Integrating KM Concepts to achieve delivery excellence and growth

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Thank you for this opportunity to share our insights on KM and Business

Randhir Pushpa is the Knowledge Manager of Application Development and Maintenance delivery unit and he also coordinates the KM implementation in Unisys India.

He has more than 14 years of experience in Innovation and Knowledge Management to his credit. At Unisys along with KM and Innovation he also focuses on coordinating the Competencies. The activities include helping in conceptualising the overall goals, defining maturity roadmap and assessment.

Prior to joining Unisys in 2011, Randhir worked with Wipro Technologies for five years. His focus was on promoting systematic software reuse, idea management, Patenting and Academia collaboration.

He was conferred with the a Bronze recognition award in 2011 and Innovation Award 2012-2013 for his contribution in the field of Knowledge Management by Unisys. A Journal Paper co-authored by him titled “Interactive and Collaborative behaviour across boundaries of PD teams”, was chosen as a Highly Commended Paper at the Literati Network Awards for Excellence 2011.

His motto is to redefine KM and institutionalize it to help organizations realize its actual benefits.
About Unisys

- Unisys is a worldwide information technology company with a rich history that spans 140 years.

- We provide a portfolio of IT services, software, and technology that solves critical problems for our clients, focused on:
  - securing their operations
  - increasing the efficiency and utilization of their data centers
  - enhancing support to their end users and constituents
  - modernizing their enterprise infrastructures and applications
  - deriving maximum value from social technologies

- With approximately 23,500 employees, Unisys serves commercial organizations and government agencies throughout the world.
About Unisys

Business Verticals

Financial
Public Sector
Transportation
Communications
Life Sciences

Solutions portfolio

Security
Technology Products
Enterprise Services
Data Center Transformation and Outsourcing
Application Modernization and Outsourcing
End User Outsourcing and Support Services
Cloud Computing
CoIT/ Mobility
Social Computing

Drive New Business Opportunities and Control IT Costs

IT Appliances
Big Data/Smart Computing
Cyber Security
Knowledge Management – Our focus

Knowledge Management Philosophy

- **Acquire**: Acquire Knowledge through training, Knowledge sharing sessions, Knowledge transition programs
- **Retain**: Ensure knowledge is not lost through documentation, application of the knowledge, creation of new knowledge
- **Propagate**: Share through Social networking platforms, document repositories, knowledge sharing sessions, process initiations

Core Focus

Facilitate Knowledge sharing and collaboration; promote usage of reusable artefacts in a systematic manner; assist innovation.
What I am going to talk on

Knowledge Management and What involves knowledge work

Typical IT Organization and Important characteristics

Rethinking Knowledge Management Facilitation

Important intervention mechanisms

The big picture
Knowledge Management and What involves knowledge work

**Acquire**
- Acquire Kldg through training, kldg sharing and other means

**Apply**
- Applying the kldg the individual has with respect to the requirement

**Share**
- Sharing the knowledge with others

**Modify**
- Modifying the knowledge based on the requirement

**Create**
- Creating new knowledge

**Retain**
- Retain

**Propagate**
- Propagate

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**What does knowledge mean to an Individual?**
- Skills and capabilities possessed by an individual that makes the individual saleable in the market and acceptable to project teams.

**What does it mean to a team?**
- Skills and capabilities possessed by the team (members of the team), which would help the team deliver its solutions and services.

**What does it mean to an organization?**
- Competencies, intellectual property, Processes possessed by the organization that helps it become and remain competitive in the market.
### Typical IT Organization and Important characteristics

#### Characteristics of IT Organization
- Project based delivery
- Focus on Development and Support
- Routine and Non-Routine task
- Human capability oriented production (Knowledge Workers)
- Production capacity improvement depends on improvement of capability of its employees
- Teams distributed across locations
- Focus on time, cost and quality
- Reliance on less experienced employees

#### Performance Parameters
- Project productivity
- Employee productivity
- Schedule adherence
- Pyramid mix and employee cost
- Quality of the deliverables
- Rework
# KM: A new focus

## General Approach

<table>
<thead>
<tr>
<th>Reactive to Proactive</th>
<th>Focus more on creating support systems and leaving to users to leverage it</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metrics based approach</td>
<td>Focus on parameters related to how KM is practiced ex: No of visitors, no. of downloads etc</td>
</tr>
<tr>
<td>Technology driven</td>
<td>KM driven by Technology and is an important area of focus</td>
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<tr>
<td>Contributing to overall growth</td>
<td>Contributes to overall growth but influence not brought out clearly</td>
</tr>
<tr>
<td>Typical Interventions</td>
<td>Knowledge sharing and collaboration Document repositories/coding of knowledge Communities of Practice</td>
</tr>
<tr>
<td>Focus</td>
<td>Employee level</td>
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## Aligning to business

