Living knowledge

The dynamics of professional service work

Edited by
Arne Carlsen, Roger Klev
and Georg von Krogh

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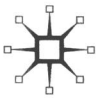

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Living Knowledge

Preface

This book is about the life of *living knowledge* in organizations. 'Living knowledge' is a metaphor we use to approach a perspective of knowledge that we have come to see as increasingly important; knowledge as typically tacit, collective, complex, contextual and deeply rooted in culture. We argue that the key to understanding such knowledge lies in understanding *work*, not in scrutinizing knowledge resources or knowledge representations in isolation. It is in the context of work we see *why* knowledge is valuable, *how* people know something and how *fast* they can learn something new.

While the phenomena of living knowledge have relevance for all types of work, they are particularly evident in professional service work. In such work we see a dominance of non-routinized and symbolic analytic problem solving, a high degree of internal and external interaction, and competing claims of identities and strategic options. The living aspects of knowledge are thus accentuated. The continuous development of new ICT solutions and their innovative use, combined with a strong growth of professional service work, has created a somehow new work life. Work practices are often opaque, ambiguous and much of the time invisible to managers, colleagues or clients. The products/services delivered to the customers are rarely standard, the deliveries are produced in close co-operation with customers, adjusted and reproduced in each specific context, and we lack clear criteria to judge their quality. Work life and organizations seem uncontrollable and fluctuating, inhabited by workers who behave more as individuals and change jobs more rapidly. This is a very challenging and demanding situation, both for the individual worker and for the organization. Our ambition with this book is to unmask some of the chaotic image of modern work life. We will argue that living knowledge is indeed manageable, but not through traditional mechanisms of planning, control and centralized work design, neither through the reification of knowledge, strategy and identity. There are other processes, other perspectives of understanding, which are important and effective in creating collectivity, stability, direction and development. These approaches may not be managerial instruments in the way we are familiar with, but they are nevertheless methods, which can be developed, played with, nurtured and led.

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The book presents a range of experiences from professional service work, for example IT consulting, production of film concepts, communication work, engineering consulting and clinical work in hospitals. We draw from five years of research for and with practitioners in around twenty private and public service organizations. This research has been organized under the heading 'Kunne', a Norwegian word that signifies the duality of 'knowing' versus 'knowledge' in our epistemological orientation. Kunne is a portfolio of research projects dealing with 'knowledge of knowledge', as applied to work, creation of value and organizational change. Briefly, the various projects under KUNNE with bearing upon this book have been:

- *Kunne 1. Modularization and Re-use of Knowledge in Professional Services* (1997–99): A user-oriented research programme with seven participating professional service organizations.
- *Kunne 2. Knowledge Management in Knowledge Intensive Business Services* (1999–2002): A user-oriented research programme with twelve participating professional service organizations in the private and public sector.
- *Knowation. Methods and Tools for Increased Knowledge Based Value Creation* (2000–02): A user-oriented research programme exploring new approaches to intellectual capital with eight participating firms.
- *Living Knowledge. The Dynamics and Challenges of Professional Service Work* (1999–2002): A strategic research programme dealing broadly with issues of expertise, identity, narrative structures, emotions and networks in organizational knowledge and professional service work.
- *Kunne Doctoral Program* (2000–04): An interdisciplinary PhD programme on knowledge work and organizational knowledge, with five students at the Department of Interdisciplinary Cultural Studies, the Norwegian University of Science and Technology.
- *The Knowledge Workspace* (2002–06): A user-oriented research programme developing methods and understanding of the relationship between knowledge work, workspace design and organizational knowledge. Six firms are participating.

Kunne is a dynamic portfolio. New frontiers are being pursued in a set of recently started user-oriented research programmes; Kunne Balance, Kunne InterPrax and Kunne Creole.

Living Knowledge was conceived at Edvarda's House in Tranøy, an old coastal pilots' community in Northern Norway. Tranøy is a breathtakingly beautiful place, situated in the municipality of Hamarøy, where

the author Knut Hamsun grew up, and where the stage was set for many of his novels. It is a place that offers us the contrast of slow time against the setting of spectacular nature and dramatic weather. We would like to dedicate this book to that place and the people living and working there. If nothing else, we have learned, sensed, that living knowledge also happens in places. In the words of Keith Basso, from his wonderful *Wisdom Sits in Places* (University of New Mexico Press, 1996: 55):

> As places animate the ideas and feelings of persons who attend them, these same ideas and feelings animate the places on which attention has been bestowed, and the movements of this process – inward toward facets of the self, outward towards aspects of the external world, alternately both together – cannot be known in advance. When places are actively sensed, the physical landscape becomes wedded to the landscape of the mind, to the roving imagination, and where the latter may lead is anybody's guess.

