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KNOWLEDGE WORK: NEW METAPHORS FOR THE NEW ECONOMY

CATHERINE L. FISK*

INTRODUCTION

Metaphors and stories are the currency of complex systems. Like currency, they simplify transactions and help us understand that which is too new or too complex to grasp. Metaphors and narratives are crucial in labor and employment law, for the law of the workplace is an extraordinarily complex system and is becoming more so. Indeed, to use a metaphor, one might say that the law of the workplace is in the midst of a perfect storm. The winds of change are blowing hard from many directions. Globalization and information technology are changing every aspect of the way we work. Stable corporate jobs are disappearing, as AT&T (before it was swallowed in a merger) and Kodak were both dropped from the Dow Jones Industrial Average because they are too small.1 Unions are either withering or reinventing themselves as community organizations or professional associations. The convergence of these dramatic changes creates the need to address the demands of firms, workers, and society for a fundamental rethinking of labor and employment law and policy. We need new metaphors and narratives about work if we are to understand and effectively respond to these changes.

The focus of this paper is a segment of the new economy that is vaguely, and usually breathlessly, referred to as “knowledge work.” Concepts like “knowledge work,” “the new economy,” and “the information age” moved rapidly from novelty to cliché, without gaining either a terribly clear meaning or a solid foothold in American law. The terms conjure up

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* Professor of Law, Duke University. I am grateful to Professor Martin Malin for inviting me to deliver the lecture, to Greg W. Castle and Julia A. Clark for their commentary, to the Piper Foundation for its support of the lecture, and to Paytre Topp (USC Law School Class of 2005) for outstanding research assistance.

1. According to the Wall Street Journal, the Dow added the insurance company American International Group, Inc., the pharmaceutical company Pfizer, and Verizon Communications to replace AT&T, Eastman Kodak, and International Paper Co. The last time the Dow changed its composition was in 1999, when Home Depot, Intel, Microsoft, and SBC Communications replaced Chevron, Good-year, Sears Roebuck, and Union Carbide. E.S. Browning, Dow Jones Reshuffles Index, WALL ST. J., Apr. 2, 2004, at C1.
images of computers, independent contractors, intellectual property, and globalization. In addition, depending on one's politics, the narratives invoked by the concepts typically take one of two turns. The upbeat narrative might involve someone like my neighbor Rachel, a screenwriter and TV director who does much of her fascinating work in her beautiful home where she has flexible hours and thus always seems to be available for her children. The grim narrative features what Ross Perot called a giant sucking sound as all decent jobs in Silicon Valley are "offshored" to India.

I might have begun with a different metaphor, one used by James Meadows, the Vice President of Human Resources at AT&T, when the company cut 40,000 jobs in 1996. He was quoted as saying,

> People need to look at themselves as self-employed, as vendors who come to this company to sell their skills... In AT&T, we have to promote the whole concept of the work force being contingent, though most of our contingent workers are inside our walls... "Jobs" are being replaced by "projects" and "fields of work,"... giving rise to a society that is increasingly "jobless but not workless."  

Another AT&T spokesperson was blunter in her choice of metaphor to describe the layoffs; she said it was as if the company had asked everybody "to step out into a parking lot." A review of resumes would then decide which people had the skills and knowledge that made them worth inviting back into the building.  

These metaphors were used instrumentally. They are neither politically neutral nor dictated by economic reality or social consensus. This is apparent when AT&T, the firm that was once synonymous with the corporate career, the company that combined continual technological innovation with stable employment, suddenly described its employees as vendors of skills hired from the parking lot like longshoremen off the docks or day laborers at Home Depot. When employees are vendors of skills, they are no longer "employees" to whom the company owes expensive health and pension benefits. There are no more long-term employment contracts limiting company flexibility and dragging down share prices on Wall Street. A well-chosen metaphor magically shifts all risk of economic downturn from AT&T (and its directors, officers, and shareholders) to its former employ-

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2. Edmund L. Andrews, *Don't Go Away Mad, Just Go Away: Can AT&T Be the Nice Guy As It Cuts 40,000 Jobs?*, N.Y. TIMES, Feb. 13, 1996, at D1, D6. AT&T refused to describe the massive job cuts as layoffs or firings, preferring instead to call it a "force management program" aimed at reducing "an imbalance of forces or skills." The parking lot metaphor invokes the dreaded "shape up" that, before the days of the Longshoremen's Union, was the way stevedoring companies hired. They had a bunch of prospective workers line up on the dock and foremen would pick the ones who looked most promising. The Longshoremen's union fought hard to replace the humiliations and vagaries of the shape up with a union-controlled hiring hall.

3. *Id.* at D1.
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Meadows was quite entrepreneurial in his choice of metaphor. Ironically, he himself wound up not being "invited back in from the parking lot"—though he received a generous early retirement deal.4

Throughout American history, lawyers, judges, and firms long have been entrepreneurs in using narrative and metaphor. They strategically deploy stories, metaphors, and images to shape the legal culture of work.5 Their narratives did not and do not simply recount happenings; they give them shape, give them a point, and proclaim their results.6 Of course, neither management nor any one particular ideological position has a monopoly on the entrepreneurial use of metaphor and narrative. Critics of the phenomenon of outsourcing technology jobs to India have been equally entrepreneurial as AT&T's spokespersons when they attempt to frame the debate in terms of a loss of "American" jobs. We lawyers and scholars need to think carefully about the metaphors and narratives that will frame the debate about labor policy in the new economy, for the choices we make may have significant consequences for the welfare of workers, firms, and society.

To begin that task, I will explore the importance of metaphors and narratives that shape American labor and employment law. Second, I will identify some of the major and salient changes in employment that are usually referred to as the rise of knowledge work and the new economy, and I will examine how those changes have been implemented through the telling of new narratives. Finally, given that the choice of metaphors and narratives is political, I will offer some ideas for better metaphors and narratives in labor and employment law as a way of getting us to attend to the social and distributional consequences of the choices we make.

I. THE METAPHORS AND NARRATIVES OF LABOR AND EMPLOYMENT LAW

If metaphors are the currency of complex systems, and, like currency, exist to simplify what would otherwise be extraordinarily complicated communication and transactions, then the importance of metaphor in the

4. Id. at D6.
6. I borrowed this insight from Yale literature professor Peter Brooks who used it in a paper on narrative in the law that he delivered at USC Law School in March 2003.
law of work should be plain to everyone reading this. Anyone familiar with labor and employment law, and with the corporate and social welfare laws that are so intimately related to the law of work, knows the complexity of the field and the need for simplification. Historically, and today, metaphors and narratives are one of the ways in which lawyers and judges translate complex social relations into the web of legal rights that shape the relation between workers and the corporations that employ them. Thus, metaphors about the nature and structure of corporations have been extraordinarily important in determining the legal rights of the stakeholders in the modern firm, including managers, shareholders, bondholders, employees, contractors, customers, and suppliers.

A. Metaphors and Narratives of the Corporation

One of the most influential metaphors in shaping the modern law of work is not one about workers but one about corporations. Since the late-nineteenth century, law has treated the corporation as a person. The metaphor has enabled all sorts of important legal moves. It underlies the claim of the corporation to be an author entitled to as much protection for the works of its employees as Ernest Hemingway and Emily Dickinson were entitled to for theirs. It underlies the claim of corporations to be persons entitled to free speech rights under the First Amendment.

Most significantly, the metaphor of a corporation as a person facilitated the development of a managerial class that directs the work of employees for the benefit of investors. The legal and social power of managers was created in part by the metaphor that managers and officers are the "head" of the corporate person. Consider a mid-twentieth century corporate organization chart. The CEO was at the top of the pyramid, the head of the corporate person, like the king was the head of the fictive body politic. The corporate organization chart, with its simplified portrayal of the company as a pyramid, was every bit the political statement as was a map

that placed the United States at the center, relegating Central Asia and the North and South Pole to the illegible fringes, or a map that marked areas not settled by white Europeans as uninhabited wastelands, or the famous Saul Steinberg *New Yorker* magazine cover on which the Hudson River marked the end of civilization. Corporate organization charts reduced employees to anonymous spots at the far bottom margin. Independent contractors, customers, and suppliers were off the map entirely.

