

Conflicts about intellectual property claims: the role and function of collective action networks

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ABSTRACT Decision-making processes in Europe involve complex networks of actors who are trying to influence them at the various levels of the European multi-level governance system. Interest group research often assumes that the ability of an actor to exert influence depends mainly on its financial and personal resourcefulness, on its ability to provide expert knowledge and on its economic and/or political power. Recent conflicts in which ‘weak’ actors were able to persist have challenged this assumption. We claim that a careful analysis of the actor networks is able to complement the traditional actor-resource-centred perspective, and that paying attention to the structure of collective action networks is necessary to fully grasp the dynamics of decision-making processes in Europe in which the power of networks sometimes outweighs the power of resources.

KEY WORDS Europe; interest groups; intellectual property; network analysis; protest.

INTRODUCTION

In autumn 2003, two proposals were pending in the European Parliament that would affect the rules governing intellectual property (IP) in Europe. Two years later the deliberation on both proposals had come to an end – with opposing outcomes.

In March 2004, the European Parliament adopted the ‘Directive on the Enforcement of Intellectual Property Rights’ (IPRED 1, generally referred to as simply the Enforcement Directive) by a vote of 330 to 150. The directive was intended to strengthen and harmonize the enforcement of intellectual property rights, including copy, trademark and patent rights, in the EU member states (COM 2003). It gives rights holders more possibilities to bring civil suits against counterfeiters and other violators.

The second proposal, the ‘Directive on the Patentability of Computer Implemented Inventions’, known as the Software Patent Directive, was soundly rejected by the European Parliament in July 2005 by a margin of 648 to 14. This directive was drafted by the European Commission to introduce patent rights for inventions ‘implemented on a computer or similar apparatus

which is realized by a computer program' (COM 2002: 13). This surprising decision marked the end of nearly four years of discussion, lobbying, campaigning and bargaining between EU institutions, business associations, civil society groups, national parliaments and the media, in which the opponents of the Directive would normally have been considered to be much weaker than its proponents.

These two conflicts were largely concurrent and had many similar characteristics. Both took place in the same policy field (intellectual property rights), in an initially similar institutional and procedural setting, and involved a significant number of the same kinds of actors. Yet one passed by a two to one margin and the other was overwhelmingly defeated. Why did this happen? Why would interest groups traditionally regarded as strong succeed in the first case but fail in the second? Why were 'weak interests' able to mobilize in a way no one had anticipated to prevent the adoption of the Software Patents Directive? So far neither the literature on European policy-making, on interest groups in Europe (Bennett 1999; Bouwen 2004; Eising 2004; Greenwood 2003; Richardson 2000) nor the literature on policy networks (Kenis and Schneider 1991; Kohler-Koch 2002; Kriesi *et al.* 2006; Rhodes 1997) can give satisfactory answers to these questions. The empirical puzzle leads to a reconsideration of the existing literature in light of recent conflicts in the field of politics of intellectual property (IP), suggesting that additional factors must play a role in determining the success or failure of attempts by weak actors to influence policy decisions.

In this article we suggest that research on social movements and social networks provides tools that allow us to complement existing approaches by identifying additional mechanisms that help explain the unexpected trajectories of these two conflicts.

After a discussion of the relevant literature, we present results of an analysis of the actor networks involved in both conflicts, identifying two network-related mechanisms that help explain these outcomes, which effectively contradict central assumptions about interest group politics in Europe. We argue that relational aspects are crucial to understanding the structure of the conflicts and their outcomes. We will show that the structures of the action networks and of the coalitions built among individual actors strongly affected the decision-making process and the actors' chances of influencing it.

INTEREST GROUPS IN THE EUROPEAN POLITY

Both conflicts were characterized by intense lobbying and political mobilization by various interest groups. In the sizeable literature on interest groups in Europe there is broad agreement that in the complex multi-level system of European governance the impact of interest groups differs decidedly from existing national and international settings (Eising 2004; Hooghe and Marks 2001; Kohler-Koch 1997; Scharpf 2002). As an action and governance system *sui generis*, the European political arena is characterized by a multiplication of negotiation arenas.

Following Olson's (1968) classic theorem that the incentive to invest resources for the creation of collective goods diminishes with group size, studies of interest representation in Europe usually assume that small groups with specific interests or large individual firms have the best chance of influencing policies (Eising 2004). This general asymmetry should be even more pronounced at the European level, as interest representation there requires actors to be active on multiple levels of the governance system simultaneously (Bennett 1999; Bouwen 2004; Buholzer 1998; Eising and Kohler-Koch 1994; Grande 1996; Kohler-Koch 1996).

The mainstream of research on interest groups in Europe clearly places public and social interests as well as small and medium-sized enterprises (SMEs) at a disadvantage relative to transnational corporations and large business associations. The former groups usually either lack the necessary resources to establish a continuous presence in Brussels or are unable to satisfy the specific information and knowledge needs of the two most powerful European institutions, the Council of the European Union and the European Commission (Burns 2004; Hayes-Renshaw and Wallace 1997). Nevertheless, from this perspective, consumers, workers or civil society groups may be able to compensate for their structurally weak position by politicizing contentious issues (Beyers 2004; Kohler-Koch 1997). But up until now there has been no systematic empirical research that would tell us the conditions under which such a strategy would succeed.