Acknowledgements

We are grateful to the Research Council of Norway for the funding of the strategic research programme 'Living Knowledge – The Challenges and Dynamics of Professional Service Work' at SINTEF Industrial Management and SINTEF Telecommunication. The strategic research programme has made the production of this book possible. Many of the contributions in the book also draw from a range of user-oriented research projects that the Research Council of Norway has supported. We would like to give special thanks to the Association of Consulting Engineers in Norway for their active support for several of these projects.

A number of organizations and research groups have participated in and/or partly funded research that has, in one way or another, found its way into this book. Without their enthusiasm, patience and demanding collaboration we would have learned little. They are, in no particular order: Computas, Scandiaconsult, Tieto Enator, InterConsult, Statoil, Hydro Aluminium, Telenor, Tine, Gjensidige Nor, Geelmuyden.Kiese, Dinamo Story, Telenor Mobil, Dark Design, Møre og Romsdal Bedriftsutvikling, Barlindhaug, Vesta, the Norwegian National Rail Administration, Erichsen & Horgen, Torvald Klaveness, DNV Software, Indevo, ViaNova, the University Hospital of Northern Norway, the Management Institute at the University of St Gallen, the Norwegian School of Mannagement, the Stanford School of Education, SINTEF Industrial Management, SINTEF Telecommunications and various departments at the Norwegian University of Science and Technology.

Researchers and practitioners from many of these organizations have also provided useful feedback and comments to the different chapters in the book. Any remaining flaws or shortcomings are of course our own.

We thank Inderscience Publishing for granting us permission to reprint the following paper: Emil Røyrvik and Arne Lindseth Bygdås, 2003, 'Knowledge Hyperstories and Context Sensitive Knowledge Enabling. The Use of Situated Support Systems in Distributed Organisational Environments', *International Journal of Internet and Enterprise Management* 1 (4), Special Issue on Organizing Knowledge.

Dark Design has kindly granted us permission to reprint the drawing of Figure 8.2 in Chapter 8.

Finally, we appreciate the encouraging support and collaboration from Palgrave Macmillan through Commissioning Editor Jacky Kippenberger.

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the National Competence Reports for Norway at the Royal Ministry of Education and Research.

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Egil Wulff is a Senior Advisor at SINTEF Industrial Management. He has experience from a wide variety of roles as researcher, research director, consultant, chairman and board member, and he has led development processes in around a hundred organizations. He is particularly interested in how deep-seated understanding of knowledge and knowledge work influences management practices. Wulff holds a MSc in Mechanical Engineering from the Norwegian University of Science and Technology in Trondheim.

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1

Living Knowledge: Foundations and Framework

Arne Carlsen, Roger Klev and Georg von Krogh

Why living knowledge?

The 1990 was the decade when talk of knowledge and learning truly inhabited organizational life and the broader discourse on economic development and societal progress. There is hardly any area left where key actors do not herald continuous learning and knowledge management as important ambitions. Organizations increasingly see themselves as 'knowledge intensive'. At the political level 'the knowledge economy' has become the key word for the dominating vision of tomorrow's society. It is definitely a trend, perhaps the strongest and most pervasive of all working life trends of the latest decades. Knowledge has of course always been an implicit and integral part of work and thus central to organizational development. What is new is that knowledge as such, and in particular organizational knowledge, has become the *object* of knowledge, also outside academia. 'Knowledge of knowledge' is no longer limited to the fairly specialized social practice of research and intellectual discourse. It has become part of mainstream organizational life and the lifeblood of a range of service firms operating within areas such as knowledge management, knowledge engineering, case-based reasoning, intranet provision, specialized branding of professional services and general management consulting. Correspondingly, we see a massive drive to *act*; to find concrete products and practical solutions to the challenges of creating, legitimizing and sharing knowledge. It is a worthy quest, but one that has carried with it a dominance of overly rationalistic views of knowledge, based on the logic of the natural sciences. Knowledge then is viewed as neutral and independent of

underlying activities and relations. It is still a dominant position, a type of language firmly implanted in everyday organizational speech. But there is an emerging recognition that this view of organizational knowledge is not only theoretically problematic, but also impractical.[1] Knowledge cannot be stored and disseminated like physical assets. It is hardly neutral. It defers encapsulation and control. We are turning disconnected knobs.

