

**Project Networks and Changing Industry Practices –
Collaborative Content Production in the
German Television Industry**

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Abstract

Changing industry practices and forms of production organization are the medium and result of co-evolutionary processes of change. The disruptive event of the transformation of the German TV industry into a dual system triggered the change of content production from in-house to collaborative forms in project networks which are not only highly sensitive to foregoing and anticipated project practices, but also to industry practices. The change of the production organization, in turn, recursively influences the reproduction of industry practices. The co-evolutionary analysis is based on structuration theory.

Introduction

"Content is king", is a well-known saying in the dramatically changing television industry. One aspect of change is the increasingly global character of this industry, another the digitalisation of its technologies, a third the privatisation of broadcasting in many European countries. The ongoing *globalisation* of the TV industry can be observed best in numerous cross-border mergers, acquisitions and alliances which affect financing, production, distribution as well as many cultural, and yet production-related aspects (e.g. program formatting). In fact, most media groups now act as multinational enterprises and control not only the distribution, but also large parts of the production of content on a global scale. The *digitalisation* of this industry is symbolized by the adoption of digital technologies for production (AVAD, digital camera) as well as for distribution (DVB, Internet). The production of content seems to be at least as affected by this development as its distribution. The ongoing *privatisation* is a third aspect of the changing TV industry, at least in Europe where public broadcasters now face severe competition from private channels. Privatisation drives the TV landscape in several European countries, among them Germany, towards a "dual system", i.e. an industry which comprises both powerful public *and* private broadcasters that compete on the demand side for viewers and advertisers, and on the supply side for terrestrial, cable and satellite channels, and – last but not at all least – for content.

Given the dramatic increase in the number of TV channels, which is not only a medium but also a result of the globalisation, digitisation and privatisation of this industry, content will not only remain king but, most likely, become an even more critical resource for success in economic (and, perhaps, cultural) terms. Producers, in turn, have to be able to produce content that has to be either entertaining or informative (or both), original, innovative, striking and, not least importantly, to be delivered on time. For quite some time now, content for TV has been produced under the auspices of producers in projects by more or less independent authors, directors, actors, cameramen, special effects experts, casting agencies, actors, composers, script consultants, cutters, location scouts, stage designers, grips, etc. Such flexible project-oriented arrangements, which we refer to as *project networks*, enable producers to deal with the permanently changing demands of broadcasters and stations. At the same time they provide the necessary so-

cial (networked) context which supports project coordination and contributes to successful completion of the projects.

This paper tries to explain how this network form of collaborative content production has evolved in the German TV industry. In some respects, the development of the German TV industry has followed the evolutionary path of the U.S. film industry where the network form of production emerged from the disaggregation of the Hollywood studio system (Storper and Christopherson 1987; Storper 1989; Robins 1993). Rather than just trying to reconstruct the emergence of network organizations in this industry, the main focus of the present inquiry is on how the evolution of this organizational form is related to the changes of practices in the TV industry. The relatedness of network and industry practices is not only relevant to the emergence of this (then) new organizational form but also to its present functioning. Looking at how changing industry structures and practices influence the coordination in project networks, and how this form of coordination, in turn, influences the development of industry structures and practices means that we study the co-evolution of industry and organizational form (McKelvey 1997; Lewin and Koza 1998). The German TV industry is particularly well-suited to such a co-evolutionary analysis since it has been hit by several “disruptive events” (Hoffmann 1999) such as the move towards the dual system. Such events, more than others, allow for study of this topic.

The *empirical* data for this analysis have been collected between 1998 and 2000 in semi-structured interviews, especially with producers and managing directors of 16 major production firms, and with program editors and executives of the four broadcasting stations situated in two outstanding media regions in Germany (Berlin and Cologne).ⁱ Additionally, providers of artistic and technical media services, funding and development agencies, and other industry experts were interviewed. These latter interviews enabled us to cross-check most findings. In total, about 70 interviews were conducted, taking an average of 2.5 hours and being focused mainly on the organization of projects, the integration of the customer (i.e. the broadcaster) and the – in part joint – efforts to coordinate and control the production process (Windeler et al. 2000). However, the interviews also revealed the interrelationships of industry structures on the one hand and these coordination and control efforts on the other. Despite this empirical

background, the emphasis of this paper lies on the conceptual level, where we highlight an understanding of industry constitution as a multi-level process based on the recursive interplay of industry processes with practices of production organization.

In terms of *theory*, and in contrast to most other co-evolutionary analyses, this study follows a qualitative network perspective which is based upon structuration theory (Giddens 1984).ⁱⁱ Before this perspective is introduced, the fundamental argument of two prominent perspectives on industry and industry change will be discussed. This discussion will lead into a plea for a more integrative, balanced and co-evolutionary analysis of industry and industry change, which – like a structurationist perspective – acknowledges and conceptualises the recursive interplay between industry structures on the one hand and organizational form on the other in a way that downplays neither the role of action nor that of structure.

Dominant Theoretical Perspectives on Industry and Industry Change

Industry matters in numerous theories of organizations. However, there are two theoretical perspectives which put more emphasis on the structural properties of industries and their relevance for strategizing and organizing than others: sociological neoinstitutionalism and industrial organization theory. Both perspectives contribute much to a better understanding of strategizing and organizing on the one hand and of industries and industry change on the other, but, as will be shown below, fail to capture the multiple facets and the dynamics of this process.

Industries as Market Structures: The Perspective of Industrial Organization Theory

The industrial organization (IO) literature defines industry as “the group of firms producing products that are close substitutes for each other” (Porter 1980: 5) and frames it mainly in terms of product differentiation, customer and supplier concentration, size of entry and exit barriers. These industry ‘structures’ provide firms with some space for strategic manoeuvring, while their own structures follow more or less logically from these strategies. Within the classic ‘structure-conduct-performance’ paradigm this space was conceived as largely negligible, yet Porter (1980) and his followers reminded IO theorists that firms have a significant scope of strategic choice at their disposal.

Recent IO theorizing not only pays increased attention to firms' strategies but has also started to conceptualise not only how industry structures influence firms' strategies, structures, and performance but also how these structures are influenced by them (cf. Minderlein 1993, for an overview). Thus, IO theory has started to model industry change as an endogenous process. Nevertheless, it continues to conceptualise industry in fairly static terms, not least because of its neglect of the growing importance of cooperative strategies (with the exception of collusive behaviour) and network forms of organizations (see, however, Harrigan 1985, for an early and notable exception). Furthermore, IO theory has not yet developed a satisfactory understanding of how processes of situated interactions are shaped by industry structures and how these interactions, in turn, produce and reproduce these structures.