Given the constellation of actors involved in the two IP conflicts, the interest groups literature would predict relatively clear outcomes. In the software patent case, where all the 'strong' actors supported the Directive and those opposing the Directive would generally be seen as weak, we would expect an easy win for those supporting the Directive. In the case of the Enforcement Directive, the situation was more complicated. While most European business associations supported the Directive, a significant number of large firms and business associations (mainly from the telecommunications, generic medicine and auto parts industries) opposed it. Here it is much less clear what outcome the interest group literature would predict, but in both cases the *de facto* conflict trajectories were quite different. Despite some minor protest and with very limited modifications of the original proposal (the withdrawal of the originally proposed additional criminal sanctions), the Enforcement Directive was adopted without a hitch, while the Software Patent Directive failed. These results suggest that factors other than those elaborated in the interest group literature may have actually been decisive in these two conflicts.

The strength of interest group research is that it shows how the resourcefulness of an actor usually corresponds with its ability to have its interests heard, or more precisely, how different key resources matter at different levels of the European governance system. Research in this area, however, has primarily focused on strong actors and elite interaction (Imig and Tarrow 2001) and is not well suited to explain the occasional success of actors it regards as weak. Moreover, actors are classified as strong or weak mainly on the basis of their access to resources. We believe that this view is too static and ignores interactional

variables such as the structure of interactional networks *among* actors, rather than the attributes of the actors themselves which might better explain success or failure.

The literature on policy networks analyses European policy-making from just such a relational perspective (Kenis and Schneider 1991; Kriesi *et al.* 2006; Rhodes 1997; Richardson 2000), though it tends to focus on new forms of governance characterized by 'informal, decentralized and horizontal relations' (Kenis and Schneider 1991: 32) or on relatively stable interactions between established actors. There are also a few studies of temporary, issue-oriented networks, as well as networks of NGOs and other civil society actors, but there is no agreement if and/or under which conditions these issue networks or policy coalitions would be more effective at interest representation than stable policy networks. The dominant assumption is that 'policy communities', the most stable and integrated type of policy network, will generally be more likely to accomplish their goals than less integrated networks (Rhodes 1997). Other studies, however, contend that, at least in the field of environmental policies, short-term, issue-specific coalitions have been more effective than broader long-term networks (Warleigh 2000).

SOCIAL MOVEMENTS AND NETWORKS

In contrast to the literature on both EU interest groups and policy networks, social movement research has traditionally and systematically focused on weak actors and paid closer attention to networks of interaction. Studies from the political opportunity structure perspective (Kriesi 1995; McAdam 1996; Tarrow 1994; Tilly 1978), for example, underline that social movements act within a social environment that structures their chances to mobilize adherents and to influence policy-making processes. A recurring claim is that factors such as the relative openness or closure of the political system, the stability of political alignments, the availability of elite allies, and the state's capacity and propensity for repression critically structure the outcomes of movement campaigns. This perspective suggests that in European policy conflicts it would therefore be advisable to look for alliance structures, especially with strong allies inside and outside the institutions, and to look for fissures and conflicts *between* the various European institutions.

Other authors stress that discursive factors must also be taken into account to explain the success or failure of social movements (Snow 2004; Snow *et al.* 1986), especially the creation of a collective identity, which they argue is a precondition for collective action (Gamson 1992; Haunss 2004; Melucci 1996). Following this line of thought, rather than trying to act as a (loose) coalition of individuals with a common interest, weak actors should work to construct a coherent collective action frame and some sort of collective identity that allows them to identify the field of opportunities and constraints of their action and holds them together as a collective actor. The network perspective on social movements also draws attention to the multiplicity of linkages that

connect people, organizations, events and frames (Diani and McAdam 2003), and to the social structures that facilitate or hinder mobilization along existing interpersonal ties (McAdam 2003).

Social network analysis in general has developed in explicit opposition to the methodological individualism of other approaches that focus on attributes of discrete social units or groups. It interprets behaviour as the result of patterned interaction between social actors embedded in a social structure that is itself a network of networks (Wellman 1988: 20). Its central assumption is that it is often not the discrete characteristics of an actor that determine its role and influence but its embeddedness in a larger network of interaction and its ties to other actors in that network. Depending on the specific situation, strong or weak ties, direct or indirect ties can be more or less important (Granovetter 1973). Generally speaking, the number of links connecting an actor to the network (referred to as degree centrality) is a relevant measure of its importance, but there are also times when actors that bridge otherwise unconnected subnetworks may be more powerful than those that act as a hub within a network (Burt 1992).

Thus, the literatures on social movements and social networks would both point to the topography of the collective action networks as a critical factor in the two European IP conflicts of concern here. For that reason, and because social movement research explicitly focuses on precisely those actors that interest group research usually classifies as 'weak', our analysis draws mainly on these two perspectives – without neglecting the importance of resources and political context.

THE NETWORKS OF INTERACTION IN TWO IP CONFLICTS

The existing literature does not provide a solid basis to formulate strong hypotheses regarding the nature of successful actor networks, but in the absence of an explanatory framework *exploratory* network analysis may be used to explain success or failure by identifying important relational characteristics of the network.

Drawing on the existing research we suggest four network characteristics which may significantly affect the outcomes of such policy struggles.

1. *Density of cooperative links.* Actors in influential policy networks as well as social movement actors tend to form strong co-operative links with other actors (Rhodes 1997). Strong co-operation is generally interpreted as an expression of social cohesion that facilitates consensus-building within a group (Wasserman and Faust 1994: 250 f.). Groups of actors should have a greater chance of exerting influence if they appear as a cohesive collective actor with a clear profile and a persuasive collective action frame, rather than a loose alliance of disparate special interests. They should be able to formulate a common position and develop a unified strategy. In short, we would expect successful coalition networks in political conflicts to be characterized by a high density of co-operative links.