<table>
<thead>
<tr>
<th>Understanding the goals and objectives of Projects/Groups and conceptualizing KM interventions based on that.</th>
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<tbody>
<tr>
<td>Focus on measuring the impact of KM on Organization performance parameters</td>
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<tr>
<td>Technology one of the enablers, focus more on change management &amp; institutionalizing KM through process changes</td>
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<tr>
<td>Helping the organization grow its business through knowledge creation and other KM enablements</td>
</tr>
<tr>
<td>Change Management, Process interventions, evangelization</td>
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<td>Employee level Project Level Organization</td>
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Aligning KM to business

Knowledge enabling project teams and employees

- Acquire and retain project specific knowledge in a documented form and make it available through portal and easy access
- Identify the knowledge gaps of employees and close the same through cross training and other interventions
- Promote Kldg Sharing and Collaboration within and across teams to help team access kldg faster and bring down the problem resolution time

Assisting team to achieve delivery excellence

- Continuously Improve the delivery processes of the team through lessons learned session and incorporating them in checklists and process documents
- Systematically reuse existing assets and improve productivity of the project by impacting on schedule and effort variance

Help teams add value to customers

- Promote Innovation and assist in identifying new technical and business ideas
- Improve customer orientation to help relate to the customers better through mailers, training sessions and knowledge sharing sessions
Enabling access to relevant project Knowledge

- Usage linked with project requirements
- Processes defined to ensure that existing content is used and updated
- Only content relevant to the Project is available
- Content managed and kept up to date by Project team
How having relevant Project Knowledge helps and What we have done

- Steep learning curve
- Faster induction of new employees
- Attrition proofing the team
- Low dependency on seniors for information

Quick learning through accessibility to Project related information

Onboarding tools that can help in fast training of new employees and thereby time taken to make them productive

Capturing relevant knowledge of the project ensures that the team is protected against attrition of employees

- Defined a standard structure for projects so that clarity is there on what is required and what is not
- Periodic measure of the content maturity and report the same

Since relevant information is available in the portal, there is low dependency on senior resources, freeing them to focus on value add activities
Knowledge gaps of a Team

Knowledge gap: Gap between the Knowledge required to deliver on the project and Knowledge available with the team

Reason for Knowledge gap:
- Due to cost factors
- Need to have higher mix of juniors as compared to experience resource
- To facilitate growth of the organization
How assessing and closing helps and what we have done

How does Expected Knowledge in the team helps

- Deliver on time Questionable
- Quality of the output ?
- Growth of the Project?
- Growth in confidence resulting in ability to take up more complex work ? Not there

Other consequence of Knowledge Gap

- Low trust
- Individual capability development suffers
- Constant fire fighting
- Main and critical resources always stretched for time and stopping them from doing value add work

Knowledge Gap closed through training, knowledge sharing sessions, mentoring
How do we measure knowledge gap

• Class room session: Lets brainstorm
What is your Knowledge Gap?

- Knowledge about KM practices
- Knowledge about how the business functions the processes
- Change Management capabilities
- Communication capabilities
- Metrics
Knowledge sharing and Collaboration: How it helps?

Improved communication and collaboration through social technologies could raise productivity of interaction workers by 20 to 25 percent

<table>
<thead>
<tr>
<th>Tasks of interaction worker</th>
<th>% of average week</th>
<th>Productivity improvement</th>
<th>Increased value-add time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading and answering e-mail</td>
<td>28</td>
<td>25-30</td>
<td>7.0-8.5</td>
</tr>
<tr>
<td>Searching and gathering information</td>
<td>19</td>
<td>30-35</td>
<td>5.5-6.5</td>
</tr>
<tr>
<td>Communicating and collaborating internally</td>
<td>14</td>
<td>25-35</td>
<td>3.5-5.0</td>
</tr>
<tr>
<td>Role-specific tasks</td>
<td>39</td>
<td>10-15</td>
<td>4.0-6.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>20-25</td>
<td>20.0-25.0</td>
</tr>
</tbody>
</table>

• 33% of the total billable effort spent for searching, gathering, communicating and collaborating
• Around 610 of the total 1848 billable hour per employee per year

Enabling employees to spend their 33% more effectively and efficiently

SOURCE: International Data Corporation (IDC); McKinsey Global Institute analysis
How Knowledge and Collaboration helps and What we have done

Well connected employees are confident as they have access to their knowledge and an extended set of employees' knowledge.

