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Hunting and Gathering in the Early Silicon Age

Cyberspace, Jobs, and the Reformulation of Organizational Culture

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The concept of corporate culture has a varied history in a number of disciplines. Most of these conceptions have treated “culture” as a variable arising out of structural conditions, rather than as an interactive, ongoing process operating between individuals and structures. In this chapter, I argue that a fundamental reconceptualization of culture is necessary at the level of basic theory. Drawing on current work in anthropology, I present one possible reformulation, using examples from job search communities and cyberspace to illustrate my argument. In particular, I concentrate on some of the effects of cyberspace on the bounded form of culture that makes up “organizational culture.”

One of the greatest problems facing both academics and practitioners today concerns how to develop basic theoretical models for organizational cultures that will act as attractive communities and still be economically viable in the current environment. In order to reconceptualize culture, I draw on three traditions within anthropology: the social anthropology of Bronislaw Malinowski (1884-1942), the symbolic anthropology of Victor Turner (1920-1983), and current work in evolutionary psychology. In part, these choices stem from my desire to recast “culture” as a holistic concept, which is how it is conceived by most anthropologists (Jordan, 1994) and several organizational culture researchers (e.g., Trice & Beyer, 1993;

see also Beyer, Hannah, & Milton, Chapter 20, this volume).

FOUR PROBLEMS IN REFORMULATING THE CONCEPT OF "CULTURE"

In the following subsections, I address four particular problems: the roles of institutions within a culture, how communities are defined, how we locate territories, and how we chart the changes in each of these through time. The necessity of examining each of these problems stems from one basic situation: Anthropologists use the term *culture* with two completely different connotations (see Jordan, 1994). The first concerns the ability of humans to generate symbolic and material "interfaces" (artifacts, organizations, belief systems, and the like) between themselves and their environments. The second meaning refers to the *specific*, historically situated interface structures of a particular group, a meaning often referred to as "the culture of . . . [a specific group]."

Problem 1: The Concept of Culture

The term *culture* derives from the Latin *cultura*, "cultivation," and is allied to *cultus*, the past participle of *colere*, "to till" (Skeat, 1958). The term has connotations of cyclical time and reverence, where past patterns are repeated to produce the same results time and time again and, in the process, become "sacred." For some, "culture" is the norms, values, and beliefs of a group (e.g., Deal & Kennedy, 1982; Enz, 1988; Kroeber & Kluckhohn, 1952; Peters & Waterman, 1982). In this "integrationist" definition, culture is viewed as "an internally consistent package of cultural manifestations that generates organization-wide consensus" (Martin & Frost, 1996, p. 602).

To my mind, when applied in the term *organizational culture*, this definition presup-

poses that culture is generated at the level of an organization (e.g., the culture of IBM derives *from* IBM). Such an assumption has been undermined by Trice (1993), who notes the importance of organizational (Trice & Beyer, 1993) and occupational subcultures. Trice's (1993, p. xi) working definition of "culture" as ideologies and cultural forms (e.g., symbols, ceremonies, myths) goes some way toward redressing the problem. First, he de-emphasizes the equation of "culture" with "values" by pointing to specific cultural forms as components of "culture." Second, by developing the concept of occupational and organizational subcultures, he has made a de facto argument that organizations are composed of differing groups, each of which may be said to have its own community and culture.

Once we recognize that the term *culture* has two separate and distinct meanings, depending on which level of analysis is referenced, much of the confusion over the concept disappears (Jordan, 1994). Given these two distinct meanings, *all* historically situated "cultures," whether they are organizational, occupational, or national, are "cultures of . . ." and stand in sharp contrast to the *ability to produce* a culture. By drawing distinctions between different "cultures of . . ." and neglecting their interaction with the ability to produce culture, we have needlessly limited our understanding of how specific cultures are both changed and maintained. "Cultures of . . ." are constantly being negotiated and generated; they are an emergent property of human interaction with our natural and social environments and take the form of organizations, languages, belief systems, and other "structural" elements.

Problem 2: The Conceptualization of Institutions

What is needed, then, is a model that explains the role of culture and the system of organizations within cultures. The type of model I am proposing draws its inspiration

from the work of Bronislaw Malinowski. Although Malinowski is frequently assumed to be merely a precursor to Parsons in the functionalist paradigm (an assumption that was encouraged by Parsons himself; see Parsons, 1957), this assumption is false. Where Parsons (1957, p. 11) viewed culture as a shared symbolic system, Malinowski (1944/1960) saw culture as the interface (symbolic, material, and organizational) between individuals and their environment, and this was reflected in his major ethnographies (Malinowski, 1922/1961a, 1935/1965a).

A second major difference between Parsons and Malinowski lies in their conceptualizations of an “institution.” For Parsons (1957) an institution is “a complex of institutionalized role integrates which is of strategic structural significance in the social system in question” (p. 39). Parsons went to great lengths to distinguish between his definition and Malinowski’s, which Parsons characterized as “referring to a concrete social system or . . . a group” (p. 59). Although Malinowski (1945/1961b) argued that an institution is “a group of people united for the pursuit of a simple or complex activity” (p. 50), he made no requirement that the members of the institution be united in a single space or time. Furthermore, Malinowski’s definition of an institution includes not only the “concrete social system” or bounded social group, but patterns of action and interaction, material artifacts, norms and perceptions, and purposive “values.” In one instance, Malinowski (1945/1961b) asserted that an “institution” is equivalent to an “organized system of human activities” (p. 49).

