

Institutional Entrepreneurs and the Bricolage of Intellectual Property Discourses

Ann Westenholtz

Department of Organization and Industrial Sociology, Copenhagen
Business School, Kilevej 14, 2000 Frederiksberg, Denmark.
(aw.ioa@cbs.dk)

Abstract. Commercial software firms are increasingly becoming involved with open source communities. In this research-in-progress paper I briefly analysed a single firm case that demonstrates how an institutional entrepreneur mixes in an innovative way different discourses in an attempt to legitimise a new mode for developing software applying both open and closed source codes. The institutional entrepreneur does this by creating new distinctions in his daily software developing work. I am not arguing that the institutional entrepreneur is creating these new distinctions in an instrumental rational process, but that the distinctions emerge in sensemaking processes along his 'doing' something in the firm.

1 Introduction

In the paper I focus on how intellectual property rights develop within software development that involves both business firms and open-source communities, and on the role of institutional entrepreneurs in this development. The basic assumption is that the parties involved are embedded in different institutional logics concerning the understanding of the nature of intellectual property right, implying their different perceptions of and practices for knowledge sharing and organizing product development. What are the stories about intellectual property rights emerging from this interface? And what role does the institutional entrepreneur play in this development?

The issue is attempted elucidated from the perspective of New Institutional Organization theory (DiMaggio and Powell, 1983 ; Meyer and Rowen, 1983; Scott, 1995) and concerns how institutions change – in casu 'intellectual property right'. In the 1970s and 1980s New Institutional theory represented a novel perspective within organization theory compared to the rational one by singling out institutions as independent variables that could explain organizational behaviour. However, by understanding institutions as independent variables New Institutional theory became unable to explain organizational change. A number of researchers have since attempted to develop a New Institutional theory capable of explaining organizational change as the outcome of the role that institutional entrepreneurs play in the development (Borum and Westenholtz, 1995; Boxenbaum and Battilana, 2004; Brint and Karabel, 1991; Christensen and Westenholtz, 1997; DiMaggio, 1988; Fligstein, 1997; Friedland and Alford, 1991; Greenwood and Hinings, 2002;; Oliver, 1991;

Please use the following format when citing this chapter:

Westenholtz, A., 2006, in IFIP International Federation for Information Processing, Volume 203, Open Source Systems, eds. Damiani, E., Fitzgerald, B., Scacchi, W., Scotto, M., Succi, G., (Boston: Springer), pp. 183-193

Scott, 1995; Seo and Creed, 2002; Tolbert and Zucker, 1983). In the paper, I elaborate these ideas by combining the theory of institutional entrepreneurs with discourse theory. (Collinson, 1988 1992; Gabriel, Handy and Phillips, 2004; Graesser, Gernsbacher and Goldman, 2003; Grant, Hardy, Oswick and Putnam, 2004ba and b; Jørgensen and Phillips, 2002; Wetherell, Taylor and Yates, 2001).

In the paper I draw on a project-in-progress¹, and the paper is thus a first step toward elucidating the issue. Section 2 of the paper describes a single case in which a business firm uses open-source. Section 3 describes the historical-social context of the case, and section 4 accounts for the theories underlying the analysis. In section 5 I analyze the case and conclude in section 6.

2 The case

John is about forty years old, and worked in the media world in the past. In the mid-1990s he started a Danish IT firm. In 2000, he wanted to publish a product he had developed as an open-source programme, in order to disseminate it and encourage others to elaborate on it. John had learned about open source from a programmer with whom he had collaborated. He was attracted by the idea because, as he says: 'It makes knowledge sharing possible. I think that what we are doing is universal, and should be accessible for all applications involving our product. Therefore it made sense to involve people working with similar problems in the development of the basic functions. Based on these functions, tailor-made solutions could be developed for various customers.'

During 2000, John became increasingly burdened with debts that required him to find venture capital. Although he succeeded in attracting capital, the venture capitalists would not accept open source as part of their business recipe. John was sacked, and in early 2001 found himself without a firm.

