VICTORIA UNIVERSITY OF WELLINGTON
Te Whare Wānanga o te Ūpoko o te Ika a Māui

School of Engineering and Computer Science
Te Kura Mātai Pūkaha, Pūrorohiko

PO Box 600
Wellington
New Zealand

Tel: +64 4 463 5341
Fax: +64 4 463 5045
Internet: office@ecs.vuw.ac.nz

PitchHub - A Collaboration Platform for Innovators

Michael Winton

Supervisor: Dr. Kris Bubendorfer

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Abstract

The ability to connect innovative ideas to people and resources is an essential component of the innovation process. This project is concerned with empowering the innovation community with an online collaboration system that is simultaneously useful to all actors in the innovation ecosystem while ensuring that all sensitive IP shared is stored in a secure manner. The goal of this report is to detail the steps taken in designing and implementing a distributed web application that facilitates collaboration and enforces data security with threshold cryptography.

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1.1 Motivation

1.2 Project Objective and Scope

roles and rights (scope of disclosure)

1.3 Contributions

1.4 Outline

Chapter 2

Background into Collaborative Platforms for Innovation

This chapter aims to explore the related works of collaborative platforms used in the innovation space and also contextualises where in this landscape PitchHub aims to occupy. First, this chapter presents a taxonomy of the primary roles used within the collaborative innovation process. Second, this chapter describes the current collaborative platforms being used in the innovation space and establishes where each stands within the role taxonomy. Third, this chapter concludes with a discussion on the practical limitations that are introduced by being innovation-orientated.

2.1 Common Roles in Innovation

The process of driving an idea from its conceptualisation to its realisation commonly requires a variety of actors who bring together the knowledge, skills and resources required to action its fulfillment. For example, the Apple][came to being with Steve Wozniak providing the technical knowledge and skills, Steve Jobs providing the project goals and marketing drive, and Mike Markulla providing the resources to finance it's production [1]. Again and again we see similar stories, where innovation is driven in a collaborative configuration rather than solely by one person. To this point Callaghan Innovation has identified four distinct roles that are embodied by the team within the innovation process:

- Challenger
- Enabler
- Solver
- Facilitator

These four roles represent the different functions required in an innovative product or service's successful execution. Challengers provide the idea or problem to solved in order to realise a business opporunity. Enablers provide the resources required to action the innovation, this may be in terms of man-power, assets or financing. Solvers provide the answer to the idea or problem presented by the Challenger(s). Facilitators provide the connections to drive the innovation's exection, this may be in terms of connecting other people to the idea, or helping the idea gain reputation. Whether these roles are shared amongst a team or fulfilled by a single person in most cases of innovation these roles are too large for one person to embody them all. To continue with the Apple][example, we may catergorise Steve Jobs

as the challenger, asking why computers can't serve the consumer market, Steve Wozniak can be seen as an enabler and sover, as he both designed the Apple][and built them, and Mike Markulla, can be regarded as an enabler and facilitator, as he financed the production and also lent his reputation to the product.

2.2 An Investigation of Collaborative Platforms

Naturally, a platform that aims to facilitate collaboration for purposes of innovation at it's empowering an idea in relation to these roles. In this section we explore the current solutions being used to facilitate collaboration and discuss how each works in relation to these roles.

IdeaForge[2] is a collaborative innovation platform that supports the Challenger, Enabler and Solver roles. In it's own parlance IdeaForge is described as a three-sided marketplace where users can provide "ideas, time/skills or cash/resources". The main aim for this platform is to facilitate anytime/anywhere collaboration within the global innovation community. Additionally, IdeaForge provides some visibility settings for ideas, where they may be scoped as visible publicly or members only. IdeaForge does not provide functionality for Facilitators, therefore ideas being hosted on IdeaForge require external facilitation. IdeaForge can be regarded as the most similar to PitchHub in spirit as it serves many of the roles identified and provides scoping functionality.

Assembly[3] is a collaborative platform that supports the Challenger, Enabler, Solver, and Facilitator roles. Assembly is orientated around communities that may focus on one or more ideas. The platform does not explicitly distinguish between these roles but it's forum-like structure means that any of these roles may contribute. Assembly's suggestion functionality, where users get suggested groups they may be interested in, illustrates how Assembly itself is carrying out the Facilitator role. PitchHub and Assembly differ on focus, specifically PitchHub focuses on the idea while Assembly focuses on the community.

AngelList[4]

2.3 Practical Limitations of Online Collaboration for Innovation

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talk about reproducible environment

7.1.2 Test Data

frequency analysis of data cleaned and given by CI's user trial
seeded given frequency analysis results

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talk about selenium and user stories

7.1.4 Performance Considerations

talk about NN threshold

7.2 Security Testing Method

7.2.1 Security Testing Scope

Our threat model consists of resisting at least one shoulder surfing attack from an observer co-located at any position around the tabletop. Camera-based attacks are feasible with most knowledge-based authentication systems; but to defeat camera attacks was not our design goal. The pervasive na- ture of mobile devices instrumented with cameras is of par- ticular concern, but as with other manifestations of this same problem (e.g. at the ATM) we rely upon social conventions to deter active attempts to video record logins.

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Bibliography

[1] J. Livingston, *Founders at work: stories of startups' early days*. Apress, 2007.

[2] "ideaforge — the new engine of creation," http://ideaforge.io/, (Visited on 08/24/2015).

[3] "Assembly," https://assembly.com/, (Visited on 08/24/2015).

[4] "Angel list," https://angel.co, (Visited on 04/07/2015).