2. *Location of actors in the network.* Not all actors in large networks are equally important. Some are better connected than others, some act as hubs that are connected to many other actors, others may act as brokers connecting otherwise unconnected or only weakly connected subnetworks. On that basis, we might expect formal coalitions and established policy networks to have a different distribution of central actors than would conflict networks that develop more like a social movement mobilization. Similarly, different types of networks should exhibit differing degrees of network centralization, i.e., we would see variations in the centrality scores of different kinds of networks (Wasserman and Faust 1994: 169ff.).
3. *Duration of co-operation.* Interest group research often assumes that having regular and established contact with EU institutions (i.e., insider status) is crucial for influencing decision-making processes in the EU (Broscheid and Coen 2003). This view is largely supported by the policy networks literature. An analysis of the actor networks should therefore pay attention to the extent to which they are built on pre-existing structures of formal or informal co-operation.
4. *Size.* Obviously network size is likely to be an important factor. All else being equal, a large network of actively co-operating actors should be able to mobilize significantly more resources than a smaller network, even if each actor's contribution is relatively small. At the same time a large network may be less flexible and react more slowly to changing conditions.

DATA AND METHODS

For an exploratory network analysis that focuses on the above mentioned factors, the relevant network is the collective action network comprising all actors *actively involved* in a particular policy conflict. We define *collective action networks* as those networks that include all interacting actors involved in the conflicts, ranging from civil society organizations and firms to public institutions (such as parliaments and the European Commission). To identify these networks we used a triangulation method, combining data from different sources. News coverage in major national newspapers was the first source. Using the political claims analysis framework developed by Koopmans and Statham (1999), we conducted a content analysis of all newspaper articles published in selected quality newspapers of four countries (*Süddeutsche Zeitung*, *die Tageszeitung*, *Frankfurter Rundschau*, *Die Welt*, and *Stuttgarter Zeitung* for Germany; *Daily Mail*, *The Times*, *The Guardian*, *Financial Times*, *Western Mail*, *Morning Star*, *Daily Telegraph*, *The Business*, *The Independent*, and *The Observer* for the UK; *Le Figaro*, *Liberation*, *Les Echos*, and *Le Monde* for France; *Gazeta Wyborcza*, *Polityka*, *Rzeczpospolita*, and *Wprost* for Poland) that mentioned either or both of the conflicts.¹ From this analysis we generated a list of actors that had been mentioned in the press. A second source was semi-structured interviews conducted with 25 key actors about their perception of the conflict, their role in it and their co-operation networks. We further expanded the list of actors and relations

by doing a content analysis of documents published on the web, and finally we sent a questionnaire to all the actors we had identified until that point.

The number of actors involved in the two conflicts was very large. More than 90,000 individuals and firms signed the EuroLinux petition,² all 785 MEPs received emails and other lobbying material regarding one or both of the conflicts, and the European Information and Communications Technology Industry Association (EICTA), one of the major proponents of software patents, claims on its website³ to represent more than 10,000 European firms. Obviously not all of these actors played significant roles in either of the conflicts. Many of the information technology firms represented by EICTA, for example, may not have even known what the disputed Directives were about, and most of the signers of the EuroLinux petition did nothing beyond signing the petition. The actors we included in the networks, therefore, included only those mentioned in the press, those from whom we received completed questionnaires (including those we interviewed), and members of the business and civil society associations, NGOs and ad hoc coalitions which showed significant commitment beyond signing a petition.

In the resulting networks, nodes represent actors and edges represent co-operative relationships as indicated by any kind of joint activity, such as membership in a formal coalition, organizing a hearing together, or signing a petition or letter together. Because we assume that co-operation is reciprocal, relationships in our graphs are undirected. To mitigate this relatively strong assumption, we base our main argument only on the analysis of the network cores ($k\text{-core} \geq 2$) and ties where we have reports of co-operation from at least two independent sources (as indicated by a line value ≥ 2).

CONFLICTS ABOUT THE EU DIRECTIVES ON SOFTWARE PATENTS AND IP ENFORCEMENT

The two Directives we have chosen have played a central role in shaping the regulatory framework for intellectual property rights in the EU during the past decade. The 'Directive on the Enforcement of Intellectual Property Rights' (IPRED 1) aims to strengthen and harmonize the enforcement of intellectual property rights in the EU member states, including copy, trademark and patent rights. It requires all member states to apply 'penalties which must be effective, proportionate and deterrent' (COM 2003: 19) against counterfeiting and piracy.

The 'Directive on the Patentability of Computer Implemented Inventions' – the Software Patents Directive (SWPat) – was intended to introduce patents on inventions 'implemented on a computer or similar apparatus which is realized by a computer program' (COM 2002: 13). Whether this definition would include 'software as such', which is explicitly exempted from patentability in the European Patent Convention, was highly disputed. Certainly the opponents of the Directive succeeded in framing it as the 'Software Patents Directive', and only the core supporters called it the 'Computer Implemented Inventions' (CII) Directive.⁴

The scope and impact of these two Directives differ significantly. The Enforcement Directive touches on several issues, including intellectual property rights in music, movies, pharmaceuticals, luxury goods, automotive parts, and initially also software. It also covers different forms of intellectual property rights, such as patents, copyrights and trademarks. The Software Patents Directive, on the other hand, has a much narrower scope. This difference in scope may have significant implications for mobilization, since an issue that affects a broader constituency would start off with a larger potential mobilization pool. At the same time, the breadth of the issue could also hinder mobilization by making it more difficult to construct a collective action frame broad enough to convince and mobilize all affected parties. Thus, the narrow focus of the Software Patents Directive could make it easier to construct a collective action frame, while simultaneously making frame bridging – building coalitions with actors who are not directly affected by the directive – more complicated (a dilemma confronting many single-issue movements).

