

Knowledge work and intellectual property rights – new challenges for trade unions

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ABSTRACT

The system of industrial relations, based on industrial work, has been challenged and even transformed by current changes towards a service and knowledge economy. In a society where knowledge has become the main factor of production the regulation of intellectual property rights becomes an important issue of social conflicts. However, in the current debate about a reform of intellectual property law trade unions hardly play any role although the new regulations have an impact on employed and self-employed workers as well as on the power-relationship of labour and capital. This paper intends to provide a theoretical discussion of intellectual property right issues in the context of labour-market changes towards a service and knowledge society. Using the example of software production, the paper raises the question of what kinds of strategies management applies to control and exploit knowledge workers. These issues are dealt with on the EU-level by focusing on the interest formation and the role and behaviour of German and Austrian unions. Although they become increasingly aware of the impact the regime of intellectual property rights has, they struggle to find a common position apt to defend the rights of employees.

INTRODUCTION

The system of industrial relations, based on industrial work, has been challenged and even transformed by current changes towards a service and knowledge economy. Trade unions in particular need to find new modes of organisation for new types of workers, e.g. service and knowledge workers. In accordance with Davenport (1998: 54), knowledge work refers to the acquisition, creation, packaging, or application of knowledge, and – “characterized by variety and exception rather than routine – it is performed by professional or technical workers with a high level of skill and expertise.” Knowledge-workers are therefore involved in activities such as research and product development, education, professional services such as consulting or management. In this regard, the issue of intellectual property rather than the ownership of tangible assets can be seen as highly relevant when it comes to exploit knowledge intensive work. However, employed knowledge workers are usually forced to grant their employers the right to exploit their intellectual products by applying for patents and copyrights. Hence, the implied knowledge neatly linked with personal experience is being transformed into objectivated forms of knowledge owned by the employer (cf. Gorz 2003). While for employed work this practice is taken for granted, even by unions, it is more likely to become a controversial issue for self-employed workers. As a matter of fact, in current debates on intellectual property law new kinds of interest organisations have emerged that make no difference between employed and self-employed workers or even small independent enterprises, such as the Free Software Foundation (FSF) or the Foundation for a Free Informational Infrastructure (FFII) in the European debate about software patents (cf. Müller 2006).

Hypotheses. The rise of a knowledge society is a major challenge for trade unions that have emerged within industrial society. We argue that the conflict about intellectual property is an opportunity for trade unions to redefine their role as interest organisation of workers. In current debates about intellectual property law the conflict of interest between knowledge workers and knowledge-based enterprises is often obfuscated. The enforcement of copyrights, patents and even trademarks is justified by the interests of authors, musicians, artists and engineers who produce new knowledge and cultural works while these rights normally are owned by enterprises and allow them to gain control over the process of knowledge production.

Outline. The paper discusses the issue of intellectual property and (post-)industrial relations in three parts:

1. The first part aims to provide a theoretical background of the impact intellectual property rights have on the power-relationship of labour and capital. Using the example of software production the paper raises the question of what kinds of strategies management applies to control and exploit knowledge workers.
2. The second part uses the European debate about software patents as an example to analyse new forms of organisation and new interest coalitions that arise in the social conflict about the definition of 'intellectual property'.
3. Finally, the paper examines how Austrian and German unions deal with these new challenges. In both countries unions have difficulties to find a common position on intellectual property rights. In combination with a lack of financial and human resources, these internal difficulties are the main reason why unions took no active part in the debate about software patents. Only recently unions have tried to find a way out of this impasse.

Methods. This paper is the result of a preparatory study for a larger research project on (new) modes of interest articulation and representation of knowledge workers. Our findings are based on interviews and e-mail correspondence with copyright experts from Austrian and German trade unions as well as the analysis of documents regarding the failed EU directive on "computer-implemented inventions" and union's position on intellectual property rights. We have also used interviews with employees of two German software companies that have been conducted in the frame of two other research projects on precarious forms of interest representation.

1 THEORETICAL BACKGROUND

1.1 The Concept Of Knowledge Work

Knowledge work and knowledge worker. Fifty years ago Peter F. Drucker introduced the concept of "knowledge work" (Drucker 1959: 69) and described the new type of workers that is associated to it. "The only long-term policy which promises success is for developed countries to convert manufacturing from being labor based into being knowledge based." (Drucker 1993: 74) According to Drucker the "Productivity Revolution" based on the application of knowledge to the study of manual work (introduced by Frederick W. Taylors "scientific management") became a victim of its own success. Just because productivity of manual work has increased manual labour becomes a less and less important factor of production. Further productivity gains can only be achieved by making knowledge work more effective, i.e. by "applying knowledge to knowledge" (Drucker 1993: 40).