Malinowski (1944/1960, chap. 11) argued that all cultural organizations (institutions) appear as specific ways to meet particular needs and/or desires. These, in turn, produce a series of secondary or derived needs that stem from the operation and maintenance of various institutions. On top of these, there are also a series of what he termed “integrative imperatives,” symbol systems designed to maintain group cohesion (Firth, 1957; Malinowski, 1944/1960, chap. 12). For Malinowski, the institution is

the primary interface between individuals and their environments. Institutions embody the composite answers (material, perceptual, and organizational) of a culture to particular needs, problems, and desires.

Even as the analysis of the “culture of . . .” deals with a sliding scale of group size (e.g., national to regional to organizational), so too does Malinowski’s analysis of institutions. This is clearly shown in his analysis of land tenure in the Trobriands (Malinowski, 1935/1965, especially chaps. 11-12). Malinowski analyzed land tenure, a concept that did not exist in the Trobriand society of 1914, through an extensive examination of the institutions that surround land use, access rights to land, the technology of gardening, the magic of gardening, kinship rights, the distribution of crops, and so on.

Although he never developed the observations further, Malinowski’s work points toward two key relationships: First, institutions may operate only in specific perceptually defined territories; second, the relationship between institution and community is poorly developed. This relationship between institution and community is important, because the term *community* refers to the attachment of an individual to an institution (see the discussion in the subsections below on how community is defined and on the function and basis of communities; on attachment, see Beyer et al., Chapter 20, this volume). For organizational cultures, the overlaps among institution (organization), community, and territory become critical.

Problem 3: How Is Community Defined?

The concept of “community” was somewhat problematic for Malinowski. In general, he viewed communities as the source of institutional “authority,” a not unreasonable view for an individual examining small-scale societies. He also recognized other forms of communities, including what we would now refer to as communities of practice, although

he based them around experience and identity (e.g., kinship and parakinship structures; see Sahlins, 1972) in a manner similar to the concept of occupational subcultures discussed by Trice (1993).

For Malinowski, the core of the concept of community is relationships between individuals: their mutual expectations, obligations, rights, and responsibilities. Communities authorize institutions, prescribe their deployment, define their propriety, and act as testing grounds for their validity. Communities are not, in and of themselves, autonomous. Rather, they are parts of a larger web of social relations that define any particular society and the relationship of one society to another (i.e., the “world-system” in which that society operates). Communities are described as the living sites of culture(s), incorporating one or more institutions within their boundaries and acting as a focus for social action and experience (i.e., the lived experience of the operation of one or more institutions). As such, they serve to create a sense of “us” grounded in a commonality of experience and understanding and, by extension, a sense of “them.”

One way of viewing the range of needs, desires, and problems “solved” by a community is to consider the community as a topological “domain” (see Tyrrell, 1998). Each community has its own domain, which may range from answering a specific need to answering many needs. Currently, most individuals are members of multiple communities and also have shifts in their needs over their lifetimes. As such, the relative impacts of any single community on an individual vary according to the breadth and relative importance of the need(s) covered by that community at particular points in time. A more concrete expression of this may be seen in the current mobility of employees in high-tech firms. Their current organizations/communities may not be able to meet their current or projected needs and, as a result, they are susceptible to being “headhunted” by other firms that are capable of meeting those needs.

Numerous authors have assumed that for a community to exist there must also be an associated settlement site (for an overview, see Wellman, 1998, pp. 10-11). This is the same as arguing that for any work to take place, there must be a factory or office building—it is an assumption that is being rejected with increasing frequency, as current trends toward telework clearly show (I discuss cybercommunities further below in the section on communities as communicative networks).

Wellman (1998, p. 10) notes that many definitions of community contain three common criteria: interpersonal networks that provide sociability, social support, and social capital to their members; residence in a common locality; and solidarity sentiments and activities. If we accept these criteria, especially if we are examining communities that develop within particular organizations, then we must rework the concept of “site” in such a manner that we can account for, among other things, distributed work teams. These three criteria may be transformed into the following:

- Social networks that give access to institutions that provide active and potential affective and material support and resources
- A common site in which and through which these affective and material resources may be provided
- A set of solidarity sentiments and activities (i.e., structures and rituals to promote attachment)

Problem 4: Territories and Sites

The assumption of the necessity of a physical site as a precondition to the existence of a community is, at first glance, a matter of common sense. It is, however, axiomatic in anthropology that numerous groups have no permanent physical locations (e.g., hunting-and-gathering societies and many pastoralist societies). Rather than single locations, such

as villages or neighborhoods, these groups share in territories.