Aside from the difference in scope, the similarities between the two Directives are striking. The time frame and the institutional setting of both Directives were nearly identical. The respective Green Papers were published within a year and a half of each other (SWPat in June 1997 and IPRED 1 in October 1998), consultations for both were held in 1999, and the proposals were published in February 2002 (SWPat) and January 2002 (IPRED 1). Both legislative processes were carried out using the ‘co-decision procedure’. The Commission backed both proposals, arguing that they were necessary to harmonize the internal European market and to comply with international treaties. It argued furthermore that both directives would strengthen the global competitiveness of European industries.

There were also strong similarities in the constellations of actors involved in these conflicts. In both cases the Commission received strong support from industry lobbying groups that represented powerful players in the respective fields (see Table 1). It was also true, however, that business interests did not

Table 1 Actors supporting and opposing the Software Patents Directive and the Enforcement Directive

	<i>Software Patents Directive</i>	<i>Enforcement Directive</i>
<i>Pro</i>	<ul style="list-style-type: none"> • Commission • Large firms • Business associations • Most national governments 	<ul style="list-style-type: none"> • Commission • Business associations • Most national governments
<i>Contra</i>	<ul style="list-style-type: none"> • SMEs • NGOs • Civil society organizations • Some national parliaments 	<ul style="list-style-type: none"> • Large firms • NGOs

unanimously support either of the Commission's proposals. Major firms from the European telecommunications industry opposed the Enforcement Directive, and a large number of mostly SMEs opposed the Software Patents Directive. Lastly, consumer interest and other civil society groups mobilized against both directives.

Despite the structural similarities between these two decision-making processes and the similarities in the kinds of actors involved, there were also significant differences in their trajectories and the intensity of the conflicts. There was a heated debate about the desirability of software patents – an issue that had initially seemed relatively uncontroversial. In contrast, the legislative process in the case of the Enforcement Directive was relatively smooth and uneventful, though one would have expected much *more* conflict here, since the Directive touches upon such issues as file-sharing, which have received much more public attention than the arcane issue of software patents.

Aside from the above-mentioned difference in scope, one reason for the differing levels of conflict was that there was a significant difference in the *de facto* decision-making process. In the case of the Enforcement Directive, the process was considerably speeded up, through the introduction of a so-called 'trialogue', i.e., informal negotiations between the European Parliament, the European Commission and the Council of the European Union. As a consequence of the intense conflict over the Software Patents Directive, the main actors involved wanted to avoid a similar conflict over the Enforcement Directive. In addition, there were concerns that the new EU member states (which in some cases suffered from widespread infringement of intellectual property rights) might complicate and slow down the decision-making process. Consequently, they aimed for an adoption after the first reading in the European Parliament in an attempt to pass the Directive before the EU enlargement took place in May 2004. This specific form of decision-making closed off certain avenues of influence for extraparlimentary opponents of this Directive, who were already weaker and less formally organized than those supporting the Directive. At the same time, this unusual procedure would not have been available but for the weakness of the Directive's opponents, since a stronger oppositional mobilization would most likely have made the triilogue infeasible.

Thus, we have two political conflicts in the same broader policy field with some differences in the scope of the proposed Directives but with strong similarities in the institutional settings and actor constellations at the beginning of each conflict.

The Software Patents Directive

In the case of the Software Patents Directive the central actor network comprised about 800 actors (see Figure 1). This included six large membership and support networks. On the side of the proponents were the formal membership network of the European Information and Communications Technology Industry Association (EICTA), which included 37 different

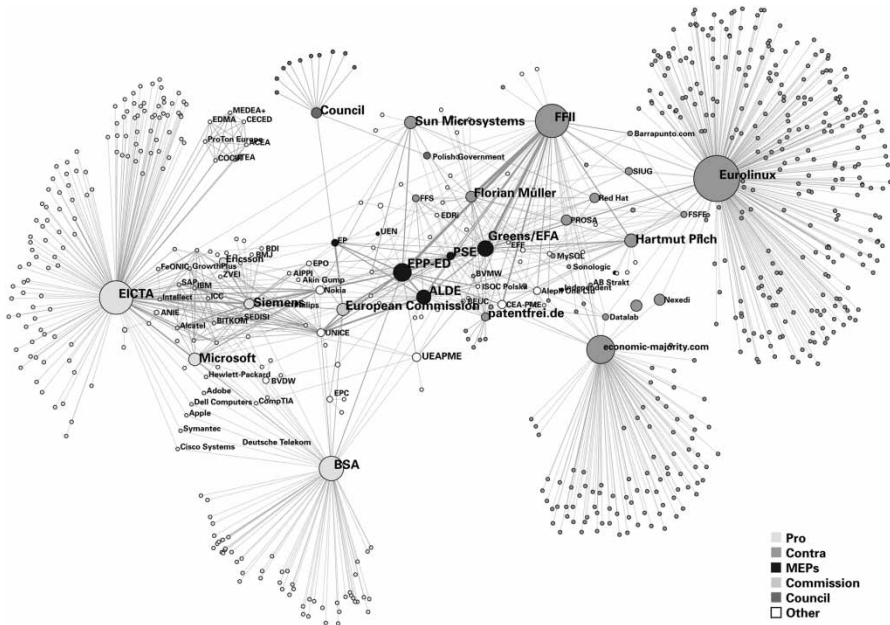


Figure 1 Network involved in the conflict over the Software Patents Directive
 Note: Edges represent co-operation, vertex size represents betweenness centrality, different shades indicate affiliation to the respective organizations/networks.

national associations and 50 individual corporations, and the Business Software Alliance (BSA), which presents itself on its website as ‘the voice of the world’s commercial software industry and its hardware partners’. Even though a number of relevant companies (e.g. SAP, Intel, Adobe Systems, Apple and Symantec) belong to both EICTA and BSA, the network data show minimal co-operation between the two associations. This may be due to the latent rivalry between the two associations about leadership in representing the major high-tech industries in Europe.