John mortgaged his flat and hired three employees who have developed a new model from scratch. As their point of departure, they downloaded an open programme from the Internet, further developed it, and subsequently uploaded the elaborated version, making it available for others. In further developing the programme, they collaborated with IT programmers who formally worked in other places, while simultaneously working openly on the Internet. As John says: 'To resolve problems at the same speed as was possible via the Internet would require several hundred employees. Many of the problems concern very specific issues, and when we inquire on the Internet it is rarely more than 24 hours before we have one or several responses.'

But even as John's employees draw their knowledge from the Internet, others have started to ask them questions via the Internet. If the questions concern issues that do not interest them but are easily resolved, they respond. As one of John's employees

¹ The name of the project is Institutional Entrepreneurs and it is financed by the Danish Social Research Council 2005-2009. Homepage: www.IICO.dk

says, 'It's cool being able to produce something that others can use and to help some of the guys in the USA that you admire: Just do so and so.' Being able to respond to questions gives people status in the open-source community. But as John says: 'We don't spend a week correcting errors for somebody in the USA if it isn't something that we can use.'

John's firm makes money by adapting the product to the specific needs of specific customers. If Microsoft had developed the product, similar adaptations to customer needs would be required. The difference is that had Microsoft developed the product, the customer would have to pay a start fee, which is not the case when the product is available as an open-source programme. The advantage for John's firm is, however, that having developed the product, it occupies the cutting edge. It will take some time before others become equally adept at adapting it to customer specific needs. But it also means that the firm must compete for producing the best quality rather than dominating the market, leaving customers with few other options.

John says that his firm rests on 'a reverse line of thought in relation to traditional economy and business strategy: 'It has taken a long time and we have been subject to great ridicule, but it has been fun to see that the customers now realise the great advantage of our approach. They have started to demand open-source products. The concept suddenly starts to spread - and quickly now.'

Sometimes the firm is also involved in the development of closed-systems products, as when the firm collaborates with hardware producers who are working with closed codes. But the closure is immaterial, according to John, because the product cannot be used in other contexts. 'It's fine. There are situations in which it is better to produce your own things and keep them as a business secrets, particularly if it concerns an area.' Nevertheless he admits that other programmers may be able to transfer the codes to other situations, but the company with which John collaborate will not concede to openness for the product. He has accepted this condition, because 'It's worth more to us to produce this for 'CLOSED-SYS' under the conditions which they stipulate. Then we can work for others in the way we prefer. So in the case of 'CLOSED-SYS', we work with a closed system.' John estimates that about 10% of the firm's jobs involve working with closed codes, and he does not expect this share to change to any appreciable extent.

(The data for this case description was gathered in 2002)

3 The historical social context of the case

The case about John and his firm is the story about how different institutional logics governing open and closed codes respectively meet and mix – an issue of different understandings of 'property rights to intellectual work'. The story is far from an isolated occurrence, and today we observe many different ways of mixing the two logics in the production of software. In Denmark, for instance, various interest organisations/groups have emerged over the last two years that work for the

dissemination of open source commercial suppliers and producers. And the phenomenon is far from local, but a global one.

In order to understand this development it might be fruitful to look into what has happened with the concept of 'property' over the last decades. Traditionally the concept of property embraces a number of rights that in various ways are allocated to individuals, groups or society. In the capitalist production the concept of property is tied to firms and embedded in a conception of the right of private owners to manage the firm, yield profit, and wind up/transfer/sell the firm to others. In western societies the prevailing assumption has been that combined these three rights were related to the efficiency of the firm (Lindkvist and Westenholz, 1987). Concurrently with production being transformed from material production to the production of intellectual work (innovations, ideas, knowledge, information, symbols, expressive manifestations, images, music, etc., detached from specific physical objects) the intellectual property right has attracted growing attention in society, and some researchers argue that intellectual property rights require a specific justification. The reason is, among other things, that non-physical phenomena like intellectual work are not immediately reduced from being shared with and used by many people such as physical phenomena are reduced by being shared with or used by others besides the owner. (Barlow, 2002; Coleman and Hill, 2005; Cornish, 2004; Davis, 2004a; Rivette and Kline, 2000; Stahl, 2005; Thierer and Crews, 2002; Wright, 1979).