The Labour Process Debate and new modes of control. While Drucker stresses the positive effects of the Taylorist "Productivity Revolution", namely the higher standard of living of industrial workers, the Labour Process Debate discussed the shift of power relations at the workplace that "scientific management" has induced. Productivity gains are achieved by improving the control of management over the work process and by transferring knowledge about the 'best way' to work from the workers to management. From this point of view the question is how

management can gain control over knowledge work and the process of knowledge production. Can management principles developed on manual work be applied to knowledge work? Or does the nature of knowledge work presuppose completely new forms of management?

Antithesis to or transformation of Taylorism? Many authors argue that knowledge work presupposes new forms of work organisation, where networks and partnerships tend to replace bureaucratic hierarchies (e.g. Castells 1996; Beck 2000). In terms of management strategies, participative and cooperative rather than authoritative principles are assumed to effectively govern knowledge work and workers in order to unleash creativity and intrinsic motivation (Kalkowski 2004: 56f.). Hence, the workers' commitment to professional standards and the aims of the employer/client rather than the conditions of employment are claimed to shape the interests and identities of knowledge workers (Betzelt 2006, Kotthoff/Wagner 2008). On the other hand there are attempts to apply hierarchical organisation and fragmentation of individual tasks to knowledge work. In the particular case of software engineering e.g. object-orientated programming provides the opportunity to divide the process of software development into a set of individual tasks with different degrees of complexity.

Knowledge work and industrial relations. Knowledge work differs from industrial work both in objective, structural and in behavioural terms that influence knowledge workers' interests and orientations. Labour relations in this area cannot be reduced to employed labour. Even if they are not self-employed, knowledge workers often see themselves as entrepreneurs of their own labour power, as 'entployees' ('Arbeitskraftunternehmer', cf. Voß/Pongratz 1998). These particularities of knowledge work in turn influence workers' orientations towards interest articulation. Individual self-representation tends to replace collective forms of interest articulation. And where feasible, knowledge workers seek new forms of interest representation – often outside of trade unions. Knowledge workers who enjoy relatively high levels of autonomy and decision making capacities are claimed to be confident and able enough to pursue their work-related interests individually rather than collectively (e.g. Heidenreich/Töpsch 1998). Some authors even assume the industrial conflict between labour and capital has come to an end. Reich (1992: 176f.), for instance, claims that there has already evolved a new class, the so called "symbolic-analysts", that might substitute the capitalist class. However, groups of knowledge workers diverge from each other in terms of their social and institutional circumstances as well as their power relations in the labour market. There exist employed and well-paid knowledge workers in the research departments of core industries alongside solo-self-employed knowledge workers in the emerging services sector (new media, consultancy etc.) whose employment structures largely deviate from known patterns. Some of these occupations and freelance arrangements are characterized by low incomes and risky market conditions (Betzelt 2006: 3). And individual working conditions might quickly turn into precarious situations.

1.2 Social Conflict About Intellectual Property Rights

Intellectual property rights as means of control. In a knowledge-based society access to knowledge has become a crucial issue. Knowledge has become the main factor of production degrading land, labour and capital, the three factors of production of classical political economy, to mere "limitations on the effectiveness of knowledge." (Drucker 1959: 62) However, free movement of and easy access to knowledge is in conflict with the effort to transform knowledge into a marketable, i.e. scarce good. From its origins intellectual property rights were designed to create a balance between the easy access to knowledge and the protection of the rights of those who produced this knowledge. Patents e.g. are intended to create both a protection for the inventor and an incentive to publish inventions. Economic studies, however, show that patents and other IP rights are increasingly used not to protect single inventions but to gain control over the process of knowledge production. Strategic patents are used to exclude competitors from whole areas of technological development. As means to control the process of

knowledge production they also affect labour relations in the realm of knowledge work, particularly the balance of power between knowledge workers and their employers.

Primitive accumulation. The current conflicts about the access to knowledge and the definition of intellectual property rights can be compared to the social conflicts which accompanied the raise of capitalism in the 15th and 16th century. The extension and redefinition of intellectual property law may transform knowledge work in a similar way to the transformation of manual work that Karl Marx analyses in his theory of “primitive accumulation” (cf. Marx 1962/1867: 741–791). It is marked by the double process of transforming public goods (i.e. the “commons”) into private property and expropriating workers from their means of production.