Due to the confidence they take up complex and difficult problems, as well as think differently.

Less time to resolve problems, resulting in more time available for other productive works.

Faster learning results in more innovation and Thought leadership through blogging, collaboration.

- Provided relevant infrastructure for Knowledge sharing and collaboration.
- Used non-technical means also to promote knowledge sharing and collaboration.
- Contests and events.
- Change Management activities.
Knowledge sharing and Collaboration: What we have done

We created a socially-enabled Intranet with integrated mobility access

1. **My Site Elements** and **Enterprise Search** are part of an action bar that is persistent across the company’s intranet.

2. **Global Company News** is featured in main display screen and allows for social commenting.

3. Audience specific “Regional” and “Organization” news improves end user relevancy.

4. Leadership use of social tools is evident in rotating featured blogs at across bottom of the site.

5. **Video podcasts** showcase the latest news and activities.
Knowledge sharing and Collaboration: What we have done

We enabled a “real-time” Social Networking capability to facilitate sharing & learning

The integration of “Lync”, “My Newsfeed” and “My Blog” posts provides a more transparent way for employees to share and learn

1. **Post Questions & Answers**
   Employees can pose and answer questions within the newsfeed with greater transparency and reach.

2. **Filtered Newsfeed Viewing**
   This allows employees to view global posts, or post made by colleagues whom they are following or by communities to which they are subscribed.

3. **Add/Follow Colleagues**
   Enables employees to quickly build a valuable network by following colleagues and the information they share in the newsfeed.

4. **Search & Join Communities**
   Employees can search by topic to find communities of interest
We launched a “Communities Center” to promote awareness and provide education and support.
Knowledge sharing and Collaboration: What we have done

Our approach to Enterprise Social Business Transformation has received industry-wide recognition

Information Week Magazine has recognized Unisys as #2 in a list of its “Top Ten Social Business Leaders of 2013”
Knowledge sharing and Collaboration: What we have done

Unisys Social Technology Industry Awards

2014: Sitriion (formerly NewsGator) has named Unisys as its “Emergent Business Partner of 2014”

2014: IDG Enterprises has named Unisys as a finalist for Best Collaboration Project in its 2014 CITE Awards

2013: Gartner has labeled Unisys as a “Visionary” in its 2013 Managed Mobility Services Report

2013: #2 Social Business Leader of the Year sponsored by Information Week

2012: The BrainYard’s “10 Top Social Businesses & Their Leaders” sponsored by Information Week

2013 and 2012: Wharton’s Social Media Leadership Award – People and Culture Category

2011: “Increase Your Companies Productivity with Social Media”, Unisys Case Study in HBR Blog Network

2011: Federal 100 Award for GSA (one of the first large government agencies to implement cloud-based applications for e-mail and collaboration)

2011: GCN Award 2011 for GSA Google Email and Collaboration Platform

2011: Excellence in People and Communications -- Winner

2011: Excellence in Culture Creation -- Finalist

2011: Consumerization of IT and Unisys Security Index campaigns

Unisys is one of five companies featured in a new infographic on The Social Media Marketing Blog. Unisys is featured along with brand-name companies Dell, Morton’s, KLM, and ABC. In this blog, Unisys is noted for "using social media internally for effective collaboration and a boost to company productivity.”
Knowledge sharing and Collaboration: What we have done

Tektalks, Internal Cross Training, iProbe, Knowledge Café held to give platform for SMEs to share their knowledge and employees to come together.
Knowledge sharing and Collaboration: What we have done

UniLight: A Knowledge Management festival held November every year, to promote concepts of KM
Benefits of Knowledge sharing and collaboration and how it should be practised

• Lets brainstorm
Systematic software reuse: Its KM’s responsibility

Software Reuse: Usage of existing knowledge in codified form which can be used directly in the final delivery with some customization or can be used to support delivery

Requirements to Promote reuse

- Repository of reusable assets
  - Assets collated from project teams
  - Development of Assets based on availability of employees

- Asset evaluation based on standards
  - Defined standards that reusable asset should have
  - Each asset evaluated against these defined standards

- Promote usage of assets
  - Mailers, training (how to reuse, its importance)
  - Reuse concept built-in to the Processes

- Measuring effort savings through reuse
  - Reuse based effort saving in person hours and as percentage of the overall hours
How Systematic software reuse helps and What we have done

Usage of tested code components results in better quality

Faster development and maintenance cycle as a result of reuse of assets and lesser rework