One of the most characteristic sectors in society that has placed the discussion of intellectual property rights on the agenda in recent years is that of *software development within the hacker-culture*² related to the communities 'Free Software' and 'Open Source' and the concept of 'copyleft'. (Davis, 2004 b; DiBona, Ockman and Stone, 1999; Kaisla, 2001; Laurent, 2004; Moody, 2002; Pavlicek, 2000; Raymond, 1999; Rosen, 2005; Stahl, 2005; Torvads, 2001; Wark, 2004; Weber, 2004; Williams, 2002). Within private software firms many saw the hackers as a kind of communist movement, but the boundary between private business and the hacker community was surprisingly transgressed by the end of the 1990s. Among other things the privately owned Netscape announced that it would publish its source codes on the Internet and thus make the codes accessible to the public. This triggered a process through which managers and hackers developed a marketing strategy aiming at making private firms interested in the working methods of hackers. Previous ethical imperatives were shelved in exchange for a more instrumental concept that would be easier to understand for private business firms. Among other things the concept introduced the possibility of privatising software modifications and demand payment for their applications. The concept 'free software' was exchanged for 'open source', and a growing number of private firms have started using Open Source over the last five-six years. (DiBona, Ockman and Stone, 1999; Fink, 2003; Hippel and Krogh,

² The term 'hacker' is applied here in the same way as the hacker-community does: a hacker is an enthusiastic, often highly intelligent person who develops IT software in collaboration with other hackers across universities and firms. Thus, a hacker is not someone involved in criminal acts and hacking into others' computers.

2003; Holck, Larsen and Pedersen, 2004; Jørgensen, 1999; Kaisla, 2001; Koch, 2005; Larsen, Holck and Pedersen, 2004; Pavlicek, 2000; Raymond, 2001; Weber, 2004).

4 Theoretical background

In recent years different perspectives have been applied to studying the right to intellectual work, such as an issue of moral/philosophy, of economic theory, of law and of organisational sociology. The present research –in-progress paper will apply the latter approach, with a focus on the theory of *new-institutional organisational sociology* that investigates how the social construction of intellectual property unfolds in the meeting between business firms and voluntary communities.

New-institutional theory focuses in particular on cognitive institutions – that is internalised symbolic images of reality – and less on regulative and normative institutions. (DiMaggio and Powell, 1983; Friedland and Alford 1991, Meyer and Rowen, 1983; Scott, 1991; Scott, 1995). The theory, which was developed in the late 1970s and 1980s, understands cognitive institutions as independent variables, which implies "a turn toward cognition and cultural explanations and an interest in properties of supra-individual units of analysis that cannot be reduced to aggregations or direct consequences of individuals' attributes or motives" (DiMaggio and Powell, 1991). This understanding of cognitive institutions as independent variables has subsequently been subject to severe criticism as it made it unsuitable for explaining institutional *changes*. A number of researchers have attempted resolving this problem by introducing an 'actor' as independent variable. They have thus gone back to where the new-institutional theory started its criticism: that individuals have motives and attitudes that, under certain circumstances, contribute to explain institutional changes. (Brint and Karabel, 1991; DiMaggio, 1988; Oliver, 1991; Scott, 1995; Tolbert and Zucker, 1983). Other researchers have attempted solving the problem – not by going back to individual motives and attitudes as the explanatory power of institutional changes – but by further developing new-institutional theory by adding to it a phenomenon called *institutional entrepreneurs*. Institutional entrepreneurs are socially constructed actors of social capabilities to motivate others to collaborate by bringing about in social practices characterised by multiple institutional logics a shared sense making and identity. These logics constitute the organising principles and they are accessible to organisations and individuals interested in further developing micro processes through which the parties make sense of what has happened, what is happening, and what is going to happen. (Borum and Westenholz, 1995; Boxenbaum and Battilana, 2004; Christensen and Westenholz, 1997; Fligstein, 1997; Friedland and Alford, 1991; Greenwood and Hinings, 2002; Seo and Creed, 2002). The theory of institutional entrepreneurs is currently in the process of being developed, and the project wishes to contribute to further develop this phenomenon focusing on the explanatory power of institutional entrepreneurs in relation to the emergence of intellectual property.

