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

Presented to the International Cost Estimating and Analysis Association

June 12, 2014

Ruth Dorr and Daniel Harper

Approved for Public Release; Distribution Unlimited. 13-1495

What is Cost FACTS?

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

MITRE

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 <u>and</u> have need to know.
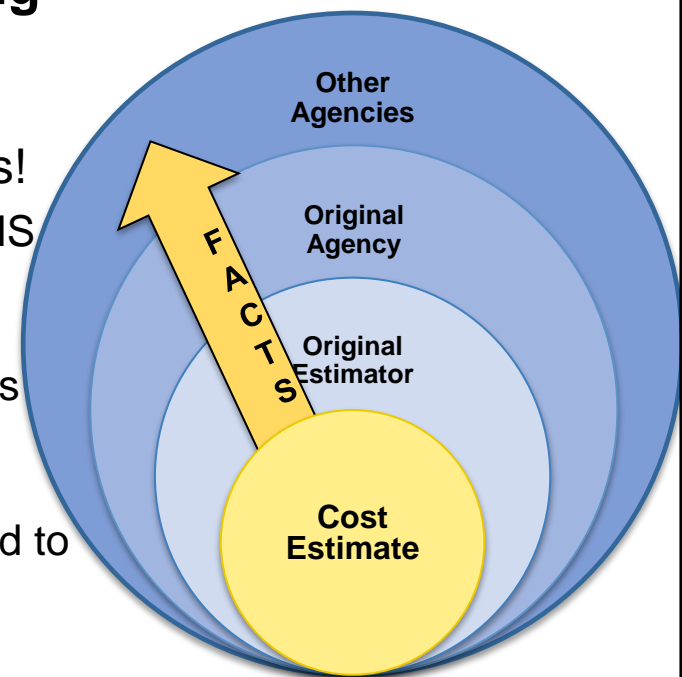
- **While we cannot always share the entire cost estimate – frequently we can share the *building blocks* of the estimates.**

- **Cost FACTS works to overcome these challenges to gather shareable cost FACTS**

MITRE

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 Arial Vehicles**

DoD

DHS

CMS

IRS

VA

Census
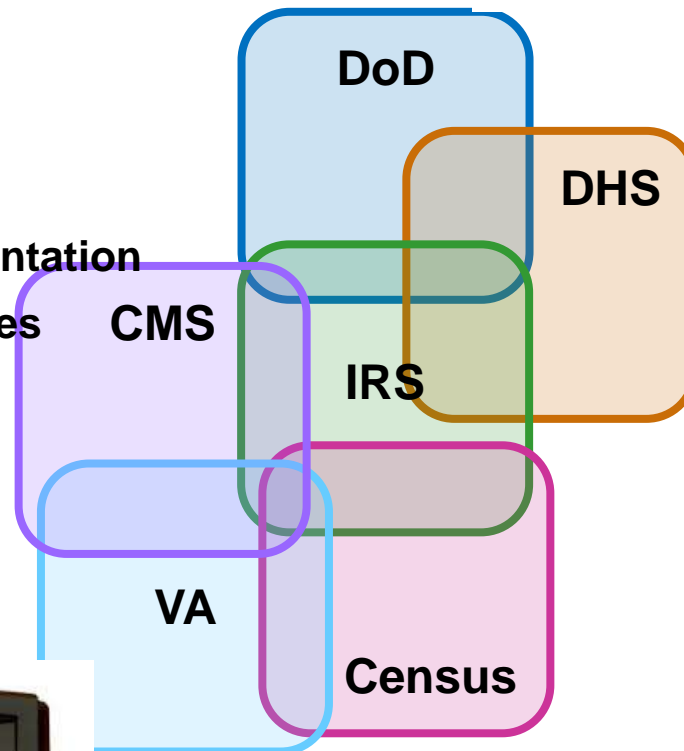
The Case for Change in 3 Acts

MITRE

Act 1: The Wisdom of Crowds

MITRE

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

MITRE

Act 2:
Open Government and Open Source

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*

MITRE

Act 3: Social Networking vs. Traditional Knowledge Management

MITRE

1995 vs 2014 Technology

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

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

MITRE

The 1995 Way To Get Answers…

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

Thanks,

Herb

From: Leigh, Jim
Sent: Friday, November
To: Kaylor, Herbert W.
Cc: Livingston Sr., Mar

