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Managing Dynamic Technology-Oriented Businesses

High-Tech Organizations and Workplaces

Dariusz Jemielniak & Abigail Marks

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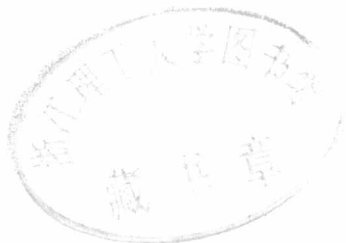

BUSINESS SCIENCE Reference

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Published in the United States of America by
Business Science Reference (an imprint of IGI Global)
701 E. Chocolate Avenue
Hershey PA 17033
Tel: 717-533-8845
Fax: 717-533-8661
E-mail: cust@igi-global.com
Web site: http://www.igi-global.com

Library of Congress Cataloging-in-Publication Data

Managing dynamic technology-oriented businesses: high tech organizations and workplaces / Dariusz Jemielniak and Abigail Marks, editors.
p. cm.
Includes bibliographical references and index.
Summary: "This book explores the culture of modern high-tech workplaces and the different challenges and opportunities that new technologies present for modern workers and employers, reviewing various management practices throughout the world"--Provided by publisher.
ISBN 978-1-4666-1836-7 (hbk.: alk. paper) -- ISBN 978-1-4666-1837-4 (ebook: alk. paper) -- ISBN 978-1-4666-1838-1 (print & perpetual access: alk. paper) 1. High technology industries--Management. 2. High technology industries--Employees. 3. Information technology--Management. 4. Knowledge workers. I. Jemielniak, Dariusz. II. Marks, Abigail, 1971-
HD62.37.M356 2012
658--dc23

2012015429

British Cataloguing in Publication Data
A Cataloguing in Publication record for this book is available from the British Library.

Editorial Advisory Board

Preface

HIGH-TECH ENVIRONMENTS: TO BOLDLY GO

The high-tech work environments of work, and of the new knowledge workers (Alvesson, 2004; Jemielniak, 2012; Marks & Baldry, 2009), have been a topic of growing interest from researchers in management and organization science. These environments are in many ways different from the traditional organizational settings.

For example, software engineers and other professionals in high-tech industries seem to enact their identities differently from their counterparts in the traditional professions (English-Lueck, Darrah, & Saveri, 2002; Jemielniak, 2008; Marks & Scholarios, 2007; Marks & Thompson, 2010; Westenholz, 2006). High tech environments and career perceptions are also strongly gendered (Bourne & Özbilgin, 2008; English-Lueck, 2011).

High-tech professionals' work-life balance is seriously affected by the organizational pressure and normative control, and knowledge workers are often in strong opposition to management (Jemielniak, 2007; Kunda, 1992; Scholarios & Marks, 2004). In addition, time spent at work plays a symbolic, ritualistic role in negotiating social position and status in knowledge-intensive organizations (Jemielniak, 2009; Perlow, 1997; Sharone, 2004). Workers in high-tech environments are often subject to burnout and excessive managerial pressure. The high-tech environment is also unpredictable, and is often a venue of distrust among key actors (Baba, 1999; English-Lueck, et al., 2002; Latusek & Jemielniak, 2007).

At the same time, high tech professionals often perceive work as a "serious game" (Strannegård & Friberg, 2001), and not drudgery: they involve in playful behaviors at work (Hunter, Jemielniak, & Postuła, 2010). Software engineers often participate in non-paid, open collaboration production (Lakhani & Von Hippel, 2003).

Modes of collaboration established in virtual and high-tech communities are similarly transforming workplace relations in the brick-and-mortar organizations (Benkler, 2006). They precede and foreshadow more general trends in organizational designs (Argyris, 1973; Beck, 2000; Castells, 2004). Understanding the high-tech workplace, and learning about the management practices and routines in knowledge intensive companies is, thus, of utmost importance for contemporary management scholars and practitioners. This volume addresses all of these urgent issues and more.

Gerbasi and Latusek present results of a qualitative study on a high-tech start-up from Silicon Valley. The chapter explores the problem of trust in joint ventures, between Polish and American partners. Cultural differences, determining varied reliance on knowledge-based and social capital-based kinds of trust are explored. The advantages and disadvantages of building trust in relation to teams, peers, and organizations are considered.