Territories contain the locations, or “sites,” in which and through which institutions, organizations, and communities operate. In this formulation, “institutions” are prior to “organizations.” This is an extension of Malinowski’s thought, where a single “charter” may enable the existence of multiple organizations that draw on it. The term *location*, however, does not refer to a specific “place” in physical reality, but to a location in perceptual reality that may or may not be restricted to a particular place and will shift along with changes in the perceptual reality. Institutional “territory” may be equated with specific organizations or social roles, although any particular territorial claims will be in a state of constant redefinition (Abbott, 1988).

Within any specific territory, the sharing of resources takes place both in physical sites (e.g., factories, meeting rooms, Internet relay chat rooms) and in nonphysical “sites” (e.g., artifacts, asynchronous communicative media). Because many types of institutions may be “stored” in potential in artifacts, there is no requirement that the originator of the support be present or even alive at the time of transmission.

Summation

In this section I have introduced four interlinking concepts: culture as environmental interface (the culture of . . .), institutions as organized systems of human activity, communities as the living sites of culture, and territories as the locations of communities. All four of these concepts are necessary for the construction of our general model of culture.

All of these concepts operate on a “sliding scale.” In other words, each may be applied to any component of an organization (e.g., department, work group), to the organization as a whole, and to the general social environment(s) in which the organization operates. In the next section, I examine the con-

cept of community in greater detail, in order to unravel the concept and show what communities are based on and how they may develop in cyberspace.

COMMUNITIES AS COMMUNICATIVE NETWORKS

In the preceding section, I argued that the traditional interpretations of what a community must be do not hold up, particularly in the face of the Internet and its impacts. We must now ask what characteristics are necessary for “a common site in which and through which affective and material resources may be provided.”

I would suggest that one characteristic is that of the medium of communication, both in its structuring and in its form. In other words, how do people within a community communicate? As Harold Innis (1964, p. 33) has noted, media have, by their physical nature, a bias toward the dissemination of knowledge over either space or time. A high bias toward spatial dissemination would normally indicate a low bias toward temporal distribution, and vice versa. The resulting communities have been broadly characterized along their communicative lines: oral cultures, literate cultures, and digital cultures (see DeKerckhove, 1995; Ong, 1982).

Territory in Cyberspace?

This concept of a territory, rather than a single site, comes to the fore with the advent of cyberspace. Although many virtual communities are defined, at least for research purposes, as communities—a corporate intranet, a personal Web site, an Internet relay chat (IRC) channel, a listserv—this is frequently not the case. The community operates over a number of different sites, the sum totality of which defines the territory of that community. The individual sites are just

that—sites. Each site, however, has its own peculiar bias of communication—a time-space trade-off dependent upon the technology.

In cyberspace, the bias of communication runs along two axes: (a) a bias in time from asynchronous (e.g., e-mail) to synchronous (e.g., chat rooms) communication and (b) a bias in event form from completely non-interactive to fully interactive (see Ferguson, 1998; Tyrrell, 1998; Tyrrell & Ferguson, 1998). The perceptual “geography” of cyberspace created by these biases ranges from the “stable” formations of asynchronous, totally noninteractive sites (e.g., data storage sites such as the SEC), through midrange “resource” sites (e.g., interactive database sites such as ZDNet), to highly interactive, interpersonal exchange-based sites (e.g., listservs, chat rooms).

The linking of various sites into coherent, subjective “wholes” produces territories in which communities evolve. These communities may be of *any* type, from a work team to a virtual corporation to a medical support group. Indeed, the integration of these communities into current organizational cultures has been of major concern, especially in the area of telework (see Davies, 1996).

The Function and Basis of Communities

I use the term *function* in its biological, rather than sociological, sense to denote the current, rather than original, effect/use of a particular pattern of interaction. As such, the function of a community is to share specific affective and material resources. Given that this sharing is not, of necessity, dependent upon any particular point in space or time, is there some commonality upon which it is based? In order to answer this question, we have to move the basis of the discussion from Malinowski to the later work of Victor Turner, which centered on the symbolic/cognitive level of interaction. For our purposes,

the key concept we need to examine is Turner’s concept of *communitas*.

In *From Ritual to Theatre*, Turner (1982) argues that there is a distinct relationship between the structures of a community and what he has called *communitas* (Turner, 1969, 1982). For Turner (1982, p. 50), *communitas* stands in a “figure-ground” relationship with social structure. *Communitas* erupts spontaneously and, if the experience is held to be useful and/or desirable, it is encapsulated within a structure (i.e., as an institution) and passed on to others.

Turner (1982, p. 58) sees a relationship between this institutionalized *communitas* and Csikszentmihalyi’s concept of “flow.” For Csikszentmihalyi, the flow state exists when

players shift into a common mode of experience when they become absorbed in their activity. This mode is characterized by a narrowing of the focus of awareness, so that irrelevant perceptions and thoughts are filtered out; by loss of self-consciousness; by a responsiveness to clear goals and unambiguous feedback; and by a sense of control over the environment. . . . it is this common flow experience that people adduce as the main reason for performing the activity. (quoted in Novak & Hoffman, 1997, p. 3)

Flow is the *subjective* experience of a particular type of event. It channels the participants into a set mode of perception that blocks out extraneous perceptions and, by doing so, achieves specific ends. When coupled with particular “structures” (e.g., game-specific rules and specific relations between the game and other structures), flow experiences, and the ends they produce, become one particular form of institutions—“games.” I use the term *game* here specifically because of the “self-contained” nature of flow experiences, games, and events. It is an analogic convenience that has the advantage of being a collective concept that implies material resources, rules of action, and experiences generated through their usage. It also

highlights the relationships among “play,” “games,” liminality, and *communitas* (see Turner, 1982).