The relative disregard of industry change in general, and of the change towards and via interorganizational interaction and cooperation in particular, comes as no surprise since IO is not conceptually well-equipped to contribute to our understanding of the processes of industry change, neither to the (path-dependent) evolution of industry, nor to the social significance of relations between economic agents in general and of interorganizational relations in particular. Moreover, and despite conceptual extensions and elaborations (mainly by integrating ideas from transaction cost and game theory), this theory still overlooks the importance of cognitive and normative industry structures, which other approaches have conceptualised as "cognitive communities" (Porac et al. 1989), "institutional logics" (Thornton and Ocasio 1999), "industry recipes" (Spender 1989) and "industry mindsets" (Phillips 1994). IO theory is thus incapable of conceptualising the recursive co-evolution of these industry structures and organizational forms. Nevertheless, with its focus on the *resource* structure of markets and their impact upon *efficiency*, it provides us with obviously relevant, even if partial, analytical categories. In order to grasp their importance for processes of industry constitution, however, a more processual or evolutionary theory is needed.

Industries as Organizational Fields: The Perspective of Sociological Neoinstitutionalism

The new institutionalism in organization theory, not surprisingly, stresses the importance of organizations and, of course, institutions. Moreover, it conceives industries as “organizational fields”. Following DiMaggio and Powell (1983: 143) this notion refers to

“those organizations that, in the aggregate, constitute a recognized area of institutional life: key suppliers, resource and product consumers, regulatory agencies, and other organizations that produce similar services or products.”

The concept of the organizational field adds to the SIC population, formally classified by the IO approach to industry,

“those other and different organizations that critically influence their performance: e.g. suppliers, customers and regulators. [...] [Thereby] organizations are in the same field if they take one another into account, regardless of geographical propinquity” (Scott 1994: 206).

Organizational fields are sometimes operationalised in terms of four levels: constellations of actors, technologies used, regulations established (by state agencies), and practices characterizing the activities in the field (Leblebici et al. 1991). The survival of organizations in a field is assumed to be determined by the extent to which these are capable of adhering to institutional structures, or *rules*, of an industry and, thereby, of gaining *legitimacy*. Organizational efficiency, at least from the perspective of neoinstitutionalist theorists, is only one, and often not even the most effective way to gain legitimacy in a field.

The concept of the organizational field pays, even if this has not been elaborated in detail, attention to linkages among relatively autonomous organizations as well as to relations of ownership, authority, and power (Scott and Meyer 1991). Because of its focus on not only competitive but also cooperative exchange relations, cooperative strategies and network forms of organizations have been a genuine object of neoinstitutionalist research for quite a while (cf. Powell et al. 1996, for a prominent example). Nevertheless, these forms of organization, from an institutional perspective at least, reflect rather than influence the cognitive and normative structures of an industry.

As DiMaggio (1986: 337) asserts: “[T]he organizational field has emerged as a critical unit bridging the organizational and societal levels in the study of social and community change.” The basic neoinstitutional assumption that the interplay of the organizational and societal level is influenced, in the main, by wider belief systems and bundles of rules is certainly one of the strengths of this theory, systematically adding a cognitive and/or normative dimension to industry analyses. However, it thereby downplays the importance of resources and power in the analysis of industry change in particular (Brint and Karabel 1991; Orru et al. 1991; Thornton and Ocasio 1999). Other shortcomings of this theory are related to its neglect of change (Hirsch 1997) and the myriad ways in which “organizations can shape the institutional environment in which they operate” (Powell 1991: 201).

Overall, a perspective which takes the idea of co-evolution seriously should overcome the *narrow and rather static* understanding of industry promoted by IO theorists who, if at all, conceive organizations as contributing to the development and reproduction of an industry in a way which largely focuses upon resource structures and efficiency outcomes. In addition, it should consider the institutional factors relevant to the reproduction of industry like *belief systems* and *rules of legitimisation*, broaden the scope of relevant actors and open up to the multi-level and multi-causal constitution of industry. All these aspects are rightly emphasised by neoinstitutional theory. Thus, a truly co-evolutionary perspective should consider the relevance of rules *and* resources, but also the quite active role of reflexive agents in the social interaction in which these rules and resources, on the different levels, are (re-) produced. While IO theory seems to supplement the neoinstitutionalist theory nicely with respect to relevant aspects of industry constitution, they both lack an elaborate understanding of the production and reproduction *processes* by which these structures are brought into life, established and changed.

Towards a Co-evolutionary Perspective on Industry and Industry Change

Hence, it comes as no surprise that other perspectives have been proposed to capture the essence of co-evolution, that is, the interrelated development of organizations and their competitive and institutional environments (e.g. Aldrich and Mueller 1982; McKelvey 1997; Lewin and Koza 1998; Madhavan et al. 1998; Anderson 1999; Boisot and Child 1999; Miner and Anderson 1999). Such perspectives are particularly needed in studying

networks, which are assumed to be more intertwined with their environment than single organizations.

Industries as Recursively Constituted Social Systems: The Perspective of Structuration Theory

Structuration theory, as laid out by Giddens (1976, 1979, 1984), is but one promising candidate, since it focuses on just this contingent process of social constitution. By taking up central aspects and arguments of IO *and* new institutionalism, a perspective based upon the theory of structuration may overcome the limitations of these approaches and provide us with a sophisticated basis for a theoretically elaborated co-evolutionary approach.

Analysing the constitution of industries from a structurationist perspective means, at first sight, something similar to what DiMaggio, Powell and others in the neo-institutional framework assume: taking a look at social practices by and through which industries are constituted (Windeler 2001). By contrast to authors in that research tradition, however, a structuration perspective highlights the importance of reflexive agents and their actions. More precisely, it points to the *recursive interplay* of social interactions and social systems (like organizations, networks, and industries), which is

„grounded in the knowledgeable activities of situated actors who draw upon rules and resources in the diversity of action contexts“ (Giddens 1984: 25).

That is to say, agents reflexively refer in their interactions to *rules of signification and legitimation* as well as to *resources of domination*. Structuration theory, however, emphasizes that the sets of rules and resources, i.e. structures, are always specifically related to the social system agents act in.

Even institutions on an industry or societal level are not considered disconnected from the activities of knowledgeable agents. On the contrary, agents selectively actualise them in their interactions and continually reproduce (or, perhaps, transform) them in and through situated interactions. Thus, industries and their structural properties, such as the degree of product differentiation, the status and power of producers, key customers and suppliers, or the level of industry trust are recursively ‘created’ by individual and corpo-

rate agents who knowledgeably generate products and practices in their contextually situated interactions.

Knowledgeable agents are thereby not only – as neoinstitutionalists maintain – oriented by wider belief systems and bundles of rules of legitimation. By contrast, and in the ‘economic sphere’ (Giddens) in particular, their actions are predominantly guided by allocative resources, i.e. practices of resource utilisation in order to create and market products and services. Only the usage of these resources, oriented by the prevailing rules of signification and legitimation, enables firms to augment these very resources, not least their disposable capital, and to satisfy shareholders’ interests. Unlike IO theory and neoinstitutionalism, structuration theory does not assume *ex ante* that firms or networks of firms strive for efficiency *or* legitimacy. Rather, performance measures of organizational and interorganizational activity are analysed in the light of prevailing rules of signification and legitimation on the one hand and their interplay with allocative and authoritative resources on the other (c.f. Sydow and Windeler 1998).

