Create Career Lattices to Boost Talent Development and Drive Agile Transformation at Scale

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By Analysts Akis Sklavounakis

Overview

Key Challenges

- Traditional command-and-control hierarchies are the antithesis of agile values and principles. They block self-organizing agile team's ability to acquire or develop the skills they need.

- In traditionally structured organizations, the absence of clearly defined technical career paths hinders skills development and negatively affects retention.

- Self-organizing agile product teams often prioritize local concerns at the expense of broader business objectives, unless they can break out of their silos to effectively collaborate at scale.

Recommendations

Application leaders responsible for application and product portfolio governance should:

- Empower self-organizing agile teams to develop and retain the talent and skills they need by creating career lattices that provide many ways to acquire and assemble broad skills or deep expertise.

- Reward technical mastery and continuous learning by defining technical career paths within this lattice, enabling each team member to follow the paths best suited to their capabilities and preferences.

- Amplify the ability to develop the most critical skills and share knowledge by creating communities of practice led by experts, increasing the resources team members can tap to speed their growth.

Introduction
Agile and product-based delivery requires empowered and highly skilled self-organizing teams that are trusted to continuously learn and develop the skills required for success. In Gartner’s 2019 Agile in the Enterprise survey, shifting from a culture of control to one based on trust is the No. 1 challenge in making agile development more successful.  

In traditional organization structures, staff members compete for promotion to people management rather than technical mastery. This fails to effectively develop technical or business skills and abilities. Technically inclined people are good at solving technical problems and enjoy being acknowledged for it. Removing highly skilled people from technical work risks your agile transformation and effective product delivery, as you will not have the best people in the right roles. They may also leave the organization due to discontent.

How can application leaders evolve talent strategies to move away from traditional hierarchies and better support agile transformation?

Application leaders should create career lattices, establish mastery-focused technical career paths within them and foster communities of practice (CoPs) for skills development. This will enable them to build talented agile teams at scale, as shown in Figure 1.

**Figure 1: Competency-Based Career Lattice**

![Competency-Based Career Lattice](image-url)

Source: Gartner 2020

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Analysis
Empower Self-Organizing Agile Teams With Career Lattices

Traditional organizational hierarchies, where staff compete for promotions to people management, misalign with key tenets of agile and digital product delivery. The latter require technical mastery, delegation of decision rights and intrinsically motivated technical staff who continuously grow professionally and personally.

Decisions have to be based on who is best placed to make the decision, not their position in the hierarchy of authority.

— Stephen Denning3

Increased uncertainty due to market conditions, work stress and fear of job security impacts employee engagement and retention, which can delay delivery of digital business capabilities. It is critical to strengthen the employee value proposition, the set of attributes that the labor market and employees perceive as the value they gain through employment in the organization to retain top talent (see “Renew Retention Strategy to Engage and Retain Technology Talent for Digital Business Success”).

A career lattice aligns well with the agile principles and drives engagement by providing a path to continuous learning and progression at one’s chosen profession, and enabling cross-domain exposure and diverse experiences. Work with HR leaders to drive the creation of career lattices to signal the intent to change the organization as well as the application of the Agile Manifesto principles of: 4

■ Motivating individuals in a supporting environment
■ Trusting the team to get the job done
■ Paying continuous attention to technical excellence and good design

Forecast talent demand and connect employees to opportunities to diversify their competencies and develop their skills, encouraging the versatility required for digital business. Staff should be able to try new roles to gain a cross-organizational view and benefit from coaching, mentoring and training.

As Craig Larman observed, 5 “Culture follows structure: In big established groups, culture/behavior/mindset follows changes in the organizational system and design.” In a career
lattice, team members can grow to a manager role with people responsibility or to an expert role as an individual contributor.