Any given flow experience contains both material and affective outcomes, and is a component in a relational web composed of other flow experiences. Obviously, a flow experience is an “affective resource” in that it engenders a sense of control and accomplishment, but it also provides *material* resources, at least inasmuch as the game produces particular ends. Thus, by way of example, when salesmen speak about being “in the groove,” they are referring to the subjective flow experience.

The flow experience serves to produce a sense of *communitas* between people who share the same, or similar, games: a sense of “commonality” that engenders an “us-ness” that provides a common ground for communication between otherwise disparate people. It must be noted that there is no requirement that the affective and material outcomes of a game must be “positive”; games will serve the same communicative and *communitas* building function even when they are negative.

The relevance for organizational cultures of this model is clear. Flow experiences act as the shared bases for occupational, departmental, and work team subcultures. They provide the subjective, experiential basis for individual attachment to particular (sub)organizations that allows for the continuing production of organizational cultures.

Community Boundaries

What is distributed within a given community is not the actuality of a singular flow experience, although this *may* be available, as much as it is the *potentiality* for one or more particular flow experiences. In other words, communities supply their members with the rules to one or more games and the potential opportunity to engage in those games. As such, access to particular games, and the sense of “we-ness” produced by these

games, serves as one boundary defining a community.

A second boundary is the utility of resources. Communities, by their very placement within larger environments, will inevitably adapt to whatever their “local” conditions are, and this adaptation will produce a variance between (a) the production of specific games and (b) the relative importance of different games. Given this situation, it is not surprising that some communities contain specific games that are completely absent in other communities, and others have adapted to produce games that are only occasionally required by the general societies in which they operate. This second type may be referred to as “contingent communities,” because they center on specific culturally recognized contingencies.

Summation

Culture is an integral composed of partly autonomous, partly coordinated institutions. It is integrated on a series of principles such as community of blood through procreation; the contiguity in space related to cooperation; the specialization in activities; and last but not least, the use of power in political organization. (Malinowski, 1944/1960, p. 40)

We can clearly see from the preceding argument that communities may be transient, contingent, and differentiated in their needs/answers domains. These domains include specific “games” and larger “metagames” (i.e., linked sequences of games for which the outcomes are both longer in time and greater in product than those of any component game). The exchange of information is critical for maintaining both the boundaries and the necessity of the community. As such, we can conceive of the intersection of communities and the territories in which they operate as the “playing field” within which these games and metagames operate.

In the preceding sections, I have attempted to draw out and expand upon the key components of Malinowski's model of "the culture of . . ." These components are as follows:

1. Institutions, which are expanded from a community's means of satisfying fundamental human needs to include games and metagames
2. Territories, which are expanded from physical locales that circumscribe groups that interact frequently to systems creating opportunities for communication and participation in basic need fulfillment or constructed games
3. Communities, which are expanded from intersubjective networks of relationships that deploy and authorize a comprehensive set of institutions covering the full range of human needs to networks that are more specialized and focused in the institutions that they support

For Malinowski, each of these components must be considered in order to produce an adequate analysis of a particular "culture of . . ." Indeed, these components are critical in order to allow us to place organizational cultures (and subcultures) in the broader social environment. This broader environment will, inevitably, have an impact on its component cultures, producing a situation of conflict, accommodation, and syncretism (see Malinowski, 1945/1961b, chap. 7). For Malinowski's "argonauts of the western Pacific" (the Trobrianders), the broader social environment was other, similar communities occupying the surrounding islands. For today's "argonauts of cyberspace," the broader social environment is composed of multiple communities, each of which satisfies particular needs.

In addition to constraints placed on a particular culture by the broader social environment, Malinowski (1944/1960, pp. 75-84) argued that any theory of culture must, ultimately, be based on biology. Unfortunately, Malinowski's work in the area is based solely on stimulus-response psychology. Although

Malinowski (1944/1960, p. 132) did attempt to link individual biology to symbolism, his model must now be considered hopelessly out of date in light of current knowledge of neurophysiology. Models that are more in tune with current neurophysiological knowledge include biogenetic structuralism (Laughlin & d'Aquili, 1974) and evolutionary psychology (Cosmides & Tooby, 1992; for less neurologically sophisticated models of symbolism, see Alvesson & Berg, 1992; Gagliardi, 1990b). In addition, Nicholson (1997) has discussed the application of biological systems components to organizations.

By arguing that any theory of culture must be based on biology, Malinowski meant not only the meeting of biological needs, but also the integration of biological systems components such as mental modules and the interface between biology and technology. In the next section, I consider two such constraints that, although unknown to Malinowski, fit his model perfectly.

