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Careers in Project Networks: The Case of the Film Industry

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Faced with the demise of traditional careers, individuals are increasingly engaged in jobs comprised of short-term projects, rather than in permanent employment arrangements (Bridges, 1994; Huey, 1994; O'Reilly, 1994; Richman, 1994a, 1994b). This radical shift in responsibility and action in worklife is transforming our notion of careers and work organization. Understanding what these changes mean and how they are being played out is a critical issue for practitioners and organizational scholars.

A good source for examining transformed careers and work organization is the U.S. film industry. Since the late 1950s, it has experienced many of the changes contemporary firms are facing, such as the downsizing of the workforce, the subcontracting of work, and the need to operate in increasingly uncertain and competitive environments (Balio, 1985). For over two decades, work in the film industry has been organized around projects and informal personal networks, rather than around traditional hierarchies and in-house human resource departments. Thus, the industry is being referred to as a network organization (Hirsch, 1972; Miles and Snow, 1986; Powell, 1990; Reich, 1991).

The film industry's network organization is constantly being created and re-created. Firms and subcontractors combine for a specific project, disband when the project is finished, and then combine for new projects—often with differing participants. Self-employed subcontractors move from project to project, while the role of the company is to finance and distribute the finished product (the film). Thus, careers move across firms, rather than within a firm. The film industry provides an empirical base and model for understanding how changes in employment affect careers and interfirm organization.

Since we have little understanding of these new interfirm careers, key questions remain unanswered. For example, how are careers and work organized

within this fluid and decentralized industry? What skills and knowledge are needed for career success in an organizational system in which the right to participate is renegotiated with each new project? How do projects and careers interact to maintain a network organization? Are boundaryless careers in project networks characterized by marketlike relations—a series of one-night stands—among subcontractors and firms, or by repeated interactions, among subcontractors and firms, that enhance learning and innovation? Is the industry open, with competition defining success, or closed, with key players defining and promoting a chosen few?

This chapter attempts to answer these questions and provide some insight into the processes and structures of interfirm careers and organization. Using a variety of data, I examine two aspects of careers in project networks. The first aspect concerns how individuals are trained and socialized for boundaryless careers. The data suggest that the boundaryless career provides the foundation on which project networks are organized and maintained. New recruits chosen have the interpersonal skills needed for project-based organizing, as well as the technical skills needed for the craft. They are then socialized into the industry culture.

The second aspect of careers involves identifying what career patterns are successful in a project network. A career pattern results from relations among subcontractors and within traditional firms. The individual free agent who works among many different subcontractors and across a variety of firms typifies the most common career pattern in the film industry. However, much elite, high-status work involves being a member of a production team. Overall, careers within the industry are highly competitive, with many participants entering to compete, but with few succeeding and remaining in the industry's elite inner core. The industry is stratified by subcontractors who work among elite firms and those who do not.

This chapter seeks to extend revisionary ideas about careers, organizations, and networks. The emphasis is on the boundaryless career—defined by movement across the boundaries of separate firms, validation from the market rather than the employer, and cross-organizational networks of information (Arthur, 1994: 296)—rather than on the traditional hierarchical career. Also, the lesson taken from industries such as film (Faulkner, 1987), construction (Eccles, 1981), and semiconductors (Saxenian, 1990) is that conceptualizing the firm as the organization is outmoded. Rather, work is organized around the project rather than the firm; the “employees” are subcontractors who move from project to project or across firms, over time (Faulkner, 1987; Eccles, 1981; Peterson and Berger, 1971). Thus, the new network forms of organization are an interfirm phenomenon.

This chapter also emphasizes a particular network type—the project network—used extensively in the film, music, and construction industries. The project is the organizing mechanism, and teams are comprised of diversely skilled members who work for a limited period to create custom and complex products or services (this is adapted from Faulkner and Anderson, 1987: 880, and Goodman and Goodman 1976: 494). The “organization” producing the product—the film—typically involves multiple firms and subcontractors and is neither for-

mally nor legally defined. Further, the organization is a temporary one and constructed around the desired product or service, usually involving complex and pioneering endeavors (Faulkner and Anderson, 1987; Powell, 1990; Ring and Van de Ven, 1992).

Project networks have two main characteristics that relate to the task and to the environment. First, the task is complex and nonroutine, which requires many individuals to join in creating the product or service; this high level of mutual responsibility is called team interdependence. For example, making a film requires coordinating the efforts and talents of hundreds of subcontractors from a variety of backgrounds (e.g., actors, lighting crew, storyboard artists, set designers, musicians, and accountants). Emphasis on horizontal information flows facilitates the speed and sharing of information among parties and cuts down on the time required to do complex tasks (Clark and Fujimoto, 1989; Imai, Nonaka, and Takeuchi, 1985).

