Application of a Systemic Lessons Learned Knowledge model for organisational learning through projects

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Disclaimer: The views and opinions expressed by Stephen Duffield in this presentation are his alone, and do not reflect the views, opinions and position of any organisation with which Stephen may be otherwise affiliated.
1. Organisations are **failing to learn** from their past project experiences.

2. The **Swiss Cheese Model** has been successful in promoting safety and accident prevention.

3. **Syllk**

   **Systemic Lessons**
   **Learned Knowledge Model**

   **The Organisation**

   - People
   - Culture
   - Social
   - Technology
   - Process
   - Infrastructure

   Project

   - Dissemination of lessons learned
   - Application of lessons learned
PM lessons learned journey

Boeing LLdb review...2003 (not effective)...2007 (not effective), Boeing 2010 (a different approach - look at other mechanisms - repeat findings – culture)

Master of Project Management - Research

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http://www.pmlessonslearned.info
80% of 74 attempt LL
60% are dissatisfied

62% of 522 have a LL process
Only 11.7% used it. Why?

LL fails to deliver

http://astore.amazon.com/pmlesleablo-20

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The ‘Swiss Cheese’ model of defences

Source:

The term ‘Swiss cheese’ was labelled by Dr Rob Lee, then the Director of Bureau of Air Safety Investigation, Canberra (Reason, J., 2013. A Life in Error. Ashgate.)
Literature

Knowledge
Lessons learned
Organisational learning
Organisational knowledge
People (culture, social)
Lesson learned process
Technology and Infrastructure
Networks (complex adaptive systems)

Reason (1990, 1997)
O’Dell et al. (1998)
Busby (1999)
Keegan and Turner (2001)
Disterer (2002)
Von Zedtwitz (2002)
Bresnen et al. (2003)
Fernie et al. (2003)
Fong (2003)
Harkema (2003)
Liebowitz and Megbolugbe (2003)
Schindler and Eppler (2003)
Strang (2003)
Maqsood et al. (2004)
Liebowitz (2005)
Atkinson et al. (2006)
Maqsood (2006)
Boh (2007)
Eskerod and Skriver (2007)
Sense (2007)
Ajmal and Koskinen (2008)
Anbari et al. (2008)
Duhon and Elias (2008)
Julian (2008)
Hanisc et al. (2009)
Whitty (2009, 2012)
Ajmal et al. (2009, 2010)
Krammer (2010)
Bakker et al. (2011)
Gasik (2011)
Lindner and Wald (2011)
O’Dell and Hubert (2011)
Thomas (2012)
Pemsel and Wiewiora (2013)
Syllk model

The Organisation

People

Systems

- Dissemination of Lessons Learned from Projects

- Application of Lessons Learned to Project

Project

- Learning
- Culture
- Social
- Technology
- Process
- Infrastructure

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Research Methodology

Initial Planning (Focus Groups & Interviews)

Plan

Exit (If questions are answered)

Action

Reflect

Observe

Problem Solving Interest

Research Interest

Action Research

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How can the Syllk model help?

“helps with the change management process”

“can represent knowledge storage and found some alignment with a complex organisational brain”

“hard to get a lesson learned through, so it is not just about having a database, it is not just about one thing it is about a series of things ... I like the way it kind of stacks it up and shows it working”

One Project Manager stated that “we were getting lots of push from our KM team to get lessons learned going and get it implemented to meet deliverables, had we had the model we would have been able to present to the Directors to show them what needs to be invested in to do it properly, as it is not just about doing a process.”
## Research Projects