In further developing the phenomenon ‘institutional entrepreneurs’ I shall argue for the fertility of combining new-institutional organisational theory and organisational discourse theory. (Graesser, Gernsbacher and Goldman, 2003; Grant, Hardy, Oswick and Putnam, 2004ba; Jørgensen and Phillips, 2002; Wetherell, Taylor and Yates, 2001). Organisational discourse theory refers to the structural collection of texts embedded in practice when talking and writing (in casu about intellectual property). The assumption is that discursive practice not only describes things, but also ‘do’ them in that the discourse brings life to the phenomena by categorising and combining them in ways that make sense in an otherwise meaningless reality. Within the realm of discursive theory it is methodologically relevant to distinguish between ‘discourses-in-use’ and ‘discourses-in-context’. (Grant, Hardy, Oswick and Putnam, 2004 b). The latter concept ‘discourses-in-context’ is not alien to new-institutional concepts such as cognitive institutions/institutional logics as institutional contexts are used for understanding the formation of language. (Grant, Hardy, Oswick and Putnam, 2004 b). By supplementing new-institutional organisational theory with ‘discourses-in-context’ analyses it becomes possible to elucidate the way in which institutions prevail in everyday discourses. This will balance and concretise new-institutional organisational theory, but it will not bring the theory further in the analyses of institutional changes. For this purpose the approach of ‘discourses-in-use’ is applicable in that it focuses on interaction in micro processes through which discourses are attempted authorised through, and counter-discourses are produced to escape authorisations. (Collinson, 1988 1992, Gabriel, Handy and Phillips, 2004).

5 And back to the case and the social context

Looking at the historical development in which John’s firm is embedded, several discourses-in-context’ concerning the right to intellectual work are emerging within software development. Each of these discourses points towards heroes and villains in the development. This has been analyzed by, among others, Szczepanska, Bergquist & Ljungberg (2005) who identifies a ‘hacker discourse’ developed within various software developing movements and communities. In the discourse a ‘hacker’ appears who in most cases is characterized as the creative and genuinely interested troubleshooter developer – a character or an identity that marks a difference between ‘us’ and ‘the others’. In the 1990s the hacker-discourse split into two as a result of arguments over how to approach and to organize software development. One of the discourses, the ‘*free-software-discourse*’, strongly emphasizes the ideological aspects of the freedom to hack and to get and use information, whereas the other one, the ‘*open-source-discourse*’ attaches less importance to the ideological aspects of freedom and more to the concrete product developed by using open codes. Both discourses share the ambition to produce free software of high quality, but the differences between the discourses are sufficient to identify two stories about ‘hackers’ each of which is closed around an ‘us’ and sees the others as – ‘the others’. Nevertheless both stories share a mutual enemy represented by Microsoft which is characterized as the ‘evil empire’ as opposed to hackers, who like to see themselves

as romantic rebels. Microsoft has responded by developing its own '*proprietary-discourse*' that tells a story about not only the necessity of firms protecting their codes, but also about the importance of firms possessing the property right to intellectual work in order to secure society innovation. In this story the hackers are identified as the villains comparable to communists and anti-American behavior. As Szezepanska and others stress it is interesting that all three discourses claim to support 'the American way' in their attempts to legitimize their own discourse in the societal arena.