The metaphors of the corporate person and the company organization chart naturalized the standard theory that corporate managers speak only for the shareholders. The investment made by shareholders (not employees) was the investment that the managers owed a fiduciary duty to protect, and the law obligated managers loyally and competently to consider only the interests of the shareholders. This standard account of corporate law is itself a simplified story, for today, of course, the "shareholders" really means the investment advisors and analysts whose assessments actually determine the price of stocks on Wall Street. The history of modern American corporate law could be told as a long story to ensure that only those who invest capital (as opposed to labor or raw materials) count as important stakeholders, or as persons to whom the officers owe a fiduciary duty.\(^{10}\)

One success of the modern corporation was its ability to attract the talent of workers, who otherwise might have been independent entrepreneurs, without offering them ownership, control, or even the obligation of managers to protect their interests.\(^{11}\) The metaphor that persuaded them was that the company is a team, a community, or an institution like a university. The problem was that the company as a team metaphor conflicted with the company as the agent of the shareholders metaphor on the issue of who should bear the risk of loss.

The conflict became apparent when the Supreme Court decided in 1979 that employee pensions are not securities and, thus, that employees may not sue for fraud when the company misrepresents the value of the pension.\(^{12}\) Notwithstanding an entirely plausible argument based on statutory language as to why an employee's pension met the statutory test for a "security" within the meaning of the Securities Act, the Court rejected that


\(^{11}\) Blair, *supra* note 9, at 396; Margaret M. Blair, *Firm-Specific Human Capital and Theories of the Firm*, in EMPLOYEES AND CORPORATE GOVERNANCE (Margaret M. Blair & Mark J. Roe eds., 1999).

characterization of a pension. As the Court saw it, "[l]ooking at the economic realities, it seems clear that an employee is selling his labor primarily to obtain a livelihood, not making an investment."13 After the collapse of "new economy" companies like Enron, Global Crossing, and WorldCom, in which employees had been induced to accept substantial (but, as it turned out, worthless) compensation in the form of stock options but lacked the basic protections against fraud that the law extends to outside investors, one sees the deleterious consequences of choosing the metaphor that does not regard employees as investors in the firm.

The primacy of shareholders over employees has had other significant consequences. Wall Street does not like companies whose labor costs it considers excessive. When fiduciary duty principles lead officers to protect only shareholders, and when executive compensation contracts reward success only as measured by short-term improvements in share price, all the legal incentives, whether imposed by contract or by securities law, encourage the outsourcing of work and the sweating of labor.

Consider three other examples of how corporate metaphor and narrative have shaped labor and employment law. First, the vision of the corporation as being distinct from and owing no labor or employment obligations to workers who are not "employees" of the corporation has become deeply problematic in today's world of contingent employment. In labor and employment law, it is a troubling fiction to say that only the corporation whose name appears on the employee's paycheck is an "employer" for purposes of all the statutes that define the scope of legal duty by reference to who is an employer or employee. Consider a computer programmer on the payroll of a temporary help contractor. Her employer for purposes of law is the temp firm, regardless of who directs her work, who owns or leases the office buildings where she works, or who is in a position effectively to fire her if some aspect of her work proves unsatisfactory. As the Dunlop Commission reported,14 employers use the independent contractor designation to avoid the protections of federal and state labor legislation, including the Fair Labor Standards Act,15 the National Labor Relations Act ("NLRA"),16 and the Civil Rights Act of 1964.17 In addition, the independent contractor label enables employers to maintain tax-subsidized social

insurance programs—health, disability, and retirement benefits—for a shrinking privileged core of workers while excluding others who are equally long-term and economically dependent on their de facto employer.\textsuperscript{18} It is our acceptance of the legally fictive entity—the corporation—as defining the scope of legal and social duties to the workers who serve it that enables corporations that use and benefit from labor to avoid most legal consequences for exploiting it.

A second example of the power of the narrative that separates employees from entrepreneurs in a corporation is suggested by a National Labor Relations Board ("NLRB") case in which an employee proposed to change an employee stock ownership plan ("ESOP") to increase the employees' ownership stake in the company from one percent to fifty percent.\textsuperscript{19} The employee proposed that the ESOP do a clever leveraged buy out, and he distributed leaflets arguing that the employees would enjoy increased job stability, pay, and retirement benefits, and enhanced morale through "participatory management."\textsuperscript{20} His supervisors threatened to discipline him for distributing the leaflets. The NLRB found for the employer on the ground that the distribution of the leaflets was not activity "for mutual aid or protection" within the protections of section 7 of the National Labor Relations Act.\textsuperscript{21} The Board found the employee's conduct to be unprotected because "it was designed to change [the employer-employee] relationship."\textsuperscript{22} It explained:

\begin{quote}
[T]he thrust of the proposal was to cast employees in the role of owners with ultimate corporate control, and thus fundamentally to change how and by whom the corporation would be managed. The current employees would not enjoy any of the envisioned benefits unless and until they, through the ESOP, effectively controlled the corporation.\textsuperscript{23}
\end{quote}

The Board stated that the NLRA protects employees' activity not when the activity "relates to employees' interests generally," but only when it relates to "the interests of employees qua employees."\textsuperscript{24} Here, the conduct did not

\textsuperscript{18} Notwithstanding anomalous cases like \textit{Vizcaino v. Microsoft Corp.}, 120 F.3d 1006 (9th Cir. 1997) (en banc), which mounted a limited and highly fact-specific challenge to Microsoft's wide use of independent contractor labels for employees, the independent contractor label allows employers to opt out of core labor market regulation. \textit{See generally Symposium on the Regulatory Future of Contingent Employment}, 52 \textit{WASH. & LEE L. REV.} 725 (1995).
\textsuperscript{20} \textit{Id.}
\textsuperscript{22} \textit{Harrah's Lake Tahoe Resort Casino}, 307 N.L.R.B. at 182.
\textsuperscript{23} \textit{Id.}
\textsuperscript{24} \textit{Id.}
because the proposal advances "employees' interests [not] as employees [but as] entrepreneurs, owners, and managers."\textsuperscript{25}

Most of the writing on Silicon Valley suggests the silliness of the notion that workers are not "employees" when they advocate employee ownership of the firm. One need not even look to Silicon Valley to see why. The gate agents, ticket agents, pilots, mechanics, and flight attendants of United did not cease needing a union when their pension fund bought half the airline, transforming them all into "employee-owners." All those programmers and systems designers who were paid in stock options during the 1990s did not cease being employees simply because they were taking a part of their compensation in stock options. When Wal-Mart seeks to convince their minimum wage "Sales Associates" that the success of Wal-Mart depends on their putting in extra effort, the clerks and greeters do not cease to be employees in dire need of a union. In short, if the new economy means anything, it means that the line between capital and labor, or between entrepreneurs and workers, is not the line between shareholders and employees/independent contractors. The metaphorical bright lines that were drawn around different parts of the twentieth-century corporation have shaped our thinking far too long.

My third example of inadequacy of the old narratives about the boundaries of the corporation focuses on ownership of intellectual property, or control of "proprietary information" even if we do not call it intellectual property. In the dominant twentieth-century narrative about corporate research and development ("R&D"), R&D occurred within the boundaries of a single company. The dominant legal metaphor, therefore, was that the corporation was the author or inventor. In both law and in popular perception, the DuPont company was the inventor of nylon.\textsuperscript{26} The Disney Company was the author of Mickey Mouse. The legal rules followed from the metaphor of corporate invention. If a corporation employs someone to innovate, the corporation owns the resulting patent, copyright, or trade secret. If a corporation hires an employee of another company for the purpose of acquiring that employee's knowledge about the innovation, the corporation may violate the law. But if the corporation wants to acquire an employee's knowledge, it can get it simply by merging with the corporation that employs the innovative employee. This merger ensures that the financial benefit of an innovative employee's knowledge is passed on to the shareholders rather than being reaped solely by the innovative employee.

\textsuperscript{25} Id.
\textsuperscript{26} See, e.g., GERARD COLBY ZILG, DU PONT: BEHIND THE NYLON CURTAIN (1974).
The metaphor about corporate invention, the narrative of company R&D on which it rests, and the legal doctrines that are built on both are rapidly becoming anachronistic. A very large amount of innovation in today’s economy is neither originated nor fully developed by a single corporation. Most scholars of innovation believe that much complex technological innovation, and certainly some of the most dynamic of innovation, occurs by a “synthetic” process involving groups of employees at different firms, not just the employees in a single firm. It is the interrelation among employees of manufacturers, suppliers, users, and even competitors that drives innovation. Thus, scholars tend to contrast what they call the old “industrial” or “mass production” system with the new “network” or “synthetic” system. The old narrative of innovation envisions the innovation process as a linear process from an idea to a product. The process occurs primarily within a single firm involving employees supervised in an efficient hierarchy in which individual managers play a determinative role. In the new synthetic reality, the process involves a network of groups of workers at different firms, government agencies, or universities sharing ideas, learning continuously from each other about what does and does not work, and solving problems as a group with little direction or control from supervisors. Profitability comes less from efficiency, as was the case in the mass production system, than from speed to market with changing and complex products or processes that meet previously impossible performance characteristics.

