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Getting (and Sharing!) the FACTS: Factors, Analogies, CER's & Tools/Studies



**Presented to the International Cost
Estimating and Analysis Association
June 12, 2014
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Estimate MITRE

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What is Cost FACTS?

- A community/network centered around sharing Cost-related FACTS
Factors, Analogies, CER's & Techniques/Studies (FACTS)



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Challenges to Collecting Cost Data

- **Even internally, there are barriers to sharing cost data on a project**
 - We cannot always freely share all data on cost estimates internally within our own organizations!
 - DHS requires all personnel who discuss or view DHS data to have current suitability (i.e., clearance) for each DHS Component
 - IRS requires all personnel who work on IRS projects have current MBI
 - Classified programs can only be shared with those who hold appropriate clearance level and have need to know.

- **While we cannot always share the entire cost estimate – frequently we can share the *building blocks* of the estimates.**
- **Cost FACTS works to overcome these challenges to gather shareable cost FACTS**

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Many Government Agencies have Similar Elements in Cost Estimates

- Software Dev and licenses/ IT Hardware/
- Help Desk Support
- Facilities
- Cloud Computing
- Biometrics
- PIV/CAC Card Implementation
- Unmanned Aerial Vehicles

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The Case for Change in 3 Acts




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Act 1: The Wisdom of Crowds





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Crowdsourcing*

- The crowdsourcing model [taps] the collective knowledge of the community to harness the crowd to directly produce goods and services.
- [...] the crowdsourcing model *actively involves the community in the process of online production activity.* [emp. mine]
- Metcalfe's law states that the value of a network is proportional to the square of the number of connected users of the system





**"Rules of Crowdsourcing: Models, Issues, and Systems of Control," Author: Gregory D. Saxton, Onook Oh, Rajiv Kishore, Source: Information Systems Management 2011

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Act 2: Open Government and Open Source



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The Open Government Initiative and the Open Source Movement

- **In 2009 President Obama's signed the Memorandum on Transparency and Open Government**
 - Government should be transparent, participatory, Government should be collaborative
- **Open Source:**
 - “Open source refers to a program in which the source code is available to the general public for use and/or modification from its original design.”
 - “Open source code is typically created as a collaborative effort in which programmers improve upon the code and share the changes within the community. “ -*Wikipedia*



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Act 3: Social Networking vs. Traditional Knowledge Management



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1995 vs 2014 Technology

- **E-mail lists: so 1995**









- **Social Networking and KM tools: so 2014!!!**









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The 1995 Way To Get Answers...

Does anyone have an IBCE checklist I can forward to Jim?

Thanks,

Herb

From: Pagnato, Joe
Sent: Thursday, June 09, 2011 3:48 PM
To: Miller, Lynn E.; Nam, Haome; Garratt, Ellen K.
Subject: BOE Template

Chris Thomas needs a good BOE template. Can one of you help him?

From: Perreca, Chris
Sent: Wednesday, May 23, 2012 10:52 AM
To: Chau, Hieu T.
Subject: Can you direct me to a good example a 'Cost Template' ?

Hieu -


Good morning. Can you direct me to a good example a 'Cost Template' ?

Thank you - [Chris Perreca](#)

All,
Infrastructure, Operations, & IT Service Management (i.e., etc) and cost estimation (Price TruePlanning/S/H, ACE-IT, SEPR, etc). These are the types of tools that would be of considerable use to me in the near future. If you can provide guidance on what is being used currently and how to obtain a license, it would be greatly appreciated.

Thanks,

Dan Won



Given the nature of these frequent, often similar, requests, it simply made sense to expedite practitioners' response time by posting templates, studies, and other resources


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Enterprise Social Networking vs. Traditional KM

- Much simpler, 90% of functionality, minimal training
- Bottoms up, employing wisdom-of-crowds vs. top-down “single moderator” approach
- No license required-just a web browser
- “SharePoint lite” allowing for collaboration and file sharing *without the need for a SharePoint administrator!*
 - Ease of use: If you can upload or find a video on YouTube, you can use Handshake
- Provide feedback on artifacts via comment or simply “Like” it
 - Adds an aspect akin to Amazon.com *User Reviews* where practitioners can post evaluation of artifacts
- Limited networks to draw from: Many companies have fairly small cost groups of 40 or s





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The Handshake Solution



- E-mail dialogue preserved for future members (vs. sitting in e-mail inboxes, inaccessible to new employees)
- Can easily be opened up to partners!
- Interface w/ variety of SMEs (vs. only cost SMEs sign up for cost-focused e-mail list serves, (i.e., e-mail discussion lists))
- Scalability: growth over 2 years from four to over 200 members
- Offers a simple Calendar feature, “WIKI” pages
- See site [here](#) (MITRE Fast Jump “FACTS”) or contact djharper@mitre.org, rdorr@mitre.org
- See [McKinsey](#) and [CEB](#) for additional articles

“Email is where knowledge goes to die” – Bill French.