Second, the project network usually operates in an uncertain and dynamic environment, primarily due to unpredictable and rapidly shifting consumer demands. The film industry uses independent producers, and networks to facilitate product innovation and adaptation (Robins, 1993), as is the case in the music industry (Peterson and Berger, 1971), and the Italian fashion industry (Piore and Sable, 1984: 215). In essence, project networks permit resources to be reallocated with ease among members within the network. Thus, they are adaptive to changing environmental demands.

For the individual entrepreneur (or subcontractor), project networks provide more varied work, opportunity, and development potential than do traditional firm careers. Not only do the interpersonal networks allow skilled entrepreneurs access to exciting projects among myriad firms, but the boundaryless quality of the new career enhances both skill and reputation, due to increased experience in different work settings and exposure to a variety of tasks and people. However, these boundaryless careers often make significant demands on time, energy, and lifestyle.

The approach here integrates two distinct perspectives—the experiences of subcontractors and archival industry data—to answer questions about how careers and organization interact in the film industry. Empirical data for my discussion derive from three sources. First, I conducted two-to-three-hour, in-depth interviews with five individuals who have been in the film industry since the late 1970s: a casting coordinator—Cate; a cinematographer—Bruce; a grip/electrician—Bryan; a producer—Tim; and Leigh, a film commissioner for the state of Utah, and treasurer of the Association of Film Commissioners International (Jones, 1988).¹ The interviews took a long time to gather, for two reasons. First, since work is project based, many of the participants were involved in differing projects both in and outside Utah at the time. Thus, interviews had to be arranged according to their timetables. Second, to get an interview, even using the film commissioner (who knew these people as the entry person), often took 20–30 phone calls to the same person. The reasons for this became clear once they granted the interviews: They give access to the industry according to a person's persistence and motivation. I had to prove that I was both persistent and motivated to do the interviews, before some of them would grant me the

time. However, once they granted me the time, they were incredibly generous and gave me several hours and follow-up questions and responses.² My second source is extensive historical data in the form of interviews and ethnographic research on the film industry. For example, research on studio musicians' careers is a key source (Faulkner, 1985, 1987). Third, I compiled a data base of 2,744 subcontractors, and their film credits for the 606 feature films that were released and distributed in the United States from 1977 to 1979³—a time when, film historians suggest, the industry network structure was already established (Ellis, 1990: 437–439). Film credits indicate the experience and status of film subcontractors. They are akin to publication credits in academia.

Boundaryless Careers in Project Networks

In this section I explore case studies and prior literature, to derive a model identifying four career stages; and I explain how the skills and competencies needed at each stage maintain the project network. In essence, the career is a conduit for organizing work, in which each stage of the career provides the foundation for the informal organization of a project network. By identifying how individuals are socialized into careers, we can understand the structures and processes of organizations.

Beginning the Career: Getting Access through Interpersonal Skills and Perseverance

A career in the film industry is a difficult process, due to a lack of the traditional recruiting and selection practices that initiate most careers. Yet, the film industry's exposure to potential recruits is pervasive: Tabloid tales are splashed across checkout counters; television dramas are filled with beautiful people who have glamorous lives; and stars are paraded across theater screens throughout the world. This media coverage draws individuals to the film industry and toward glamour, hope, and dreams of success. Translating these dreams into reality requires hard work and an ability to get your foot in the door. The "mechanics of the process are straightforward. Small armies of investors, artists and technicians qualify themselves and compete for projects" (Faulkner and Anderson, 1987: 883). However, how one qualifies oneself to get access and experience is less clear.

Gaining entry and experience (credits) is difficult for two reasons: It is intensely competitive, and no clear-cut steps or entry routes exist for newcomers. Getting credits is indeed an intensely competitive process. According to Dezso Magyar, director of the AFI's (American Film Institute's) Center for Advanced Film and Television Studies, only 5% to 10% of the 26,000 film-school graduates who obtain degrees each year actually gain employment in the film industry (Hubbell, 1991). Since no clear-cut steps or entry routes exist, varied backgrounds, including Broadway theater, network television, music videos, and film schools, are used to launch careers and gain entrance into the film industry. The burden on newcomers is to seek out successful subcontractors who will help

place them in their first project. Bryan, the grip/electrician explains: "There's no tried and true way to get started. You have to go find people you like who make movies. . . . It's getting the first job that is the hardest."

