Whitepaper Promineo



A method for planning knowledge work



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Whitepaper

KNOWLEDGE DELIVERY MANAGEMENT

A Method for Planning Knowledge Work

The purpose of this paper is to present a concept and mindset called Knowledge Delivery Management.

Knowledge Delivery Management defines a way for an organization to plan and manage its knowledge workers. In Knowledge Delivery Management, knowledge, rather than people per se, is put at the center of the process. This makes it different from traditional personnel planning.

Publisher	Promineo AS	Website	www.promineo.com
Publish Date	February 2017	Author	Leif Arild Åsheim

What Makes Knowledge Work Special?

What is the big difference between knowledge workers and other workers? How do knowledge workers differ from commodities or labor that can be sourced and replaced as needed?

Let us first define some key concepts. According to Wikipedia:

Knowledge	Familiarity, awareness, or understanding of someone or something, such as facts, information, descriptions, or skills, which is acquired through experience or education by perceiving, discovering, or learning.
Knowledge Worker	Workers whose main capital is knowledge and whose job it is to "think for a living".

The term knowledge worker was originally popularized by management guru Peter Drucker. In 1999, Drucker stated that

- Knowledge workers continuously innovate and learn in their job roles.
- Teams of knowledge workers have different specialists working together with varied knowledge by providing mutual support for each other.

Knowledge workers are, therefore, significantly less interchangeable than traditional workers. For example, if a bus driver does not show up for work in the morning, the driver can be replaced with another driver without too much effort. An engineer who has been working to solve a specific problem cannot be replaced as easily.

The learning and thinking that an engineer has put into the problem is an integral part of performing the work and finding the solution. If you replace the engineer with another, even with the same formal qualifications, the new engineer must start from the beginning and cover much of the same ground as the engineer being replaced before a solution can be found. Knowledge workers are a cognitive, interdependent workforce that requires both management methodologies and metrics that are specifically designed for them.

Introducing Knowledge Delivery Management

Due to the high interchangeability in traditional labor, it is possible to manage the workforce basically as commodities, using traditional supply chain techniques and metrics. While knowledge workers cannot be managed as commodities, we firmly believe that knowledge itself can be identified, cataloged, and managed.

The purpose of knowledge workers is to deliver the knowledge required for a project or a process to reach completion.

If we can identify the knowledge required to complete a project, and at the same time identify what knowledge each knowledge worker is capable of delivering, we have a basis for managing, measuring and collecting metrics.

Next, we will expand the terminology to cover three new concepts:

Knowledge Delivery	The act of Knowledge Workers supplying the knowledge required by a process (or a project) to reach completion.
Knowledge Delivery management	The planning, sourcing, and allocation of the Knowledge Workers required for performing Knowledge Delivery.
Knowledge Type	The basis for cataloguing the different types of Knowledge being delivered by knowledge workers.

"Planning and securing the optimal utilization of a workforce consisting of knowledge workers poses a completely different set of challenges compared to managing a workforce performing traditional labor."

THE PORTION OF KNOWLEDGE WORKERS (E.G. ENGINEERS, DESIGNERS, DEVELOPERS, AND CONSULTANTS) AMONG OUR WORKFORCE IS GROWING, AND THIS TREND IS EXPECTED TO CONTINUE.

Most companies that employ a large pool of knowledge workers are making efforts to control and understand how current and future demand fit their pool of knowledge workers. However, during the last two years, I have spoken with 44 companies, each employing between 350 and 6,000 knowledge workers, and 30 of them admitted that their efforts did not produce information fit for making high-quality decisions.

While this finding is shocking, it is clear to me why they are failing to manage knowledge workers, their most important asset. **They fail because they have not recognized Knowledge Delivery Management as a subject matter in its own right.** As long as companies perceive managing their knowledge workers merely as a reporting exercise and delegate it to individuals in low level positions in the organization, the results are not likely to improve. Lack of status and appreciation keeps eager talent away from the subject matter and makes it hard for those responsible to get the necessary support from the organization.

For best practices, we can benchmark supply chain management. Instead of being a simple low-level procurement exercise, supply chain management has been identified as a key focus and development area. Consequently, companies have derived significant financial benefits from optimizing their supply chain management. The same potential exists for Knowledge Delivery Management.

Key enablers for Knowledge Delivery Management include:

- (1) Cataloging knowledge
- (2) Applying information technology
- (3) Recognizing and elevating knowledge delivery as a subject matter

Cataloging Knowledge Types

If we conceptually think of knowledge as a commodity, and want to manage it as such, we need to define and catalog it. As stated before, the purpose of knowledge workers is to deliver the required knowledge to complete a process or a project. This should be the basis for our knowledge catalog.