Then there are other voices. The interpretative and constructionist camp within organization theory has described organizational knowledge as situated in particular work activities (Lave and Wenger, 1991), emergent and distributed (Tsoukas, 1996), collective (Hutchins, 1995; Orlikowski, 2002), ambiguous (Alvesson, 1993; 2001) and narrated (Orr, 1990; Brown and Duguid, 1991; Boland and Tenkasi, 1995). This stream of research is informed by centuries of conceptualization within the humanities. It is typically of a descriptive nature with few, if any, normative claims and little practical advice. A question inevitably presents itself. If organizational knowledge really is as contextual, relative, opaque and idiosyncratic as some authors claim, is it manageable at all? Why bother? Or *should* we bother? This book sets out to demonstrate ways in which it is possible to include some of the insights from constructivist epistemology on practical problems of handling organizational knowledge. We do so by presenting experiences and methods derived from action research projects in around twenty professional service organizations. Our ambition is to address issues and debates seen as valuable and important to reflective practitioners interested in developing new practices in their organizations, as well as other researches working within the field.

The term *living knowledge* signifies organizational knowledge that escapes easy articulation, knowledge that is typically tacit, distributed, complex, contextual and deeply rooted in culture. It is a term based partly on experiences from 1993 when a research group started doing 'competence analysis' of small firms[2], looking for sources of distinctiveness, the knowledge 'crown jewels'. The conjectures ran in the directions of individualized knowledge or systems; the skill of a craftsman, the genius of a product developer, the flawless production system, the smart logistics, the intuition of a market analyst or the unique communication skills of a sales rep. The findings did not meet expectations. After having facilitated competence analysis processes in around twenty organizations, the researchers still had not come across an organization whose 'core competence' or 'distinctive knowledge' could be easily linked to one specific element; one routine, one person or one explicit

methodology or technology. The most valuable knowledge of organizations is typically a combination of many relations and practices. Living knowledge is more a style of expertise than a particular asset. Elaborate methodological schemes can be valuable for novices, or in sales meetings, but are seldom more than bleak versions of leading practice. If what superstar programmers do, individually and as a group, was stable and easily observable, they would not be superstars. The very aspects of a practice that escapes observation, rule-making and explicit routinization are precisely those aspects that make it valuable. It is far easier to study the results of such knowing than to reveal its elements. Expertise is often profoundly personal, precipitating involvement of the self and deep engagement. Acts of knowing can also be acts of identity formation. Living knowledge consists of intricate patterns of thinking, acting and feeling.

Our book thus addresses a fundamental dilemma of organizational life. The most valuable knowledge resources – those that underpin competitive advantage, generate growth and defer easy imitation – also are the types of knowledge that are most challenging to understand or manage. This phenomenon is at its peak in professional service work.

Why professional service work?

Knowledge is constituted in practice. Our empirical focus for studying living knowledge is the practice of professional service work. This is a type of practice that represents a growing part of employment and value creation in western economies (Løwendahl, 1997; Hertog and Bilderbeek, 2000; Newell *et al.*, 2002). The growth transcends structural change as traditional industries experience a shift in the focus of value creation, from mass production to more knowledge-intensive work in engineering, product development and advanced services, or as Freeman and Perez (1988) phrase it, 'from products with services to services with products'. We generally prefer the term 'professional service work' to 'knowledge work' or 'knowledge-intensive work', although these will also be used.[3] We draw on the growing body of literature on professional service firms.[4] They play important intermediary roles as innovation providers to client organizations and are often themselves thrust forward as exemplars of best practice. But our primary attention is to a type of work, not a type of organization. It is important to recognize that professional service work can be found in all sectors of the economy. Clinical work at a hospital and establishing new cast houses for a metal-producing company are among the examples presented in this book.

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