For an effective career lattice, as shown in Figure 2:

- Strengthen meritocracy through defining seniority by the level of competence and contribution.
- Use a competency-based and market-based pay system to ensure a pay-the-person approach rather than a job-based approach, linking compensation with the competence level. The most technically proficient people should be able to earn as much as those at the top of the management hierarchy.
- Redesign governance by ensuring that seniority reflects a higher level of autonomy, earned by consistently performing at a high level over time.
- Foster a supporting environment by valuing and acknowledging contributions and impact on business outcomes from staff at all levels.
- Encourage ownership at all levels while acknowledging that the work impact area is expected to be wider for more senior members.
- Ensure diversity and inclusivity by harnessing differences and providing a common purpose (see “Building High-Performance Teams: Diversity Matters” and “Building High-Performance Teams: Inclusion Matters More”).

In the information age, meritocracy is the form of organization that privileges knowledge and experience over position. The people that make decisions know the most about the subject.

Figure 2: Characteristics of a Competency-Based Career Lattice
Pave the Way to Mastery With Technical Career Paths Within the Lattice

The competency-based career lattice enables career paths for both managers and experts. Take an example from companies like IBM, Microsoft or Dupont. IBM Fellows and Distinguished Engineers, Microsoft Technical Fellows, and DuPont Fellows are highly prestigious technical professional levels, awarded to the best scientists and engineers and announced in official press releases, similarly with the top executive management appointments.

Agile delivery needs versatilists, with strong technical depth and breadth. Career lattices that include technical roles at every level increase workforce versatility and encourage people to develop a sense of personal mastery. In “The Fifth Discipline: The Art & Practice of the Learning Organization,” Peter Senge observed that “people with a high level of personal mastery are able to consistently realise the results that matter most deeply to them. They do that by becoming committed to their own lifelong learning.”

Career growth for a versatilist can be through multiple domains and lateral, vertical or diagonal mobility as shown in Figure 3.

*Figure 3: Growth Path Through the Career Lattice*
Valuing people means providing suitable paths to grow their careers and expand the impact of their work according to their competences. The career lattice allows for diverse options and personalized paths aligning individual career aspirations with the organization’s need for an adaptive and versatile workforce. You must work with HR leaders to:

- Build clear descriptions for the competencies expected at every level.
- Define the competency levels by the depth and breadth of technical skills.
- Include the commitment to knowledge sharing and the contribution to peers’ development into the expected competencies list. Experts at top prestigious professional levels should have the objective to grow more people in their profession, thus ensuring continuity and availability of skilled people for the product teams.
- Make learning the key to growing in the organization by aligning personal goals and objectives to the areas where the organization has needs. Encourage cross-track and cross-domain skills development by making versatility a key pillar of performance management.
- Ensure that reward and recognition programs align with these competence levels and that kudos are extended to people according to their contribution to the organization’s success, regardless
of their chosen path on the career lattice (see “Maverick* Research: Building a Fluid, Configurable Workforce? You Need a Talent Loyalty Program”).

- Provide learning opportunities tailored for each individual by sponsoring them and allowing time for activities such as internal coaching, training courses, attending industry conferences, dojos, hackathons, job shadowing and temporary job rotation (see “Tackle the Talent Problem: Invest in Growing Your Own Employees”).

Be a role model by committing to your own personal mastery through development of your competence on servant leadership.

You should allow individuals to identify their own areas for new technical skills development by providing visibility of future enterprise skills needs (see “Rebalanced Technical Skills Portfolio (Nationwide)”). A technical skills roadmap contains technical skills assigned to one of the following life cycle categories:

- Emerging: The skills soon likely to be in greater demand
- Core: The skills essential to running IT today
- Legacy/Niche: The skills soon likely to be in less demand

Competency Proficiency Levels

Gartner research recommends the use of a scale of competency proficiency levels to develop the structure of technical career paths as shown in Table 1.