THE STONE AGE MIND IN THE MODERN COMMUNITY

Our modern skulls house Stone Age
Minds. (Cosmides & Tooby, 1997, p. 11)

This phrase holds the conclusions of a number of evolutionary psychologists (e.g., Barkow, Cosmides, & Tooby, 1992; Cosmides & Tooby, 1997). The argument, following Cosmides and Tooby (1997), runs as follows. The brain is a physical system composed of numerous dedicated computational modules that have evolved over time to meet specific environmental problems. Because humans have spent the vast majority of our evolutionary history as hunter-gatherers, most of our neural circuitry has evolved to meet challenges faced by hunting-and-gathering societies.

The Cheater Module as a Facet of Stone Age Minds

The most basic problems Stone Age humans had to solve involved dealing with the environment around them. Cosmides and Tooby (1992, 1997) argue that these environmental problems were not solely technical (food, shelter, clothing, and so on)—they were also social:

Our ancestors have been members of social groups and engaging in social interactions for millions and probably tens of millions of years. To behave adaptively, they not only needed to construct a spatial map of the objects disclosed to them by their retinas, but a social map of the persons, relationships, motives, interactions, emotions, and intentions that made up their social world. (Cosmides & Tooby, 1992, p. 163)

Cosmides and Tooby (1992) show that reciprocal altruism cannot operate unless some mechanism for detecting “cheaters” is available. In this instance, “cheaters” are defined as people who accept benefits but do not pay the cost for those benefits as expressed in a social contract agreement. Cosmides and Tooby review a series of experiments that test a number of possible ways to detect cheaters and come to a number of conclusions, two of which are of direct relevance here. First, cheater detection does not occur unless the rule evoked has the cost-benefit representation of a social contract. Second, the module embodies the implicational procedures specified by computation theory (e.g., “If you take the benefit, then you are obligated to pay the cost” implies “If you paid the cost, then you are entitled to take the benefit”); Cosmides & Tooby, 1992, p. 206).

The implications of the existence of the cheater algorithm are directly relevant to a number of the current problems facing various organizational cultures (see Nicholson, 1997). Many of these problems arise from

changes in the social environment. Although the cheater algorithm does not detect cheaters unless there is a “social contract” (an accepted “ideology,” in Trice & Beyer’s [1993] language), it does detect attempts to alter or subvert the social contract. In effect, the cheater module operates as a form of social control for both the individual and the group.

But social contracts, ideologies, are adaptations to particular environmental situations. What happens when a “social contract” is maladapted to a new social situation? Probably the greatest changes in the social environment in recent centuries have stemmed from the adoption of new technologies. Each new wave of technological adoption has sparked massive responses to the changed social contract. And yet the adoption of new technologies has been a part of humanity for millennia.

Homo Faber and Cyborg Technology

The augmentation and/or replacement of human labor with machines and tools is a characteristic of the human species. Even before the development of *Homo sapiens*, our remote ancestors were members of the genus *Homo faber*—a symbiotic genus with biological, cultural, and technological components (Barkow et al., 1992). For Malinowski (1944/1960), culture requires “artifacts, techniques, organization and symbolism” in order to exist (p. 136). The impact of technological change on particular adaptive instances cannot be underestimated.

Laughlin (1996) has developed a four-stage model of human-machine (cyborg) development. Although this model addresses the augmentation of humans with machine components, it also captures differences in human-machine interactions at a variety of levels, including that of production processes and cultural adaptation (see Tyrrell, 1996a).

The first stage, which is characteristic of preindustrial societies, is the extension of the skeleton and outer shell of the human. The second stage extends the human muscular system and, although present in preindustrial societies, it does not become dominant until the Early Industrial Age. In order to achieve its fullest expression, second-stage cyborg technology requires the development of "stand-alone" technology in two areas: (a) the harnessing of constant, efficient power sources, and (b) mechanical systems that replicate specific muscular tasks.

Third-stage cyborg technology involves the replacement and/or augmentation of the peripheral and autonomic nervous systems. In production, this is analogous to the development and deployment of digital and analog monitoring and control systems that operate in "real time" but separate the human from the immediate site of production (e.g., NPC systems, stock tickers, telephones, intercoms). Fourth-stage cyborg technology augments and replaces parts of the central nervous system. At present, it is characterized by the development and deployment of stand-alone decision-making technologies capable of interacting with their environment and exercising some control over it (e.g., expert systems). Fourth-stage technologies modify the very means by which humans both perceive and conceive their external environments. As such, they extend and modify both the ability of individuals to produce culture and the environment in which that culture will be produced.

Consider one simple example. The introduction of computerized monitoring has shifted some professions from work situations in which individuals exercised their own judgment to situations in which computer programs make decisions (Braverman's [1974] deskilling argument; for examples, see Garson, 1988, pp. 71-159). Clearly, such shifts affect both the attachment of individuals to organizations and the skill requirements of these positions.

Each stage of technological extension changes not only the technology employed

but also the social relations in which that technology is placed. As such, it has an intimate effect on what games (as discussed above) an individual can be involved in, because technological change may render specific games obsolete and create new games. Changes in game availability cause changes in living communities, rendering some obsolete and opening up needs for new ones. Although changes in human-machine relations may be initiated in a fairly short period, there is a definite time lag in cultural adaptation to the new situation (see Brinkman & Brinkman, 1997). This lag is especially evident in the development and deployment of new social contracts. In the following section, I examine the shifts that have taken place in the last several centuries surrounding the concept of "job."