On the opponents’ side was one formal membership network – the Foundation for a Free Information Infrastructure (FFII) – and three large informal support networks, the EuroLinux Alliance, Economic-Majority.com and patentfrei.de.

The most important difference between the proponents’ and opponents’ networks is that the latter did not exist prior to the start of the conflict. Pre-existing networks such as the two SME associations, Confédération Européenne des Associations de Petites et Moyenne Entreprises (CEA-PME) and Union Européenne de l’Artisanat et des Petites et Moyennes Entreprises (UEAPME), played only a minor role and did not contribute actively to the mobilization or the framing of the conflict, though they did provide some infrastructural support. CEA-PME co-operated closely with FFII and used their established contacts with MEPs. Because most of the opponents’ network emerged and

was actively constructed during the mobilization, we define it as a *situational network*.

In addition, because its ad-hoc nature was combined with a thematic focus on just one issue (software patents), we further classify it as a *single-issue situational network*. Since those participating in the network joined with the clear objective of preventing the Directive's passage, many showed a high degree of commitment and dedication. The majority of those opposing the Directive were individual software programmers or small software companies.

In contrast, the pre-existing large membership networks of the proponents were neither situational nor focused on a single issue. Rather, they were ongoing associations concerned with a range of issues, one of which was the Software Patents Directive. Thus, the proponents' network had a more continuous character and its members brought in different interests and different motivations for participating in the network.

A closer look at the core (Figure 2) of the Software Patents Directive network illustrates the uneven access the two camps had to the European institutions. Only those in the proponents' camp were able to establish stable co-operative relationships with the European Commission. This fact supports the contention in the EU interest groups literature that European associations and single large firms would have the best access to the Commission. Neither camp was able to establish direct co-operative links with the Council. This, too, accords with the research on interest representation in the EU, which sees the Council as the

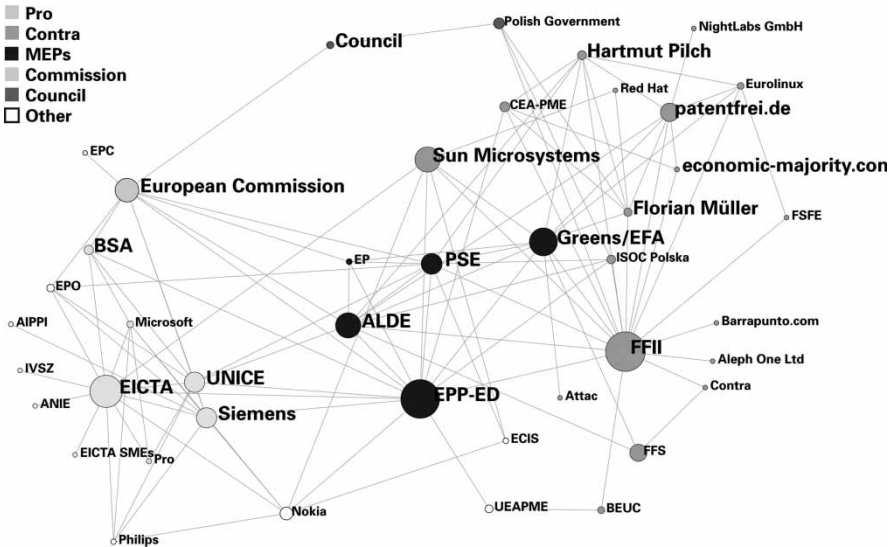


Figure 2 Close co-operation in the SWPat-network core

Note: Edges represent co-operation, node size represents betweenness centrality, different shades indicate affiliation to the respective organizations/networks. line values ≥ 2 , k-core ≥ 2 , 42 vertices.

institution most open to the lobbying efforts of national interest groups via the national lobbying route. We see this strategy when, for example, FFII activists tried to lobby national parliamentarians and government members, asking them to reject the Directive in the Council meetings. Thus, the network had only indirect links to the Council via national institutions. Networks on both sides of the conflict established close co-operative relationships with MEPs from all the relevant groups, but the Directive's opponents were clearly more successful in this regard. Moreover, although it is not visible in the graphs, which present only a static illustration of the conflict, the opponents established their links with the MEPs earlier on in the conflict. This is because, unlike the other side, they immediately understood the importance of the Parliament in the co-decision procedure, whereas the business associations relied for a long time on their established connections to the Commission.

The oppositional network as shown in Figure 3 is relatively dense (0.25), has a moderately high degree centralization (0.58) and a relatively low betweenness centralization (0.24). The moderately high degree centralization, which measures the variance of degree centrality in the network, is an indicator for the existence of central actors. The relatively low betweenness centralization combined with the high density indicates that the network is nevertheless fairly non-hierarchical and remains strongly connected even if the central actors are taken out (as on the right side of Figure 3). The network exhibits the main features of the decentralized, polycentric collective action networks that have been identified as typical for civil society networks by Baldassarri and Diani (2007).