The Co-evolution of Organizational Form and Industry as a Structuration Process

Strategically placed actors which, like state agencies, powerful firms, and industry associations, occupy a certain position in the industry (Podolny 1993), intentionally influence the structures of the industry. For that purpose, actors critically evaluate data that represent the industry they act in, but, as with all action, they act on the basis of partly unacknowledged conditions, and produce not only intended but also unintended consequences. Thus even strategically placed actors are never in a position to fully control the constitution processes.

Analysing the co-evolution of organizational form and industry as a structuration process means understanding how industry and (inter-) organizational practices are constituted by knowledgeable agents. Thereby, *industry* practices may be regarded as those practices which members of a particular industry view and handle as characteristic of the very industry. *(Inter-) Organizational practices*, by contrast, may be defined as practices which agents typically use for coordinating activities and relations in (inter-) organizational systems such as firms, markets, or inter-firm networks. In the latter case, these processes can be called *network* practices if individual or corporate agents (e.g.

firms) dominantly coordinate their activities by referring to enduring sets of interrelationships between network agents in time-space (Windeler 2001). Investigating the constitution of these practices implies a rather different approach to that preferred by IO and some neoinstitutionalists. Agents do not act in firms, markets, or networks conceived as externally given. Rather, knowledgeable agents interact with other actors and, thereby, actualise practices and structures of the respective social system.

Practices, as a series of 'practical activities' (Giddens) ongoing on either the industry, the network or the organizational level, are not identical, not even in face of increasingly blurring boundaries of industries as well as organizations. Network practices of new players, for example, may contradict established industry practices, and many practices used industry-wide may be used in a very different manner to coordinate a particular (inter-) organizational system in that industry. Moreover, agents may rely more on (inter-) organizational than industry rules, as Ocasio (1999) found in the case of founder-led firms which lack experience with succession, or the other way round. This shows that industry and (inter-) organizational practices, as will be argued in more detail shortly, are related to each other. Agents refer to both in their acting and, thereby, actively constitute this relatedness.

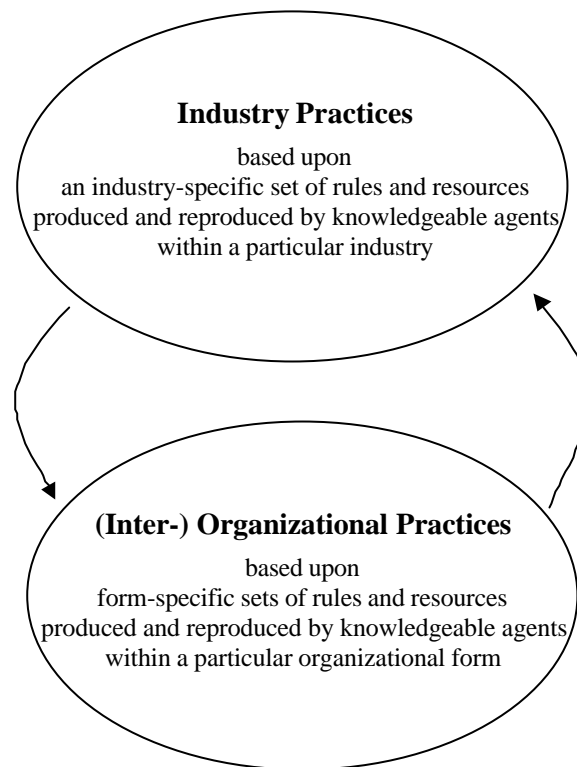


Fig. 1: Processes of recursive constitution: A structurationist model

From a structuration perspective, organizational forms (such as markets, firms, networks) and industries (such as the TV industry) co-evolve (see Fig. 1). In this process of recursive constitution, industry practices - based upon rules of signification and legitimisation as well as upon allocative and authoritative resources characterizing this particular industry - are actualised in interaction and thus influence the social practices within a particular organizational form (\downarrow). The kind of actualisation of industry structures in network practices for instance, in turn, influences the evolution of industry practices (\uparrow). Production practices in interfirm networks, for example, may reflect a changed level of competitive intensity due either to a rearrangement of strategic groups or to the market entrance of new competitors. Since network agents are likely to realize the changed industry situation they will most probably align their network practices to the changed context. For instance, in times of broadcasters' increasing concern about the cost of programming, producers put more emphasis on cost-cutting outsourcing practices. This, in turn, has an impact on industry structures and practices, especially if the network of agents is quite powerful. In effect, the network may thus contribute to stabilizing the competitive intensity in this particular industry on a higher level.

Nowadays, firms increasingly try to augment their resources by engaging in network activities. While these (network) organizations thereby make use of industry rules and resources, they do not control all effects of their usages, neither on the level of the organization, nor on that of the network or the industry. Nevertheless, they quite often actively participate in creating and/or shaping industry institutions such as industry-wide business practices, educational institutions or regulatory agencies, and thus the terrain in which they act. Because of these more or less strategic activities and the (at least partly) uncontrolled and unintended consequences of their own actions and those of others, the context (or the 'landscape' from a complexity theory point of view) in and on which agents act continually shifts. However, agents not only adapt to external constraints, but actively and reflexively use them with respect to their own interests, and eventually change them. The options agents consider are therefore constituted but never determined by the interplay of firm and network actions on the one hand and the landscapes they act in on the other.

The German TV Industry: Structural Properties in Change

The German TV business, topped in volume only by the U.S. market, is, at least in two respects, truly European. Firstly, *public* broadcasting is and continues to be very important. Secondly, the German TV business is highly *regulated* by government and public agencies, not only with regard to public but also to private TV, which entered the market only some 15 years ago. The importance of these two structural properties would be illuminated by both IO theory as well as neoinstitutionalism. However, only a structuration analysis explicitly considers that such properties are a medium and outcome of action.

Although public broadcasting stations continue to be two of the four most significant players in the market, the birth and growth of private stations have transformed the German TV business into a dual system. The introduction of this system can well be considered as a disruptive event, more precisely a "structure-loosening event" (Madhavan et al. 1998), which radically changed the basis for competition and significantly affected the structure of interorganizational relationships in this industry, including the power positions of central and peripheral firms. This endogenous shock, caused by established players in the field struggling for establishing or inhibiting private television

for nearly 20 years, resulted in government deregulation of the established order, and the respective change of legal institutions as moments of a new regulation offered many “occasions for structuring” (Barley 1986). In what follows we will describe the emergence of the dual system which, at least on the surface, affected first and foremost the structures of TV distribution. However, a deeper analysis of this structural change, which was triggered by deregulation and privatisation, shows that a significantly different form of production organization co-evolved: collaborative content production in project networks.

