Growing Communities of HUMAN CAPITAL

Firms must change from highly-structured managers of physical and financial assets to networks of flexible 'communities of practice,' says Rotman Dean ***Roger Martin****. Only by making this fundamental shift will they be able to retain and develop the human, knowledge and social assets they need to prosper in the 21st century.*

IN the 19th and early 20th centuries, the key assets most firms competed with were physical assets. Of the top 15 firms worldwide in market capitalization in 1928, 10 owed their success to ownership of natural physical assets including minerals, oil, and land. As the 20th century progressed, the physical assets shifted from natural resources to plants and equipment, and financial assets became more important as determinants of competitive advantage. Firms such as IBM, AT&T, GM, Eastman Kodak and Sears Roebuck emerged as the world's most valuable firms by 1969 on the basis of the financial assets — i.e. the equity and debt capacity — to create dominant scale in plant, equipment and locations in their industries.

By the late 20th century, the terms of competition had changed quite dramatically. As the chart on page 8 demonstrates, dominant physical assets and financial assets no longer determine success.

Many of the firms on the list of the top 15 firms in the world by market capitalization began quite recently, with little or no physical or financial assets — including Microsoft, Cisco, Intel, AOL, and Wal-Mart. The vast majority of the firms on the list depend on superior **human assets** for their advantage — great research scientists, inspired code writers, distribution geniuses, product innovators — and **knowledge assets** — patents, brands, know-how, experience. And increasingly, these leading early-21st century firms depend on **network/social assets** for their competitive advantage. These include relationships with suppliers, distributors and customers, alliance partnerships, relationships with educational institutions, and reputation. The shift in competitive assets from the early 20th century to early 21st century is depicted in the chart on page 9.

A New Organizational Order

The very revolutions in information technology, globalization and knowledge management that drove people-based assets from the 'back of the bus' to the catbird's seat have changed the configuration of the firms in which people work. As **Don Tapscott** has chronicled in *Digital Capital* and elsewhere (see page 11 of this issue), plummeting transaction costs have challenged the traditional vertically-integrated formation of the firm. Firms are disaggregating and becoming more loosely coupled 'B-Webs.' So Cisco doesn't make routers. Electronic manufacturing services firms such as Solectron, Celestica, and Flextronics make the routers that Cisco designs, markets and distributes. And firms like EDS, Accenture and Computer Associates, in partnership with Cisco, build Cisco products into the corporate networks they design.

In these new, sparsely-populated and specialized firms, the average worker spends much less time with members of their own firm, and much more with outside partners, affiliates, etc. Rather than dealing with members of one team, these people belong to many teams with many goals, approaches, and cultures. This is a world that is not as comfortable or predictable as the old vertically-integrated, self-contained firm.

It is also a more project-based world in which teams form around project tasks rather than traditional permanent tasks. When the project in question is finished, the project team breaks up and its members join new teams. The rise of project-based jobs was striking during the 1990s. Of all new jobs created in the United States during the 1990s, over

continued on page 8

Illustration: Oleg Koulikov/Three in a Box

FROM RESOURCE-BASED TO INNOVATION-BASED LEADERSHIP
The Largest Market Capitalization Firms

1928			1969			2001		
Rank	Company	Market Value (Billions*)	Rank	Company	Market Value (Billions*)	Rank	Company	Market Value (Billions)
1	General Motors	$22	1	IBM	$159	1	GE	$459
2	AT&T	18	2	AT&T	102	2	Microsoft	335
3	U.S. Steel	9	3	General Motors	76	3	Citigroup	314
4	Standard Oil (New Jersey)	9	4	Eastman Kodak	51	4	Cisco	306
5	General Electric	9	5	Exxon	51	5	Exxon Mobil	284
6	DuPont	8	6	Sears, Roebuck	40	6	Pfizer	271
7	F.W. Woolworth	7	7	Texaco	32	7	Intel	244
8	S.H. Kress	7	8	Xerox	31	8	AOL	241
9	Standard Oil Co. of California	6	9	GE	27	9	Wal-Mart	239
10	New York Central Railroad	6	10	Gulf Oil	24	10	Vodafone	226
11	Pennsylvania Railroad	6	11	3M	23	11	AIG	205
12	Canadian Pacific Railway	6	12	DuPont	19	12	IBM	194
13	Consolidated Gas of New York	5	13	Avon Products	19	13	Nokia	187
14	Standard Oil Co. of New York	5	14	Coca-Cola	16	14	Merck	182
15	R.J. Reynolds Tobacco	5	15	Mobil Oil	16	15	BP Amoco	175