Those who get their foot in the door are sorted out by two attributes: good interpersonal skills and being highly motivated. Good interpersonal and communication skills are critical for career success in the film industry because of the highly interdependent and ambiguous nature of the work. Tim, the producer, expresses this well: "If I like them, that's 90% of it. When you work that many hours, under that much stress, and you get some jerk, he makes life miserable. You want someone with whom you click and can communicate." Further, tasks are ambiguous because they are rough ideas, on paper, that have to be translated into tangible products. Cinematographer Bruce explains that it is "very subjective. People's styles and tastes differ tremendously. And if you can get that translation from paper to physical, tangible product, then you're successful. However, a lot of things can go wrong in between." This emphasis on interpersonal skills is also important in scoring film music (Faulkner 1987: 13) and in theater (Goodman and Goodman, 1972).

Newcomers are also screened by their motivation and persistence. Commitment and passion are indeed necessary to carry one through the industry's long hours, low pay, constant travel, and other lifestyle compromises. Leigh, the film commissioner, describes how "you can tell, after their [the newcomers'] first production, if they are going to make it, if they have the passion for it to carry them through the 18-hour days. I knew I did because I felt energized and excited by it." Bruce, the cinematographer, warns new recruits that "if money is the reason you work hard, don't get into this business. You can make a hell of a lot more money by being a stockbroker." The grip/electrician, Bryan, emphasizes this issue: "It's not an 8-to-5 thing. I rarely work a month that I don't work a lot of nights. Sometimes I work both days and nights in the same week. You may go from [filming] church devotional to a heavy-metal music video in one week. You get unusual circumstances. People who are challenged by and able to handle those kinds of demands make good people. That's why you have to seek it for yourself."

Film is a demanding career. Since each new job must be negotiated, one must have a high performance level on the job. As Bruce, the cinematographer says, "You need very competent players to perform. If someone is draggin' their ass, then you need to replace them with someone who can do it. You hire them once and if they don't do a spectacular job, you hire someone else next time." Bryan warns recruits, "In the grip electric area [where crews set up and run the lighting for films], people get a little bit of experience at the bottom [entry level]. Eighty percent never make it and 20% finally get to a place where they can start making some money." Bryan's perception is confirmed by the archival data I used: Fully 69% of subcontractors who worked on the 606 films, during the 1977-1979 period, made only one feature film. This low rate of success in consistently finding projects is not simply an artifact of a three-year period. Faulkner and Anderson (1987: 894), in a study of producers and directors over 15 years, found that 64% of producers and 50% of directors had only a single credit. Clearly, individuals must constantly compete and prove themselves for

opportunities. In the film industry, insiders give opportunities to newcomers who have the skills and motivation needed for project-based organizing. Excellent interpersonal and communication skills are critical because work is coordinated in production meetings, the tasks are ambiguous and highly interdependent, and freelance work requires informal communication networks for identifying future work. Persistence and high levels of motivation and commitment are critical due to the intense competition for opportunities; and due to lifestyle demands, such as constant travel and unusual work schedules and the incessant search for new projects.

Crafting the Career: Learning Technical Skills and Being Socialized into the Industry Culture

Landing a first job is only the beginning of one's work in a project network. Crafting a career requires that one learn not only the skills and roles, to perform tasks successfully in the industry, but also the industry culture, since these values, norms, and ground rules replace the bureaucratic control of a corporate hierarchy. From an individual's perspective, learning the craft and learning the industry culture occur simultaneously because the culture identifies how one's career is to evolve: through on-the-job experience, where one starts with low-level, menial tasks, and works one's way up to more prestigious, challenging, and interesting tasks based on past performance.

In the film industry, new recruits start at the bottom of the totem pole and slowly work their way up through extensive on-site training. They do menial tasks and work long hours for minimal pay, to learn the skills and roles of the medium. The film commissioner recalls "90-hour weeks for \$2.00 an hour" at Sunn Classic. Tim, the producer, also worked at Sunn Classic and recounts his experience as an apprentice film editor: "It was like bootcamp. . . . I never had any time off for two years." He started in film editing, went into sound editing, then went into syncing dailies (matching the sound and picture). He moved into public television, then acting, prosthetic work [make-up], and, finally, into production. This learning process took between five and seven years. Similarly, Bruce's first job was cleaning and rolling 100-foot electrical cords; his second, loading film and maintaining equipment. Neither of these was related to the creative process, but they taught him how to handle the equipment. His third job was editing. Finally he got some "seat time"—to shoot film—which is what he wanted to do all along. He talks about "the hard learning years with marginal pay and long hours. You just can't put a price on it, because of the experiences you're exposed to." These experiences mirror Faulkner's (1987: 54) interviews with film composers. Most spent years in paying their dues—helping colleagues; doing a few episodes on TV, a TV series, a TV pilot, and finally a feature film. He found that "newcomers are matched to routinized and low-risk work." The benefit of such intensive on-the-job training is that individuals are exposed to the many roles and tasks needed to complete the project—which, in turn, enhances coordination. In sum, the film industry values on-the-job training in a variety of technical tasks and organizational roles that enhance coordination of diverse functions; it requires long hours to internalize the industry cul-

ture; and people move to more challenging projects based on prior performance.