Ciesielska and Iskoujina analyze trust, open innovation, and software development modes. The study of the GNOME and Nokia collaboration shows how trust can be perceived as a strategic resource,

which is actually the crucial ingredient of successful collaboration. In particular, they distinguish the professional (expert) trust and the political trust. This dichotomy is proposed as an interpretive key to understanding trust enactment in open source communities.

Juntunen brings the focus to management of virtual teams. Through a qualitative analysis of virtual teams in a commercial ICT environment in Finland, he describes their success factors, balancing internal and external knowledge. Like Ciesielska, he emphasizes the importance of trust in the IT environment, and especially in fostering long-term strategic relationships.

Roofe-Sattlethight and Armagan's chapter continues the explorations of virtual work processes. It analyzes the relations and alliances among leaders, members, and teams in a virtual environment. Their quantitative study indicates that such a three-way alliance indeed emerges, but the role of the leader is smaller than in non-virtual settings. Members tend to develop their relationship with the group by building rapport with other members, rather than through the leader.

Lorentzen Hepsø and Hepsø's study offers insight into ERP systems, on the example of performance indicators used in an oil and gas company. The aggregated performance measurement algorithms are often used in knowledge-intensive companies, and yet their development, as well as actual implementation, is rarely studied from within the organization, in particular with the use of actor-network theory.

Legault and Ouellet have a look at the video game industry. They focus on the issue of time management and long hours spent at work, in the accounts of 53 game designers from Canada. The system of normative control, as well as work evaluation and reputation building, enforced through organizational expectations of "professionalism" are described and offered as a possible explanation of overtime unpaid work that is regularly expected, even when it is prohibited under the law.

Russell's contribution, relying on a long-term, ethnographic study, describes a case of high tech gadgets negotiated by employees. Through an analysis of engineers bargaining for smartphones, he shows how organizations can increase their control over the employees through new technologies, and how the employees make a rod for their own backs.

Trux's piece, similarly to Russell's, pertains to the topic of normative control. She describes the new forms of organizational resistance, emerging in knowledge-intensive organizations. She recognizes the contemporary methods of managerial propaganda and coercion, yet suggests that the new organizational configurations and bifurcation of identities also benefit the counter-managerial employee movement.

Kippist, Hayes, and Fitzgerald delve into the topic of language used between managers and professionals. They research it by comparing two contexts: researchers discussing with managers in Australian hybrid industry-research and health care organizations. Interestingly, several modes of dissent and distinctive patterns of communication were noted. This study indicates that successful management in knowledge-intensive organizations depends on proper argumentative strategies.

Henriksen's chapter departs from the traditional academic discourse by introducing a narrative approach to technology studies. By introducing storytelling, as well as antenarrative analysis, he offers an alternative perspective on software project development. He brings interesting insights into a story of a failed project, which is particularly interesting given that success stories are much more likely to be shared.

Jørgensen and Strand follow the narrative analysis, and propose a new material-discursive understanding of technology in a form of "material storytelling." They show the usage of technology in organizations in terms of story performance. Consequently, they resituate the relationship of discourse and technology, and shift the focus of organization studies from human agents to everyday routines, and human-nonhuman actants.

Sköld and Olaison's piece delves into Lacanian and Deleuzian interpretations of late capitalism's dynamics. In an unusual analysis of a heavy-duty industry (trucks), incorporating storytelling, they describe different stakeholders and narratives at play, negotiating perceptions of the product, imaginary scenarios, and desires. They show the marketing background and enacted fantasies, linking customers and suppliers.

Karube, Kato, and Numagami's chapter presents the results of a project on relations between an organization's features and its likelihood of deteriorating. Their study relies on a large sample of questionnaires from 16 Japanese corporations. It shows that both an organization's size and its hierarchical structure contribute to its deterioration; participative planning, vertical communication channels, and strict and precise strategy building process prevent it.

Ertürk's study is a timely application of Hofstede's organizational culture framework. His findings indicate that power distance is negatively associated with both empowerment and with innovation capability. Uncertainty avoidance, however, is also negatively related to innovation capability, but positively related to empowerment. Collectivism is positively related only to empowerment. These results support the thesis that knowledge work is particularly compatible with participative management techniques.

Finally, Tran explores the "glass cliff" in high tech environments. He studies women in positions of leadership, who are put on the glass cliff of more precarious and riskier posts than their male counterparts. Following an analysis of empirical data, Tran proposes the possible paradigm shift needed to recognize the glass cliff, and why it is still taboo.

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REFERENCES

Alvesson, M. (2004). *Knowledge work and knowledge-intensive firms*. Oxford, UK: Oxford University Press.