NOTE: * 1928 and 1969 market value inflated to 2001 $ using US GDP inflator SOURCE: Center for Research in Security Prices, University of Chicago

continued from page 6

one-third were created in 'business services' — one of the 41 sectors identified by Harvard's **Michael Porter** in his competitiveness work. 'Business services' saw three times the net job growth of the next highest sector. This sector includes such project-based professional service firms like EDS, Accenture, and McKinsey & Company, where people are not hard-wired into jobs but rather float from project team to project team over time.

Ironically, just as firms are becoming highly dependent on their employees to build and maintain the competitive assets necessary for success, they are breaking down the cultural environment with which employees feel most comfortable. The breakup of firms into networked B-Webs and the conversion of jobs into episodic project-based initiatives rather than permanent hard-wired jobs interrupts the natural formation of social groups.

Communities at Work

Companies that can bridge the tension between people's inherent need for community, and the forces pushing toward the flexible, networked world of the future will create tangible and intangible value that both sides can share and enjoy. Collaboration, reciprocity, and mutual advantage are the essence of the organization of the future, as are authenticity, meaning and trust. This new approach to the corporate relationship doesn't just hold for the employer-employee relationship, but for the firm's relationship to customers, outsourcers, suppliers, and government — what Harvard's **Robert Putnam** calls 'social capital': "Whereas physical capital refers to physical objects and human capital refers to properties of individuals, social capital refers to connections among individuals — social networks and the norms of reciprocity and trustworthiness that arise from them."

In his brilliant book, *Bowling Alone*, Putnam chronicles the breakdown of social activity and the diminution of social capital in America, indicating that the interruption of the formation of social groups in firms is not an isolated issue. Putnam's definition of social capital mirrors the definition of social/network assets in firms. To the extent that his finding that the features of modern life are diminishing social capital is correct, we must consider the possibility that some of the same features of modern firms are also challenging the social capital within firms.

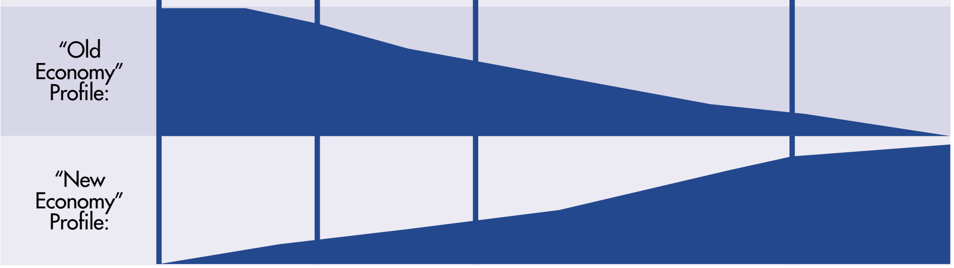
There is some evidence that the form of the modern corporation is making it a less than fulfilling place to work. *Fast Company* magazine and Roper Starch Worldwide recently conducted a poll that suggests a broad level of disappointment and disaffection with careers in the New Economy (see page 9.)

When they started, over 50 per cent hoped their jobs would 'as meaningful' or 'more meaningful' than anything else in their lives — but today, only 30 per cent hold that view and 70 per cent have diminished the view of their job as a secondary feature of their lives.

