LEARNING ORGANIZATION ATLAS FRAMEWORK WEB TOOL

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Prototype

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Abstract

The learning organization is recognized as a concept that can improve the competitiveness of the organization. However, there is lack of tools that will assist the development of the learning organization. We present the Learning Organization Atlas Framework web tool that can be used to assist the development of the learning organization. The tool consists of four parts: identify, atlas, alignment and roadmap. Through these parts the organization can benchmark itself against the characteristics of the learning organization, identify how the organization is aligned for different facets and entities, and identify strategies and actions that can be used to become a learning organization.

Keywords: Learning organization, Atlas framework, Tool, Prototype.

1 Introduction

In a world driven by innovation and rapid change, becoming a learning organization from top to bottom—provides a clear competitive advantage and will become more important in the future (The Boston Consulting Group, 2008, 2010). According to (Kleiner, 2005) it is the second most enduring idea about strategy and business, out of 10 ideas most likely to last at least another 10 years. A learning organization is an organization that facilitates the learning of all its members and consciously transforms itself and its context (Pedler et al., 1991). It is an organization skilled at creating, acquiring, interpreting, transferring, and retaining knowledge, and at purposefully modifying its behaviour to reflect new knowledge and insights (Garvin, 2000).

By becoming a learning organization the organization will be able to learn faster than its competitors (Jashapara, 1993), to create a sustainable competitive advantage that will flow from its ability to create and exploit new knowledge (Franken & Braganza, 2006). It will have a capacity to create and add value by taking effective action in varied and uncertain situations (Bennet & Bennet, 2003).

Despite the extensive debate about the value of a learning organization in order to be competitive and the presentation of its positive sides, the learning organization has also raised a lot of criticism and dilemmas. Two major issues on which the critics are focused are: how to measure the learning
organization and, what methods and models can be used to facilitate the process in becoming a learning organization.

If the learning organization is achievable, it should be measurable (Smith & Tosey, 1999). The measurement of the learning organization is an important aspect because, as Garvin (1993) has said, 'managers have long known that if you can't measure it, you can't manage it' (p. 89) and cannot be improved (Smith & Tosey, 1999). However, tools and assessment instruments to measure the learning organizations are lacking (Garvin et al., 2008; Garvin, 2000) and there is unsubstantial empirical basis (Rebelo & Gomes, 2008). Furthermore, there is no practical operational advice which managers can use (Garvin, 2000) or a template that can be used (Cavaleri, 2008) to assist the managers in developing the learning organization. According to the survey of The Boston Consulting Group (2008, 2010) although the learning organisation is an important topic, the organisations currently have low capabilities to achieve it.

This paper presents an attempt to respond to these critics by introducing an integrated web based tool for developing and evaluating the learning organization. The tool is based on the learning organization atlas framework concept, a multilevel and multifaceted framework for a dynamic development of the LO.

The tool is constructed to respond to the challenges identified in the literature regarding the modeling of the learning organization:

- large number of facets, attributes and variables that construct the learning organization (Yang et al., 2004)
- complex relationships within and between the facets (Grieves, 2008)
- the learning organization is not a state, it is a chameleon-like target that is continuously changing (DiBella, 1995)
- each organization is different and each needs to find its own path in becoming a learning organization (Redding, 1997; DiBella, 1995)

To achieve this aim, first the theoretical foundation is discussed (Section 2), then the methodological approach is presented (Section 3). In Section 4 the learning organization atlas framework concept is elaborated. Then the tool structure and functions are presented (Section 5). Finally in Section 6 we discuss the theoretical implications of the prototype and conclude the paper.

2 Theoretical Foundation

According to (DiBella & Nevis, 1998) there are three perspectives to the learning organization:

- Normative perspective, in which it is argued that, learning can occur under certain conditions. The leaders and the organization need to create those conditions through disciplined action or intervention.
- Developmental perspective, according to which the learning organization is a stage in the organization's development. There are different styles and processes for different stage.
- Capability perspective points out that each organization learns through its own learning processes embedded in the organization's culture and structure.

The leading learning organization models and frameworks, like Senge's (1990) five disciplines approach, Energy flow model (Pedler et al., 1991), seven dimensions model (Watkins & Marsick, 1993), and Learning organization building blocks (Garvin et al., 2008) belong to the normative perspective. Each one of them prescribes conditions appropriate for the learning organization.
Furthermore, the diagnostics instruments, like Learning company blueprint (Pedler et al., 1991), Dimensions of the Learning Organization Questionnaire (Yang et al., 2004; Watkins & Marsick, 1993), Learning organization profile (Marquardt, 1996), Organizational Learning Survey (Goh & Richards, 1997), and the Learning organization survey (Garvin et al., 2008) are also based on the normative perspective.

However, although each perspective has different set of implications, each one contributes to our understanding of the learning organization (DiBella, 1995). Thus, following only one perspective endangers the realization of the learning organization concept. This proposition provides a foundation for a fourth, integral perspective of the learning organization (Figure 1).