Innovation no longer comes primarily from within a firm. For example, Eric von Hippel’s empirical research has demonstrated that in the area of scientific instruments, users developed 77% of the innovations studied. Even in industries, such as the manufacture of fiberglass-type products, where the users were not technologically sophisticated and in many cases had no employees with academic training in materials science, users innovated. In a detailed case study of the manufacturers of pultrusion processes for making fiber-reinforced products like fiberglass, innovations were developed mainly by users who were job shops and not high-tech firms, had

28. Id.
no organized R&D, and had no employees with formal training in plastics or plastics fabrication.\textsuperscript{31}

Consider an example reported recently in \textit{The New Yorker} magazine: Merck, which historically has been a very innovative pharmaceutical company, devotes three billion dollars a year and ten thousand people to research and development of new drugs.\textsuperscript{32} Yet in the past four years, according to \textit{The New Yorker}, Merck has introduced just three new drugs.\textsuperscript{33} Rather, what it and other major pharmaceutical companies do is acquire smaller biotech firms that do invent new drugs.\textsuperscript{34} So, notwithstanding its huge R&D staff, Merck is actually a marketing and distribution firm, not an organization that succeeds in scientific innovation.\textsuperscript{35} The phenomenon is not limited to pharmaceuticals. As Alan Hyde explained in his book on Silicon Valley, many companies acquire new technology and new ideas by merging with innovative companies rather than innovating internally.\textsuperscript{36}

In sum, the metaphor of the corporation as a person, and the related conceptualization of it as an entity separate from all that surrounds it, have shaped the law of employment and the legal economic conceptualization of intellectual property and innovation. The narratives are no longer entirely accurate stories about reality and the metaphors built on them are not helpful tools. It is time, in short, to incorporate into law new metaphors about the nature of the corporation.

\textbf{B. Metaphors and Narratives of the Employment Relation}

Metaphors, narratives, and even the evocative phrase have played a crucial role in shaping perceptions of the nature of employment and the legal entitlements that flow from it. There are dozens of examples one might give. Here I will offer four: (1) the important images of workers created by their labels; (2) the ladder metaphor and the implied just cause employment contract; (3) the ladder metaphor, the role of unions, and the protections of the NLRA for professional and white collar workers; and (4) the use of ladder and tournament metaphors to describe the internal labor market and its implications for proof of employment discrimination.

\begin{footnotes}
\item[31.] Id. at 29–30.
\item[33.] Id.
\item[34.] Id.
\item[35.] Id. It may be, however, that the last four years simply represent a slow period in the "long cycle" of innovation in pharmaceuticals. See GALAMBOS & SEWELL, supra note 27, at 241.
\item[36.] ALAN HYDE, WORKING IN SILICON VALLEY: ECONOMIC AND LEGAL ANALYSIS OF A HIGH-VELOCITY LABOR MARKET (2003).
\end{footnotes}
The labels given to employees have always been powerful in evoking their roles. Employee titles are actually highly condensed narratives that convey powerful images about the nature of employment. In the nineteenth century, employment law was the law of "master and servant." A "secretary" was a male employee with status and responsibility. A "clerk" was a position that a college graduate would aspire to. The "superintendent" of a railroad was among the top-ranking employees of the era's largest enterprises. By the late-twentieth century, secretaries were low-status female employees. Clerks were minimum-wage workers with a high school diploma at best, and a "superintendent" was a blue-collar low-level manager of a factory. Now "secretaries" have become "administrative assistants," clerks at Wal-Mart have become "associates," the same title enjoyed by highly trained and highly compensated lawyers, and "superintendents" have become regional managers or vice presidents in charge of production.

One reason for title inflation is the pursuit of the appearance of status, without the reality of power, in the hierarchical employment structure. Another reason for title inflation is that it makes it easier for employers to claim that the employees are exempt from the protections of labor laws because they are not "employees," but are instead managers or supervisors.\(^37\) One of the most pervasive of the old metaphors about the nature of employment relationships is that there is a hierarchy in the workplace, a ladder that an employee seeks to climb. The entire apparatus of the old implied contractual protections requiring just cause discharge was based on the characterization of the internal labor market as a "ladder." The legal content of the employment contract was derived by judges from the premise that employees worked their way up in an organization, from dishwasher in a candy factory to executive vice president in charge of production.\(^38\) The implied contractual promise of just cause for discharge, or the covenant of good faith and fair dealing, prevented opportunistic breaches of the implied contract of lifetime employment. ERISA's protections of vested pension benefits similarly were designed to protect against an opportunistic breach of an implied promise of retirement security.

There are other legal doctrines built on the old ladder metaphor. One of them involves the NLRA's definition of who is an "employee" entitled

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to union protection and who is a "supervisor" not entitled to protection. The Supreme Court has had a bit of a feud lately with the NLRB over the supervisory status of nurses. In two different cases, the Court insisted that nurses in nursing homes or other residential treatment facilities are supervisors while the Board continued to believe that they are not. In the Court's view, of the organization chart of a nursing home staff, whoever is at the top of the chart is necessarily a supervisor. The nurses at issue in Kentucky River were labeled "building supervisors" on weekends, but received no extra compensation and did not have keys to the building. Their only additional responsibility was in contacting other employees if a shift was not fully staffed according to a ratio established by the employer. They had no authority to compel an employee to stay on duty or to come to work, but they did occasionally request other employees to perform routine tasks. In the Court's view, a nurse with low pay, little bargaining power, and lousy working conditions is not deemed an "employee" simply because she is the top person in a very flat hierarchy. (In fact, the nurses at Kentucky River had no subordinates at all.) A higher-paid nurse working in a major hospital who has better working conditions and enjoys more bargaining power, discretion about how to do her job, and respect from her colleagues (and, thus, has arguably less need of a union) would be an "employee" simply because in her workplace there would be so many doctors and hospital administrators above her on the ladder or pyramid.

39. § 152(3) of the NLRA excludes "supervisors" from the category of "employees" who are protected by the Act. 29 U.S.C. § 152(3) (2000). § 152(11) of the Act defines "supervisor" as any individual having authority, in the interest of the employer, to hire, transfer, suspend, lay off, recall, promote, discharge, assign, reward, or discipline other employees, or responsibly to direct them, or to adjust their grievances, or effectively to recommend such action, if in connection with the foregoing the exercise of such authority is not of a merely routine or clerical nature, but requires the use of independent judgment. Id. § 152(11).

40. The question in the nurse supervisor cases was whether nurses in nursing homes are supervisors because they "exercise independent judgment" in "responsibly directing" other employees in caring for patients. NLRB v. Ky. River Cmty. Care, Inc., 532 U.S. 706 (2001) (Supreme Court rejected NLRB's determination that nurses working in a psychiatric facility are not supervisors because in Court's view a nurse exercises independent judgment in directing other employees even though the independent judgment is largely constrained by professional or technical training); NLRB v. Health Care & Ret. Corp. of Am., 511 U.S. 571 (1994) (Supreme Court rejected NLRB's determination that nurses are not supervisors because their independent judgment was exercised in the interest of the employer, even though it was largely exercised incidental to professional or technical judgment about the needs of patients).

41. Ky. River, 532 U.S. at 723 (Stevens, J., dissenting).

42. Id.

43. Id.

44. The notion that nurses in hospitals are employees but nurses in nursing homes are not, even though they may perform similar tasks under similar or worse conditions, was indeed the basis for a Ninth Circuit decision rejecting the Board's determination that several nurses were employees rather
The Supreme Court seemed to think that the problem of inadequate coverage of the statute under its reading could be solved by drawing a distinction between professional employees who direct the performance of "tasks" and supervisors who direct the performance of "people." But because tasks are performed by people, the difference seems a bit difficult to apply in practice. Little wonder then that the Board, which after all, knows a bit more about working conditions for nurses than does the Court, has not embraced the Court's suggested reading of the statute.

The work done by the ladder metaphor today is huge, especially as firms take advantage of improved communications and a variety of electronic forms of monitoring and directing performance to "flatten hierarchies" in pursuit of cost savings. Suddenly as hierarchies flatten, there may be few employees left—everyone down to the lowly cashier at McDonald's or the customer service representative will be a supervisor in law, just as they now have inflated titles.