From: Chau, Hieu T.
Sent: Friday, November 19,
To:
Cc:
Su

From: owner-k
Sent: Tuesday,
To: k461 Dept
Subject: Risk

From: Pegnato, Joe
Sent: Thursday, June 09, 2011 3:48 PM
To: Miller, Lynne E.; Nam, Haeme; Garrett, 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

Infrastructure, Operations, & IT Service Management

Da

W

Da

All,

I'm trying to ge   ll…etc) and cost
estimation (Price TruePlanning/S/H, ACE-IT, SEER…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

MITRE

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**

MITRE

The *Handshake* Solution

Handshake
A MITRE Research Prototype

- **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		PAST 7 DAYS		TREND
Discussions	**63**	67 💬	**2**	6 💬	⬆
Files	**129**	45 💬	**1**		⬇
Pages	**9**	3 💬	-		—
Blog posts	**3**	4 💬	-		—
Albums	**1**		-		—
Contributing members: 22%					

MITRE

The *Handshake* Solution

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

ABOUT US | OUR WORK | EMPLOYMENT | NEWS & EVENTS

Remote Access | Site Map
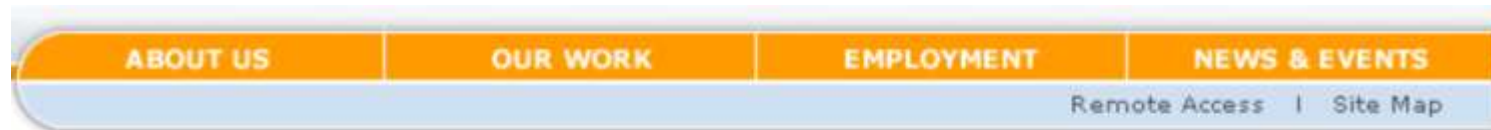
Home > Our Work > Information Technology > Social Software and Collaboration >