We need to catalogue the different types of knowledge subject to delivery, namely the **Knowledge Types**. What knowledge types do we need in order to complete our project or process? How can we communicate the required knowledge types to someone else? These are some of the questions the catalog of knowledge types must answer.

Note that knowledge type catalogs are almost always company-specific because the knowledge types cover company-specific processes, deliveries, and services.

Another way to look at the catalogue of knowledge types is to think that we can describe the competence of an individual employee by listing all the knowledge types he can cover, i.e. all the knowledge types the person can deliver into a project or process. This is a definition of the employee's actual competence (from a company standpoint) versus formal competence.

The catalog allows for defining all of the knowledge delivery required by current and future projects. Once a quantification of the workload has been gathered, along with a time frame for the actual delivery, we can understand our personnel need on an actual competence level. This defines our need for knowledge workers (the personnel need in the projects).

By connecting the knowledge types to the organization, we can calculate the various needs from all the projects per organization unit and per time unit. We can answer questions such as "How many type Z engineers are required by department 1 in week 43"? Because we know how many (type Z) people department 1 employs during week 43, **we now have control of capacity versus need.**

Applying Information Technology

Efficiently implementing Knowledge Delivery Management within an organization is not possible without appropriate information technology tools to support it. A large amount of data must be simultaneously maintained by a relatively high number of stakeholders. This requires appropriate information technology solutions specifically designed to support Knowledge Delivery Management processes.

When selecting a software solution, consider the following five (5) key requirements:

- (1) A true multi-user platform. Companies with 100+ employees will have multiple simultaneous users accessing the system.
- (2) Ability to adequately capture your work process. The solution must match your processes.
- (3) Interfaces to existing HR data. HR data includes key details on your employees.
- (4) Functional tool for middle-level management. The solution must work as an everyday tool for middle management, who should feel comfortable using it.
- (5) Provide company management with the information required to make informed decisions for developing the organization of knowledge workers.

Recognizing and Elevating Knowledge Delivery as a Subject Matter

Knowledge Delivery Management is strategically important to any company in the professional service business. It must be considered as a company-wide strategic initiative with full commitment and support from the top management. Knowledge Delivery Management is not a single instance, but rather an ongoing process that continuously strives for improvement.

Knowledge Delivery Management must be managed at the senior management level. It should cover all of the relevant functions within the organization, such as Sales, Project Staffing, and Human Resources.

Business Value of Knowledge Delivery Management

Utilizing Knowledge Delivery Management provides several benefits for a company, both on the strategic and immediate financial levels. It also helps understanding the company better and steering it in the right direction.

Strategic Planning and Improving Organizational Culture

Once you have cataloged the knowledge required to complete your projects and processes, you understand your company and its personnel better. When you know your strengths and capabilities, you can utilize this information to strategically plan ahead for new business in the sales pipeline. As an established process, Knowledge Delivery Management can provide metrics that allow high-quality decision-making and measuring the benefits.

Knowledge Delivery Management can also improve your organization's culture and work satisfaction.

Middle-level management feels empowered with the new tools that improve communication with the executives. Knowledge workers become very motivated when management can assign them into projects and tasks that truly match their skills and provide opportunities for additional learning.

Finally, cataloged knowledge helps staffing and recruiting. Communication between HR and Operations improves, resulting in better recruitment results. In some cases, new personnel recruitment can even be avoided if matching talent can be sourced from inside the organization.

Cost Savings through Improved Efficiency

A key objective of Knowledge Delivery Management is to increase the utilization rate and efficiency of knowledge workers. Using personnel resources more efficiently translates into faster project turn-around and the capability to take on more work.

According to our estimate, establishing control of the personnel needs versus personnel availability can alone increase knowledge worker utilization by 5-10%.

By adding the effects of long-term planning and detailed control over future knowledge worker requirements, there is potential for an additional 5-10% improvement in efficiency.

Call to Action

You need to make decisions to run a business. The best decisions make the best results. Recognizing and elevating Knowledge Delivery Management as a focus area and a strategic process provides you with the metrics needed to properly manage an organization of knowledge workers.

To get started, appoint a Knowledge Delivery Manager. Select a motivated senior executive and give the executive ownership and mandate to establish Knowledge Delivery Management within your organization. An ideal candidate has a thorough understanding of the organization and its strategy as well as clear communication channels to all of the units within the company.

About the Author

Leif Arild Åsheim is the CEO of Promineo, an international provider of software for Project Management and Resource Planning.

Leif Arild Åsheim has international experience from large capital investments projects and has been in senior management roles within professional service and software companies for the past 20 years.

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