Argyris, C. (1973). *On organizations of the future*. Beverly Hills, CA: Sage Publications.

Baba, M. (1999). Dangerous liaisons: Trust, distrust, and information technology in american work organizations. *Human Organization*, *58*(3), 331–346.

Beck, U. (2000). *The brave new world of work*. Cambridge, MA: Polity Press.

Benkler, Y. (2006). *The wealth of networks: How social production transforms markets and freedom*. New Haven, CT: Yale University Press.

Bourne, D., & Özbilgin, M. F. (2008). Strategies for combating gendered perceptions of careers. *Career Development International*, *13*(4), 320–332. doi:10.1108/13620430810880817

Castells, M. (Ed.). (2004). *The network society: a cross-cultural perspective*. Cheltenham, UK: Edward Elgar Pub.

English-Lueck, J. (2011). Prototyping self in Silicon Valley: Deep diversity as a framework for anthropological inquiry. *Anthropological Theory*, *11*(1), 89–106. doi:10.1177/1463499610397115

English-Lueck, J. A., Darrah, C. N., & Saveri, A. (2002). Trusting strangers: Work relationships in four high-tech communities. *Information Communication and Society*, *5*(1), 90–108. doi:10.1080/13691180110117677

Hunter, C., Jemielniak, D., & Postuła, A. (2010). Temporal and spatial shifts within playful work. *Journal of Organizational Change Management*, *23*(1), 87–102. doi:10.1108/09534811011017225

Jemielniak, D. (2007). Managers as lazy, stupid careerists? Contestation and stereotypes among software engineers. *Journal of Organizational Change Management*, *20*(4), 491–508. doi:10.1108/09534810710760045

Jemielniak, D. (2008). Software engineers or artists – Programmers' identity choices. *Tamara Journal for Critical Organization Inquiry*, *7*(1), 20–36.

Jemielniak, D. (2009). Time as symbolic currency in knowledge work. *Information and Organization*, *19*, 277–293. doi:10.1016/j.infoandorg.2009.08.002

Jemielniak, D. (2012). *The new knowledge workers*. Cheltenham, UK: Edward Elgar.

Kunda, G. (1992). *Engineering culture: Control and commitment in a high-tech corporation* (Rev. ed.). Philadelphia, PA: Temple University Press.

Lakhani, K. R., & Von Hippel, E. (2003). How open source software works. *Research Policy*, *32*(6), 923–943. doi:10.1016/S0048-7333(02)00095-1

Latusek, D., & Jemielniak, D. (2007). Trust in software projects: Thrice told tale. *The International Journal of Technology . Knowledge in Society*, *3*(10), 117–125.

Marks, A., & Baldry, C. (2009). Stuck in the middle with who? The class identity of knowledge workers. *Work, Employment and Society*, *23*(1), 49–65. doi:10.1177/0950017008099777

Marks, A., & Scholarios, D. (2007). Revisiting technical workers: professional and organisational identities in the software industry. *New Technology, Work and Employment*, *22*(2), 98–117. doi:10.1111/j.1468-005X.2007.00193.x

Marks, A., & Thompson, P. (2010). Beyond the blank slate: Identities and interests at work . In Thompson, P., & Smith, C. (Eds.), *Working Life: Renewing Labour Process Analysis*. London, UK: Palgrave Press.

Perlow, L. A. (1997). *Finding time: How corporations, individuals, and families can benefit from new work practices*. Ithaca, NY: ILR Press.

Scholarios, D., & Marks, A. (2004). Work-life balance and the software worker. *Human Resource Management Journal*, *14*(2), 54–74. doi:10.1111/j.1748-8583.2004.tb00119.x

Sharone, O. (2004). Engineering overwork: Bell-curve management at a high-tech firm . In Epstein, C. F., & Kalleberg, A. L. (Eds.), *Fighting for Time: Shifting Boundaries of Work and Social Life* (pp. 191–218). New York, NY: Russell Sage Foundation.

Strannegård, L., & Friberg, M. (2001). *Already elsewhere: Play, identity and speed in the business world*. Stockholm, Sweden: Raster Förlag.