<table>
<thead>
<tr>
<th>Project A</th>
<th>Project B</th>
<th>Project C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Best Practice Directory</td>
<td>Story telling</td>
<td>Communities of Practice (Special Interest Groups)</td>
</tr>
<tr>
<td>Lessons Learned</td>
<td></td>
<td>Portal</td>
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<tr>
<td>Story telling</td>
<td>Portal</td>
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<tr>
<td>Questions and Answers</td>
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<tr>
<td>Communities of Practice</td>
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<tr>
<td>Special Interest Groups</td>
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<tr>
<td>Portal</td>
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<tr>
<td>Knowledge Audit</td>
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<tr>
<td>Yellow Pages</td>
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<tr>
<td>E-learning</td>
<td></td>
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<tr>
<td>Mentoring / buddying</td>
<td></td>
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<tr>
<td>Performance appraisals</td>
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<table>
<thead>
<tr>
<th>Cycle 1</th>
<th>Cycle 2</th>
<th>Cycle 3</th>
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</thead>
<tbody>
<tr>
<td>IKnow(Branch)</td>
<td>(sub-Branch)CK</td>
<td>(sub-Branch)CK</td>
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<tr>
<td>Status</td>
<td>Status</td>
<td>Status</td>
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<tr>
<td>Implemented</td>
<td>Implemented</td>
<td>Implemented</td>
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<tr>
<td>Part implemented</td>
<td>Part implemented</td>
<td>Part implemented</td>
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<tr>
<td>Tried to implement</td>
<td>Tried to implement</td>
<td>Tried to implement</td>
</tr>
<tr>
<td>No implementation</td>
<td>No implementation</td>
<td>No implementation</td>
</tr>
</tbody>
</table>

- Best Practice Directory
- Lessons Learned
- Story telling
- Questions and Answers
- Communities of Practice
- Special Interest Groups
- Portal
- Knowledge Audit
- Yellow Pages
- E-learning
- Mentoring / buddying
- Performance appraisals

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<table>
<thead>
<tr>
<th>Syllk elements</th>
<th>Facilitators</th>
<th>Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>People Learning</strong></td>
<td>Listening skills</td>
<td>Adapt stories for Department</td>
</tr>
<tr>
<td></td>
<td>Comfortable and personal medium</td>
<td>Not in general / usual format</td>
</tr>
<tr>
<td></td>
<td>Motivational stories, Identify goals, goals driven</td>
<td>Too outside the box</td>
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<tr>
<td></td>
<td>Open to learning</td>
<td>Can’t find the story link to add the value, intent, and change</td>
</tr>
<tr>
<td></td>
<td>Any story is a good story</td>
<td>(Can’t find the Aha)</td>
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<tr>
<td></td>
<td>Growing organisation learns</td>
<td>They want to know but won’t ask</td>
</tr>
<tr>
<td></td>
<td>Emotional moment</td>
<td>Fear (unknown and being wrong)</td>
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<tr>
<td></td>
<td>Aha moment</td>
<td>Shared understanding in the team about purpose and focus on stories</td>
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<tr>
<td></td>
<td>Easy to remember</td>
<td>Sick of learning and changing</td>
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<tr>
<td></td>
<td>Training different needs for different people</td>
<td>Agenda</td>
</tr>
<tr>
<td></td>
<td>Get to the emotional connection</td>
<td>Challenging external and internal environments</td>
</tr>
<tr>
<td><strong>People Culture</strong></td>
<td>Growing organisation learns</td>
<td>We always do it this way</td>
</tr>
<tr>
<td></td>
<td>Developing organisation (supportive, drive and resourcing)</td>
<td>UGRs (unwritten ground rules)</td>
</tr>
<tr>
<td></td>
<td>Strong leadership</td>
<td>Resistance to change; losing people / skills / knowledge, Change</td>
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<td></td>
<td>Champions of change</td>
<td>Management ineffective</td>
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<tr>
<td></td>
<td>The need to change to survive</td>
<td>Long term culture (will the change last)</td>
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<td></td>
<td>Comfortable with problem issues / stories (positive and negative stories)</td>
<td>Fear of being wrong, Lack of risk taking</td>
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<tr>
<td></td>
<td>Public Service values</td>
<td>Most staff will be in the middle (safe)</td>
</tr>
<tr>
<td></td>
<td>Division Commitment, values and behaviours</td>
<td>Competing work load / no time / busy doing job</td>
</tr>
<tr>
<td></td>
<td>Short term culture 1-5 years</td>
<td>Sanitised stories / risk / newspaper test / Agenda’s / Senior Management test</td>
</tr>
<tr>
<td><strong>Systems Technology</strong></td>
<td>Intranet</td>
<td>Only big outcome stories valued, perfect stories</td>
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<td></td>
<td>Email, newsletters on line</td>
<td>Staff have no connection head office</td>
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<td></td>
<td>End to end digital story recording + editing equipment that can be used by</td>
<td>Access to communications team</td>
</tr>
<tr>
<td></td>
<td>team and others – democratic story gathering (use of iPhone / iPad technology)</td>
<td>Intranet – Approval to change edit / publishing process</td>
</tr>
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<td></td>
<td>Real time information sharing</td>
<td>Latest technology (i.e. windows etc)</td>
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<td></td>
<td>Visual stories</td>
<td>Many different versions of systems</td>
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<td></td>
<td>Mobile technology</td>
<td>Technology doesn’t fit stories and audience e.g. written stories, digital etc</td>
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<td></td>
<td>Technology supporting disabilities</td>
<td>Not all have access</td>
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<tr>
<td><strong>Systems Infrastructure</strong></td>
<td>New ICT technologies</td>
<td>Lack of training</td>
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<tr>
<td></td>
<td>Open minds</td>
<td>Not all have access to Intranet etc, Bandwidth</td>
</tr>
<tr>
<td></td>
<td>Assistance from experts (e.g. communications team)</td>
<td>Competing work load</td>
</tr>
<tr>
<td></td>
<td>Story telling courses, toolbox</td>
<td>Access to communications team</td>
</tr>
<tr>
<td></td>
<td>Resources (large division/department)</td>
<td>ICT resourcing / priority</td>
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<tr>
<td></td>
<td>Environment of change</td>
<td>Silos of operations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Organisation structure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Workloads (Day to day, lack of resources, no help)</td>
</tr>
</tbody>
</table>
How to apply the Syllk model to wire an organisation for the capability of storytelling