Transforming the commons into private property. Many authors agree that there is an analogy of knowledge protection strategies to what Marx describes as the first aspect of primitive accumulation: transformation of communal territory into private property through enclosure of the commons. Lawrence Lessig, for instance, analyses how the development of intellectual property (IP) rights in the 20th century has led to the transformation of public goods into private property through the extension of IP terms (e.g. the Sonno Bono Copyright Term Extension Act, often called “Mickey Mouse Protection Act”) and through the application of IP rights to a wider field of uses and objects. Not only has copyright’s duration increased dramatically but also its scope – from regulating only publishers to nearly everyone – and its reach – as every use becomes a copy and presumptively regulated (cf. Lessig 2004: 130–173).

Expropriating workers from their means of knowledge production. The second aspect of “primitive accumulation” can also be applied to the field of knowledge. For the primary means of knowledge production is knowledge. Hence, the means of production of software developers are not restricted to hardware (computers, networks etc.). Even more important are the necessary software tools: editors, compilers, debuggers, libraries etc. In addition, only a very small part of software programs are written from scratch. In most cases software engineers enhance existing programs whose copyright already belongs to a particular software company. For this reason already in the beginnings of the computer age hackers claimed that “all information should be free” (Levy 1994: 40). However, with the commercialisation of software in the 1970s access to the source code that is necessary to enhance software or to remove “bugs” became not only legally but also factually restricted. Annoyed of this situation Richard Stallman, in 1983 called “the last of the true hackers” by Steven Levy (1994: 415), decided to found the “GNU project” (where “GNU” stands for the recursive acronym “GNU’s not UNIX”). Stallman intended to develop a “sufficient body of free software so that I will be able to get along without any software that is not free” (GNU Manifesto, www.gnu.org/gnu/manifesto.html). In 1985 he founded the Free Software Foundation as a non-profit organisation to support free software development. In 1989 he wrote the GNU General Public License (GPL) in order to legally protect the freedoms intended with “Free Software”, i.e. the freedom to run, copy, distribute, change and improve the software. With the development of the Linux kernel by Linus Torvalds in 1991 the aim of a completely free operating system was achieved. Since then free software has become an increasingly influential part of software development and software business. Based on the freedom not only to copy but also to modify software the free software movement can be understood as an attempt of software developers to regain control over their means of production. Consequently, the first programs developed for the GNU project were software development tools (i.e. means of production): the EMACS editor and the GCC compiler.

2 THE DEBATE ABOUT SOFTWARE PATENTS IN THE EUROPEAN UNION

2.1 The Issues At Stake

The failed EU directive on “computer-implemented” inventions negotiated between the years 2000 to 2005 is an excellent example for a political debate regarding the redefinition of

intellectual property law. Although the failed directive aimed to regulate a very particular area of patent policy a small group of activists originating in the free software movement succeeded to initiate an intense political debate on this issue and to provoke unprecedented reactions of political institutions. For the first time national parliaments (Danish, Dutch, and German) requested their governments to withdraw their approval to a political agreement in the European Council of Ministers – albeit without success as the ministers didn't respect their parliament's vote. For the first time the European Parliament voted against a directive in the second reading that normally is only used to change the wording of a directive. To understand the issues at stake and the reasons for the failure of the directive two backgrounds should be kept in mind: the crises of the patent system and the special situation in Europe.

The European Patent Convention. European patents are granted by the European Patent Office (EPO) that is not an institution of the European Union. It is bound by the European Patent Convention (EPC) signed in 1973 and meanwhile covering 35 European countries. The definition of “patentable inventions” in article 52 explicitly excludes “programs for computers” from patentability. However by restricting this exclusion to software programs “as such” the text offers a wide room for interpretation. As most technical innovations nowadays use software, the question is: What is a genuinely technical invention controlled by a software program? And what is a computer program “as such”? The European Patent Office has used this room of interpretation to grant a large number of patents to “inventions” that simply describe functions of computer programs. Prominent examples are IBM's patent on the progress bar (EP0394160), Sun's shopping cart patent (EP0807891), and Amazon's One-Click patent (EP0927945). However, decisions about ownership, validity, and infringement of a European Patent are determined independently under respective national law. So it remains unclear if software patents granted by the EPO can be enforced in national courts. The failed EU directive was intended to remove this legal uncertainty by defining a clear legal distinction between patentable “computer-implemented inventions” and non-patentable computer programs “as such”. In fact, though, the draft text presented by the European Commission and favoured by national governments confirmed EPO's policy and would have legalised software patents in all EU member states. This was due to the tight connection between patent offices, government bureaucracies, and the patent experts at the European Commission. Their aim was to prevent a directive that would have made thousands of software patents granted by the EPO invalid in the EU. This situation had very special effects. Officially, the term “software patents” was to be avoided and the credibility of the Commission's proposal wasn't enhanced by the fact that software companies like SAP lobbied for this proposal with the argument that they need patents to protect their “intellectual property”.