	TOTAL	POST DATE	HEBIC
Discussions	63 67	2 6	
Files	129 45	1	
Pages	9 3	–	–
Blog posts	3 4	–	–
Albums	1	–	–

Contributing members: 22%

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The *Handshake* Solution



- Click [here](#) for a two-minute *Handshake* primer (accessible to non-MITRE Partners)

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Social Software and Collaboration

The federal government, more than ever, is embracing the concept of connection—government to constituents, agency to agency, civilian to military, and everything in between. This represents a culture shift that takes time, improved technology, and a willingness on the part of people to lower barriers to change. One of MITRE's crucial roles involves helping our sponsors use the power of improved communication and connection for improved outcomes. Researchers throughout the company are working to develop breakthrough technology, processes, and methods for enhancing connection.


Say "Hello" to "Handshake"



In many cases we use our own internal corporate network as a test bed for social software tools—examining how they are built, what features are most likely to be adopted, and what design, interface, or functionality elements have the biggest




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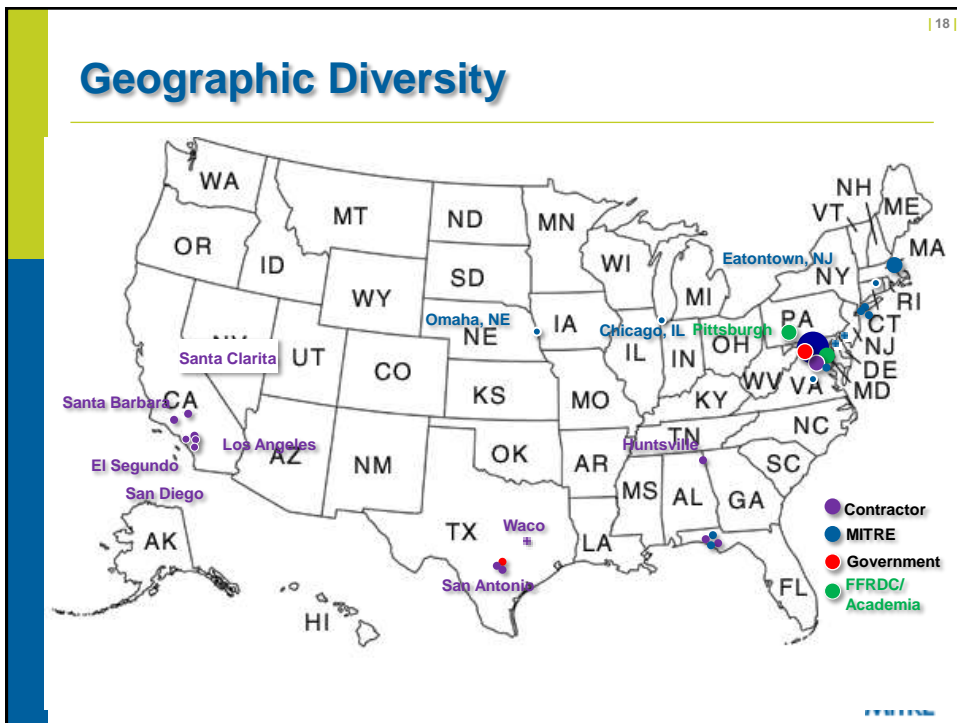
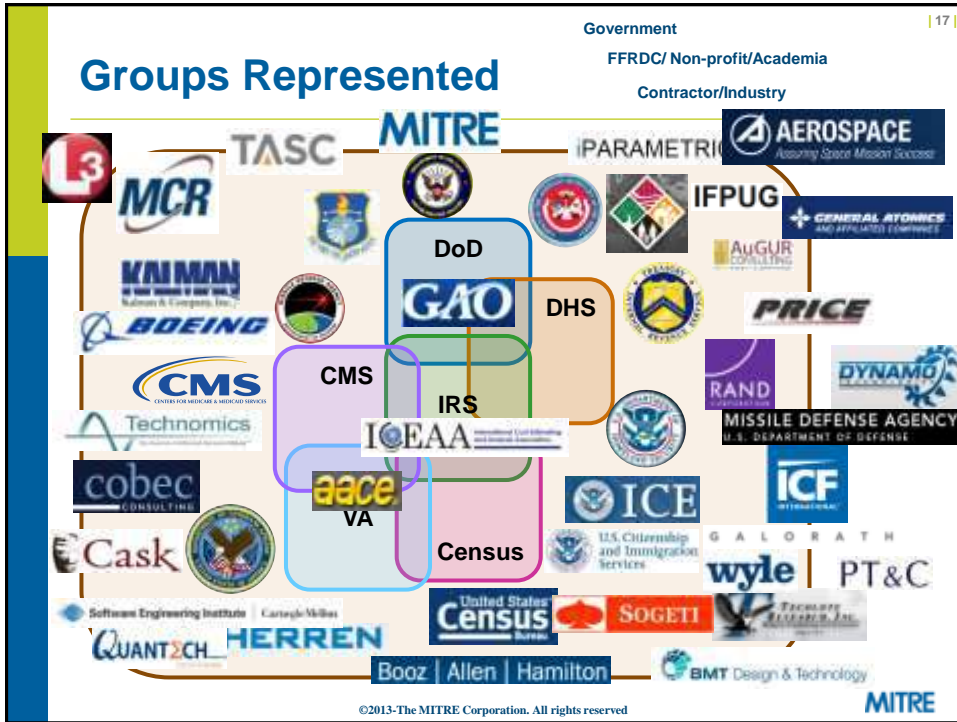