Scholars of corporate law got a jump on labor and employment scholars several years ago when they asserted that the metaphor of a corporation as a "person" or even a single integrated entity was fundamentally wrong, and that in fact the corporation was just a network or nexus of contracts. The new insight now is that the network of contracts is not confined to the contracts between those people and physical or financial assets somehow inside the firm (employees, managers, shareholders, plant and equipment, than independent contractors. Evergreen New Hope Health & Rehab. Ctr. v. NLRB, Nos. 02-71544, 02-71748, 2003 WL 21259895, at *2 (9th Cir. May 27, 2003) The court wrote:

'Perhaps the Board could offer a limiting interpretation of the supervisory function of responsible direction by distinguishing between employees who direct the manner of others' performance of discrete tasks from employees who direct other employees.'

Rather, the Board seems to be emphasizing that nursing home nurses exercise no independent judgment in directing the work of other employees. See, e.g., Beverly Health & Rehab. Servs., Inc. v. NLRB, 317 F.3d 316, 323–24 (D.C. Cir. 2003) (upholding the Board's determination that nurses are employees emphasizing the routine nature of nurse's responsibility to direct other employees); Beverly Enters. Minn., Inc. v. NLRB, 266 F.3d 785, 789 (8th Cir. 2001) (rejecting the Board's determination that nurses are employees because court believes that the "routine or clerical" standard is inconsistent with Kentucky River).

accounts receivable, and debt). Rather, the corporation is the sum of its contracts both inside and outside the boundaries of the firm.

Yet this insight has failed to penetrate the way that the NLRA defines a secondary boycott, which still rests on the old image of a workplace being owned and controlled by the company that employs the worker. When janitors protest working conditions by picketing the building where they work, rather than at the office of the company that is their nominal employer, they may be forgiven for not understanding that in protesting their working conditions they are, in the eyes of the law, targeting “neutral” entities—the building owner and tenants. The metaphor of the ladder encourages us to focus only on the rung on which the particular employee is standing, rather than to see what the ladder is leaning against and all the other employees with whom the employee works who might be standing on ladders nearby. If instead we saw all those employees as being in a vast web supported from many different points, we might have a much more accurate sense of where the power is and what kinds of legal regulation are necessary to protect all the workers on the web.

The ladder metaphor, with its implicit narrative of a factory hierarchy with exploitation and subordination on the lower rungs, has its uses, however. It has now been embraced by advocates of white collar unions and labor sociologists who are alarmed at the declining autonomy of professional workers. Doctors seek to unionize, in this narrative, because they feel entirely subservient to the insurance companies who effectively dictate their compensation, their professional judgment, and virtually every aspect of their patient relationships. Rather than invoke the Norman Rockwell image of a genial bespectacled family doctor in solo practice, doctors’ unions portray physicians as harried paper pushers who no longer control the pace of their work, the nature of their diagnoses, the course of patient treatment, or the fees that they charge. The metaphor is easiest to translate into law when the doctors are the legal employees of HMOs. But physicians unions are narrative entrepreneurs in attempting to cast insurance companies (so-called third party payers) in the role of factory employer.

The move to organize medical residents and interns invoked similar narratives of doctors grinding away during brutal hours of hard work in a massive Taylorized factory-type teaching hospital. The new narrative about medical residents and interns persuaded the NLRB when it became appar-

ent that young doctors do so much of the crucial hard work of a hospital. The Board deemed these young doctors employees because it was convinced that they were not, as the hospitals would have it, being mentored, taught, and nurtured in the way that the label of "student" suggests.50

The new narrative of professional worker as little more than a high-status drone has been deployed by labor sociologists as well as union organizers; both are concerned about the use of technology to decrease latitude for exercising professional judgment.51 A Harvard sociologist recently studied airline pilots and symphony orchestra musicians.52 As for pilots, the research noted that the growth of automated equipment governing all the technical aspects of flying and the increase in federally mandated safety devices such as warning signals, guards on switches, or procedures that must be followed, have reduced the discretion of pilots in compared to years past.53 One pilot used a distinctly déclassé metaphor to describe the routinization of his work: "I'm just a bus driver here. They own the bus, they tell me where they want it driven, and I do it. So long as the bus doesn't break, we don't have any problems."54 According to the sociologist, airline pilots are only a hair's breadth above flight attendants in measures of satisfaction with opportunities for professional growth.55

A number of scholars have suggested a new metaphor to replace the ladder. Elite professional employment, they say, should be viewed not as a ladder but as a tournament.56 Although scholarship in this vein has been limited mainly to law firms, the tournament metaphor would work quite well to describe any "up or out" employment practice, whether it is in accounting, management consulting, investment banking, academia, or even software design. Although the tournament metaphor was not adopted for this purpose, it does have the connotation that all entrants have an equal

50. Boston Med. Ctr. Corp., 330 N.L.R.B. 152, 154, 165 (1999) (finding house staff are "employees" rather than "students" within the meaning of the NLRA because they spend 80% of their time engaged in direct patient care and bear a close resemblance to apprentices in traditional skilled craft occupations). College faculty are sometimes managerial and sometimes not, depending mainly upon the characterization of the importance of faculty committees. Little seems to distinguish the cases except the politics of the D.C. Circuit and the NLRB. See LeMoyne-Owen College v. NLRB, 357 F.3d 55 (D.C. Cir. 2004).
52. Id.
53. Id.
54. Id.
55. Id.
chance of winning. Anyone can be the “Cinderella” team that makes it to the final round of the tournament.

But the tournament metaphor, and especially its connotation of equality of opportunity, obscures the reality. As David Wilkins and Mitu Gulati have argued, if we are going to adopt this tournament metaphor, we should remember that tournaments have all sorts of devices built in to ensure that not every entrant does have an equal chance.\(^\text{57}\) Some entrants—the “seeded” players—have advantages going in. This explains why the ranks of elite law firm partners remain overwhelmingly white and male.

With or without the reminder that seeded players have advantages built in, the tournament metaphor helps us see the substantial inequality that results when the law fails to attend to the small things that make a huge difference in whether certain workers have a chance to advance. If one associate at a law, accounting, investment banking, or management consulting firm is excluded from what seems on the surface to be a small opportunity to gain experience or knowledge, current Title VII law is likely to deem it nonactionable because it is not an “adverse employment action” unless it is accompanied by a pay cut.\(^\text{58}\) But Wilkins and Gulati’s work shows how, especially in the realm of elite knowledge work, it is the nominally small opportunities that matter in determining which employees have the chance to compete in later rounds.

Once upon a time we understood the way that small differences had big effects because the narrative about discrimination told a different story. Segregated drinking fountains, bathrooms, and buses were considered unlawful even though on the face of it the differences between the “white” and “colored” facilities were not always large (although sometimes they were). But now we have a different narrative of employment, and depriving someone of small things—this training session, that assignment—seems trivial if there is no change in pay or benefits. We need to go back to the metaphor of segregated drinking fountains to capture the nature and consequences of the small differences in treatment that make huge differences in outcomes when subjective assessments of intangible factors determine success or failure in elite knowledge work.

### C. Metaphors About the Nature of Knowledge

Let us now turn from metaphors about firms and about employment to metaphors about knowledge. The crucial rhetorical move here was to con-
ceptualize knowledge as property. Once you see knowledge and information in terms of real estate, with the well-established ideas of the right to put up fences, evict trespassers, and use the land in whatever way you want, it seems quite logical to insist that the right of intellectual property is the right to control what humans do with what we know. As applied to employee knowledge, corporate intellectual property becomes the right to exploit your employees' creations and to prevent them from going to work for competitors whenever the employer thinks that they may know too much.

For generations, employers have sought legal remedies against employees' use of talent, training, or trade secrets for the benefit of their competitors. For quite some time the issue was considered a branch of the law of unfair competition or, occasionally, the law of master and servant. Today the issue is regarded as fitting in the domain of intellectual property, and the question is whether the firm's property rights in certain "proprietary information" (the scope of which is seldom defined) entitles it to restrict the freedom of another to work. There is a state-by-state fight over whether courts will adopt the so-called "inevitable disclosure" doctrine, which entitles employers to enjoin former employees from taking any job that will require them to use or disclose knowledge that the employer deems proprietary.59 The seminal case, although one that has not found a widespread following, is PepsiCo Inc. v. Redmond, in which the Seventh Circuit upheld an injunction against a marketing employee going to work for a competing soft drink firm on the ground that he knew too much about his former employer's marketing strategy and inevitably would bring that knowledge to bear in his next employment.60 Once skill or know-how is regarded as "proprietary" or as company "intellectual property," it seems logical to enjoin any conduct that would run a serious risk of harming it, even if the injunction is not to work.

