Working The Crowd: Employment And Labor Law In The Crowdsourcing Industry

Alek Felstiner

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This Article confronts the thorny questions that arise in attempting to apply traditional employment and labor law to "crowdsourcing," an emerging online labor model unlike any that has existed to this point. Crowdsourcing refers to the process of taking tasks that would normally be delegated to an employee and distributing them to a large pool of online workers, the "crowd," in the form of an open call.

The Article describes how crowdsourcing works, its advantages and risks, and why workers in particular subsections of the paid crowdsourcing industry may be denied the protection of employment laws without much recourse to vindicate their rights. Taking Amazon's Mechanical Turk platform as a case study, the Article explores the nature of this employment relationship in order to determine the legal status of the "crowd." The Article also details the complications that might arise in applying existing work laws to crowd labor.

Finally, the Article presents a series of brief recommendations. It encourages legislatures to clarify and expand legal protections for crowdsourced employees, and suggests ways for courts and administrative agencies to pursue the same objective within our existing legal framework. It also offers voluntary "best practices" for firms and venues involved in crowdsourcing, along with examples of how crowd workers might begin to effectively organize and advocate on their own behalf.

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I.

INTRODUCTION

Labor markets, like almost every aspect of our economy and culture, have begun an inexorable migration into cyberspace. As budget-conscious
employers embrace Internet technology to access larger labor pools, the
traditional concept of a fixed workforce comprised of individually selected
employees has begun to disintegrate. Stable workforces are being replaced
by networked “crowds.” Wired reporter Jeff Howe introduced the term
crowdsourcing1 to describe this relatively new phenomenon, made possible
by sophisticated software advances, fast and cheap bandwidth penetration,
and increased access to personal computers.2 The term “crowdsourcing”
has since expanded to encompass a variety of practices, but Howe defines it
as “the act of taking a job traditionally performed by a designated agent
(usually an employee) and outsourcing it to an undefined, generally large
group of people in the form of an open call.”3 New platforms for online
work allow firms to connect with enormous numbers of prospective
laborers and to distribute tasks to an amorphous collection of individuals,
all sitting in front of computer screens.

Though crowdsourcing has been called “the biggest paradigm shift in
innovation since the Industrial Revolution,”4 the already-maturing market
for crowd labor remains almost entirely unregulated. Or, to be more
accurate, judicial authorities have yet to apply existing employment and
labor laws, and regulatory authorities have taken no action to adapt those
laws to crowd labor. Such delay should not surprise us, given the law’s
generally slow reaction time and the likelihood that regulators have a
limited awareness of the crowdsourcing industry. But reluctance to regulate
may also stem from the unique and daunting legal problems created by the
crowdsourcing labor model. Crowd labor has no physical job site. It is
performed and compensated entirely in cyberspace, often anonymously, and
governed—to the extent that it is governed at all—by compulsory

1. Jeff Howe, The Rise of Crowdsourcing, WIRED, June 2006, at 176, 179. Though the term is
new, the practice of crowdsourcing is hundreds of years old. For example, the first edition of the Oxford
English Dictionary was compiled through an open call for volunteers to read books and submit

2. See Jonathan Zittrain, Ubiquitous Human Computing 1–2 (Univ. of Oxford Legal Research Paper Series, Paper No. 32, 2008), available at http://ssrn.com/abstract=1140445 (“Networks connect people as well as devices, and when they are cheap and easy to use it means that those intellectual tasks more efficiently performed elsewhere by other people can be broken out and distributed. . . . Cheap networks mean that nearly any mental task can become unbundled, no matter how minor.”). Jeff Howe traces the roots of crowdsourcing somewhat differently, citing “a renaissance of amateurism, the emergence of the open source software movement, the increasing availability of the tools of production, and . . . the rise of vibrant online communities organized according to people’s interests.” Jeff Howe, Crowdsourcing 17–18 (2009).


“clickwrap”

 participation agreements. Also, unlike traditional employment, which involves a one-to-many relationship between employer and employees, crowd work is characterized by many-to-many connections, with some connections lasting as little as a minute or two.

What constitutes an employment relationship in such an environment? Can a worker genuinely operate as an independent contractor? What responsibilities, if any, attach to the companies that develop, market, and run crowdsourcing platforms?

