Measuring Value: Community of Practice Life Cycle Metrics

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Fusing Knowledge Management with Lean Six Sigma, Project Management, Business Process Management, with Change Management to create Total Knowledge Solutions
Agenda

• Communities studied
• Metrics of the CoP’s Lifecycle
• Establishing a Basis for Measurement
• Understanding and Sustaining the Community
• Outcome Measures – Getting to Impact
• Transforming the Community

How do we measure the right stuff?
Communities Studied

- US Army’s Center for Army Lessons Learned hosts over 60 Communities of Practice (Professional Forums)
- Over 200,000 members
Metrics over a CoP’s Lifecycle

Stages of Community Development*

Potential ➔ Coalescing ➔ Maturing ➔ Stewardship ➔ Transformation

Focus

Domain

Objectives

Practice

Community Launch

Outcome Measures

Activity Measures

Growth Measures

Time

Define ➔ Measure ➔ Analyze ➔ Improve ➔ Control

DMAIC as a Unifying Framework for Analysis

Establishing the Basis for Measurement

Define
- Knowledge Assessment Determines need for a CoP: *Domain, Community and Practice*
- Establish CoP Objectives and connection to Organizational Objectives

Measure
- Identify benchmark communities
- Growth targets: membership, knowledge
- Activity targets: participation
Understanding and Sustaining the Community

Analyze
- Membership growth
- Activity
- Analyze root causes of behavior

Improve
- Align with Objectives
- Shape community behavior
Growth Measures

- Measures how the community has grown
- Member penetration

What's the impact on Total Potential Knowledge Transfer?
Activity Measures

- Measures the amount of interaction among the members in the community
- An indicator of knowledge transfer – does not assess whether learning occurs
- Examples:
  - Replies to discussions (online, external emails, phone calls)
  - Documents uploaded or downloaded
  - Emailed pages from the forum

So How Do Things Look?
Understanding Growth and Activity

So How Do Things Look Now?

Indication of Potential Knowledge Transfer for Each Member
Analyzing Member Participation

Are our discussions vibrant?

Active Participation Rate = (Knowledge + Discussions + Replies) / Unique Visits

Are we meeting the community’s needs?
Mapping Activity to Objectives

Warrant Officer Net Activity Map

Charter
... connect, share ideas and experiences... With this in mind, please participate; learning from the experience of others, while sharing your expertise and knowledge.

Objective
...express professional, credible, and mature thoughts, opinions, and recommendations in reaching solutions...

Are we in alignment with our organization?
Mapping Activity to Objectives

Objective

... to enable the secure sharing of HR knowledge ... by providing a mechanism for top-down dissemination of knowledge to the field, for individuals to keep each other current in the developments of a shared discipline through horizontal communication, and a means for the institutional force to obtain feedback from the field ...

Are we alignment?
Using Combinations of Metrics to Complete the Story

NCO Net Activity Map

- Questions
- Answers
- Contributions
- Comments
- Emailed Pages
- Downloaded Attachments (x10)

S1 Net Activity Map

- Questions
- Answers
- Contributions
- Comments
- Emailed Pages
- Downloaded Attachments (x10)

NCO Net Answers to Questions

- Questions
- Answers

S1 Net Answers to Questions

- Questions
- Answers
Community Behavior: Root Causes

- Management
  - Involvement in topics and discussions
  - Directives or incentives to participate

- Man (forum support team)
  - Engagement of Topic Leads in discussions

- Method (facilitator actions)
  - Membership Drives
  - Community Events
  - Member Communications

- Measurement and Environment
  - Change in participation
  - Weekends or Holidays during the period
  - Operational Tempo
  - Environmental impacts - weather

- Machine (online presence)
  - CoP layout
  - Taxonomy and Content
  - CoP functionality

- Material (supporting IT)
  - Network Connectivity
  - Access to Computers

Legend:
- Analyze
- Improve
- Control
Shaping Community Behavior

How should we tailor our effort?

Forum Page Visits

- Newsletter published
- Weekends
- Holidays

Analyze | Improve | Control
Outcome Measures

• “Determine the impact of the KM project on the organization, help determine if the knowledge transfer processes are working to create a more effective environment... often the hardest measures to evaluate.”*

• Shows impact on the organization – the “So What”

• Ideally shows how organizational or individual efficiency and effectiveness are improved

• Often assessed through proxy measures:
  – Time, money or lives saved
  – Injuries prevented
  – Issues to action: changes to the way we do business

* Metrics Guide for Knowledge Management Initiatives, v1.0 draft, Dept. of Navy, August 2001
Estimating CoP Return on Investment

- Survey to ascertain member perceived value of the Community
  - Quantifiable terms: Time, Money, Lives, etc.
- Rigorous survey method for:
  - Sampling strategy
  - Sampling size
  - Non-response
  - Bias
  - Data analysis
- Can be paired with a measure of respondent “confidence” to produce conservative results
- Pair quantitative results with supporting anecdotes
Providing Context: Personalizing the Numbers
Lives, Dollars, Time Saved

“...searched and found a Ranger Handbook translated ...
In finding this translation I didn’t need to have it translated by an Interpreted saving my detachment almost $1,000.”

“I used the quick notification of the Army Combat Helmet recall and forwarded to my unit supply sergeant to notify Soldiers of my unit to check their helmets for the recalled stock numbers. No doubt that has saved lives.”

“The S1-Net has saved countless hours for me as a 1SG. Having one source to find the information I need allows me to help Soldiers with their issues which has led to fewer problems and reduced stress within my unit. S-1 Net has helped me to be a better leader for my Soldiers.”
Community Helps in SOP Development

Discussion posted on S3-XO Net on 26 Feb 08

Convoy SOP

Looking for a comprehensive tested tactical convoy SOP. I have all the CALL TTPs etc. looking for a unit developed convoy SOP in preparations for OIF. Did the MiTT thing….don’t have the time to write my own.

MAJ
Aviation Intermediate Maintenance Company Commander
Fort Drum, NY

Respondents

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Action

- Four replies to the discussion on the forum
  - Directed to other products on the forum
  - One directing to existing products on SIPR
  - One requesting SIPR email to send classified SOP

- Member received several emails and telephone calls including. The community sent:
  - Three unit developed SOPs
  - Extracts from COIN TACSOPs
  - CLP SOP
  - Convoy Operations Training Reference Cards
  - CALL’s Tactical Convoy Operations TTP Handbook

Impact

- Member is developing a new Convoy SOP for his unit largely based on community input
- To date, member estimates it has saved him 12-15 hours of time in developing this handbook (approximately $400-$500 in labor costs)
Has Domain, Community, and Practice remained relevant?
Are the Outcomes still supporting the Objectives?
How do we change our measures to address the changing CoP?
References


Questions?

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