The real estate metaphor is not new. Even the opponents of broad employer intellectual property rights have adopted it. Defenders of a robust public domain today invoke the antiquarian image of the enclosure of the


60. 54 F.3d 1262 (7th Cir. 1995).
commons that changed medieval English villages forever.61 In the early-twentieth century, a judge concerned about the free labor implications of excessive protection for trade secrets complained that the law would impose a "mortgage on the workman’s brain."62 Today, kids who download movies or music for free enjoy the renegade status that once was associated with squatters who occupied land as a form of public protest.

In sum, what lawyers do, when they turn employee know-how into corporate "property," is, as French theorist Pierre Bourdieu said, to "symbolically consecrate...power relation[s] between groups and classes" by recording them in a form which anchors them securely to other power relations, eliminating the practical utility of perceiving them as contingent or contestable."63 I have shown how metaphors and narratives about corporations, about work, and about knowledge have shaped the modern world of work, and have done so in ways that are neither inevitable, natural, nor, in my opinion, always just. In Bourdieu’s terms, the symbolic role of law’s metaphors has been "to prettify or obscure domination with the veil of enchanted relationships."64 The relationship between people and their property in our society is certainly one of the most enchanted, evoking as it does images of the sanctity of the home and the treasured heirlooms that lie within. By transforming employee knowledge into corporate property, law has consecrated a power relationship and has justified rights to control employee mobility in significant ways.

II. THE MAJOR CHANGES IN WORK AND EMPLOYMENT IN THE NEW ECONOMY

Let me now turn from metaphors about firms, about work, and about knowledge to a consideration of how all three are changing in today’s economy. Regardless of political differences, as I said at the beginning, what makes the dominant legal metaphors and narratives troubling is not just that they are concocted and at least sometimes unfair, but that they are


62. Aspinwall Mfg. Co. v. Gill, 32 F. 697, 700 (C.C.D.N.J. 1887) ("A naked assignment or agreement to assign, in gross, a man’s future labors as an author or inventor,—in other words, a mortgage on a man’s brain, to bind all its future products,—does not address itself favorably to our consideration.").


64. Id. at 1164 (quoting BOURDIEU, supra note 5, at 188).
anachronistic. They are inadequate to help us understand the world of knowledge work in the new economy. Here I briefly explain why, as I outline the principal changes that we seem to refer to when we speak of the phenomenon of "knowledge work" in the "new economy."

A. The New Economy

There are a lot of things that people mean when they refer to "the new economy." But almost everyone gives a central place to the importance of information. Virtually every observer from every possible perspective agrees that changes in the economy of industrial and postindustrial nations and the world as a whole have increased the importance of intellectual capital. Our dependence on information and knowledge to do our work has steadily increased, and more people than ever before make a living buying and selling information as opposed to things. Compared to fifty years ago, even those who still sell or manufacture things (as opposed to knowledge) spend a greater proportion of dollars per unit of output on knowledge than they do on raw materials or labor.

For example, it has been estimated that four out of the five dollars that Levi Strauss spends to make and sell a pair of jeans is spent on information, rather than denim, dye, cutting, or sewing. Put another way, some of the largest "manufacturers" of clothing are not, technically, "manufacturers" any longer. Levi Strauss is a marketing, design, and trademark holding importer. It appears that the corporation no longer directly employs people who actually makes jeans. Likewise Nike. These corporations are primarily holders of intellectual property (the name, the red tab, the swoosh). They are creators of demand and purveyors of image. They don't make clothes, they make images and desires; they don't work with fabric, they work with ideas.

Neither Levi Strauss nor Nike makes a thing in the U.S. if you focus only on the activities conducted within the boundaries of each corporation. Yet, if you focus on the company as a whole, it designs, manufactures, and

66. If either Levi Strauss or Nike does continue to directly employ any garment makers, the number of such employees is most likely quite small. See generally Ralph Blumenthal, As Levi's Work Is Exported, Stress Stays Home, N.Y. TIMES, Oct. 19, 2003, at 24 (noting that Levi Strauss & Co. is closing US and Canadian factories and contracting out work to suppliers in 50 countries, which will reduce the company's payroll from a peak of 37,000 employees in 1996 to 9,750 by 2004 and will leave none of its jeans production in North America); John Tedesco, The Stories That Made the Year, SAN ANTONIO EXPRESS NEWS, Dec. 28, 2003, at 3N ("Jeans maker Levi Strauss closed its last two U.S. plants here in 2003 and 800 employees lost their jobs. The maker of classic American denim pants now relies on foreign labor."); Brief for Petitioners, Nike v. Kasky, 539 U.S. 654 (2003) (No. 02-575).
sells an enormous quantity of clothes by coordinating and directing hundreds of subcontractors all over the globe. If you look beyond the place of incorporation and the location of the headquarters building, to focus instead on location of their manufacturing activity, neither Levi Strauss nor Nike is really an “American” company any longer. Little remains in the United States except the design and marketing employees and people to manage the companies’ fantastically valuable trademarks. Nor is there much of either corporation anywhere else, as Nike took great pains to note when it was sued for making false and misleading statements about the labor practices in its overseas sweatshops. As far as Nike was concerned, it had little control over, little information about, and certainly no responsibility for the conditions under which independent companies spread all over the world actually sewed athletic wear and shoes. Of course, if one examines it from the perspective of the network of companies that are part of Nike’s operations, over which Nike exerts total control in the design, quality, quantity, timing, and price of its brand of apparel and accessories, the Nike company is a large, coordinated, and very American company.

Just as improved communications and globalization have transformed American garment manufacturing, so too have improved communications and information-processing technology changed other industries. For example, in financial services, innovations in communication and information management have enabled companies to reduce middle management, leaving clerical or service personnel with greater authority to make decisions because they have electronic means of accessing data necessary to apply company policies and their work can be electronically supervised to ensure compliance. When you wish to question a charge on your credit card, the customer service representative (who may be an independent contractor or an employee of a call center in Nova Scotia or India) can resolve the billing dispute because she has access to complete computerized records of customer accounts. She has more authority and less autonomy than the office clerk of a bank fifty years ago. The adjustments she makes to your account over the phone are recorded and can be monitored via her supervisor’s computer, or even by an entirely automated fraud prevention program. Thus corporate hierarchies can be flattened and, indeed, customer service

68. See Brief for Petitioners, supra note 66.
can be outsourced to the lowest-cost labor market, yet the company can maintain tight control over its operations.\footnote{Id.}

The two examples from manufacturing and banking that I have just given suggest how the increased availability of information in the new economy has profoundly changed both white collar and factory work. Overall, it has been estimated that information has become the source of about three-fourths of value added in manufacturing.\footnote{STEWART, supra note 65, at 14.} As one observer put it in a typically breathless phrase: "the twenty-first century economy is one of ever-increasing information intensity.... Knowledge has become what we buy, sell, and do. It is the most important factor of production.... Knowledge assets ... have become more important to companies than financial and physical assets."\footnote{THOMAS A. STEWART, THE WEALTH OF KNOWLEDGE: INTELLECTUAL CAPITAL AND THE TWENTY-FIRST CENTURY ORGANIZATION 5 (2001).} These phenomena have profoundly altered the relationship of corporations to the workers who produce the product or the service that the corporations sell.

\subsection*{B. Knowledge Work}

The changes in the labor market have been even more dramatic, as is suggested by the metaphor of workers as vendors of skills. One of the most salient features of "the new economy" is the increased importance of employee knowledge, or, more accurately, the management of employee knowledge, to the success of the firm. Business schools and management theorists lately have become interested in managing employee knowledge to an extent not seen since Frederick Winslow Taylor pioneered ways to routinize craft knowledge in the early-twentieth century.\footnote{On knowledge management today, see, for example, id.; Roy Lubit, Tacit Knowledge and Knowledge Management: The Keys to Sustainable Competitive Advantage, 29 ORGANIZATIONAL DYNAMICS 164 (2001). On Frederick W. Taylor, see ROBERT KANIGEL, THE ONE BEST WAY: FREDERICK WINSLOW TAYLOR AND THE ENIGMA OF EFFICIENCY (1997).} Scholars of innovation are equally obsessed with employee knowledge and with how knowledge-sharing among networks of employees enables faster and better innovation. Psychologists are interested in employee knowledge, as the welter of studies of tacit learning and tacit knowledge suggest.\footnote{See, e.g., ARTHUR S. REBER, IMPLICIT LEARNING AND TACIT KNOWLEDGE: AN ESSAY ON THE COGNITIVE UNCONSCIOUS (1993); Mark Lehrer & Kazuhiro Asakawa, Managing Intersecting R&D Social Communities: A Comparative Study of European 'Knowledge Incubators' in Japanese and American Firms, 24 ORG. STUD. 771 (2003); Lubit, supra note 73, at 164; Frederick A. Starke et al., Coping with the Sudden Loss of an Indispensable Employee: An Exploratory Case Study, 39 J. APPLIED BEHAV. SCI. 208 (2003).} And, of course, so are lawyers, as they seek new ways to expand intellectual prop-
erty rights and legal protections for so-called "proprietary information." The convergence of all this scholarly inquiry and change in business practice is the invention of a new category of knowledge work.

