

PPCT Project Objective

Join project of MGA, PSPB and TAB

Target professional needs of authors, researchers, and current/potential IEEE members by developing tools to:

- remotely collaborate in a seamless way
- access and manage the information they need in their profession in a very efficient way
- strengthen connections with the global community of technology professionals
- accelerate research and publication with improved tools
- facilitate professional development and networking

To reflect this, the project name is

Professional Productivity and Collaboration Tools
(PPCT)

This isn't just another social network

IEEE does not want to create "yet another" general purpose social networking platform (e.g. Facebook, LinkedIn, Google+)

but to create a specialized service with a scope and depth of expertise in engineering and technology not found in general social networks.

Motivation: Competitive Landscape

■ **We need to rapidly catch-up with other organizations**

Organization	Action
 	Elsevier acquired Mendeley (April 2013) to become its “research management and collaboration networking platform”
 	ACS launched a “research collaboration system” called ACS Chemworx (March 2013) Based on colwiz Ltd. Software
	ASME launched a service (May 2013) “to provide knowledge-sharing and collaborating with other engineering professionals ”
 	IET launched its communities (July 2012) so people can “share ideas and expertise, collaborate, and keep up with news”

This Project Exemplifies “One IEEE”

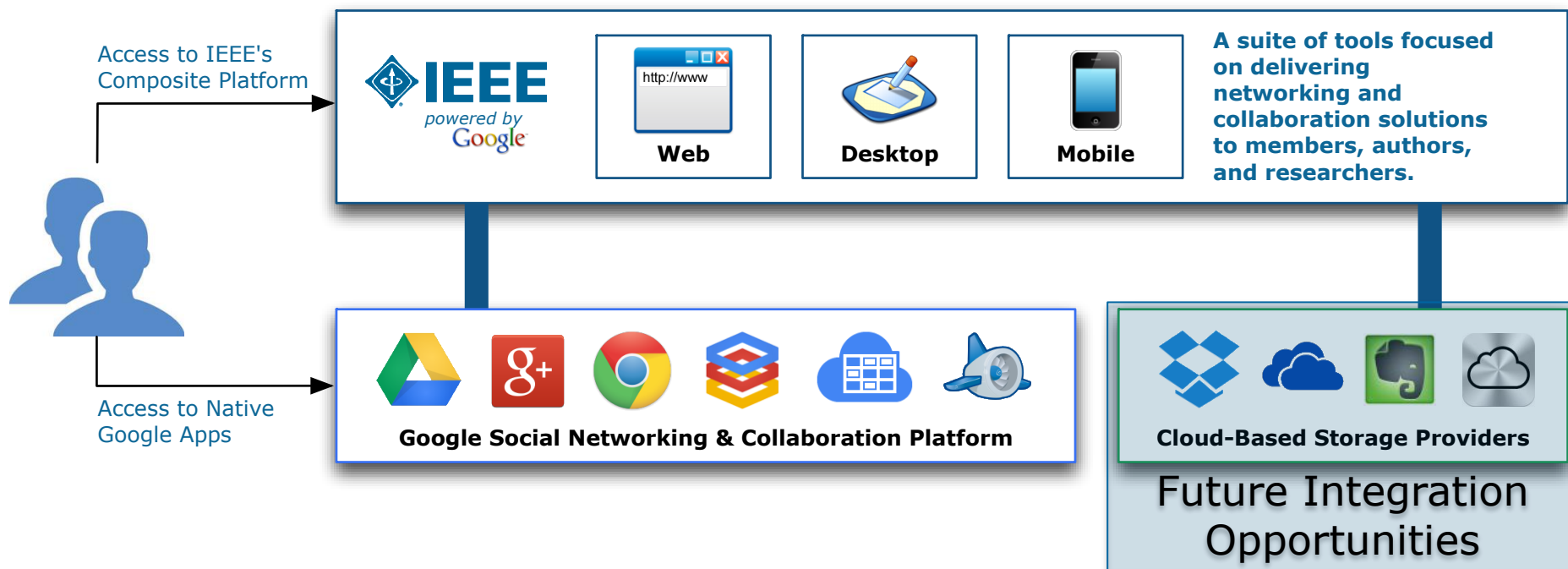
- It is a joint effort by MGA, PSPB, and TAB
- It has a joint volunteer-staff steering committee