The work of **Ed Diener** and **Eunkook Suh** provides a hint as to the reason for this disaffection. In their book, *Culture* and *Subjective Well-Being*, they review the literature on what features produce a sense of happiness, satisfaction and contentment — what they and other scholars call 'subjective well-being'. They find that while many features correlate with high subjective well-being — health, stability, wealth — arguably the highest correlate is associated with community, in particular, the feeling of being a valued member of a group or community that you respect and see as respected by others.

CHANGING CLASSES OF COMPETITIVE ASSETS

Classes of Competitive Assets:	Physical Assets	Financial Assets	Human Assets	Knowledge Assets	Network/Social Assets
Examples	• Plant and equipment • Drilling/cutting rights	• Equity • Debt capacity	• Experienced salespeople • Research scientists	• Patents • "Know how" • Procedures	• Dedicated customers • Reputation • Alliances



In this respect, the *Fast Company*-Roper Starch poll results should come as no surprise. If being a valued member of a community is key to subjective well-being, and if the modern networked, project-based corporation has undermined the traditional forms of corporate community, it follows that subjective well-being in corporations — as described by the feeling of meaning in one's job — is disappointingly low. And it is not likely to get any better soon without significant changes in how firms think about and manage their internal communities.

Communities of Practice

Firms of the future will have to pay close attention to a new kind of community building: the building of communities of networked, flexible project team members where the organizing principle is practice, not organization. 'Communities of practice' are made up of individuals who share the same interests, but not necessarily the same organization, and they are powerful organizing and motivating units.

The term 'communities of practice' was coined by researchers who have studied the ways in which people naturally work and play together. In essence, they are groups of people who share similar goals and interests. They work with the same tools and express themselves in a common language and through such common activity, they come to hold similar beliefs and value systems.

Communities of practice develop around things that matter to people and reflect the members' understanding of what is important. What holds them together is a common sense of purpose and a real need to know what the other knows. There are many communities of practice within a single company, and most people belong to more than one of them.

Knowledge is the currency within these communities. Moreover, one has to be able to give as well as take knowledge in order to remain a member in good standing. Companies do much of their most important work through communities of practice — especially in the overlaps and alliances that bring disparate communities together.

I learned just how powerful communities of practice can be in my days at **Monitor Company**, a prototypical project-based, human-asset-dominated firm. The *only* community-oriented things that consultants in that ultra-hectic world would spend time on were communities of practice. Whether their affiliation was with the 'country competitiveness community,' the 'consumer understanding community,' or the 'non-profit organization community', these were the communities of practice to which the Monitor consultants and their outside friends felt most strongly connected. In time, we organized our intellectual property development fully around such communities of practice.

Firms of the future will evolve into assembled communities of practice — groups of people informally bound by shared expertise and passion for a joint enterprise. Although managers cannot mandate communities of practice, they can bring the right people together, provide an infrastructure in which communities can thrive, and measure the communities' value in non-traditional ways.

If more communities think a firm is 'the place to be,' then the firm can become the centre of several communities of practice. As such, the firm will be the best collector and organizer of human assets; it will have the best capacity to build knowledge assets; and it will be the centre of the most powerful network and social assets. Those firms that seek to encourage and inculcate communities of practice will need to think differently than firms traditionally have.

Herman Miller is a company that thinks differently than other firms in its industry. Most observers consider Herman Miller to be the pinnacle of high-end furniture design — purveyor of classics like Eames lounges, Noguchi tables, and the revolutionary mesh-structured Aeron chair. However, the vast majority of Herman Miller's design is created by outside designers who are not employees of the company. Instead, they include many of the world's finest industrial designers, who have their own firms and work on many things other than furniture. But they love working

continued on page 10

FAST COMPANY-ROPER STARCH WORLDWIDE SURVEY

	When you started work for your current employer, did you think your job would be...?	Think about your job today. Do you think that your job is...?
A) Mostly just a way to make money	12%	18%
B) Meaningful, but not as meaningful as the rest of your life	37%	52%
C) Just as meaningful as family life and other activities	46%	26%
D) The most meaningful thing in your life	5%	4%

continued from page 9

with Herman Miller because they know that the company holds design and designers in the highest regard and has learned how to create the most productive working relationships with its community of designers.