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 largest
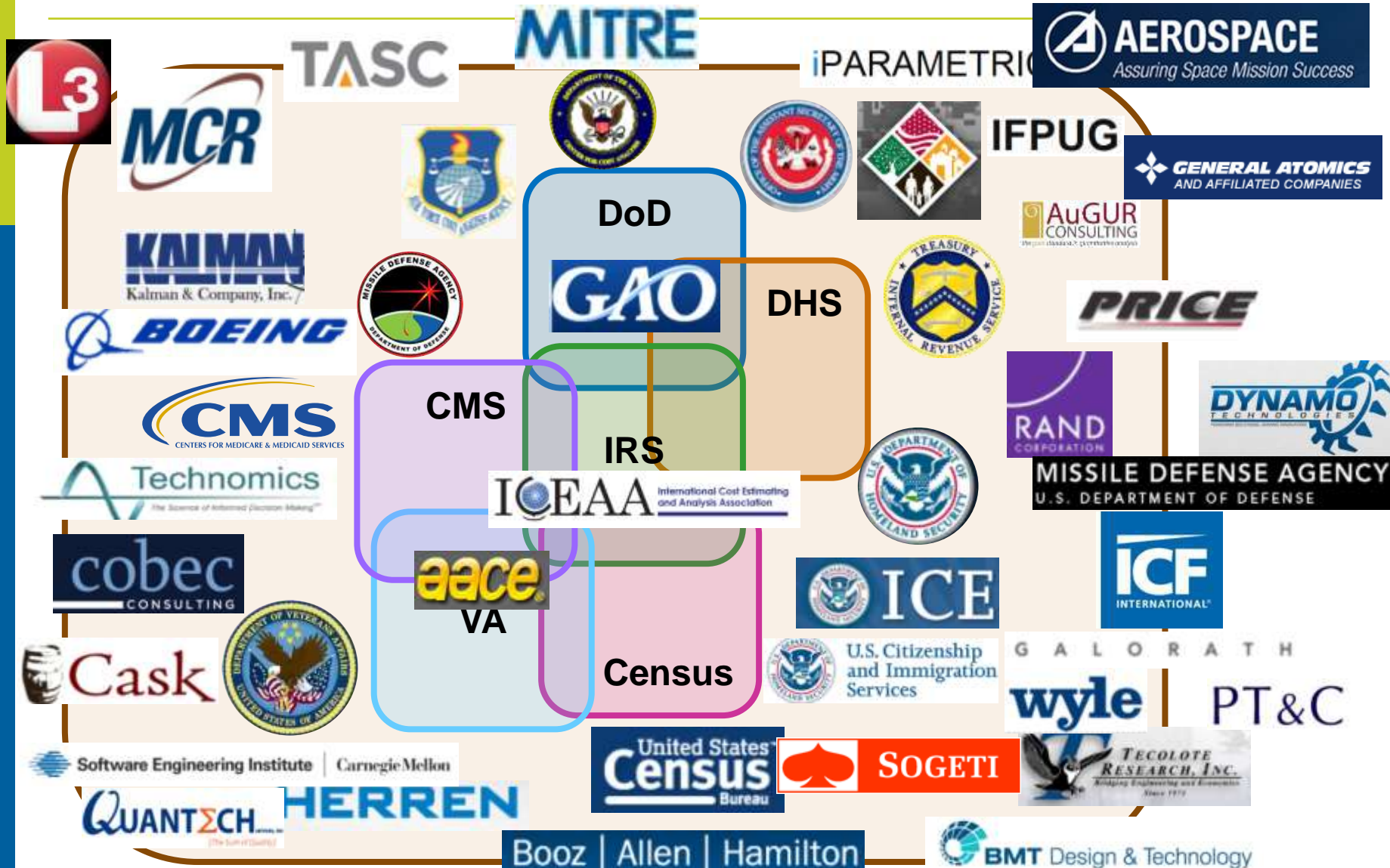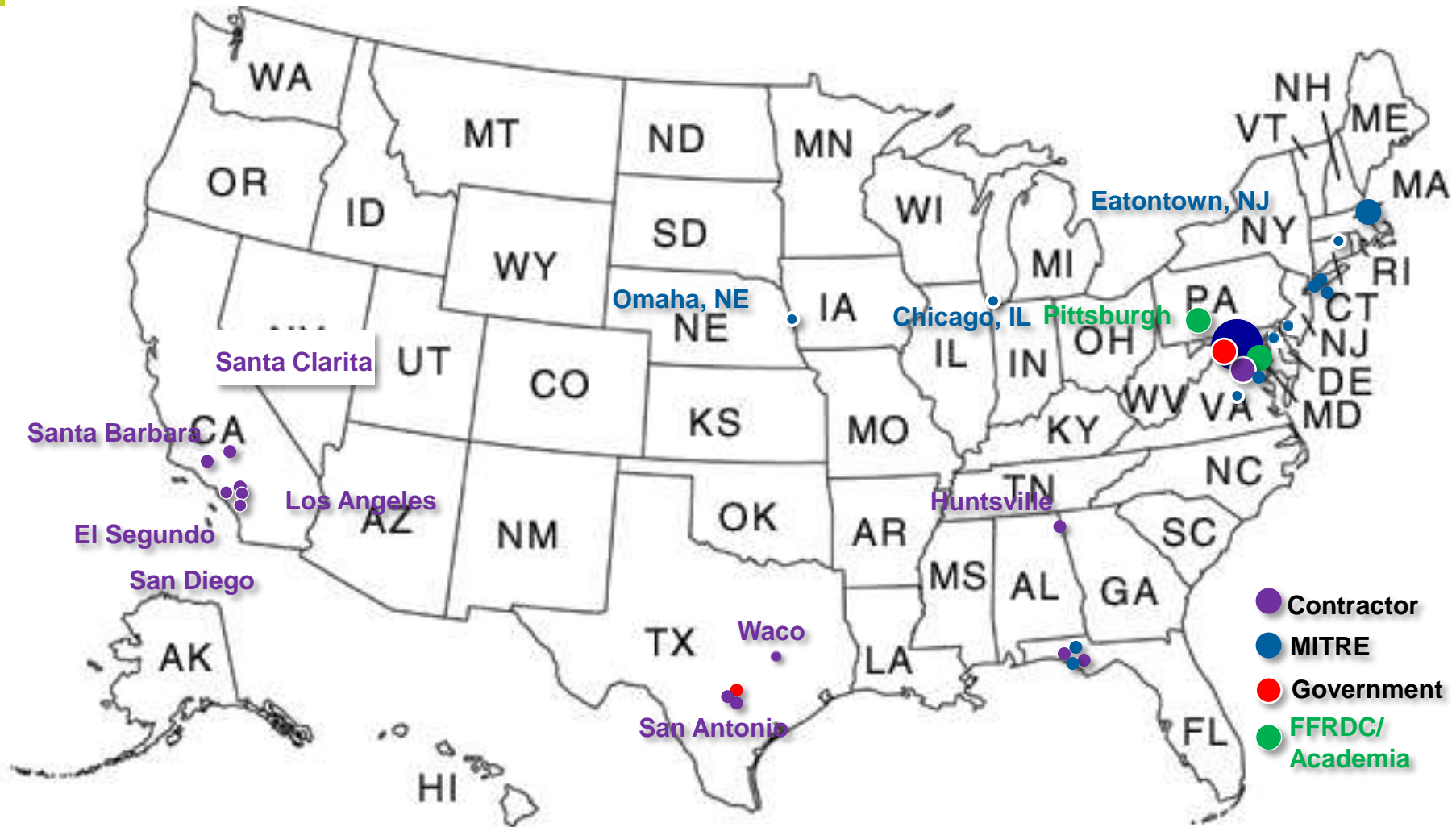
Metrics and Stats