This Article confronts some of the thorny questions that arise in applying traditional employment and labor law precepts to crowd work, and offers some provisional solutions. Part II describes how crowdsourcing works, examines its unique advantages and inherent risks, explores its impact on existing industries, and endeavors to explain why workers in certain subsets of the paid crowdsourcing industry may be denied the protection of employment laws, without much recourse to vindicate their rights. Part III offers a case study of the Mechanical Turk crowd work platform developed by Amazon.com. It details the demographics and motivations of the workers, the compensation they receive, and the terms that purport to govern their relationship with Amazon and the firms that “request” their labor. Part IV investigates the legal status of the “crowd,” analyzing the threshold question of employment classification as well as the complications involved in attempting to apply existing work laws to online labor markets. It also evaluates the possibility of gathering in Amazon and other crowdsourcing vendors as “joint employers.” Finally, Part V presents a series of brief recommendations. It encourages legislatures to clarify and expand legal protections for crowdsourced employees, and suggests ways for courts and administrative agencies to pursue the same objective within our existing legal framework. It also offers voluntary “best practices” for firms and venues involved in crowdsourcing, along with examples of how crowd workers might begin to effectively organize and advocate on their own behalf.

II.

CROWDSOURCING AND COGNITIVE PIECEWORK

Almost every internet user has probably participated in crowdsourcing of some kind. Due to the diversity of existing crowdsourcing operations,

5. “Clickwrap” refers to terms and conditions imposed on users of a software platform, usually through a pop-up window or check box on their computer screen. Users are obligated to agree to the terms and conditions before they can utilize the software.

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and the extent to which they permeate the online environment, many of us engage with crowdsourcing every day. This Article focuses on crowdsourcing models in which the parties explicitly arrange for compensated labor, in the form of piece rate or wages. In doing so it ignores other models, such as disguised crowdsourcing, contest-based crowdsourcing, and expert networks, as well as charitable or public interest crowdsourcing. Instead this article concentrates on “cognitive piecework”—discrete sets of cognitive tasks, performed and compensated at piece rate within an online platform. Some tasks require low to moderate skill and can be performed in a comparatively short period of time. Others call for more qualifications and expertise.

7. This may be the most common form of crowdsourcing, taking place behind a veil of software, usually unknown to the user. In the process of accessing websites, playing online games, or participating in e-commerce, internet users perform small tasks inserted into the flow of activity. See, e.g., reCaptcha.com, What is reCAPTCHA?, http://recaptcha.net/learnmore.html (last visited Apr. 2, 2011) (describing the use of unscannable text snippets to distinguish human users in online security systems). Jonathan Zittrain employs the alternate term “epiphenomenal” to reference tasks “gleaned as a by-product of people’s activities rather than because they aim to perform them.” Zittrain, supra note 2, at 5–6.

8. Contest-based crowdsourcing (or competitive crowdsourcing) functions as an open competition, with firms broadcasting a problem or complex task to the crowd in the understanding that many crowd members may accept the challenge and perform the work but only one (or a small group) will receive the reward. See, e.g., Innocentive.com, FAQ, http://www.innocentive.com/crowd-sourcing-news/faq (last visited Apr. 2, 2011).


10. This Article does not discuss crowdsourcing endeavors undertaken by government, public interest groups, or charitable organizations. However, these projects do demonstrate the phenomenal power of harnessing a networked pool of committed participants. For example, NASA’s Clickworkers project used volunteers to search through massive sets of Mars photographs and identify topographical formations, a task that otherwise would have taken months to complete. See Michael Szpir, Clickworkers on Mars, AMERICAN SCIENTIST, May-June 2002, at 226, available at http://www.americanscientist.org/issues/pub/clickworkers-on-mars. Amazon’s Mechanical Turk providers donated their time to search satellite imagery of the Nevada desert for evidence of missing aviator Steve Fossett. See The Search for Steve Fossett: Turk and Rescue, THE ECONOMIST, Sep. 22, 2007, at 97, available at http://www.economist.com/research/articlesBySubject/PrinterFriendly.cfm?story_id=9831175. Recent crises have spawned a new generation of crowdsourcing efforts dedicated to efficiently compiling and sifting information during an ongoing catastrophe. See Crisis Commons, http://wiki.crisismommons.org/wiki/Main_Page (last visited Apr. 2, 2011); Ushahidi, http://www.ushahidi.com/about (last visited Apr. 2, 2011). Perhaps the most striking example of non-commercial crowdsourcing is BlueServo, which in 2008 partnered with the Texas Border Sherriff’s Coalition to set up a network of cameras and sensors along the Texas-Mexico border, creating a “virtual fence.” Users monitor real-time streaming footage of border areas, looking for “suspicious criminal activity.” See BlueServo.net, About Us, http://www.blueservo.net/about.php (last visited Apr. 2, 2011).

The cognitive piecework employment model tends to follow a tripartite structure consisting of vendors, firms (also referred to herein as “companies” or “employers” depending on context), and workers. Vendors develop a “platform” upon which firms can broadcast their tasks, and workers can accept, perform and/or submit the work. This platform may take the form of a simple task list, or may be more actively mediated or automated by the crowd work vendor. As a condition of access to the platform, workers and firms generally must assent to some kind of participation agreement, invariably written by the vendor. These agreements often bind participants to other terms of use separate from those governing the platform, including privacy policies and conduct requirements. Firms post their tasks to the platform for acceptance by the crowd of workers, or have their tasks automatically funneled to workers by the vendor. The vendor generally serves as a conduit for the worker to submit the completed work, and for the firm to pay the worker.