Turning to John and his firm we can now see that John operates as an institutional entrepreneur. John operates at the firm level, and in his local context he draws on the open-source-discourse and the proprietary-discourses. The nature of his entrepreneurship is not to (further) develop *one* of the two discourses as e.g. Stallman, Raymond and Gates have done, but to *mix* them in his daily practice in the firm. Mixing the discourses requires that John renders them legitimate, enabling him to live with himself and persuade his employees and other partners of collaboration to accept the mix. For this purpose he applies two techniques: First of all he develops a distinction between 'universal themes' and 'specific themes' in software development. When developing 'universal themes' one should keep one's hacker identity whereas it is fine to work in closed codes if the theme is specific and cannot be used by others anyhow – according to John's arguments. Second, he develops a pragmatic/instrumental attitude toward working with closed codes for CLOSE-SYS arguing that it creates the financial possibility for working with open codes, which is what he prefers – his substantive values. In the terminology of March and Olsen (1989:23) John applies a logic of consequentiality working together with CLOSE-SYS and logic of appropriateness when he is working with open codes. Both logics seem to have functioned in his daily practice.

6 Conclusion

I have briefly analysed a single firm case that demonstrates how an entrepreneur brings into an organizational IT field an open-source-discourse-in-use, a field in which the nature of the dominant discourse-in-context and discourse-in-use are proprietary. This causes *problems of legitimacy* for the entrepreneur, and he fails in his attempt to procure from the organizational field the necessary resources for developing and continuing the company; he is unable to render the open-source concept legitimate. Financially he only survives by selling his apartment for contributing to the assets of the company. At this point in the process the entrepreneur sticks to his open-source and does not assume the character of an *institutional* entrepreneur. Only late in the process does he 'assume character' as an institutional entrepreneur by mixing in an innovative way different discourses in an attempt to legitimise a new mode for developing software applying both open and closed source codes. He does this by *creating new distinctions* in the discourse-in-use applied in his daily software developing work (universal versus specific themes; and instrumental

versus substantive values). I am not arguing that the institutional entrepreneur is creating these new distinctions in an instrumental rational process, but that the distinctions emerge in sensemaking processes along his 'doing' something in this firm.

In the further study it would be interesting to:

- identify other discourses-in-context and discourses-in-use within software development,
- identify other ways of mixing (other) discourses in the daily software development and analyse how these are established as discourses-in-use,
- analyse whether and how new/mixed discourses are disseminated in the field of software development. Here it would be relevant to incorporate different analytical units as institutional entrepreneurs (e.g. individuals, firms, communities), and different analytical levels (global level, nationally level, organizational level, and the level of concrete projects).

References

- Barlow, John P. (2002) Intellectual Property , Informational Age. In: Thierer, Adam and Clyde Wayne Crews Jr. (eds.) *Copy Flights – The future of intellectual property in the information age*. Washington, D.C.: CATO Institute
- Borum, Finn and Ann Westenholz (1995) The incorporation of Multiple Institutional Models – Organizational Field Multiplicity and the Role of the Actor. In: W. Richard Scott and Søren Christensen (eds.) *The Institutional Construction of Organizations – International and Longitudinal Studies*. Thousand Oaks: Sage Publ.
- Boxenbaum, Eva, and Julie Battilana (2004) *The Innovative Capacity of Institutional Entrepreneurs – A Reconstruction of Corporate Social Responsibility*. Academy of Management Annual Conference. New Orleans, August 6-11, 2004
- Brint, S. and Karabel, J. (1991) Institutional Origins and Transformations: The Case of American Community Colleges. In Powell, W.W. and P. J. DiMaggio (Eds.) *The New Institutionalism in Organizational Analysis*. Pp. 337-360 Chicago:University of Chicago Press.
- Christensen, Søren and Ann Westenholz (1997) The social/behavioural construction of employee as strategic actors on company boards of directors. *American Behavioral Scientist*: 40:4
- Coleman, and Hill (2005) The Social Production of Ethics in Debian and Free Software Communities: Anthropological Lessons for Vocational Ethics.In: Koch, Stefan ed. *Free/open Source Software Development*. Hershey: IDEA group Publishing
- Collinson, D. (1988) 'Engineering humor': Masculinity, joking and conflict in shop-floor relations. *Organization Studies*, 9: 181-99
- Collinson, D. (1992) *Managing the shop floor: Subjectivity, masculinity, and workplace culture*. New York: De Gruyter