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being developed</td>
<td>Basic</td>
<td>Intermediate</td>
<td>Advanced</td>
<td>Expert</td>
</tr>
</tbody>
</table>

Source: Gartner (July 2020)

See “Develop the Competencies Your Workforce Needs for the Digital Ecosystem” for a sample list of competencies with behavioral descriptors for each proficiency level that can be used to set expectations and measure performance. The competencies in Table 1 align well with the pattern emerging from the notable learning stage models shown in Note 1.
Amplify Critical Skills With CoPs

To promote enterprise agile, effective application leaders replace traditional authoritative organizational structures with networks based on skill set, competency and proficiency level. This helps to amplify key competencies across teams and maximize their value, especially for cross-team and corporate-level concerns, via best-practice sharing, learning and UX standardization.

Voluntary and loosely coupled networks like CoPs enable knowledge management and skills development for people who share a passion for something they do (see "Foster Communities of Practice to Ensure Successful DevOps"). Experts, unconsciously competent people, are the role models for the members of the CoP and they contribute greatly to learning opportunities and leading the cohort along the competence development path. CoPs facilitate the use and spreading of best practices and collective decision making, so the need for traditional command-and-control structures further diminishes.

Contribute greatly toward the success of the CoPs by:

- Sponsoring them, providing funding and political cover
- Ensuring the community vision and roadmap align with the organization's strategy
- Advising communities on objectives and key results (OKRs) to measure their success
- Establishing a platform for knowledge management and sharing within and across CoPs
- Actively monitoring participation and removing impediments to it by explicitly facilitating people's time for attendance at meetings
- Empowering and trusting the members to drive value and maximize outcomes

CoPs define their purpose and goals through a CoP canvas (see “How to Build Successful Communities of Practice for Knowledge Management”). The canvas should contain measurable CoP success metrics, examples of which are shown in Table 2. Community leaders should select one to three metrics to track per category based on their goals.

<table>
<thead>
<tr>
<th>Category</th>
<th>Metrics</th>
</tr>
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<tbody>
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</table>

Table 2: Examples of CoP Success Metrics (Select 1-3 Metrics per Category)
<table>
<thead>
<tr>
<th>Overall participation</th>
<th>Number of members</th>
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<tbody>
<tr>
<td></td>
<td>Growth rate of CoP membership</td>
</tr>
<tr>
<td></td>
<td>Percentage of members volunteering to present at or lead CoP events</td>
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<tr>
<td></td>
<td>Percentage of members attending each event</td>
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<tr>
<td></td>
<td>Number of visits to the CoP forum per month</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Networking</th>
<th>Percentage of members connecting outside CoP events</th>
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<tbody>
<tr>
<td></td>
<td>Percentage of members using expertise directory</td>
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</table>

<table>
<thead>
<tr>
<th>Knowledge creation and sharing</th>
<th>Percentage of members who actively contribute during CoP discussions</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Number of tips shared in each community meeting</td>
</tr>
<tr>
<td></td>
<td>Number and frequency of documents uploaded on the online CoP forum</td>
</tr>
<tr>
<td></td>
<td>Number and frequency of documents read and downloaded from the online CoP forum</td>
</tr>
<tr>
<td></td>
<td>Number and frequency of CoP forum posts</td>
</tr>
<tr>
<td></td>
<td>Number and frequency of comments on the CoP forum</td>
</tr>
<tr>
<td></td>
<td>Number of page views of the CoP forum content</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>New idea generation and implementation</th>
<th>Number of planned deliverables/initiatives completed</th>
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<tbody>
<tr>
<td></td>
<td>Number of agile issues solved/impediments removed</td>
</tr>
<tr>
<td></td>
<td>Number of new ideas successfully implemented</td>
</tr>
<tr>
<td></td>
<td>Number of new solutions or concerns submitted</td>
</tr>
</tbody>
</table>

Source: Gartner (July 2020)

Daniel Pink, in his book “Drive: The Surprising Truth About What Motivates Us,” proposes three factors that increase satisfaction and performance: autonomy, mastery and purpose. Developing mastery and being part of a group of individuals trying to better their skills is highly motivating.
A career lattice contributes greatly toward skills versatility, career satisfaction and a path to a longer tenure, benefiting the organization as whole.