<table>
<thead>
<tr>
<th>Syllk elements</th>
<th>KM practices addressing facilitators &amp; barriers mapped to the Syllk elements</th>
</tr>
</thead>
</table>
| **People Learning** | • Stories and lessons, Storytelling  
• Individual learning interviews  
• Communities of Practice (CoP)  
• Lunch & Learn session  
• Breakfast sessions  
• Forums  
• Skills & toolkits |
| **People Culture** | • Tone from Leadership teams  
• Team KM sharing events  
• Identifying and promoting champions  
• Reward and Recognition  
• Link to organisation objectives  
• Align culture and business  
• Performance appraisals - leadership |
| **People Social** | • Promoting conversation: communal knowledge areas, online conversation, town hall and roundtable meetings, lunch 'n' learn / breakfast sessions  
• Knowledge café's  
• Communities of Practice (CoP)  
• Stories and lessons, Storytelling forums |
| **Systems Technology** | • Intranet site  
• Story repositories  
• Knowledge libraries, portals web, wikis, intranets  
• Publish and search technologies  
• Search engines  
• Blogs  
• Social media  
• What is new (post)  
• Enterprise Content Management |
| **Systems Process** | • Framework/process/templates  
• Post project reviews/ Peer assists/reviews/After action reviews help to identify stories  
• Employee Development  
• Conduct a knowledge network analysis  
• Conduct story (KM) audit |
| **Systems Infrastructure** | • Promoting conversation, Open plan office, communal knowledge areas  
• Intranet availability  
• Performance appraisals & Employee Development  
• Toolbox assistance from experts |

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<table>
<thead>
<tr>
<th>Learning</th>
<th>Culture</th>
<th>Social</th>
<th>Technology</th>
<th>Process</th>
<th>Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge or a skill</td>
<td>Beliefs (what’s true)</td>
<td>How we relate to each other</td>
<td>Optimum use of technology</td>
<td>Explicit processes (embedding knowledge management)</td>
<td>What’s required to support and enable the organisation to function</td>
</tr>
<tr>
<td>that enables the</td>
<td>and values (what’s right &amp;</td>
<td>and the structure that enable</td>
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<tr>
<td>individual to be more</td>
<td>important)</td>
<td>relationships.</td>
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<tr>
<td>effective.</td>
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</tbody>
</table>