- Cornish, William (2004) *Intellectual Property – Omnipresent, Distracting, Irrelevant?* Oxford: Oxford University Press
- Davis, Lee (2004 a) Intellectual property rights, strategy and policy. *Economics of Innovation and New Technology*, 13(5):399-415
- Davis, Lee (2004 b) Leveraging copyrights to appropriate profits in the new 'information' industries. *Paper presented at the AHRB Copyright Research Network Conference, London*
- DiBona, Chris, Sam Ockman and Mark Stone (eds.) (1999) *Open Sources – Voices from the Open Source Revolution*. Beijing: O'Reilly
- DiMaggio, P.J. (1988) Interest and Agency in Institutional Theory. in Zucker, L.G. (ed.) *Institutional Patterns and Organizations: Culture and Environment*. Pp. 3-21. Cambridge, MA: Ballinger.
- DiMaggio, P.J. and Powell, W.W. (1983) The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review*, 48:147-160.
- DiMaggio, P.J. and Powell, W.W. (1991) Introduction. In Walter W. Powell and P.J. DiMaggio (Eds.) *The New Institutionalism in Organizational Theory*. Chicago: University of Chicago Press.
- Fink, Martin (2003) *The Business and Economics of Linux and Open Source*. Uppersaddle River, NJ: Prentice Hall PTR
- Fligstein, Neil (1997) Social Skill and Institutional Theory. *The American Behavioral Scientist* (40:4)
- Friedland, R. and Alford, R.R. (1991) Bringing Society Back In: Symbols, Practices, and Institutional Contradictions. In W.W. Powell and P.J. DiMaggio (Eds.) *The New Institutionalism in Organizational Analysis*. Pp. 232-263. Chicago: University of Chicago Press.
- Gabriel, Yiannis (2004) Narratives, Stories and Text. In: Grant, David, Cynthia Hardy, Cliff Oswick and Linda Putnam (eds.): *The SAGE Handbook of Organizational Discourse*, London: Sage Publications
- Graesser, Arthur C., Morton Ann Gernsbacher and Susan R. Goldman (2003) *Handbook of discourse processes*. Mahwah: Lawrence Erlbaum Associates
- Grant, David, Cynthia Hardy, Cliff Oswick and Linda Putnam (eds.) (2004a): *The SAGE Handbook of Organizational Discourse*, London: Sage Publications
- Grant, David, Cynthia Hardy, Cliff Oswick and Linda Putnam (2004b): Introduction: Organizational Discourse: Exploring the Field. In: Grant, David, Cynthia Hardy, Cliff Oswick and Linda Putnam (eds.) (2004): *The SAGE Handbook of Organizational Discourse*, London: Sage Publications
- Greenwood, Royston, Suddaby, Roy and C.R. Hinings (2002) Theorizing Change: The role of professional associations in the transformation of institutionalised fields. *Academy of Management Journal*:45,1
- Hippel, Eric von and Georg von Krogh (2003) Open Source Software and the 'Private-Collective' Innovation Model: Issues for Organization Science. *Organizational Science* vo. 14, no. 2: 209-223
- Holck, Jesper, Michael Holm Larsen and Mogens Kühn Pedersen (2004) *Identifying Business Barriers and enablers for the adoption of open source software*. ISD

