

Colligative.com



A global + local
online knowledge
sharing platform
facilitating online
communities of
practice

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Colligative.com - A global + local online knowledge sharing platform facilitating online communities of practice.



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Abstract

The last few years has witnessed the evolution of online networked communication tools that have greatly facilitated the global distribution of knowledge. Twitter, Facebook, Wikipedia, and other social networking and knowledge sharing tools have demonstrated the value that networked and open communication streams can deliver to individuals and groups interested in expanding their knowledge base and facilitating relationships.

Despite the presence of these tools, limitations in their design have resulted in poor uptake amongst doctors for the purpose of sharing professional practice knowledge, despite the real potential for their use in virtual communities of practice.

A platform has been developed that overcomes these design limitations to facilitate the sharing of locally and globally relevant professional practice knowledge.

Objectives

Assess suitability of existing knowledge sharing platforms based on a set of requirements, and if necessary, develop a platform to meet these requirements.

Requirements

Universally accessible (cross-platform, mobile-optimised)

Collaborative content recognising the existence of disparate but valid practice techniques

Content consumption and contribution for the non-expert user (both text and multimedia)

Capacity for hosting of globally relevant public, and locally relevant private content

Rapid and permanent retrieval information relevant to the user's clinical scenario

Networked user relationships

Existing knowledge sharing platforms

	Wiki (mediawiki.org)	Q&A (stackexchange.com)	Discussion Forums (google groups)	Social networks (Google+)	Enterprise Social Network (Yammer)
Universally accessible (cross-platform, mobile-optimised)				✓	✓
Collaborative content recognising the existence of disparate but valid practice techniques		✓	✓	✓	✓
Content consumption and contribution for the non-expert user (both text and multimedia)		✓	✓	✓	✓
Capacity for hosting of globally relevant public, and locally relevant private content				✓	
Rapid and permanent retrieval information relevant to the user's clinical scenario	✓				
Networked user relationships				✓	✓

Methods

A set of requirements were laid out (see table), and in the absence of a suitable platform, agile software development processes were undertaken between June 2010 and April 2012, involving 50 users, testing several hypothesis on knowledge structure and relationships, including the use of 140 character constraints, and asymmetrical user network relationships.

Results/Conclusions
The development of Colligative is a mobile-optimised web application following a simple knowledge structure organised around topics and topic notes.

Strict character constraints significantly reduced content quality and were abandoned early, whilst an asymmetrical user network has persisted. Topics and topic notes have evolved to be either publicly visible, or private to users within an organisation.

Content is ranked by community endorsements, and opportunities exist for commenting on, and correction of content. Engagement is possible between users with shared institutional relationships, or shared interests across institution through an internal user network.

Despite interest from the initial users further work will be required to generate a critical mass of content and users, and explore prospective pilot communities in which to develop the concept further.

Introduction

“Mistakes are the usual bridge between inexperience and wisdom.” - Phyllis Theroux

Colligative.com is a prototype online knowledge platform aimed at improving clinical practice through the dissemination of practical knowledge amongst clinicians.

It is designed to help clinicians learn from the experiences of their peers within, and across, hospital networks.

Objectives

Determine the suitability of existing knowledge sharing platforms to achieve the following goal:

Allow a user to rapidly store a discrete learning experience relevant to a clinical scenario that is rapidly retrievable by another clinician encountering a similar scenario at a later time.

If no appropriate solutions exist, develop a knowledge sharing platform to facilitate the distribution of quality practice techniques and test its suitability amongst a group of anaesthetists who consider themselves non-experts in the use of computers.

Methods

Available platform tools were examined to assess their suitability

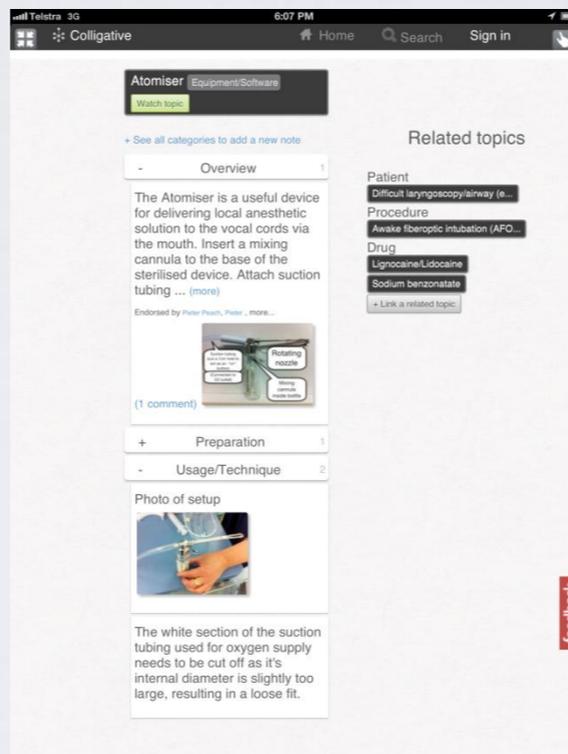
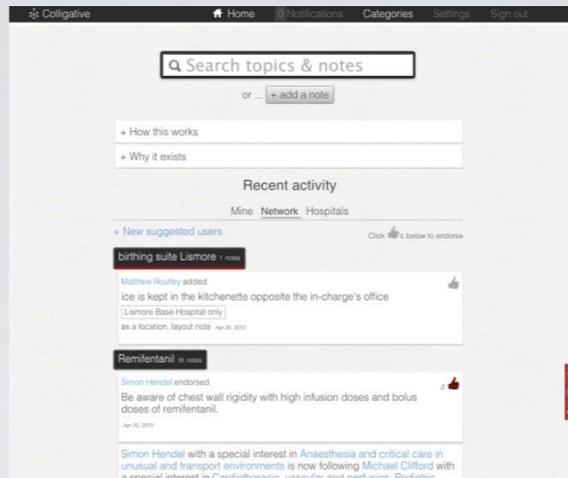
Existing knowledge sharing platforms

Requirements	Wiki (mediawiki.org)	Q&A (stackexchange.com)	Discussion Forums (google groups)	Social networks (Google+)	Enterprise Social Network (Yammer)
Universally accessible (cross-platform, mobile-optimised)				✓	✓
Collaborative content recognising the existence of disparate but valid practice techniques		✓	✓	✓	✓
Content consumption and contribution for the non-expert user (both text and multimedia)		✓	✓	✓	✓
Capacity for hosting of globally relevant public, and locally relevant private content				✓	
Rapid and permanent retrieval information relevant to the user's clinical scenario	✓				
Networked user relationships				✓	✓

Results

A bespoke knowledge sharing platform was developed in the absence of a suitable platform solution.

An agile, user-oriented software development process was undertaken commencing July 2010, engaging fifty senior and junior anaesthetic staff.



A mobile-optimised web application evolved with a simple knowledge structure consisting of “topics” and “topic notes”, combined with elements of community endorsement, discussion, and modification of content, as well as the capacity for formation of internal user networks around

Conclusions

An opportunity exists to take advantage of **evolving technologies** and emerging trends in **knowledge sharing** to improve the distribution of practical wisdom with the potential to improve patient outcomes and productivity.

A major challenge faced is engaging those senior clinicians with the most knowledge to share, but who are the least engaged with new technologies.

Pilot implementations are currently underway at The Royal Children's Hospital Melbourne and The Royal Melbourne Hospital to further test the concept, focussing on institutional orientation of the junior doctor

References

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