The crises of the patent system. In addition to the special legal situation in Europe software patents are seen as prominent example for the crisis of the patent system in general. Patents that were intended to create both a protection for the inventor and an incentive to disclose the technical foundation of their invention are increasingly used to gain control over whole areas of technological development. Cross licensing is used by large corporations to protect their markets from small start-ups. Other firms, the so called “patent trolls”, specialise in patent litigation without using patents for real production. Even patent offices seek a way out of the work overload created by the sheer number of often very trivial patent claims. Many economists criticise the existing patent system and software patents in particular. James Bessen even argues that software patents substitute R&D investments instead of creating an incentive because firms invest more in legal departments than in R&D (Bessen/Hunt 2004).

In general software is protected by copyright. However, copyright violations can only be discerned by comparing the source code. Hence, for free and open source software firms protection by copyright is completely sufficient. For closed source software firms who regard the source code as a trade secret this poses a problem. Some of these firms use software patents

as an opportunity to protect software developments without disclosing the source code. For patent claims apply to the (technical) function of a software program, not to its source code.

2.2 New Actors And New Coalitions

New coalitions against software patents. The failure of the EU directive on “computer-implemented” inventions was due to the intense lobbying of a broad movement against software patents, a coalition of free software organisations, business and professional organisations, small and medium enterprises and individuals. A main actor for initialising and coordinating the movement against software patents was the Foundation for a Free Information Infrastructure (FFII), an association founded 1999 in Munich with the purpose of “making accessible, creating and legally securing public information goods”, i.e. open standards and free software. Though its members are employed and self employed software developers and other individuals the key of its success was the mobilisation of small and medium enterprises. Very early in the debate it gained support by the European SME organisation CEA-PME („Confédération européenne des associations de petites et moyennes entreprises“). Later several campaigns of SMEs against software patents emerged from FFII’s activities, e.g. NoSoftwarePatents.com supported by important medium-sized enterprises such as the Swedish software company MySQL AB and the German internet provider 1&1.

Pro software patent lobbying. The position in favour of software patents was originally promoted by large companies such as Siemens, Nokia and Microsoft. However, in response to the first successes of the “Stop software patents” movement patent friendly lobbyists changed their strategy and claimed to speak in the name of SMEs and independent developers. A successful example is ACT (Association for Competitive Technology), an US organisation founded during the antitrust process against Microsoft in order to support Microsoft in the name of SMEs. ACT claims on its website to be “an international grassroots advocacy and education organization representing more than 3000 small and mid-size information technology firms” but mainly lobbies interests of large companies, particularly Microsoft. Another organisation specially created for the EU debate about software patents was less successful. The Campaign for Creativity, operated by Campbell Gentry, a London-based public relations firm, claimed to be a grassroots organisation of “creatives” (artists, writers, musicians, designers and software developers) but obviously was a fake. It disappeared soon after the rejection of the directive.

Confusion of interests and mystifications. A bizarre effect of the lobbying campaigns was a confusion of the interests behind the conflicting positions – partly due to mystifications. While software developers who were against software patents hoped to gain credibility when they speak in the name of small and medium enterprises, large multinational companies who were in favour of software patents claimed to have the support of individuals and small enterprises. For another part, though, the confusion was related to real conflicts of interests within the same group of actors. While free software organisations clearly were against software patents, not all closed source software firms were in favour of patents. While a majority of SMEs and their interest organisations fiercely lobbied against software patents, some small enterprises joined the pro-patent side. In some organisations internal conflicts arose about the position to take. For instance, within the Gesellschaft für Informatik, a German association of software developers, members successfully rebelled against the pro-patent position of the direction. In general, however, the frontier between proponents and opponents of software patents was not related to the opposition of labour and capital but to different market positions (small vs. large enterprises) and software development models (open vs. closed source). Interests are a social construct. And knowledge workers normally don’t refer to the opposition of labour and capital or at least to their position as employed or dependent self-employed workers when they define their interests.