- 2004, Thirteenth International Conference on Information System Development – Advances in Theory, Practice and Education. Vilnius, Lithuania, 9-11 September
- Jørgensen, Marianne and Louise Phillips (2002) *Discourse analysis – as theory and method*. London: Sage Publ.
- Jørgensen, Niels (1999) *Giv det hele væk!* Handelshøjskolen i København
- Kaisla, Jukka (2001) *Constitutional Dynamics of the Open Source Software Development*. Department of Industrial Economics and Strategy, CBS
- Koch, Stefan ed. (2005) *Free/open Source Software Development*. Hershey: IDEA group Publishing
- Larsen, Michael Holm, Jesper Holck and Mogens Kühn Pedersen (2004) *The Challenges of Open Source Software in IT Adoption: Enterprise Architecture versus Total Cost of Ownership*. IRIS 2004, Information System Research in Scandinavia, Falkenberg, Sverige, 14-17 August
- Laurent, Andrew M. St. (2004) *Open Source and Free Software Licensing*. Beijing: O'Reilly
- Lindkvist, Lars och Ann Westenholz (red.) (1987) *Medarbetarägde företag I Norden – Historisk Parentes eller framtida möjlighet?* Nordisk Ministerråd, NU:1
- March, James G. and Johan P. Olsen (1996) Institutional Perspectives on Political Institutions. *Governance: An International Journal of Policy and Administration*, Vol 9, No. 3: 247-264
- Meyer, John W. and Brian Rowan (1983) Institutionalized Organizations: Formal Structure as Myth and Ceremony. *American Journal of Sociology* (2)
- Moody, Glun (2002) *Rebel Code – Linux and the open source revolution*. London: Penguin Books
- Oliver, Christine (1991) Strategic responses to institutional processes. *Academy of Management Review* (18:1)
- Pavlicek, Russell C. (2000) *Embracing insanity – open source software development*. Indianapolis: Sams Publ.
- Raymond, Eric, S. (1999) *The Cathedral and the Bazaar – Musings on Linux and Open Source by an accidental revolutionary*. Beijing: O'Reilly
- Rivette, Kevin G. and D. Kline (2000) Discovering new value in intellectual property. *Harvard Business Review*: 54-66
- Rosen, Lawrence (2005) *Open Source Licensing – Software Freedom and Intellectual Property Law*, New Jersey: Pearson Professional Education
- Scott, W. Richard (1991) Unpacking Institutional Arguments. In: Walter W. Powell and Paul J. DiMaggio (eds.) *The New Institutionalism in Organizational Analysis*. Chicago: the University of Chicago Press
- Scott, W. Richard (1995) *Institutions and Organizations*. Thousand Oaks: Sage Publ.
- Seo, Myeong-Gu and W.E. Douglas Creed (2002) Institutional Contradictions, Praxis, and Institutional Change: A Dialectical Perspective. *Academy of Management Review*: 27,2
- Stahl (2005) 'The Impact of Open Source Development on the Social Construction of Intellectual Property'. In: Koch, Stefan ed. *Free/open Source Software Development*. Hershey: IDEA group Publishing

- Szczepanska, A. M., Bergquist, M., & Ljungberg, J. (2005). High Noon at OS Corral: Duels and Shoot-Outs in Open Source Discours. In: J. Feller, B. Fitzgerald., S. A. Hissam, and K. R. Lakhani, eds. *Perspectives on Free and Open Source Software*. Cambridge, Mass.: MIT Press.
- Thierer, Adam and Clyde Wayne Crews Jr. (eds.) (2002) *Copy Flights – The future of intellectual property in the information age*. Washington, D.C.: CATO Institute
- Tolbert, Pamela S. and Lynne G. Zucker (1983) Institutional Sources of Change in the Formal Structure of Organizations: the Diffusion of Civil Service Reform, 1880-1935. *Administrative Science Quarterly* (28)
- Torvalds, Linus (2001) *Just for Fun – The story of an accidental revolutionary*. New York: Texere
- Wark, McKenzie (2004) *A Hacker Manifesto*. Cambridge, Mass.: Harvard University Press
- Weber, Steven (2004) *The Succes of Open Source*. Cambridge, Mass.: Harvard University Press
- Wetherell, Margaret, Stephanie Taylor and Simeon J. Yates (2001) *Discourse theory and practice – A reader*. Sage Publ.
- Williams, Sam (2002) *Free as in Freedom – Richard Stallman’s crusade for Free Software*. Beijing: O’Reilly