The Open Source movement is another example. Its core technology — an underlying source code — is totally visible and freely available to anyone who wants it. There are no patents, no trade secrets, no intellectual property protections whatsoever. No one person or company 'owns' the software. It is created by a global, volunteer army of programmers. The Open Source movement works because people do their best work when they are passionately engaged in what they're doing. In the case of the **Linux** operating system, programmers from around the world contributed to its creation. With no managers, and connected primarily through the Internet, this loose federation of programmers transformed Linux into perhaps the best version of UNIX ever created.

Firms are doomed to remain on the periphery if they are not exciting and rewarding places for talented human assets to spend their time, dream their dreams, and form communities.

Firms of the 21st century must, like Herman Miller and Linux, master the art of nurturing communities of practice. They must create loosely-coupled, networked, project-based organizations that are at the centre of communities of practice, not at the periphery. Firms are doomed to remain on the periphery if they are not exciting and rewarding places for talented human assets to spend their time, dream their dreams, and form communities.

Fostering communities

What, then, is critical to nurturing communities of practice? I suggest several features. First, communities of practice must be sufficiently flexible to create an environment conducive to participation. The Diener and Suh work suggests that at the organizational or societal level, rigidity and inflexibility lead to feelings of lower subjective well-being, and therefore lack of attractiveness for participation. Work by **Richard Florida** of Carnegie Mellon University suggests that tolerance is a critical feature in attracting the most valuable human assets to a given community. Talent is what powers economic growth, and openness and tolerance attract talent. Firms should strive to be what **Don Tapscott** calls 'context-setters' for communities, not controllers and organizers of communities.

Second, communities of practice must seek mutual benefit and reciprocity. Firms that seek to have communities of practice serve the firm more than the members of the community will find the social assets of the community dissipate rather than grow. Those premier human assets will be capable of choosing the communities of practice with whom they affiliate and will only affiliate with those communities with which they feel a sense of reciprocity.

And finally, communities of practice need to set their aspirations high. The finest human assets will seek to involve themselves in the most interesting communities of practice — those who seek to innovate, break new ground and lead the world. Members of the Herman Miller design community of practice believe — with justification — that they are designing the finest office furniture in world.

Conclusion

In the emerging world of competition, successful firms will strive to be the nexus of communities of practice that attract the best human capital, create an environment in which they create superior knowledge assets, and in doing so build and reinforce the social capital of the firm. Leaders in this new model are 'architects' who design organizations in which communities of practice *want* to congregate, because the quality of community interaction is high, the relationships are authentic, and the energy is palpable. Their role is not unlike that of the mayor of a great city, who creates an environment in which a number of disparate communities can all agree on one thing: that they wouldn't want to be anywhere else.

Community development is not a 'one size fits all' proposition. Each organization, like each community, has its unique personality, strengths, and challenges. But when a company acknowledges the power of community, and adopts processes that allow communities of practice to emerge, it is taking a giant leap into the 21st century. RM

Communities at Work

Every organization has a stake in making it easy for people to form communities, because they allow people to learn better and faster. Within organizations, four types of communities can be fostered:

WORK COMMUNITIES
Groups of people across disciplines and across organizations that gather to work on formal, time-limited projects together.

COMMUNITIES OF PRACTICE
Professionals in the same discipline who come together to share in informal learning, ad hoc problem-solving, professional networking, and mutual support.

LEARNING COMMUNITIES
Groups of people who are preparing for, augmenting, and/or following up on formal learning experiences are forming communities. These communities often evolve into communities of practice.

CUSTOMER COMMUNITIES
Companies are creating groups of customers who serve as the voice of the marketplace. Customer members give feedback, help troubleshoot problems, and propose ideas for product improvement. They are, in essence, extranet-based communities of practice designed to add value to the customer and provide market feedback to the organization.