CHANGES IN THE MEANING OF "JOBS"

I noted earlier that organizational cultures exist in a broader social environment. The time has now come to leave Malinowski and Turner behind and illustrate how this broader environment has had an impact in one particular area: jobs. I have chosen this example for two reasons. First, for the past two centuries, individuals have tended to define themselves by their employment situations. Individuals' jobs have provided not only much of their self-images, but also access to many of the games that allow them to define themselves as part of communities and, hence, part of distinct cultures (see Trice, 1993; Trice & Beyer, 1993).

My second reason for examining jobs is somewhat more complex. For the past century or so, organizations have acted as the main forum for integrating different occupational cultures into (relatively) coherent, purposive social units. In part, this has been managed through an increasingly bureaucratic approach to the definition of organiza-

tional social roles (see Weber, 1964). This integration has produced certain characteristic organizational cultures based around a specific social contract (see Whyte, 1956). However, changes in the very nature of organizational bonds, especially communicative bonds, have led to both accusations of betrayal (i.e., activation of the cheater modules in relation to organizational contract; see Bennett, 1990) and changes in the de facto social contract.

In the following subsections, I use the terms *Early Industrial Age* (circa 1760-1860), *Middle Industrial Age* (circa 1860-1914), *Late Industrial Age* (circa 1914-1980), and *Early Silicon Age* (circa 1968 to the present) to distinguish broad temporal and organizational categories. These designations derive from the convention of archaeology “stages” established by C. J. Thomsen in 1819, although precise dates are impossible to determine, because practices from one “age” continue into the next (for parallel arguments, see Barley & Kunda, 1992; Eastman & Bailey, 1998).

Jobs in the Early and Middle Industrial Ages

Bridges (1994) notes that before the Industrial Revolution, the word *job* referred to “any task that was a single piece of work” (p. 31). By the 1830s in England, the term shifted to its modern connotations of, to use Bridges’s words, “the way most people today get their money, their status, and many of their friends—in addition to their sense of belonging, their feeling of being productive, and their hopes for a better future” (p. 30).

Two key changes in the social and technological environments mark this shift. First, the organization of much human labor (“work”) was broken down into a series of small “jobs” that were organized sequentially—Adam Smith’s discussion of pin making is a good example (in *Wealth of Nations*, I:i). The second key change was the introduc-

tion of an efficient mechanical system of generating power—the Watts steam engine. Both of these changes stem from a combination of the institution of “scientific rationality” as developed during the Enlightenment with the institution of mercantile capitalism. These two developments combined to produce a situation in which machines not only could but should be used to replace humans at manufacturing tasks independent of the natural environment. The maladaptation of the older social contracts to the new social environment produced during this period are well-known and have been described by many authors (e.g., Braverman, 1974; Polanyi, 1944).

Jobs in the Late Industrial Age

Whereas the Early Industrial Age concentrated on the mass production and distribution of raw commodities (such as coal, iron, and cotton), the Late Industrial Age concentrated on the mass production of consumer goods and services. The Late Industrial Age centered on the increased abstraction and codification of work-task-related knowledge, coupled with a shift from a social contract based on exchange to one based on redistribution (see Polanyi, 1944, 1977).

By the 1950s, this redistributive social contract had produced what Ruitenberg (1963) termed the “organizational society,” inhabited by the “organization man” (Whyte, 1956; see also Granick, 1960). The organization had become the primary environment in which individuals competed and provided the major arena for individual self-definition (Osterman, 1984; Tyrrell, 1996a, 1996b; Whyte, 1956). This period is characterized by a social contract wherein loyalty to and conformity with the expectations of the organization are exchanged in return for security (Bennett, 1990; Grossman, 1988; Kalleberg, Knoke, & Marsden, 1995; Morin, 1991; Tyrrell, 1994).

Jobs in the Early Silicon Age

The Late Industrial Age has been characterized by a number of trends in three general areas. First, there has been a generalized replacement of human with machine labor. Second, the cognized and operational environments (Rappaport, 1968, pp. 237-242) of most large organizations have been extended to encompass the entire globe and low Earth orbit. Third, there has been a centralization and intensification of C3 functions (command, control, and communications) and, in many cases, a shifting of these functions from humans to digital technologies (e.g., expert systems).

The current culmination of these trends, the Early Silicon Age, is characterized by several key structures. First, the productive capacity of the Late Industrial Age sectors of the economy far exceeds the possible demand, whereas this situation is reversed in the service and information/knowledge-intensive sectors of the economy (see Rifkin, 1994). This can be seen in the rapid development and growth of the so-called high-technology sectors: computers, robotics, biotechnology, and precision instrumentation (Beck, 1992). It can also be seen in the chronic labor shortages currently reported in these sectors.