Ralph Ford, MGA
Gianluca Setti, PSPB
Fred Mintzer, TAB
Jacek Zurada, TAB
Dave Green, IT

Cecelia Jankowski, MGA
Anthony Durniak, PSPB
Mary Ward-Callan, TA
Alexander Pasik, IT
Patrick Mahoney, Marketing
Tom Siegert, Finance
Jim Prendergast, Exec. Director
Donna Hourican, Program Mgr

PPCT Platform:

Delivered by IEEE, Initially Powered by Google



The PPCT Business Plan: Amplifying IEEE's Business Model

Professional: Stay connected and recruit my colleagues because IEEE enhances their career success

Reinforce:

Recommend products and services from IEEE and others to make me more successful

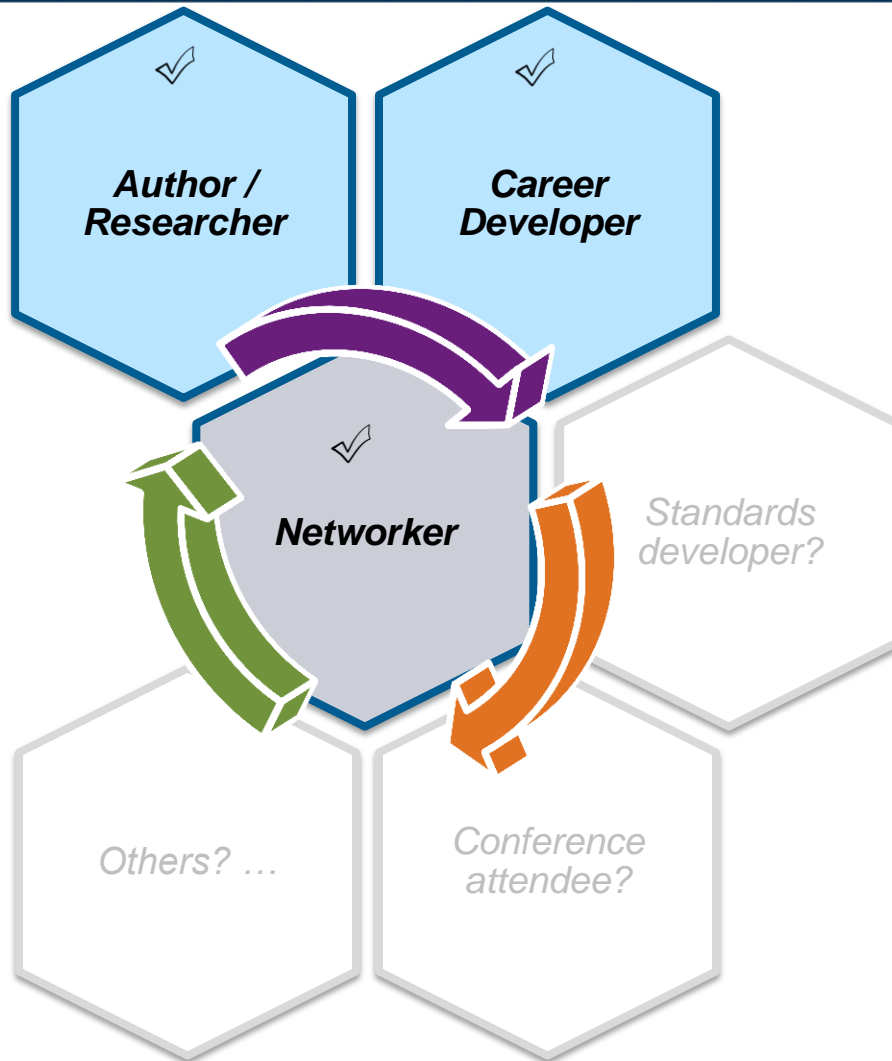


Collaboration:

- ◆ Find others with similar interests;
- ◆ Verify their identity and credentials;
- ◆ Advertise my skills, training, achievements

Productivity: Make it easy and efficient to work across organizational boundaries and geographies

Business Plan Approach



- ▶ User engagement based on functional roles (audience segments or “personas”)
- ▶ Initial plan addresses 3 audiences, with the networker experience being foundational to all
- ▶ IEEE and Society membership are a type of relationship, transcending audiences
- ▶ Opportunities for additional audiences will be examined in the future (e.g. standards developers or conference attendees)

Business Drivers

<i>Audience</i>	<i>Business Drivers</i>
<i>Networkers</i> <i>(Common to all audiences)</i>	<ul style="list-style-type: none">• Building the world's most distinguished and trafficked online communities for engineering and technology professionals• Membership growth through improved satisfaction with professional networking• Recognize credentialing and badging accomplishments of users to colleagues and potential employers (example: stakoverflow)
<i>Authors and Researchers</i>	<ul style="list-style-type: none">• Value-added features that enhance IEEE's proposition to authors/researchers (e.g. incremental OA submissions)• Helps preserve and expand IEEE share of community
<i>Career Developers</i>	<ul style="list-style-type: none">• Maintain/Extend value proposition of the IEEE Job Site, as recruitment postings continue to migrate toward social media-based platforms• Exclusive forums for members on career-related topics

Key PPC Features and Attributes (1/4)

The image displays a screenshot of the IEEE myIEEE dashboard, illustrating key PPC features and attributes. The dashboard is viewed through a browser window with the URL `file:///Users/tomg/Desktop/Desk/prototype/index.html`.

Navigation and User Profile: The top navigation bar includes links for "For Members", "For Researchers", "For Authors", "For Volunteers", and a "Join IEEE" button. The user profile for Tom (Piscataway, NJ) is visible, along with social media icons and a "Welcome back, Tom" message. A "Google Apps Upgrade Apps" button is also present.

Search and Recommendations: A search bar is shown with the query "data". Below it, a list of "IEEE topics" is displayed, including Data mining, Database, Big data, Data handling, Data collection, Transaction databases, Distributed databases, and Training data. A "What are you interested in?" section provides a search box for topics, skills, memberships, journals, and conferences.

Featured Recommendations: The dashboard features four recommendation cards:

- IEEE Student Membership:** Promotes opportunities for professional identity in IEEE's designated fields of interest: sciences, technology, engineering, and mathematics (STEM).
- IEEE Computer Society:** Promotes the society's focus on computing and information technology, including computer hardware, software development, multimedia, IT, security, networking, and mobile computing.
- IEEE Communications Society:** Promotes the society's focus on computing and information technology, including computer hardware, software development, multimedia, IT, security, networking, and mobile computing.
- 2014 International Conference on Computer Communication and Informatics (ICCI):** Promotes an outstanding opportunity for both academic and industrial communities to address new trends and challenges in emerging technology.

Additional Features: The dashboard includes a "Social" sidebar with links to Dashboard, Notifications, Social, Library, Tools, and Settings. A "Google Apps" section lists Google+, Google Drive, and Gmail. A "More" section mentions tools for sharing, publishing, and online communication. A user profile for Alexander Pasik (261,515 followers) is also visible at the bottom.

Key PPC Features and Attributes (2/4)

Library

file:///Users/tomg/Desktop/Desk/prototype/index.html

Groinger, Katarina...	Knowledge as a Service Framework for...	Enabling Technologies: Intra...	2013	30 July 2013
Sowe, S.K. ; Zettsu, K...	A model for creating and sustaining...	ITU Kaleidoscope: Building Sustain...	2013	17 June 2013
FH Wang, HM Shao	Effective personalized recommendation based on time...	Expert Systems with Applications	2004	17 June 2013

Effective personalized recommendation based on time-framed navigation clustering and association mining

expert-systems-with-apps_effective-personalized-recommendations.pdf

Article Overview Organize Share & Collaborate Article Statistics Help

Discuss [show stream](#) [view all comments](#)