Amazon’s Mechanical Turk platform (“AMT”) exemplifies the cognitive piecework model of crowdsourcing. Firms register on AMT to access an immense pool of workers (called “Providers”), estimated at 200,000 in total. The firms (called “Requesters”) post “Human Intelligence Tasks” (or “HITs”), which typically involve basic computing and language skills—such as tagging photos according to their content, rewriting sections of prose, transcribing audio, choosing representative screenshots from a short video clip, responding to survey questions, translating text, or performing internet research. Anywhere from 20,000 to 100,000 HITs are available at one time, and Requesters post 20,000 to 40,000 new HITs every day.

AMT, described in Part III, has more or less cornered the market on the most brief and “unskilled” tasks. But other crowdsourcing companies

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12. This Article uses the terms “crowdsourcing platform” and “crowdsourcing venue” to refer to the actual cyberspace location (such as www.mturk.com) where firms and crowd workers connect, and where work is often performed, tracked, and compensated. Loosely, the “platform” refers more to the actual cyberspace location, whereas “venue” indicates the legal or conceptual location.


15. Finnish company Microtask has also featured prominently in recent media coverage of crowdsourcing. Microtask functions like AMT, except that workers do not select which tasks they want to perform. Instead, the Microtask platform queues up new tasks automatically. See Liz Gannes, Is Microtask the Future of Work?, GIGAOM.COM (Oct. 8, 2010), http://gigaom.com/2010/10/08/is-microtask-the-future-of-work/.
have adopted a similar pattern with slightly larger units of work.\footnote{As the tasks grow in skill and duration, they may or may not continue to be compensated on a strictly "piecework" basis. This Article continues to use the term "cognitive piecework" to refer to the discrete and sequential nature of the work performed—not specifically to the method of compensation.} For example, LiveOps uses a networked crowd of communication workers to create virtual call centers for tech support and direct marketing.\footnote{See LiveOps.com, Call Center Outsourcing with At-Home Agents from LiveOps, http://www.liveops.com/on-demand-outsourcing/call-types.html (last visited Apr. 12, 2011).} The oDesk and Elance crowdsourcing platforms offer a wide array of professional services, including administrative support, design, engineering, writing, and web development.\footnote{See oDesk.com, FAQs, http://www.odesk.com/w/faqs (last visited Apr. 12, 2011); Elance.com, Who Uses Elance?, http://www.elance.com/q/hire-talent/client-customer-reviews (last visited Apr. 12, 2011).}

The important thing to understand about crowdsourcing vendors is that they are more than just glorified job listing services. In various ways, they play an active and fundamental role in establishing the market conditions for crowd labor. Though vendors serve different purposes and occupy different positions in their respective market segments, they share a central objective: all crowdsourcing vendors exist to help firms avoid the traditional routes to procuring labor supply—i.e. maintaining a labor force or contracting out to someone who does.

In that sense, crowdsourcing resembles domestic subcontracting, temporary staffing, and business products outsourcing. But unlike passive middlemen in a supply chain, all crowdsourcing vendors exercise some form of control over the creation and continuance of employment relationships, and they all extract revenue in some rough proportion to the volume of business conducted on their platforms. As described in the next Section, firms seeking the convenience, efficiency, and cheapness of crowd labor have flocked to crowdsourcing and built it into a formidable industry in its own right.

\textit{A. The Crowdsourcing Industry}

Paid crowdsourcing has experienced remarkable growth in the last ten years. According to Smartsheet, which provides online work management services to companies that use crowdsourcing, the paid crowdsourcing labor pool contains over one million workers. Those workers have earned $1–2 billion in the last decade. Crowdsourcing vendors, meanwhile, together bring in over $500 million annually.\footnote{Frei, supra note 13, at 7. The figures presented in this Section refer to the entire paid crowdsourcing industry, including competitive crowdsourcing and expert networks. Because crowdsourcing categories are porous and undefined, no studies have yet broken down the crowdsourcing industry by “model.”}
As one might imagine in an industry built by and dependent upon the Internet, crowdsourcing has grown primarily in online-friendly or online-exclusive sectors of the economy. These include web content, advertising, software development, audio/video transcription, database building, digitization, and market research. Information on what sizes and types of firms use crowdsourcing is sparse and incomplete. The earlier adopters were small firms with limited resources. Some, such as SpunWrite, an “article spinning” provider, rely entirely on crowdsourcing for their existence. Others use crowd labor to source specific projects or operational segments more cheaply or quickly. As the crowd has grown, and crowd labor platforms have become more sophisticated, medium sized and large firms have begun to enter the industry as well.21

Smartsheet places paid crowd labor into four categories, distinguished by volume of tasks, level of compensation, and degree of automation.