Saving of time as pre-developed Knowledge reused

Competitive pricing of products

- Provide relevant infrastructure for practicing reuse
- Work with Competency teams to train and ensure awareness on reuse
- Measure on reuse
Reuse - The Big Picture

SMEs suggest assets

Development of assets through employees

Evaluation of assets based on defined guidelines.
Create documentation for the assets

Formalized reuse through process and evaluation

Software Asset Library

Repository for storing assets at Delivery Unit and Project level

Ensure compliance through monthly tracking
Measure reuse based savings

Use and contribute assets

Development

Project Teams

Analysis
Continuous improvement through lessons learned and best practice adoption

- Regular review of work done to identify what went right, what went wrong, what can be improved, what can be avoided
- Practiced by project teams and is part of CMMI process guidelines
- Helps improve the processes followed by project teams
- Used extensively in manufacturing industry in the form of Quality circles
- Highly relevant in IT services industry due to the high employee dependency of the work

Single Loop Learning: Involves connecting a strategy for action with a result. For example, if an action we take yields results that are different to what we expected, through single-loop learning, we will observe the results, automatically take in feedback, and try a different approach.

Double Loop Learning: Involves reviewing the underlying assumptions, beliefs of the process

Governance Value: Underlying beliefs and assumptions related to a process like skills are distributed equally across, process documentation is not important etc.
How continuous improvement helps and What we have done

- More control on the project and deliverables
- Improved predictability
- Promote Sharing
- Faster adoption of best practices

Well defined process and availability in documented form

Awareness of process and its practice

Documentation results in sharing across teams

Awareness and appreciation of process helps in faster adoption

- Regular practice of Lessons Learned
- Involvement of entire team to review what went right, what went wrong and what can be done better
- Database of best practices and lessons learned to promote knowledge sharing and collaboration
Growth through innovation

- Promotion of collaboration
- Technology & Customer orientation
- Knowledge sharing culture

1. Creating a conducive environment
2. A Culture of Thought Leadership
3. Evangelization on Patenting
4. Well knit team with support system
5. Idea submission system
6. Evaluation to Protection

Creation | Recognition | Protection and Celebration
How Innovation helps and What we have done

- Business growth
- Creativity
- Client oriented innovation
- Employee satisfaction

- New features and new product ideas
- Collaboration between employees and regular rewarding of creative work
- Knowledge about the customer, domain and focus on innovation results in Customer oriented innovation
- Focus on innovation pushes employees to constantly re-evaluate the work they do and in turn result in higher satisfaction

- Conducive environment to share and collaborate
- Thought leadership activities
- Patenting activities
- Rewarding the inventors
KM Implementation – Our approach

**Formal KM**

- KM activities that are performed through processes of the organization and sustained through compliance.
- Minimal involvement of KM team after the activities are launched.
- Reuse being practised as a formal process of the organization.

**Sustained KM**

- Programs and events where KM team is involved directly.
- Define the overall road map, implement the same, present to leadership and measure on success.
- Co-ordination with central CTO team for coordination on KM activities.

**KM Champions**

- KM Activities managed at project team level by the KM Champion of the team.
- Reporting of progress done to the KM team.
- Focus of KM champions to Promote KM in team level.

**Approach to KM**

- KM activities that are performed through processes of the organization and sustained through compliance.
- Minimal involvement of KM team after the activities are launched.
- Reuse being practised as a formal process of the organization.
Stakeholders Groups impacted

**Track and close knowledge gaps**
- Review the bigger gaps and plan trainings
- Help in getting reports
- Coordination with Managers

**Process and Metrics**
- Rationalise the processes to capture KM related data on reuse
- Identifying and Promoting Best Practice sharing

**Employee movement reports**
- Track on Knowledge transitions sessions by reporting on attrition, new recruits and lateral movement

**Reuse and Knowledge Sharing**
- Promoting reuse
- Knowledge Sharing and Collaboration
- Cross training

**Main focus for KM**
- The team that benefits the most from KM and all interventions focused on them
Business Impact at Overall level

- Low Kldg gap
- Reusable assets
- Process standardisation

- Faster scaleup of resources
- Performance beyond defined role codes
- Better Knowledge sharing and Collaboration

- Faster scaleup of resources
- Performance beyond defined role codes
- Better Knowledge sharing and Collaboration

- Reusable assets
- Best Practices and Lessons Learned
- Innovation at Process level

- Innovation
- Efficient and effective KT of new Project
- Competitive pricing

Productivity
Pyramid Mix
Blended Rate
Project Cost
Business Growth
KM: How do we position it?

- Lets brainstorm
THANK YOU