Add a comment

Tom Griffin
This will work for myIEEE if we can cluster users first based upon their profile and navigation history. Then we should (in theory) be able to integrate the collaborative filtering method and association-mining.
[Reply](#) [Resolve](#)

Robert Langdon I often times will use algorithms that stem from collaborative filtering when struggling with a cryptex.
[Reply](#)

Albus Dumbledore How do you think the sorting hat works? First we understand the students, then we cluster them into one of the four houses.
[Reply](#)

Marissa Mayer
I had the team at Yahoo implement many of the concepts outlined in this paper as part of our last homepage redesign. Definitely improved engagement.
[Reply](#) [Resolve](#)

Sergey Brin Don't let Marissa fool you. She didn't learn that stuff from this paper. We taught her well.
[Reply](#)

Marissa Mayer Hey Sergey :) You and Larry definitely taught me a lot about recommendation engines.
[Reply](#)

Linda Joy
Please do not forget to actually measure the accuracy of the myIEEE recommendation engine. How many recommended items are actually useful? What about the ratio of the

Who has access: [details](#)

[Add additional collaborators](#)

Share on myIEEE Google+

[Share this article](#)

Communities
Explore these topics further by visiting an **exclusive members-only myIEEE community**:

- Pattern Analysis and Machine Intelligence
- Cybernetics

The following **public communities** are also discussing these topics:

- Machine Learning, IR, Mining, Big Data
- Machine Learning
- Algorithms & Coding

LM Kaufman	Item-based collaborative filtering...	Cloud Computing	2012	14 May 2013
RD Rimal, F Chai, L Lumb	Effective personalized recommendation based...	Communications of the ACM	2012	30 July 2013

ities

+Tom Search

IEEE

Communit

You

CAS 21,111 members - Private

Public 212,762 members

Members 21,872 members - Private

GoogleApps@IEEE 12,721 members - Private

bookmarks

outs

Key PPC Features and Attributes (3/4)

Dashboard Notifications

file:///Users/tomg/Desktop/Desk/prototype/index.html

Notifications

Research 17 My Interests 2 Social 3 Events IEEE News

New research citing articles I'm following... All Papers

Title	Year	Citations	Downloads from IEEE Xplore	Downloads from Google Scholar (estimate)
A source-to-source transformation for increasing rule-based system parallelism	1992	8 (1 New)	221	182
Research on security telecommunication of diskless parallel computing system	2012	17 (1 New)	121	144
Design patterns for parallel computing using a network of processors	2002	54 (1 New)	88	121
Mandi: a market exchange for trading utility and cloud computing services	2013	17 (1 New)	n/a	144

Manage Article Alerts Add Article Alert

New articles from authors I'm following... All Papers

[Exploring and Exploiting the Multilevel Parallelism Inside SSDs for Improved Performance and Endurance](#)
Yang Hu ; Wuhan Nat. Lab. for Optoelectron., Huazhong Univ. of Sci. & Technol., Wuhan, China ; **Hong Jiang** ; Dan Feng ; Lei Tian
Given the multilevel internal SSD parallelism at the different four levels: channel-level, chip-level, die-level, and plane-level, how to exploit these levels of parallelism will directly and significantly impact the performance and endurance of SSDs...
[View full abstract](#) [Save](#) [Share this article](#)

[Cloud Computing Services Potential Analysis. An integrated model for evaluating Software as a Service](#)
Claudio Cotar
Abstract: This paper address, in a practical and integrated model, a possible solution of issues concerning the Software as a Service (SaaS) introduction and evaluation. A selective top-down analysis is proposed to guide the overall assessment. The construction of the ...
[Download PDF from unitus.it](#) [Save](#) [Share this article](#)

[A Study of Cloud Computing Software-as-a-Service \(SaaS\) in Financial Firms](#)
H. Howell-Barber, James Lawler, **Supriya Desai**, Anthony Joseph
Abstract Cloud computing is a delivery method of information systems that is being deployed by the financial industry. Software-as-a-Service (SaaS) is the more frequent model of this method in the industry. In this study the authors analyze factors that can enable firms in the ...
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[Research on cloud computing security problem and strategy](#)

Key PPC Features and Attributes (4/4)