We all throw around the label "knowledge work" but there is a certain incoherence, or at least vagueness, in the category. Depending on how you define the category, almost everyone I know is a knowledge worker: doctors, lawyers, software engineers, financiers, screenwriters, speechwriters, community organizers, policy wonks, and school teachers. Under a broad definition of knowledge work, even my brother, a high school dropout tool and die maker, who carries his tool box from job to job, is too. He works with sophisticated computerized machinery, and he constantly needs to, and does, upgrade his skills by learning on the job to keep up with the increasing technological sophistication of his work. My brother-in-law is an electrician with only a high school degree, but his work involves implementing complicated plans for installing complex electrical and communications cables and networks. Maybe even my Salvadoran nanny is a knowledge worker because her work is highly interpersonal and involves teaching values and life skills to children.75 Their livelihoods depend on their ability to benefit from the economic value of their knowledge about people, technology, and how to get their work done better.

Of course, one can usefully distinguish, for purposes of counting, which employees are "primarily" knowledge workers, because their job is to produce and manipulate knowledge or information rather than things or services (writers, scholars) and those who are not (my brother, my brother-in-law, and my nanny). But for present purposes it does not matter whether we talk only of knowledge workers or whether we talk of workers whose jobs require significant human capital. The point is that the economic importance of knowledge to employees has increased just as it has to firms in the new economy.

Yet commentators often assume that the economic value of knowledge is, by itself, an argument for expanded legal protections for intellectual property. It could just as easily, however, be an argument for reduced IP

75. The problem of defining knowledge work has changed little since Princeton economist Fritz Machlup first studied the field in the 1950s. FRIKT MACHLUP, THE PRODUCTION AND DISTRIBUTION OF KNOWLEDGE IN THE UNITED STATES (1962). He identified the "knowledge-producing" occupations to include those who create new knowledge (research scientists, scholars, and writers), those who apply existing knowledge to new situations (doctors, lawyers), and those who communicate existing knowledge to others (teachers, aircraft controllers, and corporate managers). Machlup is often credited with inventing the category, if not with popularizing the term "knowledge work." See James W. Cortada, Where Did Knowledge Workers Come From?, in RISE OF THE KNOWLEDGE WORKER, supra note 69, at 14. Later works by economists on knowledge production include MICHAEL ROGERS RUBIN & MARY TAYLOR HUBER, THE KNOWLEDGE INDUSTRY IN THE UNITED STATES 1960–1980 (1986).
protection. We need better legal understanding of knowledge to figure out how to share the wealth equitably. Unions are one of the best institutions we have in society today to create the framework of negotiation that will share the wealth. The economic return to knowledge is not, contrary to popular belief, a reason why some workers either do not want or do not need unions. Indeed, the emerging importance of knowledge may be a reason that workers need unions now more than ever.

We do not all have the same vision of the good society, a fair law, or a just distribution of wealth. But we will never be able to have a meaningful discussion of those issues, or about how to implement the reforms on which we might agree, if we cannot develop a shared understanding of the world of work. Thus it is time that we become conscious of the metaphors and narratives that we use and have a debate about which ones are best.

III. THE POLITICS OF METAPHOR AND NARRATIVE: NOTES ON THE BETTER USE OF METAPHORS

Lots of what we think we know about work and about the new economy is based on metaphors and stories about the nature of firms, work, and knowledge. Those metaphors are not natural, and they have significant consequences for the conditions in which we work, and even for who is rich and poor in our society. I will offer some ideas on the better use of metaphors and narratives in labor and employment law and as a way of getting us to attend to the social and distributional consequences of the choices we make. There are four areas in which I would like to suggest reconsideration of the dominant narratives and metaphors.

A. Intellectual Property and Human Capital

As the value and economic importance of intellectual capital increases, we will see many more disputes about control. There is little agreement even about how to draw the line between intellectual property and human capital. For example, employers routinely label certain information “proprietary” and insist on contractual agreements not to disclose that information. Yet it is unclear in many jurisdictions whether such an agreement would be enforced if the information covered does not meet the (admittedly vague) definition of a trade secret.76 The contours of trade secret

76. See, e.g., Self-Directed Placement Corp. v. Control Data Corp., 908 F.2d 462, 467 (9th Cir. 1990) (reading two prior California cases, Tele-Count Eng’rs, Inc. v. Pacific Tel. & Tel. Co., 214 Cal. Rptr. 276 (Cal. Ct. App. 1985), and Faris v. Enberg, 158 Cal. Rptr. 704 (Cal. Ct. App. 1979), as support for the proposition that an employee breached his duty of confidence and committed the common law tort of misappropriation for revealing to his new employer non-trade secret information acquired during
law are very uncertain, and even more uncertain are the circumstances in
which employers can obtain various remedies for misappropriation. For
instance, most management theorists and organizational psychologists rec-
ognize the value and importance of "tacit knowledge," that is, knowledge
that one acquires by doing but that is not explicitly identified or taught.77
Under what circumstances would protection of tacit knowledge justify
restrictions on employee mobility? No one is entirely sure. Analysis of the
problem will not be aided by labeling tacit knowledge as a form of "intel-
lectual property." The label affixed at the beginning tends to dictate out-
come with little analysis.

Moreover, the legal doctrines about ownership and control of inven-
tion and the portability of human capital rest on the old mass production
model of innovation. Given the research described above, including the
"synthetic" and "network" metaphors for the contemporary innovation
process, certain aspects of employment-related intellectual property law
should perhaps be reconsidered. Rather than pushing for an expansion of
trade secret law to include "proprietary" information, and expanded reme-
dies, including the injunctions against competitive employment that are the
core of the inevitable disclosure doctrine, we should perhaps think of nar-
rowing or at least reallocating intellectual property rights.

Katherine Van Wezel Stone has advocated that protections for trade
secrets and enforcement of restrictive covenants should be trimmed back to
match the borders of the new psychological contract in which employees
sacrifice employment security for "employability security."78 As I have
argued elsewhere, I think her proposal makes a great deal of sense, al-
though, as I explain more fully below, I would not use the conceptual struc-
ture of contract to accomplish that goal, because the employee protections
would be contracted around. I would prefer to see a public policy, tort con-
cept, or some form of immutable statutory rights granted.79

Here I want to propose a new conceptual structure for addressing the
problem of human capital. I want to suggest that we regard employees and

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77. See sources cited supra note 74.
firms as "joint authors" of proprietary knowledge, human capital, or firm intellectual property. Each would have an undivided, and, possibly, non-transferable right to use the knowledge that was created mutually. Every employee would be entitled to claim some form of credit and some use of the knowledge, and unions and firms would jointly administer the credit system just as they now administer the screen credit system that determines whose name you see on the screen at the movies.

These new metaphors of "joint authorship" and a right to credit better reflect what I surmise is going on anyway. I identify three bases for the correctness of my surmise. First, the tremendous doctrinal uncertainty about the scope of intellectual property and the enforceability of nondisclosure and noncompete agreements but the relative scarcity of reported appellate decisions suggests that most disputes are settling. One suspects that the employer and employee compromise about rights to use or control certain knowledge. Cash payments are made and informal licensing agreements are reached. Alan Hyde's work on rapid job mobility and the diffusion of knowledge in Silicon Valley suggests that such an informal information-sharing system can work quite well.

Second, scholars of innovation have noted the significance of informal know-how trading. It is, they say, an inexpensive and flexible form of cross-licensing of technology and intellectual property. Sometimes it works better than formal agreements to perform R&D cooperatively or to license or sell proprietary technical knowledge because the transaction costs are lower. The efficiency is higher inasmuch as the decision whether to trade is made by individual, knowledgeable engineers rather than by higher-level managers who are the ones authorized to enter into formal agreements.