“Micro tasks” generally appear in high volume, with correspondingly low compensation levels and near-complete automation. Categorizing products, locating and copying information from websites, and tagging photos with relevant information would all constitute micro tasks.

“Macro tasks” take slightly more time, because they are less automated and call for more discretion on the worker’s part. But they still appear in high volume and pay very little. Examples of macro tasks: providing survey feedback, writing a short review of a website or product, or compiling a list from multiple sources.

“Simple projects,” by contrast, are not automated and tend to pay more and demand more worker investment. Designing a simple website, building a database, or writing a basic piece of code would be a simple project.

“Complex projects” are the most rare. Their performers often command higher rates of pay and require more active supervision. Complex projects are usually one-offs, and may overlap with work customarily performed in-house or by an established contractor. These include building the back-end of a complicated interactive website, designing a patentable product, or preparing a substantial business report.22

Crowdsourcing vendors tend to tailor their operations to one or more of these categories. For example, the anonymity and rigidity of the AMT platform makes it irrational for firms to request a project of any complexity. The vast majority of the HITs on AMT are micro tasks, with some macro tasks mixed in. oDesk, on the other hand, has built a platform where firms

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22. See Frei, supra note 13, at 3.
and workers can interact and negotiate prior to entering into a transaction. Workers can set their own hourly rates and control other terms, while employers gain access to a more qualified and stable workforce—making possible the performance of a wider variety of work.23

With hundreds of firms using any given platform, and potentially tens of thousands of workers, most crowdsourcing vendors make some effort to impose a default structure on the employment relationships. The terms of use tend either to specify explicitly that providers of crowd labor will serve as independent contractors24 or otherwise require that workers waive any rights that might flow from the employment relationship.25 Vendors also usually set all the ground rules regarding qualifications for work, supervision, payment, dispute resolution, and access to the platform. As the next Section illustrates, many of the benefits and risks of crowdsourcing flow directly from this somewhat unusual arrangement.

B. Why Crowdsourcing? And Why Not?

Crowdsourcing is still relatively new. Many of its grand promises and dire predictions have yet to unfold. Nevertheless, firms and employees have already surged into the crowdsourcing market, seeking the unique advantages of the model and accepting—consciously or not—the associated risks.26

1. What Firms Get Out of Crowdsourcing

When leveraged strategically, crowdsourcing offers employers a variety of rewards, some also available through more traditional outsourcing models and some unique to this model.

The two most touted advantages are the twin grails of scalability and on-demand labor. Given a sufficiently large networked pool (less difficult to assemble on the Internet than in physical locations), the crowd can accomplish tasks of practically any size. The workforce can also grow and shrink over time, according to the firm’s needs. Employers do not have to hire superfluous in-house staff, nor must they locate outside contractors and


25. See, e.g., LiveWork, Terms of Service, http://pages.livework.com/tos.html (last visited Apr. 10, 2011) (“Each user acknowledges and agrees that this Agreement does not constitute an employment agreement or create or acknowledge an employment relationship (neither with [LiveWork] nor with any other user”).

26. The motivations discussed here are limited to economic motivations. Social benefits and risks of crowdsourcing, though undoubtedly important, lie outside the scope of this Article.
pay those contractors a premium for the opportunity to scale a workforce up or down on demand.

Employers can enter and exit crowdsourcing venues at their whim, without any significant transaction costs or logistical hurdles. They can also use the constant availability of a global labor pool to avoid the delays commonly associated with identifying and vetting outside contractors. Some firms using AMT can even obtain time-sensitive results in some approximation of “real time,” without having anyone on-call. For example, “human-augmented search” companies accept trivia questions by phone and use AMT to answer them in a matter of minutes.27

Better still, this flexibility comes at a relatively low cost. Depending on a firm’s quality standards, crowd labor can prove astoundingly cheap. Crowd workers receive low wages, no benefits, no job security, and have not much prospect at present of organizing to change these conditions. Employers do not need to provide facilities and support for a workforce, nor do they need to pay overhead fees to an outside contractor. Because the employment relationship tends to be fleeting and largely anonymous, at least in some platforms, most crowdsourcing involves little or no personnel administration costs. An employer does not need to hire managers to supervise the crowd, and can avoid turnover and recruitment expenses.28

Companies able to configure or retrofit their businesses to incorporate existing crowdsourcing platforms will realize the greatest gains in efficiency. The common method is to structure operations around the completion of a high volume of discrete tasks (disaggregation), or the unbundling of a task too large to attack in full (disintegration). Previously, companies seeking to avoid the inevitable bottlenecks and prohibitive delays of assigning such tasks to employees or subcontractors would simply turn to computers. But computers cannot necessarily perform these tasks as efficiently or reliably as the human brain. Now, those companies can get the benefit of human cognition without the bottlenecks or delays.