Library

file:///Users/tomg/Desktop/Desk/prototype/index.html

Groinger, Katarina...	Knowledge as a Service Framework for...	Enabling Technologies: Infra...	2013	30 July 2013
Sowe, S.K.; Zettsu, K...	A model for creating and sustaining...	ITU Kaleidoscope: Building Sustain...	2013	17 June 2013
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Effective personalized recommendation based on time-framed navigation clustering and association mining

[expert-systems-with-apps_effective-personalized-recommendations.pdf](#)

Article Overview Organize Share & Collaborate **Article Statistics** Help

Trends over Time

Zoom: 1d 5d 1m 3m 6m 1y Max February 10, 2013

Similar Papers Published 133 Citations to This Paper 10

Highly cited publications in top:

- A [Graph Embedding and Extensions: A General Framework for...](#)
- B [Learning realistic human actions from movies](#)
- C [Error Minimized Extreme Learning Machine With Growth of...](#)
- D [Learning realistic human actions from movies](#)
- E [Learning Task-Optimal Registration Cost Functions for...](#)
- F [A Neural-Network-Identifier and Fuzzy-Controller-Based Algo...](#)

● Citations to this paper ● Citations to similar papers

Author metrics

The following metrics compare **Feng-Hsu Wang** and a composite sample of **data mining** researchers from IEEE *Xplore*.

Total publications (20, Avg=24)

Total citations (186, Avg=278)

H-index (6, Avg=9)

Article metrics

New citations over time (average citations/year = 7.44)