![Figure 1. Integral perspective of the learning organization](image)

The integral perspective acknowledges the complementarity of the previous three perspectives by having a pluralistic view of the learning organization. According to the integral perspective, organizations should, at the same time, prepare for the future (normative), learn from the past (developmental) and build on their uniqueness (capability) in order to become learning organisations.

Based on the integral perspective, Santa and Nurcan (2013) have introduced the Learning Organization Atlas Framework, a multilevel and multifaceted framework for a dynamic development of the learning organization.

### 3 Methodology

The goal of our work is to develop a web tool for integral development and evaluation of a learning organisation. A design science methodology for information systems research (DSRM) was used as a research methodology (Peffers et al., 2008), with tool instantiation as an output (March & Smith, 1995). To achieve this, the authors analysed the theoretical concepts for developing a learning organisation and the available tools (Section 2). Based on the analysis, the Learning Organisation Atlas Framework concept was selected. Then the web tool was conceptualised and developed (Section 5). In section 6 the web tool was compared with the other available tools (Table 1).

### 4 Learning Organisation Atlas Framework Concept Overview

This section presents a summary of the Learning Organization Atlas Framework (LOAF) concept (Santa & Nurcan, 2013). This summary provides the understanding of the theory on which the web prototype is developed. The framework consists of four elements: facets, grid, atlas and roadmap (Figure 2).
The facets are particular aspect of the learning organisation. Each facet contains a set of relevant attributes through which that particular aspect is clarified. The multi facet view makes it possible to look at the learning organisation in a comprehensive manner. Santa and Nurcan (2013) identified eleven facets of the learning organisation: learning, vision, strategy, structure, technology, processes, culture, power, politics, change and leadership. For example, the attributes for the learning facet are: type of learning, style of learning, learning support and learning stakeholders.

The grid is a result of the combination of lenses through which the facets can be viewed. Santa and Nurcan (2013) have identified ecological and developmental lenses. The ecological lens includes the learning entities: individual, team, department, organization, direct environment and general environment. The developmental lens represents the levels at which the entity can be found. Three levels of learning in the organization are identified: zero, one and two. When this grid is applied to a certain facet, a map of that facet is created. The map shows the position of each entity on the developmental levels. However, different stakeholders can view the same facet from different viewpoints and have different understanding. For this reason, the stakeholder lens, as a viewpoint lens, is introduced by Santa and Nurcan (2013). Stakeholders identified in the learning organization are: employee, manager and executive.

An atlas is a collection of facet's maps. Through the process of layering and de-layering of the individual facet maps in the atlas, the following information can be obtained: alignment of individual entity in different facets and alignment of different entities on same or different facets.

The roadmap provides guidelines to the organizations on how to create a customized road for becoming a LO. Each roadmap contains a starting position, identified through the atlas, and an ending position, based on the to-be state. Different strategies can be used to move the entity from as-is to to-be state.

Although the Learning organisation atlas framework provides a unique approach for building the learning organization, based on the integral perspective, there was a lack of tools that will enable the application of LOAF in the organisation.

5 Web Tool

Based on the learning organization atlas framework concept, the web tool is created, as its instantiation. The tool is available at [www.atlasframework.info](http://www.atlasframework.info). The tool is divided into four sections: identify, atlas, alignment and roadmap (Figure 3).
5.1 Identify

The goal of the identify section is to collect data about as-is state of the organization willing to become a learning organization. The identify section instantiates the learning organisation facets and grid through ten questionnaires, one for each facet. The questions in the questionnaires are developed and structured to evaluate the presence of facets attributes per entity (ecological lens) and per level (developmental lens) (Figure 4). Furthermore, by registering the respondent’s position in the beginning the stakeholder lens is also included.

5.2 Atlas

The atlas contains all the facet maps created through the analysis of the answered questionnaires (Figure 5). Each cell on the map contains characteristics that an entity should have in order to be on that developmental level. For example, for entity “Team” to be on developmental level 1 named “Discuss” the following characteristics should be present “In the teams different views are presented and defended and there is a search for the best view to support decisions that must be made at this time”. The positioning of the entity on the developmental level is a result of the calculations performed with the questionnaire answers. However, different respondents, based on their experience, can position the same entity on different level. In the maps this situation is represented by the extent to which the cell is filled in. The more the cell is filled in the more respondents think that that entity is on that level.
Presenting the questionnaire results in this form and structure in the atlas has two implications for research on building the learning organisation:

- The learning organization is not a clear cut state, but rather a mix of partially achieved levels by different entities.
- Building the learning organisation even in the same organization starts from different points for different entities and stakeholders.