This process involving intensive hours invokes the questioning of old values, breaks down resistance to new values, and is common in the socialization of professionals (Light, 1979) and managers (Pascale, 1985). Since the film industry places newcomers in the position of seeking out and choosing their own socialization agents, it provides a powerful socialization strategy for teaching newcomers the industry culture—what work is done, how it's done, and how members are to act while doing it. Working with knowledgeable insiders is typical of systems that require passage through inclusionary boundaries (Van Maanen and Schein, 1979: 234). This intense socialization creates common understandings, values, and goals that guide behavior, rather than written rules or regulations (Ouchi, 1979; Tompkins and Cheney, 1985). Because the film industry is loosely structured, geographically dispersed, and occupationally varied (including actors, costume designers, musicians, and electricians), the coordination among these varied and diverse members depends upon a set of shared values. The industry culture establishes common understandings, routines, and conventions (Becker, 1982) among differing parties, so that rules for working together do not have to be re-created for each film (Faulkner, 1987: 92–93). This allows previously unacquainted individuals to work together in temporary organizations (Becker, 1982; Goodman and Goodman, 1972, 1976).

In essence, the industry culture establishes not only the parameters for how careers and work are experienced, but also the foundation for coordinating and organizing work. It also allows for extensive movement of participants among firms and other subcontractors, since values, norms, and organizational roles are shared.

Smile

Navigating the Career: Building Reputations and Creating Contacts

Three challenges confront the freelance professional during this stage: establishing one's reputation by consistently producing quality work; expanding one's skill base by getting more challenging projects; and developing a network of personal contacts by initiating and maintaining relationships. Building a reputation and developing a network evolve simultaneously—a reputation is established by performing quality work involving a variety of circumstances and people.

Each job requires a participant to secure another invitation to do a movie; thus, building and maintaining a reputation are critical steps. Bruce explains that he trains his production assistants to understand the importance of quality and hard work:

Technically there are things that are bad, and pretty soon, if they show up too often, you're not going to get work anymore. That's not just from me but from the whole industry. If somebody develops bad habits—is lazy or indifferent—we'll say, "Gee, that guy doesn't bring much to the party does he? Let's not invite him next time."

Tim, the commercial producer, says, "You can't afford to do schlocky productions. Your profile is critical." Bryan, the grip/electrician, says, "You build your

reputation every day. You're only as good as your last job. If your last job was good, people remember you and you get good recommendations." In the film industry, those "with successful performances and track records move ahead in their careers, those with moderate reputations do not, those with poor reputations experience employment difficulties" (Faulkner and Anderson, 1987: 881). A critical lesson is that if one does not produce quality work, one will be replaced and lose future opportunities to work in the industry.

Along with performing quality work, one must seek out projects that challenge and expand one's skills. In project networks, the individual, not the boss or organization, is responsible for developing and enhancing skills. "You have to continually work to get better," says Bruce, the cinematographer "Otherwise, you'll get passed up by everybody else. You have to keep up with technology and have a contemporary visual sense. It's like fashion; it keeps changing all the time—styles of lighting design and composition." Challenging work that expands skills provokes a tension: Work must challenge, but not exceed, the capacity to perform it effectively. Poor performance hurts one's reputation, which has been so painstakingly built.

The key to getting more projects is building and maintaining a network with people who make movies. Opportunities and recommendations for jobs come through informal communication channels. Often these chains of communication and recommendations involve two or three people. For example, Cate, the casting person, got her job as assistant to the extras coordinator on John Huston's movie *Wise Blood* by learning that a friend's friend was working on the movie. The friend called her friend, who recommended that Cate get the job. This reliance on informal networks for sources of information is also critical to other industries with project-based organizational systems, such as music (Becker, 1982: 87) or construction (Bresnen et al., 1985: 113–114). The importance of informal contacts and information flows mirrors Weick's (1979: 97–98) view that the essence of organizing is interpersonal communication, because it creates structures and affects what gets done.

In project networks, subcontractors must constantly seek new projects. The 1977–1979 archival data show that the film industry is characterized by people who move extensively among firms for work; only 19% of participants who made two or more films worked exclusively for one firm. Thus, 81% of subcontractors who repeatedly have work move among firms and fellow subcontractors. This movement creates the conditions for effective information flow across the industry, because people know one another, may interact repeatedly, and talk about these interactions (Granovetter, 1985: 490). Thus, project networks are structurally suited to dispersing information widely and quickly—information about reputations and jobs. Leigh, the film commissioner, implies this when she says, "We're a big industry but a small industry, because we talk to one another."