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Metrics and Stats




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Internationally Diverse




Ottawa, Canada
(Invited)



The Netherlands (SOGETI, SW measuring tool COSMIC)




Andover, Hampshire
(Galorath)



Melbourne, Australia
(BMT Design & Technology)

- Contractor
- MITRE
- Government
- FFRDC/ Academia




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- As of May 14 2014
- 31st most popular Handshake Group in terms of # of members (of 652 total groups)
- One of the *highest* in terms of activity

Group metrics


	TOTAL	FAKT 7 DAYS	TREND
Discussions	79 95	1	↓
Files	142 53	1	—
Pages	9 3	-	—
Blog posts	3 4	-	—
Albums	1	-	—

Contributing members: 26%



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Still not convinced?




Look, Watson! I've invented the telephone!

People will be able to talk to one another whenever they like, without traveling!

People working on a project can speak directly to one another!

Information and decisions will be much easier to obtain!



TELEPHONE!!

People might give out company information!


People might say bad things about the company!

People will be wasting time!

We can't afford to give everyone their own telephones!

Our people are not tech-savvy. They won't be able to use such a thing as a telephone!

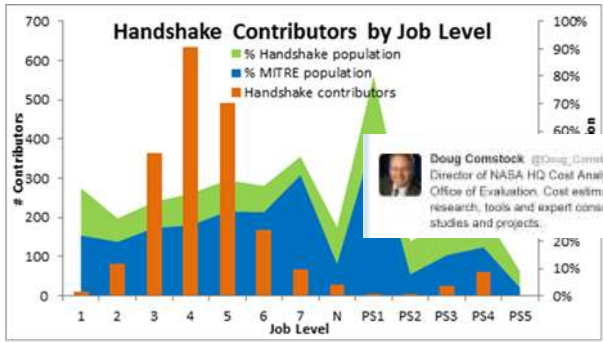
Jane Bozarth's book **Social Media for Trainers** via <http://jeffrossblog.com/2013/06/01/quit-holding-social-media-to-a-different-standard/>



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Enterprise Social Networking: not just for “Gen Y”

- **Social networking is not only for the “under 40” set**
 - At MITRE, most handshake contributors (approximately 70%) are more senior (mid-level manager to principal)
 - Even on Facebook, nearly half of the user population is over 45.



Handshake Contributors by Job Level


The chart shows the number of contributors across job levels 1 to P55. The legend includes: % Handshake population (green), % MITRE population (blue), and Handshake contributors (orange). The orange bars represent the absolute number of contributors, which peaks at job level 4 (around 650) and job level 5 (around 500). The blue area represents the MITRE population, and the green area represents the handshake population. A secondary y-axis on the right shows percentages from 0% to 100%.