Second, the destruction of trust in the bureaucratic organizational forms and the social contracts of the Late Industrial Age has produced a situation of generalized uncertainty for both the employee (i.e., How long will I work here?) and the employer (i.e., How can I keep my good employees?). Rather than trusting organizations, the newly developing social contract places trust in the communities and personal networks over the organization and can be characterized as operating on reciprocity (see Mauss, 1950/1990; Sahlins, 1972; for a detailed discussion, see Tyrrell, 1995).

Third, the development and deployment of rapid, interactive communications technologies (especially communications technologies such as the Internet, intranets, EDI, and the World Wide Web) has produced new

environments that give many people unprecedented access to specialized communities of interest. Although these electronic communication networks are by no means the only new forms of community, they are among the most readily observable and accessible, and they are having effects similar to those of the introduction of the printing press (see McLuhan, 1962; Niccoli, 1990; Ong, 1982).

COMMUNITY AND LIVELIHOOD IN THE EARLY SILICON AGE

The intersection of a new social contract centered on reciprocity and the rapid deployment of new electronic networks has produced a situation that is unique in human history. Humans in the Early Silicon Age have access to more games and, hence, more communities than ever before. Furthermore, investments in time (e.g., for travel and research) have been significantly reduced while there has been a concomitant rise in the variety of games that are accessible.

In this section, I want to highlight some of these games and communities, with particular reference to those centering on job searching. I have chosen job-search games and communities for one main reason. Unlike the situation of the Trobriand Islanders studied by Malinowski, for members of present-day Western societies the action of acquiring a livelihood (a job) has been separated from kinship and local spatial community. And, unlike in organizations of the Late Industrial Age, acquiring a livelihood has now been separated from individual organizations and takes place in multiple organizations on a contingent basis (e.g., term and contract employment, job shifting, consulting).

Every major job-search book and organization embodies the idea that individuals, not organizations, are responsible for their futures (e.g., Bolles, 1993; Bridges, 1994; Swartz, 1997). This idea is in direct opposition to the loyalty-for-security social contract

of the Late Industrial Age. As such, this has had a serious impact on how organizational cultures are conceived by employees and on employees' reactions to intraorganizational attempts to secure their loyalty.

Job Seekers: A Contingent Community

Job-finding clubs, outplacement programs, and self-help groups for job seekers fall into the category of contingent communities. First, the contingency of being unemployed is well recognized and expected within our culture. Second, these clubs, groups, and programs contain a small number of professional counselors, a somewhat larger number of "alumni," and, usually, a very large number of unemployed participants. Third, clearly recognized affective and material resources are transmitted. Thus job-seeking groups are clearly communities as discussed earlier in this chapter.

Although cyberspace is still conceived of primarily as an adjunct to "real space" job-search communities (e.g., formal outplacement programs), there are indications that a job-search function has developed in many on-line communities. Specific job-search sites have operated on the Internet since the mid-1980s, primarily in the form of Usenet news groups and bulletin board systems. In recent years, however, the spread on the World Wide Web has generated a number of dedicated job-search sites such as Monster Board.

Job-Seeking Games in Cyberspace

At this point in time there are a number of metagames available to a person who wants to generate an income. Although the most common metagame is still employment by an organization, there are other options, such as self-employment (as a consultant or entrepre-

neur), contract or temporary work, and franchise opportunities.

Each metagame contains its own specific component games, the most common of which are opportunity identification, opportunity research, and specific job-search skills (e.g., networking, interviewing, and researching; see Tyrrell, 1995), all of which are accessible via the World Wide Web. Opportunity identification (finding out about the existence of a job) has been augmented by the recent shift of many corporations toward electronic human resource management systems. Put simply, the cost of advertising a job on the Web is one-tenth that of using "normal" methods.

Opportunity research may be described as discovering the context of the opportunity and the company. Until (roughly) 1996, most of this information was gleaned from personal networks and from library research using annual reports, news articles, and publicly available private and government-mandated reports (e.g., SEC filings, Standard & Poor's ratings). By the end of 1996, most of the *Fortune* 500 corporations had established corporate presences in cyberspace that make available most of this information, as had many government agencies (e.g., the SEC filings).

The area of job-search skills training has also shifted into on-line settings, ranging from informal job discussion sites through articles on specific skills to full job-search manuals. Although the majority of this information is static or, at best, asynchronous FAQ (frequently asked question) sheets, several sites are experimenting with synchronous IRC-based training in networking and résumé preparation.

Training, at least in the form of information and advice, for research, networking, and interviewing is available via the Internet. General research and advice became available in 1993 via the Riley Guide, which is still the definitive resource for on-line job searching. The definitive guide to networking on the Internet was produced by Phil Agre in 1994 and is constantly being updated.

Finally, there are numerous guides to interviewing that have appeared on-line in the past few years, and several interactive simulations have also been made available.

Interactivity and the Development of Settlements

The increase in interactivity stems from the deployment of new programming standards for the HTML language, coupled with the availability of highly interactive programming scripts (e.g., CGI scripting, Java, and UML) and simplified programming interfaces (e.g., HotDog, MS FrontPage). Not only has it increased the interactivity of Web sites and their ease of production, it has led to the development of Web pages that combine asynchronous and synchronous sites.