**Learning Organization Atlas Framework**

<table>
<thead>
<tr>
<th>Individual</th>
<th>Team</th>
<th>Department</th>
<th>Organization</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>learns</td>
<td>shares</td>
<td>manages</td>
<td>manages</td>
<td>influences</td>
</tr>
<tr>
<td>Level 0</td>
<td></td>
<td>100% Waste</td>
<td>100% Waste</td>
<td></td>
</tr>
<tr>
<td>Level 1</td>
<td></td>
<td>0% Store</td>
<td>100% Store</td>
<td></td>
</tr>
<tr>
<td>Level 2</td>
<td></td>
<td>0% Disseminate</td>
<td>100% Disseminate</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 5. Maps of different domains**

### 5.3 Alignment

The alignment section, based on the maps in the atlas, provides a comparison between the states of different entities and different facets. In this way, for example we can see how the entity ‘individual’ and ‘team’ are aligned on learning, vision and technology facets (Figure 6). The visual display shows strong misalignment between the entities ‘individual’ and ‘team’. By using filters, the number of entities and facets that will be included in alignment section can be dynamically adjusted. Also, by using different colours for the entities the alignment can be more easily identified.

### 5.4 Roadmap

The roadmap provides guidelines on strategies and actions that the organization can use in order to move from one level to another level for entity and domain. Following the plurality of the integral approach, the roadmap section generates number of strategies and actions that can be used. It is up to the management to select the strategies that fit their context.

### 6 Discussion and Conclusion

In this paper we have presented the prototype of the Learning Organization Atlas Framework web tool. We have shown that there is a need for a tool that will support the development of the learning organization. Justification was provided for the decision - the prototype to be based on the integral perspective of the learning organization and the learning organization atlas framework concept.
The prototype includes features, structure and relations that go above the current tools: the Dimensions of the Learning Organization Questionnaire (DLOQ) available at www.partnersforlearning.com/instructions.html and the Learning organization survey (LOS) available at http://los.hbs.edu. In Table 1 a comparative overview of the tools is presented. On a practical level, the web tool provides functionalities that meet the challenges identified at the beginning of this paper. It is possible to include large number of facets, their attributes and values. Through indexing questionnaires and appropriate formulas, the patterns of relationships are developed. Also, through dynamic creation of alignment, the organization is aware not only of the development in certain facets, but also how that development is aligned. Finally, the visual maps-like display improves the presentation of the results and their understanding. It can be concluded that the prototype is a practical, operational tool that the managers can use.

<table>
<thead>
<tr>
<th>Focus of the tool</th>
<th>DLOQ</th>
<th>LOS</th>
<th>LOAF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of entities</td>
<td>only evaluate</td>
<td>evaluate and benchmark</td>
<td>evaluate, compare, analyze and design</td>
</tr>
<tr>
<td>involved in the tool</td>
<td>three (individual, team, organization)</td>
<td>one (unit)</td>
<td>Six (individual, team, department, organization, direct environment, general environment)</td>
</tr>
<tr>
<td>Type of questions</td>
<td>one (likert)</td>
<td>one (likert)</td>
<td>multiple (likert, sum up, yes/no, sliding)</td>
</tr>
<tr>
<td>Visual display</td>
<td>poor</td>
<td>medium</td>
<td>good</td>
</tr>
<tr>
<td>Option to drill down</td>
<td>no</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>Option to create different output</td>
<td>no</td>
<td>no</td>
<td>yes (through filters)</td>
</tr>
<tr>
<td>Guidelines for development</td>
<td>no</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>Perspective</td>
<td>Normative</td>
<td>Normative</td>
<td>Integral</td>
</tr>
</tbody>
</table>

Furthermore, the stakeholders can use the prototype to obtain a holistic understanding of their becoming a learning organisation. This is beneficial to large multinational organisations, particularly for measuring and assessing the level of LO the company is at.

The prototype also contributes to the academic discussion on how to develop a learning organisation. First, it is the first instantiation of the integral perspective of the learning organisation and the LOAF.
As such, it contributes to the initial validation of these two concepts and building a base for positioning the integral perspective as a new perspective to the learning organisation. Second, the prototype embraces the complexity of the learning organisation, and provides a method for structuring and complement all the elements that consist the LO. In this way, it avoids the constraint of a complex issue as the LO to provide oversimplified solution. Third, by specifically including the power and politics, the prototype takes into account, and minimizes, the criticism that the LO ignores the power and politics issues (Salaman, 2001; Coopey, 1995).

In a broader context, the prototype contributes to the validation of the design science research methodology for information systems research (Peffers et al., 2008). Although the learning organisation is a concept existing for more than 20 years, the application of the DSRM contributed to identification of new model (LOAF) and its instantiation (Web tool). Additionally, the prototype contributes to positioning the LOAF as a concept that can make a contribution to the theory of sociomateriality (Orlikowski & Scott, 2008). Especially, in how the IT artifacts become interdependent with socio-economic contexts and practices (Orlikowski & Iacono, 2001). We believe that the proposed combination of lenses and facets provide an appropriate ground for minimization of the separation between the technology, work and organisation.

Our prototype does not come without limitations. First, the number of facets and the large number of questions per facet, require from the respondents more time to answer them. This might create a situation where the respondents do not answer all the questions. As a result, this will not provide an accurate map of the as-is situation. Second, although the transformation of the answers in maps is done through formulas that are based on extensive literature research, further refinement might be necessary in order the transformation to be more appropriate. Third, the tool is most suitable for large organisations where large number of respondents can answer the questionnaire and a realistic map of the organisation can be made.

References