**Learning**
- Openness
- Mutual support
- Commitment
- Sharing Stories
- Exchanging ideas
- Building relationships
- Building Communities
- Tone from Leadership
- Teams
- Link to organisational objectives
- Align culture and business
- Leadership
- Empowering staff
- Managing change
- Unwritten rules
- Customs

**Culture**
- Experience
- Listening
- Creativity
- Experimenting
- Adaptability
- Storytelling
- Storytelling skills
- Learning development toolkit
- Libraries (Stories, lessons learned etc)
- Individual learning
- Training course

**Social**
- Social Networks
- Relationships
- Interactions
- Storytelling forums
- Story day
- Promoting conversation
- Communities of Practice
- Online conversation
- Team roundtable’s breakfast sessions
- Knowledge café’s
- Network Coffee Breaks
- Lunch & Learn sessions
- Team sharing events

**Technology**
- Blogs
- Social media
- Online media
- Knowledge libraries (Stories, lessons learned etc)
- Portals
- Web, wikis, intranets
- Publish and search technologies
- Search engines
- Mobile and tablet devices
- Training

**Process**
- Processes
- Templates
- Team meeting minutes
- Story boards
- Strategic initiative
- Learning before, learning during and learning after (knowledge handover)
- Reflection

**Infrastructure**
- Physical spaces
- Intranet accessibility and availability
- Communal knowledge areas
- Management support
- Toolkits
- Assistance from experts
<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning</td>
<td>Knowledge or a skill that enables the individual to be more effective.</td>
</tr>
<tr>
<td>Culture</td>
<td>Beliefs (what’s true) and values (what’s right &amp; important).</td>
</tr>
<tr>
<td>Social</td>
<td>How we relate to each other and the structure that enable relationships.</td>
</tr>
<tr>
<td>Technology</td>
<td>Optimum use of technology.</td>
</tr>
<tr>
<td>Process</td>
<td>Explicit processes (Embedding knowledge management).</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>What’s required to support and enable the organisation to function.</td>
</tr>
</tbody>
</table>

**Diagram:**

- **Learning:**
  - Openness
  - Mutual support
  - Commitment
  - Sharing Stories
  - Exchanging ideas
  - Building relationships
  - Building Communities
  - Tone from Leadership
  - Link to organisational objectives
  - Align culture and business leadership
  - Empowering staff
  - Managing change
  - Unwritten rules
  - Customs

- **Culture:**
  - Experience
  - Listening
  - Creativity
  - Experimenting
  - Adaptability
  - Storytelling
  - Storytelling skills
  - Learning
dev development toolkit
Libraries (Stories, lessons learned etc)
Individul learning
Training course

- **Social:**
  - Societies
  - Associations
  - Social Networks
  - Relationships
  - Interactions
  - SIG Groups
  - Mentoring/Buddying
  - Story telling forums
  - Questions & Answers
  - Yellow Pages
  - Promoting conversation
  - Communities of Practice
  - Online conversations
  - Lunch & Learn sessions
  - Technical X-Change
  - Town Hall / Roundtable’s
  - Breakfast sessions
  - Knowledge cafe’s
  - Network Coffee

- **Technology:**
  - Blogs
  - Online media
  - Social media
  - Knowledge libraries
  - (Stories, lessons learned etc)
  - Portals web, wikis, intranets
  - Yellow Pages
  - Search engines
  - Mobile and tablet devices
  - Training
  - E-Learning

- **Process:**
  - Team meetings
  - Story boards
  - Strategic initiative
  - Performance Appraisals
  - Reflection
  - (Processes / Templates)
  - Best Practice Directory
  - Lessons Learned
  - Post Project Reviews
  - Learning before, learning during and learning after
  - Knowledge Audit

- **Infrastructure:**
  - Toolkits
  - Assistance from experts
  - Physical spaces
  - Intranet accessibility
  - and availability
  - Management support
  - Communal knowledge areas

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