This combination of asynchronous and synchronous media into a single settlement is currently forming the basis for several communities of job seekers. Where the territory of a given cyberspace community used to be defined by a single site and that site's links to other sites, we now find the development of full-fledged, if specialized, settlements. Some of these settlements, such as Monster Board, might be termed "ports of trade," because they are functionally equivalent to those studied by Polanyi (1977).

This situation has advanced considerably since 1997 with the introduction and spread of e-mail and Web-accessible human resource information systems (HRIS). Of particular interest are the companies that are now using these systems exclusively (e.g., Canadian Tire). It is quite plausible to believe that by 2010, the vast majority of employment opportunities, at least in North America, will be available only via electronic interfaces—either job-listing boards or digital HRIS operations.

The deployment of digital HRIS operations coupled into the Internet and the development of major job-listing boards increase the importance of timely information for job seekers. This, in turn, stimulates the "need"

for access to specialized communities for technical skills (e.g., How do I post my résumé?), for opportunity identification, and for increased participation in job-seeking communities where these resources are available.

All of these factors combine to produce a multiplicity of contingent communities that contain information about opportunities. Most of these contingent communities are outside of the control of any single organization; they exist in the spaces between organizations and, as such, are part of the social environment of organizations. At the same time, they both enhance organizations and serve as a way of detaching individuals from organizations, first by showing them other options and then by enhancing the newly emerging social contract.

Some Effects of Contingent Nonemployment on Organizational Cultures

In several other papers, I have discussed the role of reciprocity in job-search strategies, both in the "real world" (Tyrrell, 1995) and in cyberspace (Tyrrell, 1996a). In these papers, I have argued that there are distinct parallels between the distribution systems of hunting-and-gathering cultures and those of modern job seekers. The problem for most organizational cultures is that almost everyone in the organization, from the CEO down to the mail clerk, is either engaged in an ongoing job search or subject to headhunting. Organizations have themselves become contingent communities, as can be seen in the development of a two-tier employment system in the United States, where most new jobs are outsourced to temporary agencies (see Rifkin, 1994, pp. 190-194).

One central point that many of us have forgotten is that all individuals are members of multiple communities. Even as the relative importance of our work communities is dropping, the importance of electronic and other networking communities is increasing.

This shift in relative importance may well be viewed as a “fragmentation” of our source of moral order, even as Durkheim (1893/1984) saw it. But, if I am correct in diagnosing the new social contract as based on reciprocity, this is not the case.

Every reciprocity system that has existed has relied on moral action by its participants (see Malinowski, 1935/1965; Mauss, 1950/1990; Sahlins, 1972). In these systems, “moral action” is located in three separate areas: the individual, the network, and the community(ies) involved. We can see indications of this tripartite system starting to come into place. Consider, by way of example, the development and, more important, the purchase of career-planning seminars for currently employed people. This is a form of moral action by a community (an organization) toward an individual (an employee). A second example comes from the growing discussions on the ethics of business. A third, and final, example comes from the dawn of our species history: We can detect cheaters in reciprocal obligation systems as easily as we can detect cheaters in other forms of social contracts.

FROM OCCUPATIONAL
CONTINGENCY
AND ON-LINE COMMUNITY
TO ORGANIZATIONAL CULTURE

I started this chapter by noting the need to develop basic theoretical models for organizational cultures that will act as attractive communities within the new social contract and still be economically viable. I have argued that, in order to solve this problem, we need to rework our basic concepts of organizational culture. The model I have proposed drew initially on the work of Malinowski, and I have extended it through the addition of elements from evolutionary psychology and symbolic anthropology. In this model, the concept of a social contract (ideology in Trice & Beyer’s [1993] meaning of the term)

relies not on a philosophical basis but on an evolved psychological one.

The deployment of the Internet has only speeded up the process of a shift in social contracts from redistributive forms, where the organization was the major domain in individual life, to reciprocity. To paraphrase Durkheim (1893/1984), we are moving from mechanical solidarity, through organic solidarity, to electronic solidarity, where fragmented sets of communities replace aspects of both the communities Malinowski envisioned and Industrial Age organizations.

I have used shifts in the concept of “job” and the development of job-seeking communities as illustrations in this chapter for several reasons. First, the concept of employment within an organization has not, to my mind, been challenged enough. Recent trends in types of employment clearly indicate a shift away from organizational employment toward temporary and contingent work, and this is already having an effect on organizational cultures. Second, the very existence of viable alternatives to organizational employment creates a situation that undermines the validity of many organizational cultures. Why should I work for an organization that I “know” will fire me at the drop of a hat, when I could be working for myself?

What, then, can be said about the very concept of “organizational culture”? Clearly, organizational cultures are, from the position I have been advocating, contingent communities. Thanks to the deployment of the Internet and other forms of electronic communication, any given organization may well act only as a minor domain for an individual amid a sea of other, more attractive, communities and competing organizations. What we need to do now is develop specific ethical models that can generate proper moral codes for each new “age” based on both the lived realities of that age and “human nature” (see Nicholson, 1997). These moral codes can then be transformed into specific sets of needs/answers that may be grafted into particular organizational cultures and provide us with a normative theory. But that, as the saying goes, is for another article.