The third piece of evidence that suggests that firms and employees are already developing some informal versions of a credit system is the practice of awarding stock options based on performance. Although the management literature suggests that group project work and group problem solving are more common and more important than ever before, individual compensation agreements that include stock options are still used routinely. Thus, someone is figuring out how to allocate credit or blame when a group project succeeds or fails, and is translating that conclusion

81. HYDE, supra note 36, at xvi–xix.
82. VON HIPPEL, supra note 27, at 89.
83. See sources cited supra note 27.
into stock options. It would be better if the law explicitly acknowledged this fact of modern management and sought to regulate the fairness of that process.

Our understanding of these social and economic benefits of the free exchange of information would be aided if we looked at employee mobility as a story of cross-pollination or cross-licensing rather than as story of stealing property. If we consider the new narrative of innovations through networks among firms rather than along an R&D assembly line within firms, if we debate whether or when to regard employees as joint authors of proprietary knowledge, we are more likely to develop a law and policy of intellectual property and human capital that reconciles the competing values.

Rhetorically, the moral basis for the joint authorship idea already exists. Consider the recent campaign of motion picture studios to discourage unauthorized duplication of DVDs. To make the case that piracy is bad, the Motion Picture Association of America has run a series of short “public service” films that show before the trailers in movie theaters. Each features a worker who contributes to the making of a film (a set designer, a stuntman). The workers describe how they feel about their contributions to the movie, how important their hard work and talent is to the success of the movie, and how piracy in effect steals “their” property.

Consider the spot featuring the set painter, David Goldstein, filmed talking about his work in front of a bunch of shelves holding paints and set construction materials. Piracy, he says, is bad because it does not really hurt the producers, or, he corrects himself, it “does affect the producers, but it’s miniscule to the way it affects me, the guy working on construction, the lighting guy, the sound guy.” There follows a montage of the great movies he has worked on, with his voiceover saying he met his wife making *The Big Chill.* Then he looks quite heartfelt and says, “I’m not a million dollar employee. . . . I’m lucky if I can put together 12 months of work in a year. All I want to do is do the best product I can.” The honest labor of a guy in work boots and a flannel shirt is the movie studio’s best claim to own the work he generates.84

This strategy is as old as copyright. Nineteenth-century copyright expansionists did not use publishers (who, after all, owned most copyrights) as their front men. They used authors because authors put a human face on the benefits of broad intellectual property protection. Thus, Charles Dick-
ens became one of the most famous public advocates for expanded copyright protection. Then, as now, the fight over intellectual property was intense, and property holders resorted to creative ways to shore up the legitimacy of their legal rights and to quell resistance. In Bourdieu's terms, property holders and lawyers have a strategic interest in conserving or enhancing their authority or "symbolic capital."\textsuperscript{85} Intellectual property rights, like other forms of social status, are always at risk and always negotiable. David Goldstein's plainspoken appeal for the moral worth of his hard work is one strategy to preserve the social status of corporate intellectual property.

American law did not consecrate the employer as copyright owner until the early-twentieth century precisely because courts thought it neither desirable as a matter of economics nor moral as a matter of creative ethics to divest writers of ownership in their works.\textsuperscript{86} When the 1909 Copyright Act abandoned the regime of strong author ownership in favor of a regime of strong employer ownership,\textsuperscript{87} American copyright law failed to address the hard questions about how to divvy up profits, credit, and the right to control the future uses of a work when the creators work in a group as employees. If the best claim the movie industry can make against piracy is to invoke the contributions of set painters, stuntmen, grips, make-up artists, and animators, then perhaps it is time to think about how they deal with the portability of human capital. In particular, why does Hollywood allow the partial portability of human capital through the screen credit system, even as the studios own the copyrights? The uncertainty and mobility of employment can be reconciled with strong corporate intellectual property rights.

\textbf{B. Labor Unions and Labor Market Intermediaries}

The screen credit system that operates as a form of portable human capital came into being because the labor unions (or guilds, as Hollywood unions are called to distance themselves from the blue-collar connotation of the term union) fought for it and continue to fight to maintain it. The success of the guilds in negotiating for decent working conditions and human

\textsuperscript{85} For a lucid explanation of Bourdieu's concept of symbolic capital, see David Swartz, \textit{Culture & Power: The Sociology of Pierre Bourdieu} 88–93 (1997). Symbolic capital, according to Bourdieu, is "a form of power that is not perceived as power but as legitimate demands for recognition, deference, obedience, or the services of others." \textit{Id.} at 90; see also Bourdieu, supra note 5, at 171–83; Pierre Bourdieu, \textit{The Logic of Practice} 112–21 (Richard Nice trans., 1990).

\textsuperscript{86} See Fisk, supra note 7, at 1.

\textsuperscript{87} Copyright Act of March 4, 1909, ch. 320, 35 Stat. 1075 (codified at 17 U.S.C. §§ 101, 201(b) (2000)).
capital portability in the high velocity labor market of Hollywood suggests a future role for labor unions in white collar industries. It is time we think about labor unions as labor market intermediaries rather than just as the collective representative of blue collar workers. Labor unions in industries other than entertainment could play an important role in negotiating and administering the pay-for-performance compensation arrangements that are so much in vogue today. They could ensure that when employees are compensated in stock options that the option agreements are fair and the employees are aware of the risks they assume. Unions could play a role in making sure that individual contributions to group projects are accurately credited and fairly compensated. All of these things are going on in workplaces already. The question is whether they are being handled efficiently or fairly when they are the product of individual negotiations.

The other area where I see a major role for labor market intermediaries is in coming to a sensible approach to the problems of the globalization of work. Unions have long experience in dealing with the movement of jobs from high wage labor markets to low wage labor markets. There is a body of law that attempts, in a very limited way, to address the role of the employee representative in negotiating over the relocation of bargaining unit work—what used to be called the runaway shop. What we now face in the contemporary debate over the “offshoring” of technology jobs is a new manifestation of the old runaway shop problem. Whether it is computer programming moving to India or movie production moving to Toronto, the problems are the same. And we know from experience that the individual decisions of firms about relocating work may not collectively result in social results that are most desirable, although we also know the limits of the ability of legal regulation to stop the flow of capital and jobs to low-wage markets.

Labor unions have been thinking about these issues for years. Once we stop thinking of labor unions through the lens of blue collar workers and start thinking about them as the only labor market intermediary that truly reflects employee voice, we have the beginning of a new approach to the offshoring and globalization issues.

C. The New Psychological Contract

A third area where I think the new economy requires that we reconsider the metaphors and narratives of work is in how we understand the role and content of the employment agreement. Here I want to build on the enormously fertile work of Katherine Stone in suggesting that many workplaces now are characterized by a new implicit contract, or a new psychological contract which, unlike in old workplaces, involves no guarantee of job security.90

As I have argued elsewhere, the danger of using the conceptual structure of contract to achieve better protections for employees (or employers, if one thinks they are in a weak labor market position) is that we generally allow people to contract around minimum protections.91 This problem seems especially acute regarding ownership of intellectual property and human capital, where the use of extremely broad contracts is quite common. Even in those areas, such as works for hire, where the permissible uses of contractual delineation of authorship are spelled out quite clearly in the statute, parties with strong labor market positions find other contractual avenues to protect their interests.92 For example, when a party that hires an independent contractor wants ownership of a copyright to a work not covered by the nine enumerated categories for which the statute allows contractual designation of employer ownership, the employer simply negotiates for an assignment of the copyright rather than for employer authorship.93 The result is only slightly different than employer ownership. In other words, we cannot rely on contract notions to protect the party in a weaker bargaining position because the stronger party will simply contract around whatever default protections the law supplies.

I also think it crucial that we not overstate the nature or extent of the much-vaunted new "flexibility" in employment arrangements. The "new psychological contract," in which employment security is "exchanged" for greater human capital development opportunities and full portability of human capital is not an accurate description of all jobs, or even all "knowledge work." The experience of airline pilots, whose work has become ever more routinized, suggests even highly skilled work is not necessarily characterized by tremendous opportunities to develop human capital. Needless to say, much of the uneven job growth that the U.S. has witnessed in the

90. See sources cited supra note 78.
91. Fisk, supra note 79.
92. See Dougherty, supra note 80.
93. Id.
last several years in the bottom three quartiles of the income scale may not be characterized by increased human capital. It is true that the work entailed in these jobs may have been made more "flexible," but it should not necessarily follow that the employment may justly be made more flexible, meaning more insecure.94 One does not necessarily follow from the other, and it is a mistake to imagine that one is a trade-off for the other, for it suggests that employees are being compensated for the economic risk that they are being asked to assume.