The Evolution of the Dual System: Public and Private Broadcasting

Because of the misuse of a centralized state-owned broadcasting system during the Nazi era, the Allies made the German state parliaments introduce a highly decentralised and truly public broadcasting system, modelled on the BBC and based on licence fees in order to keep it quite independent from both central state power and market influence. In consequence, German TV developed into a public duopoly made up of the ARD (or more precisely, the ten regional stations within this Germany-wide public partnership) and the ZDF, which was founded some years later. For years to come, television in Germany was considered as duopolistic, non-commercial, and emphasizing information rather than entertainment. In face of a lack of viable alternatives, public television was well accepted by the audience and, despite repeatedly criticized resource-inefficiencies, seen as a legitimate institution.

This industry structure did not change until the mid 1980s when, as a consequence of deregulation and liberalisation and of the influence of media conglomerates (like Bertelsmann and Kirch), private broadcasting stations were approved. In a rather different way than IO theorists and neoinstitutionalist assume, new structural and institutional features of the TV industry have been brought about and are used by mighty agents such as the four major broadcasters, among them: a high degree of economic concentration, sizeable entry and exit barriers, accustomed yet changing viewing habits, and enduring legal regulation of this industry. Another structural property to which agents repeatedly refer concerns the financing of the programme. While the prime stations of the Bertelsmann and Kirch groups, i.e. RTL and SAT.1 respectively, finance their programming

via advertising, and are thus forced to go for high 'quotas', the public stations continue to be mainly financed by licence fees paid by everybody who owns a television set (currently more than Euro 15.00 per month). Since the latter stations still raise only about 10 per cent of their budgets via advertising (which is allowed for only 20 minutes on weekdays before 20.00 h), they can aim their programming at other criteria than just quotas, although this quantitative measure has recently gained a lot of relevance for legitimising the activities of public stations as well.

Since the mid 1980s the Kirch Group (with not only SAT.1 but also Pro 7, DSF and, as a pay TV platform, Premiere World) and Bertelsmann (with not only RTL but also RTL2, Super RTL, and Vox) have, despite extraordinary costs, set up additional full programs. Furthermore, the regional stations within the ARD have started to broadcast complete and fully competitive programs via satellite and cable. In addition, broadcasters from other European countries (BBC, TV 5) and the U.S. (MTV, NBC, CNN) as well as German special interest channels (ntv, Viva, all with some financial interests of foreign firms) have entered the TV business via satellite or cable. In consequence, German viewers can now receive more than 30 channels either via satellite or, at least in the metropolitan areas, via cable. Thus, with regard to the structure of competition, the industry has been transformed in a fundamental way.

Despite this significantly increased level of competition, together the two largest stations of each group, the public (ARD, ZDF) and the private (SAT.1, RTL), still have a market share of circa 70 per cent. As strategically placed actors, these four broadcasters, more than others, shape the development of the TV business in Germany and, despite persistent government influence, the vibrant rules and resources of this industry. For instance, these key players have contributed significantly to the fact that, very much like under the aegis of public broadcasters, significant resources are spent on high quality programming adapted to the needs of a relatively fastidious German speaking audience. So this high quality programming, despite considerable changes in some other respects, continues to be a structural property of the industry. Many resources are legitimately used to produce this type of program.

This is not only true in the area of entertainment, but also as far as informational content (e.g. news, documentary) is concerned, although the public stations have been able to

sustain a competitive advantage in this latter category of programming in terms of credibility (Tebert 2000). On the other hand, public TV stations now spend more resources on sports and entertainment in order to stabilize their market share, a strategy which may in the long run undermine their capability to sustain this competitive advantage. In fact, the legitimacy of this strategy is questioned by some politicians and, above all, by private broadcasters arguing that broadcasting these contents is beyond the commissioned task of public TV. This shows, by the way, that simply adopting isomorphic practices may not increase the legitimacy of an organization or institution in an industry. Rather it seems to be important for broadcasters – as well as for producers and production firms – to adopt organizational and, eventually, interorganizational strategies that ‘fit’ the relevant set of rules and resources of the particular industry at a particular moment of time. Though these structures have been highly contested most of the time and agents have tried to remain sensitive towards future changes, adopting these strategies will almost certainly contribute to the powerfully brought about reproduction of these industry structures.

The Organization of Content Production:

Convergence Between Public and Private Worlds?

With the disruptive event of the birth and growth of private broadcasting in Germany, not only the programming has changed but also the organization of the production of programs (or, in more general and in face of DVB and the Internet more appropriate terms, content). Until the mid-1980s the public broadcasters, ARD and ZDF, were rather vertically integrated firms characterized by a high proportion of in-house production. RTL in particular, but also SAT.1, both founded around that time, followed a very different model: sourcing content from outside the firm. At the time of their founding, they bought many TV series on the market, mainly in the U.S. Faced with increasing prices and diminishing quotas for this kind of programming, SAT.1 and RTL opted for organizing content production in networks (‘contract production’), not least because these private broadcasters were lacking the necessary in-house facilities which, moreover, were considered more costly and less innovative, not at all fitting for an increasingly volatile environment.

Contract production in networks also became a viable alternative because a significant number of independent production firms had emerged. This was an unintended outcome of the – in the meantime well-established – strategy of the public stations (especially the ZDF) to farm out at least some part of their content production. In addition, the global discussion about suitable (“lean”) models of production organization in general and the transformation of the Hollywood studio system into more flexible modes of production more specifically provided an institutional context which made these new organizational forms – as a kind of “mimetic isomorphism” (DiMaggio and Powell 1983) – appear not only legitimate but necessary. While disaggregated modes of (film) production did not necessarily prove to be (as in the case of Warner) a cost-cutting measure, “it helped the studio system to adapt its output to meet changing patterns of market demand” (Robins 1993: 115). The same seems true for the production of TV content in networks.

Soon RTL used these sets of rules and resources to set up a decentralized production network in the Cologne area. The fact that RTL, at that time, required only a staff of 600 for producing and broadcasting a complete TV program, while the WDR (the largest regional station within the ARD, also situated in Cologne) required 3,000, can only be explained by this very different organization of production. Nevertheless, this different mode of production organization in the private world, together with fast-increasing programming costs which were caused by an increase in demand for original, innovative and distinguished content, has stimulated public broadcasters to farm out production to either equity-owned production firms or to networks of independent producers. While there (still) is a wide variety with regard to the degree of production outsourcing, even within public broadcasting,ⁱⁱⁱ the public world seems to be converging to some extent with the private world, not only in terms of programming and distribution, but especially as far as the *organization* of content production is concerned.^{iv} These corporate agents, via their programming, distribution and production strategies, seem to refer to rules and resources which are less different between these two worlds than they used to be. For instance, public broadcasters have learnt from private broadcasters not only the art of program scheduling that keeps the viewers’ attention once they have switched to a particular station, but also sourcing content which fits and develops the station’s strategic profile (Windeler et al. 2000).