Being associated with commercially successful films defines one's status and role relationships within the industry. Cate describes the "ticket" to her success as creating a "genuine look for the director" in her casting of extras for *Footloose*. The commercial success of this film opened up opportunities for her. If your movies don't perform well, your status and relationships within the industry change dramatically. Ned Tanen, chief of Universal and then Paramount, explains that as

a studio chief, "You only need two or three expensive movies that don't do well within a given year, and your legitimacy is very suspect" (quoted in Kent, 1991: 52). The industry aphorism is: "You're only as good as your last credit." Given the unpredictability of what makes a movie successful and the difficulty in consistently working on hits, roles and status among industry participants are redefined as careers fluctuate with the movie's market success.

Maintaining the Career: Extending the Profession and Balancing It with Personal Needs

Once they are established in careers, project-network participants face two key challenges: to act in ways that maintain and extend the network organization, and to balance professional demands with personal needs. The first challenge of maintaining the project network's viability as an organizational form is comprised of three tasks: identifying and training new members; establishing workshops that develop talent in the field; and coordinating events such as film festivals, which integrate the industry by exposing diverse participants to one another, and which establish standards within the industry by identifying exemplars of excellent work and role models. These organizational demands change the roles, skills, and focus the more senior members.

Identifying and training new members shift one's role and focus from developing oneself to developing others. The protégée thus becomes the mentor. Often this is achieved by setting up informal seminars and training programs for newcomers. "I am currently extending myself a little by giving informal seminars to the up-and-coming people in the business," says Bruce. He asks potential entrants who seek him out, "Why do you want to be involved in film production? What does it do for you?" Tim explains his training process and criteria: "I tell those who want to get experience to write me a letter explaining what they want out of this industry, what their goals are, what they want to do; and then, if I like what they say, I'll interview them." Clearly, the socializing agent chooses recruits who have similar values and goals. This allows for "concertive control" where explicit written rules and regulations are replaced by a common understanding of values, objectives, and tasks, and a "deep appreciation of the organization's mission" (Tompkins and Cheney, 1985: 184). Because insiders select and train newcomers with similar goals and values, the project network is replicated and maintained. Indeed, the project network has been used for decades in film, construction, and theater.

Senior members of project networks extend the industry by establishing workshops or coordinating film festivals. These events integrate industry members, showcase current work, and provide role models. Robert Redford, who established June Lab, was cited as a role model by my interviewees. June Lab is a script-development workshop at Sundance, where beginning screenwriters are invited to develop their scripts, with help from established screenwriters and critics. In addition, Redford's involvement with the United States Film Festival in Park City, Utah, was a critical factor in establishing it as a premier event for showcasing independent productions. It also serves as a mechanism for matching creative filmmakers with the distribution channels of film studios.

The second challenge at this stage of one's career is to maintain some sense of balance between personal and professional life. The constant demands of performing quality work, seeking new projects, and maintaining a personal network of relations can consume the energies and lives of project-network participants. It is not uncommon for people involved with film projects to work 12-to-18-hour days. Ed Limato, the agent for Mel Gibson, Richard Gere, and Michelle Pfeiffer, explains that "you really have to eat it, breathe it, every waking moment of the day. . . . It's an eighteen-hour job" (quoted in Kent, 1991: 22). For those who wish to be an elite member in their industry, the profession becomes their life. For others, balancing professional demands with a personal life is critical. Their personal life acts as both a retreat from, and a source of, renewal for the incessant professional demands.

My interviewees had all chosen to balance professional and personal lives. Bruce describes how "you reach a point where you are creatively drained." He deals with this by separating work and home life. "When I go home and the day is over, it's time to rest and leave the job behind," says Bruce. Tim describes the consequences of not balancing the professional and the personal: "People get so enthralled with working in the business that they can't be rational about when to stop. You can't do drugs to keep going; eventually, you'll go crazy. There are so many alcoholics and drug addicts who were not that way when they started in the business, but they end up that way because they work constantly. They have no personal lives. They travel. They're gypsies. They don't have any foothold in their lives. What they call home is an apartment somewhere. They don't have any meaningful relationships. It's a tough, tough road to hoe." Boundaryless careers in project networks typically place high demands on participants in two ways: first, the tasks require enormous creative energy; and second, getting consistent work in projects requires time, travel, and maintaining numerous contacts. These demand high levels of energy and commitment, which may create problems of balancing personal needs with professional demands.