In addition, we need to reconsider the proper sphere of contract and tort in employment law. If the law of trade secrets in a particular state would not designate a customer list or a marketing strategy as a trade secret, we need to consider whether to allow the employer to contract for control over it in the form of a nondisclosure agreement or restrictive covenant.

D. Employee Benefits or Private Social Insurance

The fourth and final area in which I believe that the challenges of the new economy require a new approach is in the area of health and retirement insurance. They used to be called "fringe benefits," which connoted that they are and should be an optional benefit like a free gym membership or free coffee, and that they were unimportant—a fringe. In the 1980s, as both the cost and the social importance of health and retirement coverage became more important, some people started calling it "private social insurance," to try to invoke a narrative that these are publicly subsidized big dollar social welfare programs like Medicare and Social Security. They represent a huge form of off-budget social welfare spending and are the largest tax subsidy in the U.S. budget. They play an absolutely essential role in our social fabric. The rise of the high-velocity labor market calls into question like never before the wisdom of providing most social insurance (health, disability, and retirement benefits in particular) through privately administered, jointly employee- and employer-financed, and employment-linked benefits plans. As a society, we are facing a tremendous mismatch between the old story of health and retirement insurance as optional benefits and the new world in which we as a society rely on employers to provide most social insurance. In short, we are torn between the narrative of health and retirement insurance as "fringe benefits" and the

94. CHRIS BENNER, WORK IN THE NEW ECONOMY: FLEXIBLE LABOR MARKETS IN SILICON VALLEY 223 (2002).
narrative of health and retirement costs as one of the largest social welfare programs a society maintains.

Wal-Mart is as good an example as any. Wal-Mart in Bakersfield, California, tries to be perceived as a humane employer. They do not provide any benefits—no health care, no pensions, no childcare, no disability insurance, nothing. And they do not pay enough for many employees to afford those things themselves. But they are not heartless. They give each employee a list of the free social services that are available in the city and county.\(^\text{95}\) The free clinic, the emergency rooms that treat for free, publicly subsidized child care, and hot lines for substance abuse. For all I know, they will offer assistance in applying for food stamps or tell you which churches run soup kitchens. That would be one thing if we lived in a society in which taxes were set at a level that funded health care and child care for all. But of course in our society we expect employers to provide health care, retirement benefits, and a wage sufficient to keep working people off the dole.

Wal-Mart is rapidly becoming a metaphor for all that is right or wrong (depending on your perspective) with job growth in the new economy. Wal-Mart has itself become a metaphor. Cheap consumer goods in an accessible, convenient, well-lit facility. Rapidly rising corporate profits. New jobs. But these come at the expense of already over-burdened social welfare agencies that are asked to absorb the social insurance roles that used to be expected of large firms.

The problem exists for knowledge work at the high end of the income scale, as well as for low-wage work. As Alan Hyde has shown, in Silicon Valley, which had a huge increase in wealth in the 1990s, no institutions developed to enable mobile employees to provide for retirement or health insurance needs.\(^\text{96}\) As Hyde put it, "[t]his is most significant, for if such institutions failed to arise for America's wealthiest and most sophisticated workers, in the metropolitan area with the greatest concentration of college degrees, in the most booming years of the U.S. economy, we may be fairly confident they will never arise anywhere else."\(^\text{97}\)

When employment is the only gateway to health, disability, and retirement insurance, it puts phenomenal pressure on the employment relationship. It becomes expensive to hire an employee and catastrophic to lose a job. Not surprisingly, in the last ten years we have witnessed a huge amount of legislation and litigation to tweak the system. For example, em-
ployers who make benefits available only to spouses create incentives to fight for same-sex marriage, or to regulate domestic partnership. And eventually that will be one of the areas in which the effect of the Defense of Marriage Act will be litigated.98 The devastating consequences of switching jobs when employer health plans could exclude preexisting conditions necessitated the enactment of federal legislation regulating insurance—an industry generally regulated only by the states—to prevent preexisting condition exclusions from gumming up the works of the labor market.99 Living wage campaigns at the state and local level are thwarted by the prospect of ERISA preemption from addressing the lack of health care, which is one of the principal problems of working poor.100 Health benefits are the number one cause of strikes and lockouts in the current economy, ranging from the recent Southern California grocery workers’ dispute to janitors’ strikes nationwide.101

The reality is that we as a society cannot afford to have everyone be a contingent worker unless we figure out how to provide health, disability, and retirement insurance through something other than employment. The only good thing about having had a concentration of the phenomenon in Silicon Valley and among knowledge workers is that it will take a health or retirement insurance crisis among the educated elite before legislators take it seriously as a problem for all. It may be what it takes to get us to abandon the old narrative in the face of the new reality of knowledge work in the new economy.

100. The reason is that ERISA preempts any state or local laws that require employers to provide health benefits, and ERISA itself does not require an employer to provide them. See generally Catherine L. Fisk, The Last Article About the Language of ERISA Preemption? A Case Study of the Failure of Textualism, 33 HARV. J. ON LEGIS. 35 (1996) (on the scope of ERISA preemption of state law).
101. See Curtain Falling on Labor Talks, But Actors Don’t Exit, L.A. TIMES, June 28, 2004, at A13 (key issue in labor dispute between actors’ union and producers is health benefits); Sarah Lin & Monte Morin, Voters in Inglewood Turn Away Wal-Mart, L.A. TIMES, Apr. 7, 2004, at A1 ("The prospect of the Wal-Mart expansion fueled the longest supermarket strike in Southern California history. Tens of thousands of grocery workers, who earn an average of $13 an hour, walked picket lines last fall and winter to protest reductions in health benefits that the supermarkets said were needed to compete with Wal-Mart."); Kurt Streeter, MTA, Mechanics Work on Easier Issues, L.A. TIMES, Oct. 23, 2003 at B4 (negotiations "failed to focus on the issue that caused the strike: the mechanics’ health benefits"); Interview with Letitia Salcedo, Organizer for the Service Employees International Union (Sept. 24, 2003) (regarding the causes of labor disputes between janitors and building services contractors and commercial office building owners).
CONCLUSION

I was my own disappointment. I really don’t know what I was looking for when I got back from the war, but it seemed as though all I could see was a lot of bright young men in gray flannel suits rushing around New York in a frantic parade to nowhere. They seemed to me to be pursuing neither ideals nor happiness—they were pursuing a routine. For a long while I thought I was on the side lines watching that parade, and it was quite a shock to glance down and see that I too was wearing a gray flannel suit.102

The metaphor for the corporate job of the 1950s was the man in the gray flannel suit. He rode the train downtown every day from his small home in a nearby suburb, worked regular hours in a tall office building, and earned a decent though not extravagant salary. There was stability, a salary that could support a middle class family, and decent working conditions, but there was also boredom, meaninglessness, and inefficient hierarchy. Almost as soon as the phenomenon of corporate work was recognized as a phenomenon, there were both boosters and doubters.

The hopeful narrative of this first decade of the twenty-first century begins by noting that the man in the gray flannel suit has retired to Florida. His replacement is a creative independent contractor who telecommutes two days a week and drives the other three (or five) to a “worksites” in a suburban office park. All over Los Angeles, signs do not advertise “office space” for lease; rather, the signs advertise “creative space.” There are organizations that maintain websites rating different regions on their “creativity” as a way of assessing their suitability for economic expansion.103 Their mantras are statements like the one attributed to Carly Fiorina, then-CEO of Hewlett-Packard: “Keep your tax incentives and highway interchanges, we will go where the highly skilled people are.”104 The quiet despair of the man in the gray flannel suit has given way to the youthful optimism of the new creative class.

These simple narratives are, of course, vast oversimplifications. They may make good journalism or compelling short fiction, but they are no basis on which we should design a legal system. In our rapidly changing economy, our ability as lawyers to shape the world by reimagining it has never been more important. The future of American labor and, indeed, American society, may turn on our willingness to tell a story about work,

103. One such website rates various regions throughout the United States to determine which best fosters the creativity that the site claims is crucial to regional economic growth. See http://www.catalytix.biz/reg.htm (last visited Feb. 2, 2005).
104. Id.
about economic growth, and about social justice that captures the imagination of judges and legislators. The explosion of new metaphors and stories about work invites us to think critically and carefully about which metaphors to choose in adapting legal rules for the creative employee in the office park. Let's give the story a happy ending.