As a result of this strategy of farming out content production, the number and size of TV production firms in Germany has increased significantly. Now there are about 1500, among them subsidiaries of U.S. media groups (e.g. Columbia TriStar, All American Freemantle), some relatively large independent producers such as Endemol and Ziegler, several firms owned by Bertelsmann (e.g. Grundy UFA), the Kirch Group (e.g. Taurus Film), or even the public broadcasters (e.g. Bavaria, Studio Hamburg), and hundreds of small and very small establishments. Within the last three years, the volume of programs produced in Germany under the aegis of public and private broadcasters has increased from Euro 1.3 to 1.8 billion, not including the fast-growing business of developing content for the Internet which is related to TV programs and which may soon serve as the basis for DVB via the Internet.^v While the German market for TV content, very much in contrast to the market of broadcasters, does not exhibit an oligopolistic structure, tendencies towards such a structure can be identified in those areas which require not only an extraordinary talent but also an extraordinary amount of capital (e.g. the production of series, in particular of soaps)(see Windeler et al. 2000 for details).

Thus, the organization of content production for German TV, which was originally comparable to the studio system, has moved, in face of the dual system, towards an organization of production in inter-firm networks or, more precisely, towards *collaborative content production in project networks*. Nevertheless, alternative forms of coordination of content production continue to coexist under one institutional (especially regulatory) arrangement. Before the dual system was established agents used collaborative practices and market relationships besides inhouse production. Today, under the dual system, the situation is rather similar though the dominant organizational form has changed from inhouse production to project networks.

While there has been a significant trend towards convergence as far as the form of production organization is concerned, project networks and the content they produce tend to stay focused on either the private or the public world. Until now, only the production firms which are part of media groups or important independents produce for both worlds. However, in order to adapt to the still different sets of rules and resources of both the private and the public world they make use of inter- and intraorganizational differentiations. For instance, Colonia Media, a Cologne based production firm and part

of the Bavaria Group (which is jointly owned by two major public broadcasters, BR and WDR), not only forms distinct project networks for the two worlds of production, but also pursues a strategy of internal differentiation.

In turn, the development of network forms of production organization has shaped the industry practices of content production rather radically. In the mid 80s in-house production was signified as the most appropriate form of production; and respective rules of legitimation and resources of domination backed this view. Today, the sets of rules and resources of the industry, despite continuing differences between the private and the public world, have changed and now sustain in-house production as a dominant form of organization in the special sphere of news production. In all other programming areas rather different rules and resources have co-evolved with the content production in project networks.

Driving forces behind this trend have been strategically placed agents referring, in their actions, to the general expansion of the TV industry; the diversification of established and the entrance of new (private) broadcasting stations; the pressure for innovative and yet more cost-efficient and risk-sensitive production methods; the parallel emergence of more or less independent production firms. These actors, either on their own or in networks of organizations, shape industry structures. For example, they source content from commissioned producers or establish new educational institutions (like schools for authors and game show convenors). These structures and institutions do not, as IO and neoinstitutionalist theory assumes, emerge 'somehow' and then constrain action. They rather are intended or unintended results of strategic actions of mighty industry players, not only of the two public and two private broadcasters, but also of some major production firms they interact with. The more recent globalisation of television as well as the trend towards digital TV, which can also be looked at as disruptive events, will hardly reverse the evolution of this network form of collaborative content production but rather consolidate it, even if some network members will exit and some others enter project networks and some network practices will be reshaped (cf. Scott 1996).^{vi}

Collaborative Content Production and the Institutionalisation of a New Production Model

Despite many variations in detail and despite never ending struggles over forms of production coordination, in particular with regard to the public and private worlds of the German TV industry, project networks have evolved from global sourcing strategies on the one hand and from vertically integrated production systems on the other, and they now seem to be the dominant governance of content production. Moreover, these networks seem to provide the social context in which new orientations and norms about ‘What is a good program?’, ‘What does an efficient project management look like?’ and ‘Which labor standards are appropriate?’ emerge and are institutionalised. Thus, this form of production organization has not only implications for the allocation of resources within the TV industry, but also for the reproduction of cognitive and normative rules which are a necessary and important component of an advanced understanding of industry and industry change.

Project Networks – The Dominant Form of Content Production in the German TV Industry

Project networks are conceived as a form of coordinating activities among relatively independent firms (including artists and artisans) for executing a temporary task, whereby the network firms coordinate their project activities by referring to established sets of relations and practices beyond (*sic!*) the ongoing project. Project networks, hence, are “temporary systems” (Goodman 1981) insofar as the project activities are temporarily limited; however, they are more than just temporary systems because every new project is based upon the experiences of collaboration in earlier ventures and carried out in face of the “shadow of the future” (Axelrod 1984). In fact, empirical studies of project work in construction (Stinchcomb 1959; Eccles 1981), software (Sieber 1998), feature film (Faulkner and Anderson 1987; Robins 1993; Jones and DeFillippi 1996; Blair 2001), and, last but not least, TV programs (Tempest et al. 1997; Mast 1999; Nachum and Keeble forthcoming) document the fact that the relations between project members survive the single project. In many cases, they last for years. Such rather stable relationships have a significant impact on the formation and coordination

of project networks. They enable independent firms to come together for a relatively short period of time, in the case of content production for TV often for as little as a couple of weeks, and nevertheless to coordinate their activities quite effectively.

A provider of a programming idea, usually the author, or a broadcaster commissioning the production of a certain program, stimulates a producer to form a project. In most cases, this will include one or, as in the case of series and soaps, several authors, a director, a cameraman or -woman, talent agencies and several other providers of creative and technical media services (see fig. 2).^{vii} Often, these actors enter the project as fixed pairs (an author-director dyad, for example; see also Faulkner and Anderson 1987) or constellations, a kind of “semi-permanent work groups” (Blair 2001). Despite the coordinator role of the producer, at least some of network firms not only sustain indirect but also direct relations (e.g. the director and his relations with providers of creative and technical media services).

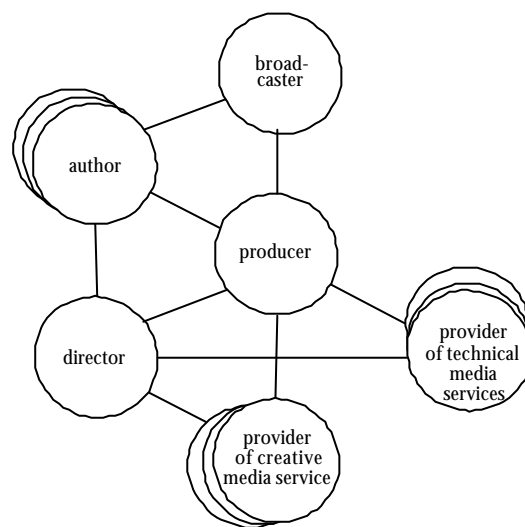


Fig. 2: Project network as an organizational form

However, while it is quite clear that interpersonal and interorganizational relationships influence the possibilities and limitations regarding the coordination of these temporary systems, the constitutive mechanism which turns projects into a network form of organization and, hence, makes the coordination of projects not only feasible but possibly even efficient, has not been elaborated until now.