Firms using crowd labor can also benefit from the diversity inherent in an amorphous cloud of workers. The cloud gives employers access to a broader range of skills and experience than they could ever achieve through

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28. There remains some dispute as to whether the cheapness of crowdsourcing will persist. Jeff Howe argues that because “what unites all successful crowdsourcing efforts is a deep commitment to the community,” any employer who treats the crowd as a cheap labor source is “doomed to fail.” Howe, CROWDSOURCING, supra note 1, at 15. We don’t know what exactly constitutes a “deep commitment to the community,” but the success of crowdsourcing platforms such as AMT—which do very little to protect workers or give them a voice—may belie Howe’s contention. Treating individual workers as sources of cheap labor has hardly proven to be a recipe for failure in the past. If some are willing to work for substandard wages and benefits without legal protection, by necessity or choice, there is no reason to believe that their willingness will evaporate in cyberspace.
a captive workforce, even by combining staff and outside contractors. The genius of this model is that employers do not have to locate workers who possess valuable attributes—in crowdsourcing, the people you need find you.

2. Inherent Risks

The many advantages available to employers through crowdsourcing do not come without related risks. Employers on crowd labor platforms may lose some control over the work and the manner in which it is performed. With loss of control generally comes a loss of the certainty and accountability that might normally characterize a formal employment or contractual relationship. Even the most committed crowd worker will have less at stake than a formal employee, especially when any positive reputation a crowd worker may build has limited currency outside the platform. Thus, employers may find some crowd workers less concerned with meeting specifications and adhering to policies.

Firms desire control and accountability because distributing tasks to an anonymous pool can lead to real difficulties in ensuring the quality of the product. Smartsheet has identified low quality work product and unexpected results as “the single biggest factor[s] in companies choosing to abandon paid crowdsourcing.”29 Many crowd labor vendors attempt to alleviate this problem by offering or mandating satisfaction clauses,30 which give firms the right to reject sub-par work. Of course, any added effort spent reviewing and rejecting work cuts into the savings that motivate firms to try crowdsourcing in the first place.

Firms also address this problem by putting higher qualification restrictions in place for the task, where possible, or by using multiple workers on a single task to check or confirm work. If quality of results matters, firms may find that they have to make a substantial investment in the kinds of online quality-assurance mechanisms that approximate real-world supervision and control. Concerns around quality assurance have spawned an entire sub-industry of crowd labor vendors and software suppliers focused on improving the quality of results, identifying “good”

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29. Frei, supra note 13, at 8.

30. See, e.g., AMT Participation Agmt., supra note 24 at § 3a–b; oDesk.com, Billing and Payments, http://www.odesk.com/help/help/policies/billing_payments_policy#quality (last visited Apr. 12, 2011) (imposing a satisfaction clause on fixed-price work only). It is worth noting that unlike other crowdsourcing venues, oDesk actually guarantees payment for hourly work. oDesk.com, oDesk Guarantee, http://www.odesk.com/help/help/payments/financial_activity/guarantee (last visited Apr. 12, 2011) (“oDesk is the first and only service to guarantee that an hour billed is an hour worked and that an hour worked is an hour paid.”).
workers, supplying training, giving detailed feedback, and generally grooming the crowd.\textsuperscript{31}

In addition to concerns about control and quality, firms may also encounter serious intellectual property risks by distributing tasks to a large pool of anonymous workers. Employers can attempt to design their requests to protect any proprietary material, but a crowd worker may still be able to glean knowledge of a valuable piece of intellectual property by completing even a small task. As mentioned above, crowdsourcing vendors often impose privacy or nondisclosure policies as part of their clickwrap,\textsuperscript{32} but those same vendors also tend to disclaim any responsibility for injuries suffered as a result of violating the terms.\textsuperscript{33} It would be naïve for firms to count on those agreements, or on vendors in general, to protect intellectual property.

The extent to which these drawbacks become prohibitive will depend on the size and structure of the firm, as well as the nature of the work performed. Over time, vendors will likely develop crowdsourcing models that minimize these risks and make crowd labor "safer" for firms of all types.\textsuperscript{34}

3. What Attracts Workers to Crowdsourcing?

Depending on the employee, crowd labor may confer unique value and opportunity. Compare the experience of a crowd worker, who can join a networked labor pool from the comfort of her home or coffee shop, whenever she wants and for whatever duration, with the effort and drudgery of travelling to a workplace and occupying a prescribed space for a set period of time, doing tasks assigned by a supervisor, with little independence or flexibility. The primary advantage of being a crowd worker is the freedom to choose when and where to work, how long to spend, and what work to perform. All you need to get started is a computer and a reasonably fast internet connection. So, as with firms, the barriers to entry for crowd workers are quite low, as are the costs and risk associated with exit. Such flexibility would have been unprecedented in the job market of the twentieth century, and remains quite rare today.