Career Stages and Project Networks: Careers as Conduits for Organizing

The stages and training within the career both produce and reproduce the informal organizing needed to coordinate work in project networks. Table 4.1 shows how the career stages, the skills and competencies needed at each stage, and the requirements of project networks interact to maintain the informal organization. Although this table is derived primarily from film-industry data, it identifies career stages, skills and competencies, and organizational requirements applicable to other industries, such as high technology, fashion, consulting, music, and construction, as well as professions such as medicine, academics, and law.

At the beginning of the career, as I have noted, individuals are sorted by interpersonal and communication skills since work is coordinated through production meetings and mutual adjustment among project members. Motivation and perseverance are essential since individuals must compete for projects, and

Table 4.1 Interaction of Boundaryless Careers and Project Networks

Career Stage and Primary Issues	Skills and Competencies	Organizational Requirements
BEGINNING: Getting access to the industry or profession	<ul style="list-style-type: none"> Identifying gatekeepers to gain entrance Demonstrating interpersonal skills Showing motivation and persistence 	<ul style="list-style-type: none"> Attracting new entrants to regenerate organization Sorting potential entrants by their interpersonal skills and motivation
CRAFTING: Learning required skills and industry culture	<ul style="list-style-type: none"> Learning technical skills and roles Assimilating industry culture—norms and values Demonstrating reliability and commitment 	<ul style="list-style-type: none"> Training in a range of technical skills and roles facilitates coordination of complex projects. Inculcating industry culture allows interfirm movement and enhances coordination among multiple participants.
NAVIGATING: Building reputation and personal networks	<ul style="list-style-type: none"> Establishing reputation through quality work Expanding one's skills and competencies Developing and maintaining personal contacts 	<ul style="list-style-type: none"> Defining status order as new members enter and older members shift positions Negotiating membership relations among participants
MAINTAINING: Extending the profession and balancing the personal	<ul style="list-style-type: none"> Mentoring and sponsoring others Balancing personal needs and professional demands 	<ul style="list-style-type: none"> Providing forums to develop members' skills Coordinating industry events to expose and integrate members Setting standards for skills and competencies in the industry

since each new job is negotiated. Thus, a career in project networks is a series of competitions and negotiations for work. In stage two—crafting the career—paying dues, through menial work and long hours, teaches the new recruits the requirements of the medium. The long hours in the socialization process are critical for breaking down old values and facilitating the adoption of the industry culture. Intense socialization into the industry culture allows individuals with diverse backgrounds and functions to coordinate their activities.

The third stage—navigating the career—establishes the reputation and contacts required for continued work in the industry. The need to renegotiate for each job creates movement of subcontractors among firms and one another. This movement makes informal communication channels effective in dispersing information about reputations throughout the industry. Data on reputations, interpersonal communication, and movement from project to project interact to sustain a system in which the work organization is constantly created and re-created with each new project.

The fourth stage—maintaining the career—demands that the focus shift from developing oneself to developing others and to maintaining the industry. Senior members must now mentor and sponsor newcomers, provide workshops to develop junior members, and coordinate events to establish standards, showcase talent, and provide role models. The challenge for the individual is to balance one's personal needs with one's professional demands. In summary, stages of the boundaryless career in project networks sort, train, and socialize individuals on key skills essential for maintaining an interfirm organization.

Career Patterns in a Project Network Industry

Few formal boundaries exist in industries characterized by project networks, such as films, construction, and music. However, there are definite social structures—repeated patterns of interaction—within the film industry that separate powerful individuals and firms from the majority of subcontractors and firms, who remain on the periphery of the industry (Faulkner, 1987; Jones, 1993). Since the industry's structure is defined by the patterns of recurrent and nonrecurrent interactions, a clear understanding of the development of boundaryless careers depends on increasing our knowledge of what career patterns prevail, and of the industry social structure within which these careers arise.

Career Patterns of Subcontractors: Competitive Entrepreneur or Creative Team Member?

An unanswered question is whether boundaryless careers in project networks are characterized by marketlike relations—involving a series of one-night stands—among subcontractors and firms (Kanter, 1989) or by teams with repeated interactions that enhance learning and innovation (Miner and Robinson, 1994). Clique analysis is a good way to see whether there are strong and intimate interactions, or short-term and limited ones, and whether members have common purposes and goals (Burt, 1980: 97). A clique analysis of the subcontractors for 1977–1979 shows that only 14% (373 out of 2,744) work repeatedly with other subcontractors in teams. This suggests that marketlike relations—free agency—may dominate the film industry.