Network practices emerge from recurrent collaboration in several projects, be it the production of a TV feature, a 13-part series, a weekly or daily soap, or a short contribution to a magazine. The producer, usually in close collaboration with the broadcaster, (re-)selects the project members and coordinates the project activities by referring to network rules and resources. For instance, the project members, due to long-term experience in collaboration in similar projects, share a deep understanding of how important it is to deliver a TV movie in time and of the agreed quality which fits the strategic profile of the station. To give another example, the members of the project network are used to the (network) practice that a supplier of a particular artistic or technical service has to have a minimum reputation before being selected as a project member. While every project is, to some extent at least, unique, the producer, when organizing the project, as well as all the other project members relies heavily on experiences with and future expectations of such network practices. Each practice considered successful is likely to be reproduced and strengthens the affiliation with the pool of individual and corporate actors from which the actual project members are recruited. This mechanism, which is typical of project networks, supports the coordination of project activities, reduces transaction costs and enhances the adaptive and creative capacity of this organizational form. However, the institutional embeddedness of project networks in industry structures is of major importance for the functioning of this mechanism, since network structures and practices are necessary but usually not sufficient for achieving coordinative efficiency. Moreover, if project networks lack regulations, network agents substitute them by adopting sets of rules and resources established on the industry level.

The Embeddedness of Project Networks in the TV Industry

Project networks constitute themselves in industries, and are thus influenced by industry structures, i.e. sets of industry rules and resources, and, at the same time, shape these very structures. In the case under consideration, this means that in their ongoing projects actors actualise practices, activities and relationships which are common to the German TV industry and shape these very practices by their actions.

Industry-wide recipes for organizing the inter-firm division of work efficiently, to elaborate one first example from the list in fig. 3 (→), are sedimented in a common lan-

guage about, for example, sequences of the production process, tasks to be carried out before the shooting of a film takes place, people to be hired for the post-production and 'rights' granted to authors and programme editors to influence the coopting of a particular director or service provider into the project. Such recipes are also manifest as rules of legitimation concerning, for example, the necessity of these very activities and as resources of domination needed for carrying these activities out.

Labor standards are just another example. It is true that important characteristics of the German system of industrial relations (relatively high unionization, collective agreements, works councils, etc.) can hardly be found in the media industry. Nevertheless, labor standards have emerged and are usually reproduced by network agents without much variance. These industry-wide standards regulate, though on a rather informal basis, for instance, the earnings and working hours of particular groups of employees (such as cameramen and women, authors, and visagists). They also suggest which kind of job should follow in the boundaryless career which is typical of this industry (Jones and DeFillippi 1996). The members of the project network, most of all the producer, refer to these rules and resources in order to coordinate differentiated network practices and to secure interactions in a network-based production process which is typically characterized by highly-specialized work roles and severe budget constraints. By doing so in the project network he or she reproduces or transforms these rules and resources as industry structures in a co-evolving process still to be explained.

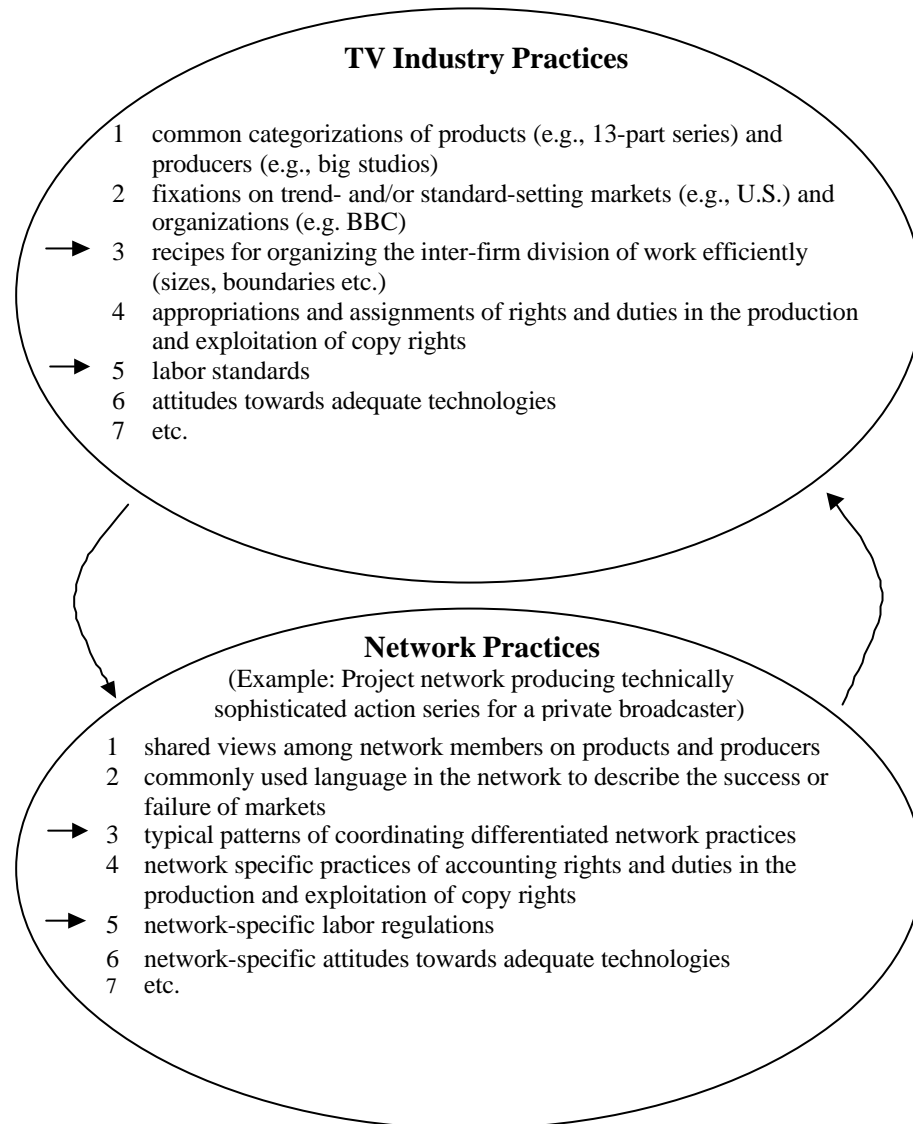


Fig. 3: The recursive interplay between industry and network practices –
Examples from the German TV industry

Network practices make a project realisation more likely, meeting as they do the expectation of the commissioning broadcaster, when the expectations and actions of network members are based on industry-wide sets of rules and resources. While these practices, in turn, contribute to the reproduction of the sets of rules and resources of different social systems, the TV industry and the project network included, the structures of these systems, including the recipes, are not necessarily compatible. Where they are in conflict with each other, they provide (additional) occasions for institutional change and network-specific adaptations.^{viii}

Idiosyncrasies in Project Networks – and how they Relate to Industry Structures and Change

It is true that the interpretative schemes, norms and facilities agents use in interaction are idiosyncratic and situation-specific. However, agents constitute the schemes, norms and facilities agents use in *situ* by referring those sets of rules of signification and legitimation and resources of domination that characterise these different system levels. For instance, in their interactions with other participants of the project network, producers often actualise the expectations of powerful representatives of broadcasters, program editors in particular, concerning industry-wide quality standards and adherence to budgets which are both shaped by powerful agents. The producers, in turn, influence those people spanning the boundaries of broadcasting organizations when they introduce their own ideas to them and convince them that the final product will fit into the broadcaster's profile. In the end, 'mutual knowledge' (Giddens) between editors and producers develops, making coordination of their activities in the project network not only possible but – hopefully – efficient and thus legitimate.