3 TRADE UNIONS AND INTELLECTUAL PROPERTY RIGHTS

3.1 Trade Unions In The Debate About Software Patents

Trade unions could be the appropriate actors to define a genuine employee perspective in the debate about intellectual property rights. However, internal controversies hinder them to find a common position on the issues at stake. On the one side there are unionists who argue that intellectual property rights can be used to defend knowledge workers' rights. They rely on the specific character of IP rights in continental European law. In contrast to Anglo-Saxon "copyright" which protects the rights of publishers, Austrian and German "Urheberrecht" protects the personal right of the author. In a similar way both Austrian and German patent law know the concept of "employees' invention" ("Arbeitnehmererfindung") and grant employees the right to receive a monetary compensation for patented inventions they make during their working time. In reality, however, the strong legal position of knowledge workers hardly has any effect. Journalists, for example, normally grant all exploitation rights to their publishers ("buy out"). Software developers have to sign copyright assignments that grant all rights to the employer. Hence, on the other side there are unionists who argue that intellectual property rights actually are used to expropriate knowledge workers.

Austria. The European debate about software patents affected Austrian unions only marginally. At least, union positions seemed to have an influence on Austrian social-democratic Members of the European Parliament (MEP). In the first reading these MEPs supported a directive in favour of software patents due to the argument that patents are important to protect large companies, that are a stronghold of trade unions, against foreign competitors. In a later stage of the debate trade union activists with a free software background entered the public debate and might have influenced the decision of social-democratic MEPs to reject the directive in the second reading.

Germany. Although prominent members of the German Confederation of Trade Unions DGB and the metal workers' union IG Metall supported the movement against software patents, this position remained controversial. Some unionists argued with reference to the remuneration employees can receive for patented inventions that knowledge workers in the IT industry may profit from a wide definition of "computer-implemented invention". Finally, however the argument prevailed that software patents are mainly used as market barriers and have no benefit for workers.

3.2 Trade Unions Between Intellectual Property Rights And Creative Commons

The DGB report about intellectual property law. Meanwhile the German Confederation of Trade Unions DGB has recognized the significance of the debate about intellectual property rights for the trade union movement. In September 2007 it started an internal debate about IP rights by publishing a report on the legal questions and their impact for the labour movement – written by Till Kreutzer, a legal consultant of the free software movement. The proper debate started with a workshop in December 2007 that showed how controversial these issues are among unionists. The opposing positions can be illustrated by two prominent exponents: Wolfgang Schimmel and Ulrich Klotz.

Pro intellectual property rights. Wolfgang Schimmel, copyright expert of the German services union ver.di, represents the point of view of a traditional type of unionised knowledge workers: journalists and artists working in the media industry. Defending the "Urheberrecht" as a genuine right of knowledge workers, he feels himself squeezed between the misuse of IP rights by large media companies and the complete rejection of IP rights in the Cyberculture. In particular, he criticises Creative Commons as a raid on authors' rights.

Pro Creative Commons. Ulrich Klotz, IT expert from the German metalworkers union IG Metall, takes the opposite position. He praises developments such as Open Source, Crowd Sourcing, Creative Commons as new forms of autonomous and voluntary work that form the antithesis to

the alienated and hierarchically controlled work in Taylorist organisations. While his position on intellectual property rights remains unclear, the main focus of his critique is union organisation. Union mergers have led to even more bureaucratic and hierarchical structures and aggravated the alienation from knowledge workers. Instead, unions should learn from Free Software projects and Social Networks (cf. Klotz 2008).

CONCLUSIONS

In a knowledge-based economy “intellectual property” and access to knowledge have become crucial issues. As means of control of knowledge production intellectual property rights affect the power relation of labour and capital. In current debates the aspect of labour relations is often neglected or even obfuscated. In the same way as strong IP rights can be used to expropriate knowledge workers by transferring their knowledge into “intellectual property” owned by the employer alternatives such as Open Invention or Crowd Sourcing can be used to exploit voluntary unpaid labour. By exposing such distortions trade unions could reaffirm their role as advocates of workers’ interests in the new world of knowledge work.

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