Doug Cornstock @Doug_Cornstock
 Director of NASA HQ Cost Analysis Division in Office of Evaluation. Cost estimating policy, research, tools and expert consulting to NASA studies and projects.

*All Facebook: The Unofficial Facebook Blog http://allfacebook.com/facebook-demographics-pingdom_b97982

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ICEAA Use of Social Networking

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What's in it for Me & My Organization?

- Why should I “give it away” for free?
- It'll help you (you scratch my back...). The customer or colleague you help today could become your employer if you demonstrate value!
- Technology has changed many industries' business models. Think of these examples:
 - Developers gives away apps and charge for additional features
 - MP3s have changed the music industry-Some bands give away the album and charge for concerts
 - A cheeky upstart “*someecards.com*”
- The Golden Rule (do unto others...)
- Customer recognition
- For more see HBR: [article](#) “Get Your Team to Work Across Organizational Boundaries,” [“Bridging Software Communities through Social Networking”](#)

They say “Why buy the cow when you can get the milk for free?” Ha! Well... “Why buy a whole pig when all you want is some sausage?!”

someecards user card

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What's in it for Me & My Organization?

- **Knowledge retention due to attrition or retirement**
 - We even had a MITRE employee go to the government who is still a member of the group
 - One member who had been “downsized” connected with a colleague he saw on the site and ended up being hired by that organization

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Case Study


Facilitating Discussion Across Government

- In one case, a customer from the *Intelligence* community posted a question about estimating the cost of outfitting a test and evaluation facility.
- That question was answered within 48 hours by a member from the *DoD* world, who was able to provide total cost, including a breakdown by elements such as rent, government, labor, hardware, etc.
- Perhaps most importantly, this information is now available to other members as they come across this question in the future. **Absent the Cost FACTS platform, these two very different customers would not have had any forum in which to interact.**
 - This example also proved a great success case for our contention that even though customers may be very different, they often have similar challenges and can learn from each other.

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A Picture is Worth a Thousand FACTS




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Handshake 101

- Click [here](#) for a two-minute handshake primer (accessible to non-MITRE Partners)
- Everything you need to know about Handshake you can learn watching this recorded [webinar](#) during lunch (accessible to non-MITRE Partners, but you must be a Handshake member)



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User Guide and Best Practices

- Don't simply think of it as a marketing channel
- Do not post anything marked FOUO (For Official Use Only), Proprietary or Sensitive
 - E.g., no Gartner Studies without permission (They frown on posting those to SharePoint OR Handshake)
- **Hyperlinks** to public proprietary sources okay (e.g. RAND studies)
- If you are unsure, simply ask
- If you make a mistake, it's okay, we'll fix it. No hand-slaps!
- Handshake User Guide [here](#)



I thought you loved me-How could you post proprietary data?

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I want to Join!

- You cannot come in unless you are first invited!
- After that you have free reign to comment, post, etc...or simply peruse the conversations and artifacts
- Send an e-mail to djharper@mitre.org or Ruth Dorr (rdorr@mitre.org) so that we can add you as a member (or scan QR code below with your smart phone)
 - You will receive an e-mail invitation with basic registration steps
 - Please provide a work e-mail (i.e., not gmail.com, yahoo)




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Epilogue

- This presentation has provided in detail the FACTS project, including challenges overcome and remaining hurdles
- Organization should engage enterprise social media as a platform to help lower our natural instinct to “close-hold” data
- Ultimately sharing across organizational boundaries will benefit everyone
- For additional info contact Daniel Harper djharper@mitre.org or Ruth Dorr (rdorr@mitre.org)



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What your invitation will look like

MITRE Partnership Accounts Invitation for Handshake

You have been invited to access Handshake, MITRE's business networking system.

Follow the link below to start the registration process by establishing a security question, an answer and a password. Please note that you have 10 days to complete this process.

<https://partnership.mitre.org/MCAP/mcapInvitationSecQA.do?cmd=addSecQA&uniqueParam=1383166188571&email=danieljharper2002@gmail.com&invitationId=45859&invitorEmailAddress=djharper@mitre.org>

The following message was included...

Hello, I want to invite you to join my group The Cost FACTS: Factors, Analogies, CER's & Tools/Studies, and my network on Handshake.

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