However, examination of interaction among subcontractors identified two kinds of relations: free agents and team members. Of the 282 successful subcontractors—defined as those who made three or more films in three years—36% engaged in free-agent careers, whereas 64% participated as members of teams (see Table 4.2). Although only 14% of all film subcontractors engaged in repeated interactions, 64% of successful subcontractors use repeated interactions in teams as the basis for their career. This suggests that free-agent relations dominate and tend to be used by many who are less successful (work less often than once a year), and that more successful subcontractors tend to be team members.

Further analysis suggests that employment relations are even more complex. Four different types of firm-subcontractor employment relationships can

be identified: market, hybrid, dominant, and exclusive. Market relationships (36% of the total) involve those subcontractors who work only once for a firm. Hybrid relationships (27%) involve working repeatedly for one or more firms, but for no one primary firm. Dominant relationships (26%) involve dependence on a primary firm for two-thirds or more of the subcontractor's work. Lastly, the traditional exclusive employment relationship is relatively rare—only 11% of all subcontractor-firm relationships. These two subcontractor orientations and four types of employment relationships interact to create eight different career patterns within the film industry (frequencies are shown in the cells of Table 4.2). The most common career patterns involve hybrid teams, which work repeatedly, but not exclusively, for firms; market teams, which move across firms; and individuals who act as free agents.

There is a further suggestion: that certain career patterns are more viable for some skills and competencies than others. Table 4.2 also breaks the subcontractor roles into three primary organizational roles—managerial, technical, and support. Managerial skills are performed in the producer and director roles; they organize, control, and direct the resources for the film project. Technical skills are performed by the cinematographer, the editor, and the production designer, who are responsible for the technical aspects of filmmaking (lighting, set construction, camera work). Support is provided primarily by the assistant director, who administers and does whatever tasks are needed by the director. Managerial skills and competencies occurred most often with team career patterns (the average occurrence was 38%, across cells 5 through 8) and occurred significantly less so with free-agent career patterns (the average was 24%, across cells 1 through 4). Technical skills and competencies were most likely with hybrid relationships and with either free-agent or team orientations (cells 2 and 6, 65% and 61%), and were least likely with exclusive relationships (cells 4 and

Table 4.2 Career Orientations, Employment Relations, and Organizational Competencies

Subcontractor Relations	Employment Relation (Subcontractor-Firm)				Total
	Market: Subcontractor works once with each firm	Hybrid: has repeated work with one or more firms	Dominant: does two-thirds of work with one firm, but works with other firms	Exclusive: works with one firm only	
Free Agent	Cell 1 18%	Cell 2 6%	Cell 3 11%	Cell 4 1%	36%
	Technical 58%	Technical 65%	Technical 39%	Technical 0%	
	Managerial 18%	Managerial 11%	Managerial 32%	Managerial 33%	
	Support 24%	Support 24%	Support 29%	Support 67%	
Team	Cell 5 18%	Cell 6 21%	Cell 7 15%	Cell 8 10%	64%
	Technical 51%	Technical 61%	Technical 51%	Technical 39%	
	Managerial 35%	Managerial 25%	Managerial 40%	Managerial 50%	
	Support 14%	Support 14%	Support 9%	Support 11%	
	36%	27%	26%	11%	N-282

9, 0% and 39%). The support role was a likely career path for free agents with exclusive employment relations (67%). Interestingly, support is less likely as a career strategy for subcontractors with team career orientations (average: 12% across cells 5 through 8).

These career patterns suggest a variety of strategies that subcontractors may use in project networks. The key insight is that career patterns appear to result from a matching of employment relations, subcontractor orientations, and organizational roles. For example, technical skills and competencies are well suited for hybrid relations, because these provide both continuity and exposure for new people and work challenges that extend and enhance technical skills. In contrast, managerial skill and competencies facilitate work of developing teams that are needed to make an elite product (e.g., films by Woody Allen or Robert Altman), or are needed to establish efficient routines for several low-budget films (e.g., by Sunn, New World, or Walt Disney). Support skills, and the coordination they provide, may be more important when free agents dominate production arrangements.

Cores and Peripheries: Developing Long-Term Access to Projects

It is untrue that project networks have no structures at all. In industries with extensive subcontracting and permeable firm boundaries, tightly knit relations exist in the inner cores, which are connected to loosely woven interactions on the peripheries. The peripheries of the industry's social structure are open; those individuals with the necessary skills and desire, and those firms with the necessary capital, may enter. In contrast, the industry's inner cores, where the high-status, high-paying work occurs, are restricted. Only a small percentage of people both enter and remain within the industry's inner core for most of their careers. For example, in the film industry, from 1965 to 1980, only 7% of the film producers made 40% of the films, while 64% made only one film (Faulkner and Anderson, 1987: 894).