Moving now to the proponents' side, their network (Figure 4) differs significantly from that of the opposition. The proponents' network has a density of 0.3, a degree centralization of 0.74 and a betweenness centralization of 0.55, making it slightly more dense, more centralized and more hierarchical than the opponents' network. If we take out the three central nodes, namely

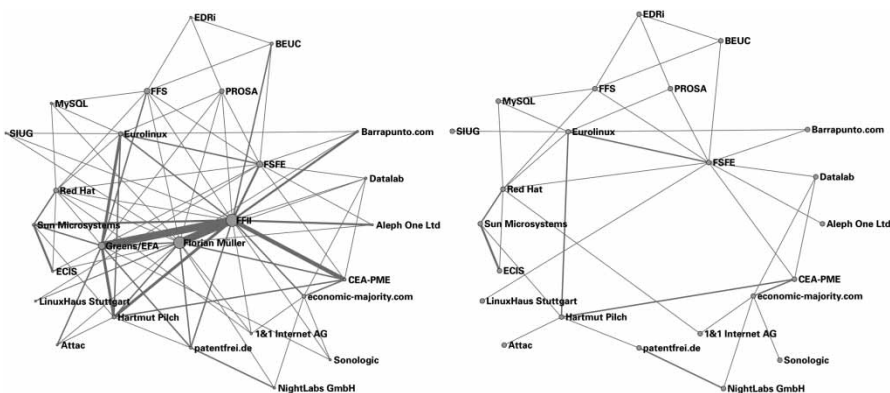


Figure 3 Core of SWPat oppositional network

Note: left: k -core ≥ 2 , 26 nodes; right: without 3 central nodes.

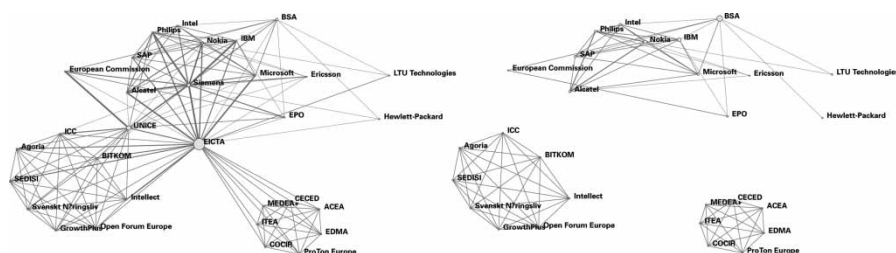


Figure 4 Core of SWPat proponents' network

Note: left: k -core > 2 , 31 vertices; right: without 3 central nodes.

EICTA, UNICE and Siemens, the network decomposes into three subnetworks consisting of European and national business associations and large IT firms that are BSA members. As Figure 4 illustrates, EICTA mainly tried to mobilize other business associations to support the directive. BSA and EICTA both mobilized essentially the same large IT firms, and Siemens, with its strong patent department, was the only non-associational actor that tried to mobilize independently.

The network analysis shows that the opponents managed to build a broad and diversified yet flexible network. The proponents' network was much more institutionalized and had only few important nodes. For example, only a few lobbyists contacted the MEPs, whereas many actors from the opponents' network contacted them. These manifold avenues of influence certainly contributed to the success of the 'No Software Patents' campaign.

The successful mobilization against the Software Patents Directive had many characteristics of a grass-roots mobilization. Many committed actors who would have been directly affected by the Directive's passage actively took part in the campaign by writing papers, uploading websites, organizing demonstrations and lobbying MEPs. The network was very open so that all interested actors would be able to participate. This kind of grass-roots mobilization also had an effect at the discursive level. As committed individuals, the Directive's opponents had a high level of credibility among many MEPs. The decentralized structure of the oppositional network was broadly transnational, with bases in almost all EU member countries. The opponents also utilized the multi-level structure of the EU by being active at the European level but also at the national level where they lobbied national governments, parliamentarians and parties. Thus, the diversified, transnational character of the network gave the campaign momentum and clearly enhanced the opponents' ability to influence the decision-making process.

Within the diversity of the network as a whole, the FFII was not only a critically important node in terms of connecting different actors and providing an infrastructure for the campaign; it also provided the opponents' network with expertise and played a central role in their collective action framing, especially with regard to interpretation and argumentation. In their framing, the FFII

and other opponent actors combined the notions of the competitiveness of SMEs with civil rights arguments about freedom of speech, open access and democratic procedures. This set of frames was convincing to many of the MEPs as well as to the general public.⁵

On the other side, the proponents' network was characterized by a small number of central actors and clear, unanimously supported framing, but it nevertheless did not succeed in constructing an effective collective actor. This may be explained by the relatively low level of commitment on the part of individual network actors and by the fact that, for the most part, the campaign was run by professional lobbyists. The proponents did not manage to build a mobilization of the type that creates and in turn is fuelled by a strong collective identity. However, once they realized what they were up against, they did try to mimic the methods and grass-roots style of mobilization used by their opponents. EICTA gathered several SMEs to sign a petition arguing in favour of patents, and the Campaign for Creativity tried to stage an 'astroturf campaign'. However, in the end, EICTA and BSA were not able to overcome their rivalry and put little effort into building a strong common network.

The Enforcement Directive

The network of relevant actors involved in the conflict on the Enforcement Directive (Figure 5) was much smaller than the Software Patent network (incorporating approximately 300 nodes). Among the proponents the main actor was the International Federation of the Phonographic Industry (IFPI), made up of 50 national record industry associations and about 1400 companies in over 70 countries. Together with 12 other business associations (including BSA, the Motion Picture Association, the International Video Federation and the European Newspaper Publishers' Association), IFPI formed the informal Anti-Piracy Coalition. This single-issue situational network was formed to fight product piracy in Europe and to lobby for EU legislation against the infringement of intellectual property rights.