MITRE

Groups Represented

Government

FFRDC/ Non-profit/Academia

Contractor/Industry

MITRE

Geographic Diversity

Internationally Diverse

The Netherlands (SOGETI, SW measuring tool COSMIC)

Ottowa, Canada (Invited)

Andover, Hampshire (Galorath)
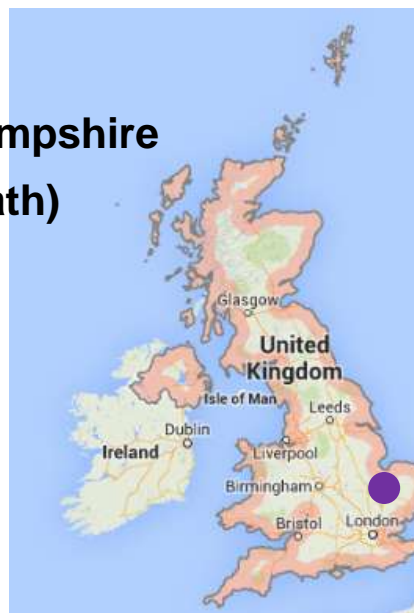
Melbourne, Australia (BMT Design & Technology)

- ● Contractor
- ● MITRE
- ● Government
- ● FFRDC/ Academia

MITRE

- **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		PAST 7 DAYS	TREND
Discussions	**79**	95	**1**	⬇
Files	**142**	53	**1**	—
Pages	**9**	3	-	—
Blog posts	**3**	4	-	—
Albums	**1**		-	—

Contributing members: 26%

Groups

Create a new group

Newest | A-Z | Popular

« Previous 1 2 3 4 5 6 7 8 9 … End Next » 652 total

The Cost FACTS: Factors, Analogies, CER's & Tools/Studies — Open group · 204 members
This group is a forum for dialogue and knowledge sharing amongst MITRE and partners across the cost community (including academia, government and industry)

Sitting is Killing Me! — Open group · 202 members · Leave group
People tired of sitting all day who want the option to work standing up

Fusion Center Integration Laboratory — Moderated group · 200 members · Request membership
Fusion Center Integration Laboratory

DoD Mobility Group — Moderated group · 177 members · Request membership
DoD focused mobile computing collaborative group.

Visual Display of Complex Data — Open group · 170 members · Leave group
We focus on creative ways to...

Diversity Discussion Gr...
CDAC Discussion group to heig...

Agile Collaboration Gro... (ACG)
Collaboration on agile methods...