**Evidence**

1. **Gartner’s 2019 Agile in the Enterprise survey**: Gartner’s Agile in the Enterprise survey was conducted via an online survey from 3 June through 25 June 2019, with 130 Gartner Research Circle Members — a Gartner-managed panel composed of IT and IT-business professionals.

Qualified participants included business end users with either an IT or IT-business focus as a primary role. The survey found that 87% of participants use agile for at least some of their application development.

The survey was developed collaboratively by a team of Gartner analysts and was reviewed, tested and administered by Gartner’s Research Data and Analytics team.

2. “Career Lattices for Workforce Versatility”


4. **Manifesto for Agile Software Development**

5. **Larman’s Laws of Organizational Behavior**


**Note 1: Learning Stages for Competence Development**

The common theme among all models is that growing competences requires a staged approach, starting from initially learning by imitation, all the way to intuitive execution, innovation and radical simplification. This continuous learning approach in technical competence development aligns well with the historical apprenticeship system of apprentice, journeyman and master craftsman (see “Changing Leadership and Motivation in a Product-Centric Development Organization”). The path to mastery is through radical simplification (see Table 3).

<table>
<thead>
<tr>
<th>Model by Dreyfus and Dreyfus</th>
<th>Learning Stages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novice</td>
<td>Advanced Beginner</td>
</tr>
<tr>
<td>Competent</td>
<td>Proficient</td>
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</tbody>
</table>

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Dreyfus and Dreyfus observed five stages of skills acquisition: novice, advanced beginner, competent, proficient and expert. The stages vary between the detached, rule-following analytical thinking inexperienced beginner and the involved, experienced expert acting intuitively.

Noel Burch developed the Learning Stages model with four stages:

- Unconsciously unskilled: We don’t know what we don’t know. No learning happens at this stage.
- Consciously unskilled: Start to learn, because we acknowledge that we don’t know.
- Consciously skilled: We now know how to do the skill the right way, but need to think and work hard to do it.
- Unconsciously skilled: Executing becomes easier and natural.

Shu-Ha-Ri-Kokoro as introduced to software development by Alistair Cockburn, is structured around the idea that a person passes through four stages of gaining knowledge:

- Shu (Follow): Follow and copy the expert precisely and execute the tasks according to the expert’s advice.
- Ha (Detach): Learn the underlying principles and theory behind the technique and branch out to other tools and techniques.
- Ri (Leave): Create new approaches, invent and blend techniques.
- Kokoro (Essence): Radically simplify the skills area by collaborating, delivering, reflecting and improving.

Martin Fowler suggested that learning the creative practice of software development aligns well with Clark Terry’s model for learning jazz music improvisation:
Another perspective to the stages definition of the competency-based people network comes from Spotify’s Steps Framework (see Implement the ‘Spotify Model’ as a Full Operating Model and Cultural Transformation — or Risk Career Failure). There are four steps according to the employee’s impact in the workplace:

- **Individual**: This involves learning how to be a productive and contributing member of the company.

- **Squad/chapter**: This involves being a contributing member of a team and a resource for those one works with every day.

- **Tribe/guild**: This involves being a valued contributor beyond one’s immediate team by virtue of deep knowledge of a technology or skilled problem solving.

- **Technology/company**: This involves being a valued contributor for the entire company by virtue of one’s technical skills and leadership, and by spending a significant time working across the organization.

**Recommended by the Author**

- The Role of the Application Leader Must Change for Successful Digital Product Delivery
- Changing Leadership and Motivation in a Product-Centric Development Organization
- How to Help Middle Management Thrive When Transitioning to Enterprise Agile and Product-Based Organization
- Revitalize IT Compensation Practices to Compete for Digital Talent
- How to Build Successful Communities of Practice for Knowledge Management
- Don’t Let Human Resources Practices Be the Biggest Obstacle in Moving to Agile
- How Are OKRs Different?
- Ignition Guide to Creating Agile Communities of Practice

**Recommended For You**

- Quality Design Drift Metric (Kimberly-Clark)
- Design Quality Metric Library