communication generate lots of data that other humans will typically perceive and adapt their behaviour accordingly, these signals include the pitch, rhythm and tone of voice.

We have developed a platform technology (called 'Vocavio') that can processing communication from any multi-crew simulation environment to augment the training experience. We can within seconds of a training scenario being completed, automatically present a range of performance metrics relating to Communication effectiveness, Leadership, team balance, adaptability, turn-taking, resilience and engagement levels.

The performance metrics developed have proven to be a powerful tool in assisting instructors to debrief crews on their communication and teamwork skills (core to Crew Resource Management skills in a sector like air transport). By quickly generating objective behavioural data to use in a post simulation training debrief, you empower instructors to deliver a debrief that is unbiased and importantly, more acceptable by the crew under instruction.

Our vision is to extend this platform technology onto mobile devices, virtual reality and simulation training environments. In January 2016 we launched our first simulation training product; CrewFactors Pro. This training tool is available on iOS devices and enables multi-crew pilots to capture, assess and

debrief their communication and teamwork skills. The tool can be used in a full flight simulation or flight training device using a lapel mic and a readily available iphone, ipad or itouch iOS device.

We see market opportunity in all sectors that are training personnel to operate and in safety and mission critical environments; including Aviation, Defense, Maritime, Medical and Security.

Explain why your idea is protectable, why should a venture capitalist invest in this idea?

This cloud based platform technology was developed and scientifically validated at Trinity College Dublin as part of a 'lab to market' initiative sponsored by the University and regional investment fund. The underlying IP relating to speech signal processing of communication multi-crew teams is patent pending in several countries.

We believe the idea is investible as team communication are core skill required to operate most simulation training environments across aviation, medical. The majority of personnel in safety related roles are mandated to be assessed for a 'resource management' related skills e.g. Crew Resource Management in aviation.

With the advent of cloud computing, APIs and Development Toolkits, we see an ability to deploy this technology across multiple simulation devices. This will present the company and its partners to scale associated revenues from either time based charging or indeed licensing to end users.