iPhone Users
iPhone/iPod Touch Users
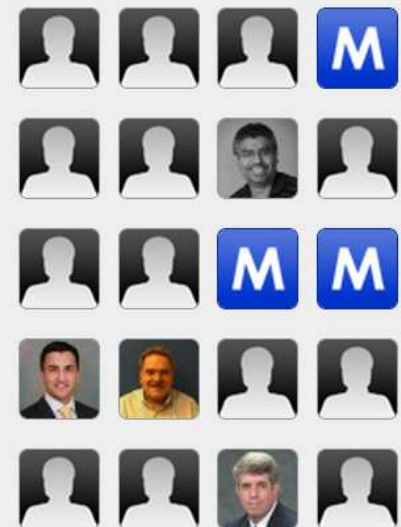
Microsoft Office 2013
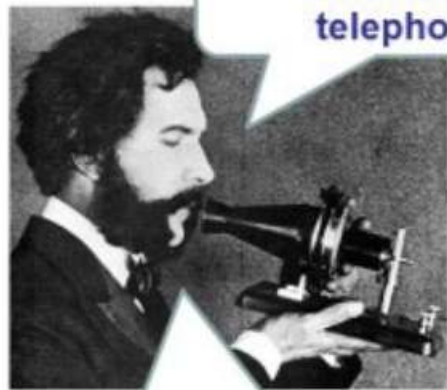*MS Office 2013 discussion area...*

Strategic Management
This group exists to connect th... strategic planning, performanc... practitioners as well as those... to post your opinions, because... position.

Group members — Edit

204 members (131 MITRE, 73 Partners, 9 new this week)

MITRE

Still not convinced?

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

MITRE

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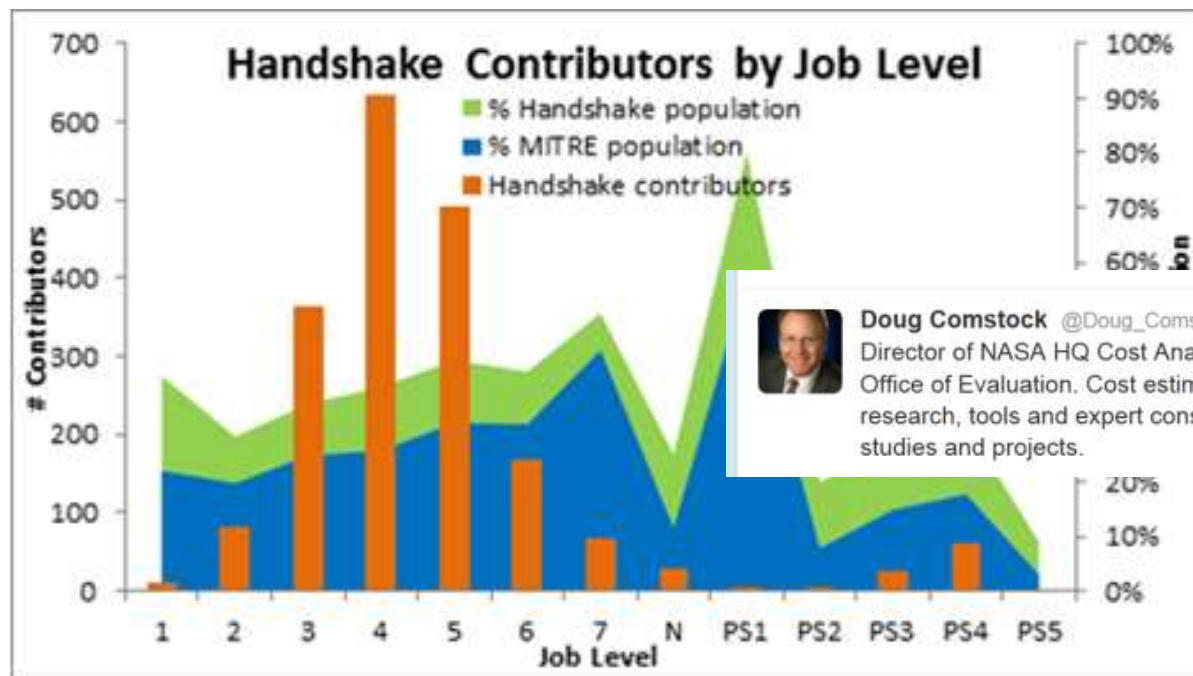
*All Facebook: The Unofficial Facebook Blog http://allfacebook.com/facebook-demographics-pingdom_b97982

MITRE

ICEAA Use of Social Networking

MITRE

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

MITRE

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

MITRE

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. <u>Absent the Cost FACTS platform, these two very different customers would not have had any forum in which to interact.</u>**

  - 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.

MITRE

A Picture is Worth a Thousand FACTS

MITRE

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)

MITRE

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?

MITRE

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)

MITRE

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)**

MITRE

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.

MITRE