Additionally, the choice of tasks built into crowdsourcing models means that employees can affirmatively select tasks to fit their unexplored interests or their existing knowledge base. Though monopoly of certain

\textsuperscript{33} See, e.g., AMT Participation Agmt., supra note 24, at § 8.
\textsuperscript{34} Of course, the advantages of early adoption may also diminish as more firms enter the arena.
crowdsourcing platforms by particular sets of employers sometimes diminishes the available choices, crowd workers can still generally self-select to achieve a variety of assignments, to pursue learning in a specific area, or to entertain themselves on someone else’s dime.

Taking full advantage of crowdsourcing opportunities may also help workers realize substantial gains in personal productivity. Crowdsourcing promises to convert our “spare cycles” — periods when the brain is operating but not producing anything of value — into productive time. Instead of playing onscreen Solitaire or surfing the web, AMT puts you to work tagging photos. Without such platforms, how would a person go about monetizing the stray ten-minute increments that crop up throughout the day? A single employer would not hire an hourly employee to work during those scraps of time. But with crowdsourcing, every waiting room and bus stop becomes a temporary workspace.

These and other attributes of crowdsourcing make it a potentially formidable instrument for economic development in rural areas and places damaged by war or natural disaster. It is a low risk endeavor requiring little capital investment or employee training, ideal for NGOs, local governments, and social entrepreneurs. People in developing countries can work directly for firms around the globe, without the sometimes costly and exploitative interventions of an outsourcing contractor.

4. The Drawbacks of Performing Crowd Labor

With all that flexibility comes a few distinct disadvantages. The reason firms and vendors so willingly cede control over who accepts their tasks, and over how those tasks are performed, is that so little money is at stake. Crowd workers tend to receive extremely low pay for their cognitive

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35. The term “spare cycles” is borrowed from computer technology. A “cycle” refers to the process that a computer goes through to retrieve information from memory and execute an action. Distributed computing programs use the “spare cycles,” or downtime, of every computer in a large network to tackle computing tasks too big to perform in one location. Crowdsourcing adapts this concept to the human brain’s untapped cognitive powers, and attempts to put our brains’ spare cycles to productive use. See Clive Thompson, The Human Advantage, WIRED, July 2007, at 166.

36. In a broader perspective on productivity, Jeff Howe suggests that crowdsourcing may supply an answer to the “long-standing human conundrum” that “the amount of knowledge and talent dispersed among the numerous members of our species has always vastly outstripped our capacity to harness those invaluable quantities.” Howe, CROWDSOURCING, supra note 1, at 19. Howe argues that crowdsourcing reflects the “fundamentally egalitarian principle” that “every individual possesses some knowledge or talent that some other individual will find valuable.” Id. at 134. Theoretically, crowdsourcing can connect those who possess particular talents and knowledge with those in need of them, without the customary associated costs and barriers. As a result, those valuable assets will not be wasted through neglect, but put to productive use.

37. See Leila Chirayath Janah, Kenya Dispatch #4: Refugees and Remote Work (June 22, 2009), http://www.socialedge.org/blogs/samasourcing/archive/2009/06/22/kenya-dispatch-4-refugees-and-remote-work (describing SamaSource, a non-profit that trained Somali refugees at a UNHCR camp in Dadaab, Kenya to perform basic internet tasks of the type commonly posted on AMT).
piecework, on the order of pennies per task. They usually earn no benefits and enjoy no job security, and in fact the vendors may seek to prevent them from doing so. As later sections describe in detail, crowd laborers do not enjoy true legal protection on the job, and the cyberspace in which they work remains essentially unregulated for employment and labor law purposes.

In addition to these fundamental drawbacks, crowd workers also encounter problems with information asymmetry, deception, and privacy. On AMT and similarly lopsided platforms, workers have very little information about their prospective employers and only limited information about the tasks to be performed. Essentially, they see only what the vendor and the firms want them to see. Firms, on the other hand, can usually see workers’ employment history on the platform (on AMT, this takes the form of rejection and acceptance rates). Moreover, many vendors give firms the right to reject unsatisfactory work product, without paying workers and without necessarily relinquishing the right to use the work anyway.