What is true for the relationship between program editors and producers also applies, at least in principle, to the relationships of the producer with authors, directors, and providers of artistic and technical media services as well as to those between authors and directors, cutters and directors and so forth. All these relationships incorporate, and are based upon, shared norms, common understandings, and experiences with coordinated practices, not only on the network but also on the industry level. These structures inform each interaction, e.g. the negotiation and renegotiation of contracts for instance, the selection of project partners, the communication of quality standards which the final product has to live up to, and so forth. Against this background, producers know with which partners they are able to develop the product to the level of quality expected by the broadcaster and to keep the project within the time and budget frame agreed with the patron. And they have to know this since there are usually no slack resources to develop common understandings, shared norms, etc. in the first place. This is why it is so difficult for other firms to enter a well-functioning network, unless of course, they are needed because of their specific competence (e.g. special effect agencies).

When new firms enter an established project network or even the industry, they are likely to bring new perspectives, norms, and practices with them.^{ix} They do not, however, simply substitute common network and industry practices, but are likely to amalgamate old and new practices. The adoption of U.S. programs by private broadcasters, to give just one example, was successful in Germany for around five years (1985-1990). Today, formats of U.S. series are used, but the content and sometimes even the format is adapted to German culture and, consequently, produced locally in the production networks in and around Cologne, Berlin, or Munich. Original content from the U.S. only finds its way into German TV outside the prime time.

The Institutionalisation of New Practices in the German TV Industry

After the dual system had been established, the foundations had been laid for new industry practices to gain legitimacy. Since the change towards this system can and has been analysed in terms of privatisation, also by powerful agents of the field, calculating and control practices which aimed at greater efficiency were put into practice, not only by private but also by public broadcasters, followed shortly afterwards by those larger production firms which, at least in some cases, are part of media conglomerates and thus familiar with such practices. Local efficiency gains, realized in particular project networks, were soon generalized and used to shape the industry rules of signification and legitimation and the dominant form of resource usage underlying recipes for organizing content production in this industry. One of the more famous examples in this respect is the industry talk about the private broadcaster RTL being able to produce a full programme with a staff of only 600 while the WDR employed 3000. Though this talk was questioned by insiders referring to the opaque employment effects of the then new form of collaborative content production in project networks, it was readily taken up by those parts of the TV industry (private broadcasters and producers) as well as by those politicians and scientists who were in favour of a further privatisation of the German TV industry. In the struggle over the more appropriate means of measuring efficiency and effectiveness of programming and production of content which accompanied the privatisation process, the public broadcasters and politicians in favour of public broadcasting were defeated. Quality standards adopted by public broadcasters as domi-

nant indicators for legitimate programming were consequently replaced by quotas, the prime type of measure for the private stations' success.

There are at least four mechanisms that contribute to the spread of new practices and their institutionalisation on an industry level. *First*, the project network itself, via its coordination mechanism which reaches beyond the single project, plays a central role in this process. The practices developed in one project soon infect the whole pool of agents usually involved in the production of a specific content. *Secondly*, the interactions between program editors and producers are obviously not mutually exclusive. Both are involved in different projects and most likely integrated into different project networks, possibly even at the same time. If this is the case, their interactions contribute to the diffusion of network practices in the industry. *Thirdly*, network agents reflect on the contextual appropriateness of certain production practices and, thereby, eventually produce new industry recipes likely to be applied by other actors in the field for the very reasons outlined above. This is particularly likely if they are, at least for the time being, considered the 'best practices'. *Fourthly*, a group of agents involved in collaborative content production, and especially reflexive towards what 'is new' and what 'works' in the industry, is engaged in building and running organizational institutions which support the industry (e.g. educational programs, standardization committees) and, thereby, the institutionalisation of new industry practices.

Dense networks of relationships between important agents in the field, like the ones between broadcasters and production firms, might enhance the speed and expansion of these practices. However, they may also, depending upon the concrete network structures, impede the spread of these practices. Innovative practices, for instance, may not be adopted since established agents in the field are (re-) selected for collaborative production of a specific content again and again.

Industry Constitution and Change as a Recursive Process: Conclusions

The research question posed in the introduction of this paper concerned the rise of the network form of governance in the Germany TV industry from conventional forms of in-house production on the one hand (popular with public broadcasters at that time) and sourcing content from overseas markets (popular with early private TV) on the other,

and how this development is related to changing industry structures and practices. The paper argued that, very much in line with the disaggregation of the Hollywood studio system, public and private broadcasters in Germany moved towards the model of collaborative content production in project networks in order to secure the delivery of a kind of program which was original, innovative, culturally adapted and yet cost-effective. The main focus of inquiry, which was undertaken from a structuration perspective, concentrated on the question ‘How did the organizational form interrelate with the industry context in the evolutionary process of industry change?’

The analysis showed that the evolution and, finally, institutionalisation of industry practices does not mean forced adaptation of externally given practices. The institutionalisation is rather seen as a multi-level, multi-dimensional and multi-actor endogenous development: Different knowledgeable agents recursively and powerfully refer to industry practices, and their underlying sets of rules *and* resources, in their network practices. Thereby, they reproduce or change industry structures on the three institutional dimensions of signification, domination, and legitimation. The development of industry and network processes should thus be understood not only as a co-evolutionary process but as a co-evolutionary multi-level constitution process.

The analysis of the current mode of production organization in the German TV industry also leads to some general conclusions which could advance the theoretical and empirical analysis of the constitution of industries.

(1) Investigation of how knowledgeable agents use the structural properties of an industry (highlighted by the IO literature for example), *and* the common understandings and shared norms (emphasised by neoinstitutionalists), drives theorising towards a more integrative conceptualisation of industry constitution and change. It becomes noticeable how the sets of rules and resources which are characteristic of a particular industry are constituted in interaction by agents referring to specific rules of signification and legitimation that, for the time being, constitute, for instance, the ‘best practice’ of content production. In addition, these agents necessarily refer to specific resources of domination enabling them to implement collaborative forms of content production in project networks as the best practice. Thus, a co-evolutionary approach which is based upon structuration theory attracts attention to strategically placed agents (such as major

broadcasters and production firms) and why and how they establish a particular form of production organization and, thereby, affect the prevailing sets of industry rules concerning the actual and ideal appearance of modern and efficient production. Moreover, such an approach emphasizes the contingencies of the process, and the fragmented conjunctions, slow drifts and arising opportunities which agents are likely to use strategically. In contrast to the more or less static perspectives on industry and industry change based upon IO and neoinstitutional theories, such an approach focuses on *social practices* – the process in which these are brought about and how they contribute to the reproduction and, possibly, the transformation of industries.