■ New ■ Cumulative

myIEEE statistics

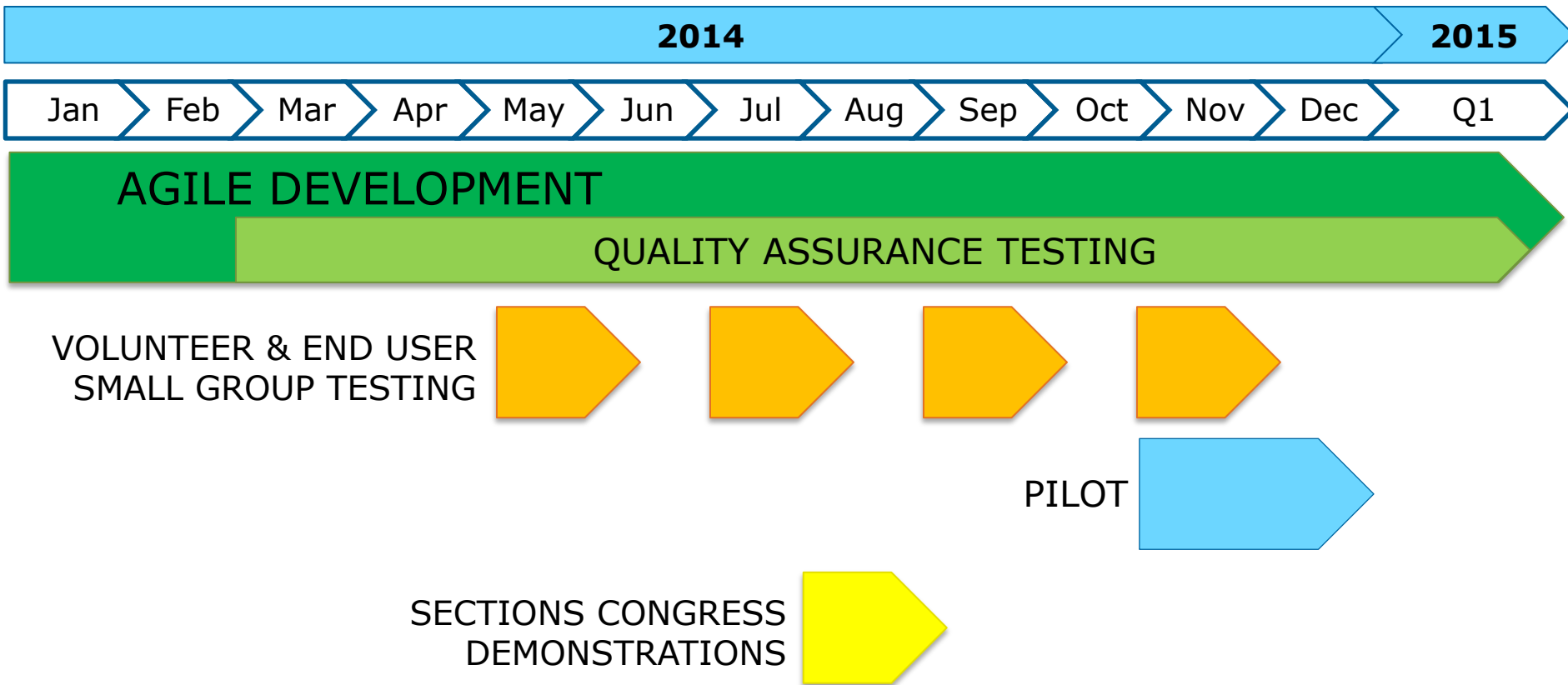
7 readers on myIEEE

LM Kaufman	Item-based collaborative filtering...	Cloud Computing	2012	14 May 2013
RP Dimal, F Choi, I Lumb	Effective personalized recommendation based...	Communications of the ACM	2012	20 July 2013

of a



PPCT Project Timeline



PPCT Sections Congress Plan at a Glance

Presence	Objectives
Break-Out Session (1) Sat, 75 mins	<ol style="list-style-type: none">1) History, Board Direction, Strategic overview of the initiative2) High-level introduction to capabilities3) Why and how Section participation will

A good lesson learned: there are important opportunities arising from collaborations with major IEEE OUs and this may lead to a nimble approach

Exhibit Booth Exhibit Hall, Sat/Sun, all day	<ol style="list-style-type: none">1) Fixed location to acquire additional information, and more in-depth Q&A2) Live demo of prototype
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Appendix

Features in more detail

PPC Tools – Planned Work

▶ April

- **Programmatic Community Management**

- Algorithmic recommendation
- Community Provisioning
- User Management of Community Notifications
- Role based management administration

- **Community Features**

- Event Calendar w/User Invitation Capability
- File Posting, Polls & Surveys
- Question & Answer, Threaded Discussions
- Search for and within a Community
- Tagging of Community Content

- **Collaboration**

- Online Messaging (Voice, Video & Screen)
- Email, Calendar, Task Lists
- Document Sharing
- Comments/Discussion within Documents

▶ June

- **Professional Networking Features**

- Activity Stream
- Organize / Share Social Connections
- Professional/Academic Social Profile
- Recommending Products Using Social Data
- Search All Social Data (Scoped for That User)
- Search for People (incl Membership Directory)
- Social Equity/Gamification
- Voting and Commenting

- **Document Management** (native drive)

- Version Control
- Author Verification via Electronic Signature
- Document Conversion
- Cloud-Based Storage

PPC Tools – Planned Work

▶ August

• User Profile & Settings

- Configuration of Social Alerts
- Control Over Profile Visibility in Network
- Special Indication on Profile for Members
- Third-Party Social Network Integration

• Research Library Management*

- Access Folders or Individual Articles by URL
- Add Article (Metadata and Document)
- Automatic Topical Classification of Articles
- Derivation & Extraction of PDF Metadata
- Full-text Search of Library
- Importing Research from Other Systems
- Monitoring Unauthorized Sharing of IEEE IP
- Rule-Based Organization of Library

* Stretch goal

▶ October – Final Phase 1

• Researcher Tools

- Research Article Sharing
- Bibliographic Metrics and Alerts
- Algorithmic Research Article Recommendation
- Automatic Delivery of Journal Subscriptions
- Academic Search Engine Support

• Authoring

- Simultaneous Document Editing
- Publish to the Web
- Document Creation and Annotation Tools
- Injection of Citations and Bibliographies
- Generating Bibliographies within Word Processors
- Support for Publisher Styles

• Management Tools

- Web analytics
- Transactional usage statistics
- Forensic analytics
- Administrator set-up / provisioning
- Administrator tools