Information asymmetries, especially when combined with satisfaction clauses and the absence of a reliable dispute resolution system, will inevitably permit some fairly bald forms of deception. Firms can order work, receive it, and then reject it as unsatisfactory without justification. To some degree, they can also disguise the nature and quantity of the work in order to secure consent. On AMT, a worker may expect (based on the employer’s posting) to be paid a certain piece rate for each photo he or she categorizes. The worker may not discover until after accepting the job that the rate applies to batches of photos, or that the task requires a certain number of correct answers before the worker can exit the training mode and begin work. At that point, the worker can either “return” the job, which negatively affects the worker’s reported completion rate, or finish the job under unforeseen and unsatisfactory conditions.

These disclosure deficiencies may also present crowd workers with unusual moral and ethical challenges. Jonathan Zittrain observed that because workers do not know for whom they are working, and for what their work will actually be used, crowd labor can “deprive people of the chance to make judgments about the moral valence of their work.” Some companies use crowdsourcing to produce more authentic-feeling internet “spam” or fake product reviews. While irritating, and perhaps unethical,

38. AMT Participation Agmt., supra note 24, at § 3b.
40. AMT does show Providers a sample HIT from the set they will be doing, which in many cases will prevent such misunderstandings. But there is no real check on the accuracy or consistency of these HIT previews. And, in some cases, the amount of work required for each HIT simply does not become clear until the Provider begins to perform it.
41. Zittrain, supra note 2, at 5.
such abuses remain fairly innocuous. The main danger of spam tasks is that they will clog the platforms so completely that firms and workers searching for more "legitimate" work will not be able to find each other.

But we can easily see more disconcerting scenarios on the horizon. A pacifist software developer could end up writing code for an amateur (or illicit) weapons manufacturer. Zittrain hypothesized that repressive governments could cheaply identify protest participants by using AMT to cross-reference photographs of the nation's population against pictures taken during public protests. Given the widespread use of social networking technology to coordinate more recent political resistance in Egypt, Yemen, and elsewhere, Zittrain's prediction has proven disturbingly prescient. Where simply cutting off internet access proves impractical, and government agents lack the resources and manpower to process the data themselves, repressive authorities might well employ crowd workers to comb Twitter messages or process the vast quantity of visual data being uploaded to Facebook and other social networking sites.

This raises a related danger in crowdsourcing platforms: the possibility of privacy violation. A great number of firms and researchers use AMT to conduct surveys, collect anecdotes or testimonials, and perform market research. In the process, workers often disclose personal information without a clear guarantee of confidentiality or responsible use by the Requester. Unfortunately, the privacy policies imposed on both parties, if even enforceable at all, may not cover such disclosures.

Workers still flock to crowd labor platforms, in spite of the disadvantages. This might be because the advantages outweigh the risks, or because the state of the economy makes crowd work more attractive than other options (if any other options even exist).

It is also possible that various assumptions made by crowdworkers, as internet users, make the drawbacks somehow unforeseeable. For example, crowd workers with experience in more thoroughly self-regulated online arenas may expect a level of policing or privacy protections that the vendor does not actually provide. Similarly, problems with reputation portability

42. Jonathan Zittrain, Work the New Digital Sweatshop, NEWSWEEK, Dec. 9, 2009, at 41. Professor Zittrain estimates that such an identification project would cost Iran's government $17,000 per protestor on AMT.

43. After all, social media embraced by the resisters is already designed for quick and easy data mining. See EVGENY MOROZOV, THE NET DELUSION: THE DARK SIDE OF INTERNET FREEDOM, 103–04 (2011) (describing efforts by the Thai government to crowdsource censorship of websites critical of the royal family). The Thai example involved willing participants, loyal to the royal family. Morozov does not address the possibility of a totalitarian regime making domestic or foreign crowd workers unwitting participants in state crackdowns, but there is no reason to suppose that such regimes would shy away from this method.

44. See infra Part III(C)(3) for a summary of Turkers' concerns with AMT, including privacy concerns.
may reveal themselves only after the worker has invested a significant time and energy on the platform and wishes to capitalize on that investment. Some crowd workers may invest in crowd work believing that they can work themselves up to the more remunerative tasks, only to find that such tasks are few and far between, and often require very specialized training that no amount of click-work can approximate.

C. Crowdsourcing and Existing Industries

Of course, the impact of crowdsourcing is not, and will not be confined to the firms and workers who actively participate. In fact the first media coverage of crowdsourcing focused less on its potential to create new labor markets and more on its propensity to destroy existing ones. The prospect of negative externalities, whether real, substantially probable, or utterly paranoid, has shaped crowdsourcing discourse from the beginning and will certainly influence emerging political and legal responses.