One way to identify the varying cores and peripheries within the industry social structure is through a k-core analysis (Scott, 1991: 112; Seidman, 1983) among industry participants. K-core analysis allows us to assess varying degrees of interconnectedness by locating areas of tightly and loosely woven interactions—as one moves to the inner cores, there is an increase in contact among subcontractors and firms. Thus, those within the inner cores have rich informal communication networks concerning jobs and opportunities. In contrast, those on the periphery interact with the least frequency and have poor informal communication networks concerning jobs and opportunities. As Faulkner explains, “working on the periphery is an odd mixture of nearness and remoteness; . . . the newcomer is near in that he has contact with many members of his occupation, but remote in that such contact is occasional, incidental, rather than a result of solid ties” (1987: 120).

A k-core analysis of the film industry in the 1977–1979 period reveals distinct areas—an inner core, a semi-periphery, and a periphery—that are defined by subcontractors who work for the major studios, the minor studios, and fly-

by-night firms. In the inner cores, 80% or more of the subcontractors work exclusively for the seven major studios. Thus, these relationships are more densely connected, and subcontractors, on average, made three films in the three-year period. These inner cores are inhabited by the elite, who have greater compensation, skill, experience, stability of employment, and access to resources (Balio, 1985; Faulkner, 1987). In contrast, around 50% of subcontractors on the periphery work for the fly-by-nights and the minor studios. And working for the 32 minor studios and the 142 fly-by-nights makes the interactions less cohesive and less likely to provide good information on subcontractors' skills and reputations. On average, the fly-by-nights make only 1.19 films; they are indeed transitory firms and cannot be counted on to build a career. The periphery is comprised of lower-paid jobs, less skill, and experience, and have unstable and tenuous employment (Balio, 1985; Faulkner, 1987). Further, around 50% in the semiperipheral area work for the minor firms, 25% for the major studios, and 25% for the fly-by-nights. Clearly, the semiperiphery links the cores and the periphery through direct and indirect relations.

In summary, the social structure of the film industry reveals a small set of firms—the seven major studios—who share a relatively large elite group of subcontractors. For subcontractors, inclusion in this elite inner core provides more challenging work, prestige, better pay, and access to resources within the industry. As Raider and Burt point out in chapter 11, movement among firms and other elite subcontractors provides greater social capital for these subcontractors, who have better access to information and to job opportunities at the elite firms. However, prior success does not guarantee a place in the inner core. One's position in the inner core must be reaffirmed with a successful performance on each new project. What these data do point out is that few consistently perform and excel at the high levels required to remain within the inner core for their entire careers.

Conclusion

Boundaryless careers and project networks are interfirm phenomena that force us to reframe our understanding of both careers and organization. This movement across firms requires individuals to develop skills such as interpersonal communication and knowledge of the industry culture, which facilitate the informal coordination of work. Since individuals must constantly compete for projects, one's reputation and informal networks of contacts are critical for continued employment. Thus, individuals have a much greater responsibility for seeking experiences that maintain and extend their skills. Although a variety of career strategies are available in project networks, two strategies appear most successful: developing key technical skills for which others will want you, or becoming a valued member of one or more production teams. In short, these new careers and organizations provide more challenge and variety in one's work, but also more responsibility and a proactive pursuit of success in one's career.

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Notes

1. Leigh, the film commissioner, identified the four other subcontractors who were to be interviewed, on the basis of their quality credits and consistent work. The film commissioner seeks to increase film production in the state, and his office also organizes the U.S. Film Festival in Park City, Utah. The interviews were done during a five-month period in 1988 and were semistructured; the questions were: (1) Tell me about what you do in the film industry. (2) How did you get started? (3) What makes a career successful in the film industry? (4) Do you help newcomers get started? What about them makes you decide to help them? (5) What advice do you give these newcomers? The data were content analyzed, included in a report, and fed back to the informants, who then assessed the data for accuracy and understanding of the film industry. This acts as a validity check on the data and interpretations.

2. See Jones (1993) for more information about data collection and methods of analysis.

3. Film credits are recorded in the film-industry periodical *Willis' Screen World*. Since a three-year period for examining career patterns may be perceived as too short a time span to obtain valid results, I examined whether this short period skewed the data for the 2,074 subcontractors with only one film credit. The career histories of the 2,074 subcontractors were checked against Katz's *Film Encyclopedia*. Further, since production in film projects typically lasts from six to twelve weeks, and only directors are guaranteed a salary for a minimum of ten weeks, subcontractors who work less than once a year, on average, will have a hard time making a living. Indeed, the most productive subcontractors made between 12 and 13 films in the three-year period.

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