(2) In addition, a structurationist view on such co-evolutionary processes emphasizes that knowledgeable and powerful agents, via their activities, constitute practices on both system levels. Nevertheless, and despite a fairly high level of reflexivity, actions in general and those aiming at the organization of a social system such as a project network, network practices and industry practices are only in part shaped intentionally and strategically; in other parts they are an *unintended consequence* of otherwise intentional action. A good case in point in this respect was the practice of public broadcasters to farm out parts of their content production long before the privatisation of that business took place. They thereby prepared the foundations for the emergence of independent producers which allowed, many years later, private stations to produce content in project networks and contest public broadcasters. As a result of unintended consequences, many network and even more industry practices are produced and reproduced without reflexive control. The reproduction and transformation of industry structures, thus, always have to be analysed as a *melange* of reflexively and non-reflexively regulated processes.

(3) Looking at the co-evolution of industry structures and (inter-) organizational practices necessarily implies investigating how industry practices shape network practices and *vice versa*. For that reason alone, industry change can take *many routes*, from slow ‘drifts’ whereby conventions become subtly modified in and through the ways in which they are ‘adhered’ to, up to disruptive events. As the case of the German TV industry indicates, disruptive transformations like the change from a public broadcasting system into a dual system not only stipulate dramatic changes in the content production. The processes triggered induced further changes. New production firms (and other agents

participating in the production or in financing the production) did not simply adopt the existing forms of production organization, they also imported and still import different views, norms, and practices. Thus, new or newly accentuated practices do not simply diffuse and penetrate the industry. The newcomers to the industry are themselves forced to take into account structures dominating the field and to take them up somehow in their own practices. Changes in industry and production processes, hence, do not simply go hand in hand but are recursively interrelated and embedded in multi-level processes of co-evolutionary changes.

Such a 'new view' on the co-evolution of industry and network practices sheds some different light, not only on the conceptualisation of co-evolutionary processes, but also on the possibilities and limits of *reflexive network management*. Firstly, it highlights the importance of managerial action, knowledge and reflexivity, and yet points to the relevance of somehow 'emerging' patterns as unintended consequences of otherwise intentional action. Secondly, it attracts attention to the recursive interplay not only among the three dimensions of the social (signification, legitimation, and domination) but also among the two – or even more – levels of social constitutions: industry and organizational form, and the subtle and complex processes by which they are continuously reproduced.^x Thirdly, it points to the fact that a reflexive management of project networks means more than organizing activities in a particular project. The activities in an ongoing project have to (and can) be coordinated on the basis of an enduring set of relationships which reach beyond the single project. These network relationships themselves can become an object of reflexive management. Finally, and concerning the co-evolution of industry and network practices, a reflexive network management includes the monitoring and rationalising of (the development of) industry practices in order to coordinate the project and, however limitedly, to shape the industry context itself.

Future studies could and should not only explore the possibilities and limitations of such a (more) reflexive network management, but extend their domain to other project-based industries which are dominated by similar organizational forms and whose number is growing rapidly in an increasingly "project-intensive economy" (Eckstedt et al. 1999) – due to changing customer demand and work values, but also co-evolving with the privatisation, globalisation, and digitalisation of industries.

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- ⁱ Former versions of this paper were presented at the conference on “Competing through Alliance Networks: Changing Dynamics of Industry Structure” at the IESE, University of Navarra, Barcelona, Spain, June, 27-29, 1999 and at the 17th EGOS Colloquium “The Odyssey of Organizing”, Lyon, France, July, 5-7, 2001. We thank Africa Ariño and Carlos Garcia-Pont for setting up the stimulating conference in Barcelona and Heather Haveman and Woody Powell for their insightful comments during the EGOS Colloquium. Moreover, we thank Anja Lutz and Carsten Wirth for their support in gathering the data, the Deutsche Forschungsgemeinschaft (DFG) for the funding of this project (No. SY 32/2-1), the guest-editors of this journal, Arie Lewin and Mitch Koza, two anonymous reviewers and, last but not least, Günther Ortman for their valuable comments on earlier drafts of this paper.
- ⁱⁱ Giddens (1984, p. 227 *passim*) is rather critical of conventional evolutionary theories. Speaking of co-evolutionary approaches in this paper we refer to more modern theories of evolution and specifically concentrate on the basic idea of *co*-evolution (cf. Kappelhoff 2000).
- ⁱⁱⁱ Ranging from the MDR which approximates, in relative terms, to a public hollow organization to the WDR which still emphasizes in-house editing and even production.
- ^{iv} Since, the world of private TV production is fairly diverse so that it is somewhat difficult to speak of an unified trend towards convergence in organizational form. While, for instance, SAT.1 has by and large imitated the strategy of RTL to organize the production of its programs within networks of independent firms, the other Kirch station, Pro 7, is said to be at a strategic disadvantage, still sourcing a large proportion of its programs from abroad.
- ^v RTL has just begun to produce a 2 minutes daily soap which is only ‘broadcasted’ via the Internet.
- ^{vi} An example of a minor change is the inclusion of special effect providers into more and more projects and, thus, into existing project networks.
- ^{vii} In some cases, especially in the production of soaps, the producer or production firm not only enters network relationships with other firms, but recruits employees for the time of the project. Eventually, other network firms do the same. Thus, in contractual terms, project networks in several cases consist of a mixture of exchange and (temporary) employment contracts.
- ^{viii} Other potential sources of institutional change are, according to structuration theory: structural contradictions, increased knowledge, and lack of legitimacy (cf. Sydow/Windeler 1998). This understanding of change equals more or less that favoured in the ‘economics of conventions’ (cf. Boyer/Orléan 1992) which differentiate between changes by ‘general collapse’, ‘external invasion’, ‘translation’ and ‘collective agreement’.

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- ^{ix} Although established, long-term relationships with authors, directors, etc. are of outstanding importance for organizing a new project, there are at least two ways for new actors to enter a project network. One is that relevant information is derived from the reputation of a potential network partner, another is that respective information is handed over to the network organizer (usually the producer) by a trusted intermediary. This can be any member of the network, including the client (i.e. the broadcaster), although, again depending on the nature of the program, authors and directors are more likely than others to assist the producer in selecting other network partners.
- ^x In case management or public policy activities aim at the formation of a regional cluster or industrial district, the same theoretical insights could be used in relation to spatial concepts. In this case, likewise two or even three levels of analysis have to be taken into account: network, industry and district.