Westenholz, A. (2006). Identity work and meaning arena: Beyond actor/structure and micro/macro distinctions in an empirical analysis of IT workers. *The American Behavioral Scientist*, *49*(7), 1015–1029. doi:10.1177/0002764205285183

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sophisticated and efficient system of rewards and sanctions, both material and symbolic, that drives professional workers in these trades to adopt a "free unlimited overtime" behavior despite the Act Respecting Labour Standards. Efficiency of this system is rooted in combined Project Management (PM) as an organisation mode and high international mobility of the workforce that both makes portfolio and reputation utterly important. This chapter focuses on (de)regulation of working time only, but it opens a path to theoretically account for (de)regulation of work among an expanding workforce: the "new professionals" in knowledge work.

This chapter identifies a new pattern of bargaining for technology, based upon nine months' ethnographic fieldwork amongst the engineers of a Telco's research and development department. Bargains for smartphones were initiated by the employee and negotiated with the employer by reference to the productivity discourse of the vendor. After a honeymoon phase of exploration, the reality of operation was markedly different, resulting, in several cases, in the disposition of the smartphone or, in one case, the disposition of the employee to leave. Such bargains were driven by conceptions of the personal and organisational use value of the artefact, and this finding reveals shortcomings in the drivers, influences, and stages of adoption found in existing models. A new conceptual framework is presented that facilitates exploration of the contribution of personal and organisational use value to technology adoption.

This chapter takes you to a data security workplace in Finland. It presents reflections on the tensions of managing selves and others, as experienced by the employees and the managers. It argues that a generally critical approach to normative management may overlook the actual complexity and ambiguous nature of the late modern cultural environment. Both self-authoring and manipulative moves are made difficult by the amalgamating hegemonic and countercultural currents. The author points at chances for resistance through new forms of literacy. Instead of dropping "culture" as a conservative or managerial pursuit, we must learn to navigate successfully in the broken cultural landscape of today's workplaces. The very same images that can be used for manipulation are open to more solidary configurations by the cultural and social imagination of organizational members.

Interactions between professionals and managers are vital to medical and commercialization outcomes. This chapter considers how boundaries between professionals and managers are expressed through language in two contexts: between researchers and managers in temporary Australian hybrid industry-research organizations and within the same individual performing a hybrid clinician-manager role in

This chapter demonstrates how contemporary imaginary structures, which urge us to move up in life by making the most of the possibilities we are faced with, may operate in an industrial setting where users are involved in the production of heavy duty vehicles. Opening up new domains for value creation, devoid of established norms and regulations, this appeal to elevate ourselves arguably provides little guidance for how to do so. Demanding ever more from those subjected to its call, this appealing power, the chapter suggests, follows the logic of the Lacanian superego, which according to Salecl (2004, p. 51) "commands the subject to enjoy yet at the same time mockingly predicts that he or she will fail in this pursuit of enjoyment." As such, it makes out a central component in a creative force that feeds excessive outgrowths, which perpetually contribute to pervert, displace, and fragment established grounds for value creating activities within this industrial domain.

Chapter 13

This chapter explores the mechanism of how structural and behavioral organizational characteristics lead to organizational deterioration as a source of organizational decline. First, using an original construct of organizational deterioration named "organizational deadweight" that is defined as ineffectual managerial load at the middle management level, the authors explore the relationships between the organizational characteristics and organizational deadweight. Data was collected through a questionnaire survey in 2006 involving more than 942 respondents from 128 business units of 16 large Japanese firms. The results suggest that reference to formal strategic planning, participation in the planning process, and vertical communication improve deterioration, whereas organizational size and layered hierarchical structure aggravate it. Finally, the authors discuss the roles of vertical communication and formal planning to safeguard against deterioration.

Chapter 14

This chapter analyses the influence of organizational culture components, defined in Hofstede's (1991, 2001) cultural framework (i.e., power distance, individualism/collectivism, assertiveness focus, and uncertainty avoidance), and empowerment on innovation capability, and examines the differentiations in their influence. The hypotheses are tested by applying Structural Equations Modeling (SEM) methodology to data collected from Information Technology professionals from high-tech companies. Results of the analyses have yielded that power distance is found to be negatively associated with both empowerment and innovation capability, whereas uncertainty avoidance is negatively related to innovation capability, but positively related to empowerment. Collectivism is found to be positively related only to empowerment; yet no significant relationship was revealed between collectivism and innovation capability. In addition, no significant relationship was found between assertiveness focus and empowerment or innovation capability. Empowerment is also found to be significantly and positively related to innovation capability. In terms of managerial practice, the study helps clarify the key role played by cultural dimensions in the process of shaping an empowering and innovative work environment. Findings also