Under the leadership of IFPI, this Anti-Piracy Coalition was centrally involved in drafting the proposed directive and thereby exerted great influence over the whole debate from the start. The BSA was another important actor in the proponent camp. In contrast to the Software Patents Directive, where individual MEPs played important but not central roles, one MEP was central in the network supporting the Enforcement Directive: Janelly Fourtou (formerly of EEP, now with ALDE), who was the rapporteur in the legislative process and who had close contacts to both the BSA and the IFPI. She was also already involved in drafting the Directive and campaigned actively for it. The fact that Janelly Fourtou is married to the then CEO of the French media conglomerate Vivendi Universal was seen by some organizations and MEPs as a conflict of interest.

Other important actors in the network opposing the Enforcement Directive included as main actors/single networks the European Digital Rights Initiative (EDRI) and the Campaign for an Open Digital Environment (CODE), two

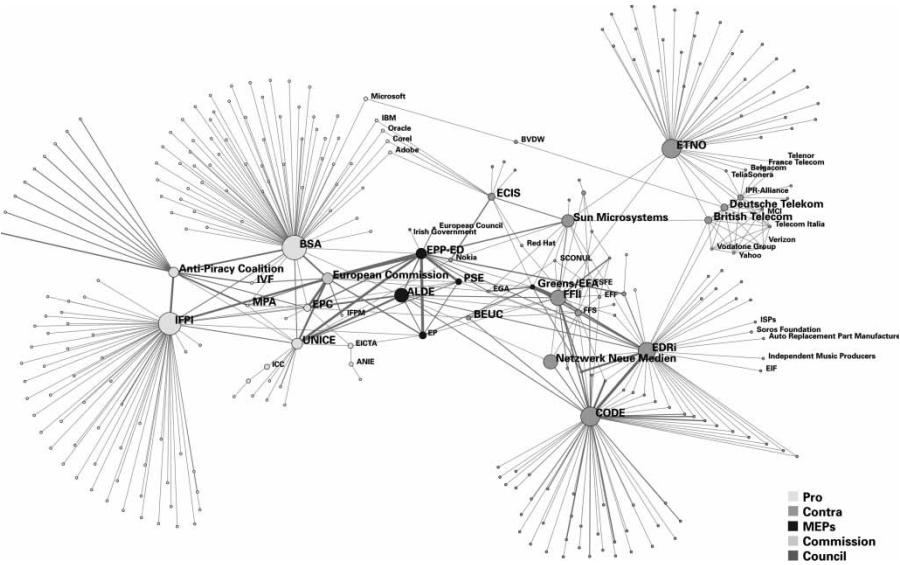


Figure 5 The enforcement Directive Network

Note: Edges represent co-operation, vertex size represents betweenness centrality, different shades indicate affiliation to the respective organizations/networks.

civil society, digital rights initiatives that were established explicitly for this mobilization. EDRI comprises 25 member organizations, and CODE, which was mainly organized by the US civil society organization, IP Justice, had 53 members. EDRI had a designated organizer for the campaign against the Enforcement Directive, who tried to bring together a range of civil society groups, scientists and small software developers. They faced an immediate difficulty, however, because at that point, many software developers and FFII were still involved in the campaign against the Software Patents Directive, and consequently ended up being not very active in the campaign against the Enforcement Directive – a fact that obviously weakened the opponents' network. There were also attempts to forge co-operative ties between civil society actors and private industry, but these attempts largely failed. The economic actors who actively opposed this Directive were the telecommunications firms and internet service providers, who did not want to be held accountable for their customers' infringements of intellectual property rights. They relied on the European Telecommunications Network Operators' Association (ETNO) and the informal European Net Alliance to represent their interests. Other industries which saw their interests negatively affected by the directive were manufacturers of generic medicines and generic automotive parts. In the end, however, EDRI/CODE, representing civil society and civil rights groups, and ETNO/European Net Alliance, representing telecommunications companies and the interests of other private industries, were too different to forge a stable common network.

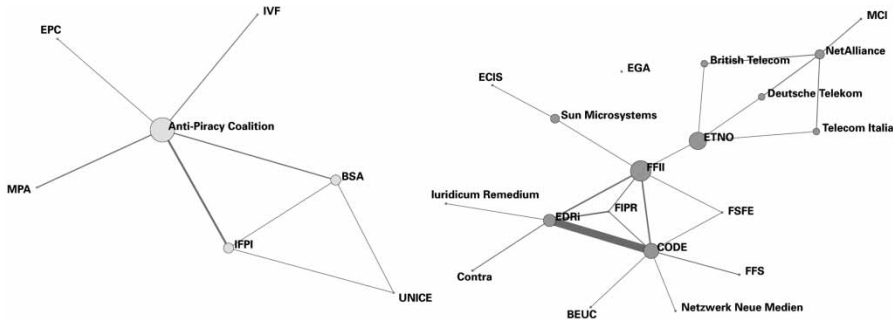


Figure 6 Network cores for and against the Enforcement Directive
 Note: $k\text{-core} \geq 2$, line values ≥ 2 ; left, pro-network; right, contra-network.

Figure 6 shows the two respective network cores. There are a number of noteworthy differences in their structures. First of all, the proponents' network (density: 0.38, degree centralization: 0.63, betweenness centralization: 0.76) is highly centralized with the IFPI-led Anti-Piracy Coalition at its centre, where the oppositional network (density: 0.13, degree centralization: 0.28, betweenness centralization: 0.48) is much more sparse. On the opponents' side, one potentially powerful actor, the generic pharmaceuticals industry, is not strongly connected to the rest of the network, while other industry and civil society interests are connected only through FFII, which invested only minimal energy in the conflict, and were organized in a very informal alliance in any case.

This points to a second difference. While both networks included actors with significant resources, the proponents network co-ordinated its efforts more effectively for a number of reasons. Because the Anti-Piracy Coalition was a situational network focused exclusively on intellectual property rights and the Enforcement Directive, this small but relatively dense alliance functioned as a kind of relay station for interaction among the various parts of the larger proponents' network. The involvement of Janelly Fourtou was also an important avenue for the business associations to exert influence on the European Parliament, and IFPI's crucial role in drafting the Directive was a great advantage for its proponents. Besides good contacts with the European Parliament, IFPI also co-operated extensively with the Commission. In sum, although the proponents' network was not very big, it proved to be very effective and assertive.

While the opponents' network was also partially made up of situational networks – such as EDRI, CODE and the informal European Net Alliance, which were specifically created to lobby against the Enforcement Directive, this network was too small and developed too late to exert significant influence on the decision-making process. In addition to its relative low density, the two main civil society initiatives, EDRI and CODE, had largely overlapping memberships, making for a smaller base from which to mobilize. Consequently, EDRI and CODE were not able to initiate a significant political mobilization or any real grass-roots support.

CONCLUSION

Our analysis has shown that relational characteristics of the actor networks can, indeed, help explain the contrasting outcomes of the two European conflicts over intellectual property rights legislation. In analysing the core networks on either side of these two conflicts, two network-related factors appear to have been especially important in determining the outcomes.

1. *Network size, structure and intensity of co-operation.* The difference in size between the two networks was not a result of the objective scope of the Directives' impact. On the contrary, the Software Patents Directive objectively affected a much smaller constituency than the Enforcement Directive, and yet the SWPat network was much larger. This suggests that network size had more to do with the relative effectiveness of mobilization strategies than with the number of people affected by the decision. In the Software Patents case the central mobilizing actors were able to create a snowball effect. The campaign had a relatively open structure and developed the characteristics of a grass-roots mobilization. This created a broad and diversified network of organizations and individuals, and lent the campaign against the Software Patents Directive a momentum that largely explains its success.

In both conflicts, the successful networks were single-issue situational and focused collective action networks that did not rely solely on pre-existing membership. These collective action networks were able successfully to mobilize support for their position, even against established, resource-rich actors that are usually considered to be more powerful. In other words, the dynamic mobilization structures of the situational networks were able to counter the static power of resources.

In the case of the Enforcement Directive, the supporters' and challengers' networks were both to some degree situational networks centred around the Anti-Piracy Coalition and around EDRI/CODE, respectively, but the oppositional network did not develop a grass-roots dynamic and lacked a stable connection between the civil society actors and the economic actors. The supporters of the Directive were successful because they combined traditional forms and avenues of lobbying with engagement in an informal and flexible coalition – traditional resource-based power with the power of the focused situational network. This finding suggests that policy networks or, to use our terminology, situational networks may be more important at the EU level than in national political conflicts, where advocacy coalitions are more likely to prevail (Warleigh 2000).

2. *Commitment.* Directly related to these characteristics of the networks is their ability to mobilize highly committed participants and not just supporters. While the resource-rich players relied mostly on traditional lobbying tactics, the anti-software patents network largely compensated for its lack of financial resources by persuading many individuals to invest a lot of time in the campaign. While lobbyists in the European institutions are generally accepted as competent and informed, they are nevertheless also

regarded with some scepticism. Conversely, the highly committed individuals, who were mobilized to lobby against the Software Patents Directive, earned significant credibility through the persuasive presentation of their own interests. This is where the differences between institutions became most visible. The Commission co-operated only with established lobbyists and associations, whereas the Parliament was much more open and responsive to the arguments of concerned individuals.

At a broader level, our analysis suggests that for weak actors to prevail in policy conflicts over established, resource-rich opponents, they must undertake a broad mobilization, forge a dense web of network ties, and construct a convincing master frame. Put in more abstract terms, in order to be successful, weak actors have to build situational coalitions that fulfil the conditions of a collective actor with a recognizable collective identity. This implies the formulation of aims and strategies as well as a shared interpretation of the problem and its solution.

More generally, these findings show that relational aspects of collective action networks must be taken into account in assessing the capacity of particular actors to influence policy-making. Obviously actor attributes like economic resources and political power play an important role, but they do not completely determine an actor's potential to exert influence. Equally important is the structure of the collection action networks in which the actors participate. In the software patents conflict the power of network mobilization was effectively able to counter the power of resources. Similarly, in the conflict over the Enforcement Directive, the network structure helps to explain why one coalition of resource-rich actors was more successful than the other. While we cannot generalize to all policy struggles on the basis of our two cases, our findings suggest none the less that the structure and shape of networks must be included in any model that seeks to explain the influence of interest groups on policy decisions. Further research strategically comparing cases across policy fields may be able to construct a typology of networks and conflicts relating network structures and types of policy conflicts to the success or failure of interest representation.

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NOTES

- 1 Overall, a total number of 170 articles (G: 75, UK: 37, F: 45, PL: 31) were coded. For more information on the coding and a detailed list of the codes used see Haunss and Kohlmorgen 2008.
- 2 <http://petition.eurolinux.org/>
- 3 <http://www.eicta.org/index.php?id=10>
- 4 According to a former Commission employee even the Commission circulated its preparatory documents with file names containing 'swpat'.
- 5 We have analysed the collective action framing of the actors involved in the conflict in a separate article (Haunss and Kohlmorgen 2009).

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