Jeff Howe’s 2006 Wired article, which first identified and defined “crowdsourcing” in the mainstream press, began by chronicling the plight of stock photographers whose industry had partially collapsed following the emergence of iStockphoto and other “microstock” suppliers.45 “Microstock” refers to stock photography agencies that source images from a large pool of amateur photographers and charge only a small fraction of the conventional stock photo price, without royalties. Where professional stock photographers charge $100 and up for a single photograph, the almost entirely amateur46 photographs on microstock websites sell for $1 to $5 each, royalty free.47 As microstock steadily grows,48 it threatens to swallow traditional stock suppliers and drive down the price of stock photographs.

Crowdsourcing forces professional photographers to compete in a market that largely ignores their experience, high-end equipment, and reputations. Many creative professionals and providers of skilled services (such as software development) fear that their industries will go the way of stock photography. A particularly heated debate has arisen in the field of graphic design. Some established professional designers have loudly declaimed crowdsourcing platforms offering “spec” design, such as crowdSPRING and 99designs.49 In the traditional creative marketplace,

45. See Howe, CROWDSOURCING, supra note 1, at 178.
46. For ninety-six per cent of iStock contributors, photography is not a primary occupation. Id. at xxi.
47. Id. at 178.
48. iStockphoto is the third-largest purveyor of stock photos. The company expects to clear $262 million in revenue for 2012. Daryl Lang, iStock: We’ll Clear $200M This Year, PDNONLINE.COM, June 24, 2009, http://login.vnuemedia.com/pdn/content_display/photo-news/stock-and-syndication/c51772f17692486624e48c594b4c9c7c397?pn=2.
49. See Jeff Howe, Is Crowdsourcing Evil?: The Design Community Weighs In, WIRED.COM (March 10, 2009), http://www.wired.com/cpicenter/2009/03/is-crowdsourcin/.
designers or coders would submit only a bid or proposal for a project, not the completed project itself. crowdSPRING allows firms in need of creative labor to post a project and receive completed work from as many responders as choose to perform the task. Firms using crowdSPRING pay in advance, receive actual work product from each responder, then simply choose what they like.\(^5\) The chosen responder gets paid for its labor, and the rest do not. Some designers fear that design work submitted by amateurs, with no guarantee of compensation, will degrade the overall quality of design and lead to misperceptions about its importance. They also worry that spec design competitions will eliminate the role of designers as counselors and researchers, remove the collaborative aspect of the designer-client relationship, and lower the perceived value of the services that experienced graphic designers can offer.\(^5\)

Microstock and design contests do not exactly fit the cognitive piecework model exemplified by AMT. But it is not difficult to imagine crowdsourcing vendors like AMT subsuming existing industries in data entry, audio transcription, tech support, even legal services.\(^5\) The same principle applies: replace a full-time or subcontracted employee with workers from the pool, breaking down and distributing tasks to achieve a similar result. As cognitive piecework models expand and platforms become more sophisticated, other information technology industries might also find themselves up for grabs.

It is worth noting that the very notion of crowd labor replacing existing industries has been challenged on the grounds that the products and services generated by the crowd reach untapped sectors of the consumer market, or are simply too different to overlap with those generated by established players. After all, a high-end design firm is not necessarily losing small business clients if those clients would never have engaged the firm in the first place. The cognitive piecework model may well intersect with existing service industries, but its capacity to harness economies of scale also gives it the potential to create entirely kinds of services and open up heretofore-unimagined industries.\(^5\)

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8. For example, RcTel Technologies uses crowd labor to analyze snippets of retail store security video in order to create demographically-keyed heatmaps of a store interior. Crowd workers track the age and sex of the customers, identify which product areas the customers spend the most time browsing, etc., in order to give the owners a precise picture of how their customers respond to product groups and sales-floor configuration. Video-analyzing software would have great difficulty making these kinds of
Of course, the fact that in some circumstances crowdsourcing may open up a new labor market rather than displacing an existing, regulated industry does not mean that crowd workers automatically deserve some reduced level of protection. Whether crowd workers can rely on employment laws should not depend on whether they displace workers who historically enjoyed such protection. Rather, it should depend on the specific circumstances of their work, as measured according to the relevant employment law doctrine. Parts III and IV work through these questions, using AMT as a case study.

III. AMAZON'S MECHANICAL TURK

"[Mechanical Turk] gives us a snapshot of a depressing future in which legions of click-slaves toil away at identifying duplicate Web pages for less than minimum wage. Amazon says it hit on the idea for Mechanical Turk when it realized that there were some tasks that even the smartest computers couldn’t perform. I’ve got an alternate theory. Maybe the computers just didn’t want to."

Apparently, Amazon did not create AMT with the intention of marketing a crowdsourcing service. The company, which sells or facilitates the sale of a seemingly unlimited number of retail products, had over time built up millions of web pages describing those products. Some were bound to be duplicates, but it turns out that computer programs are not particularly efficient or effective at recognizing duplicate products. The human mind, on the other hand, can perform that task in a matter of seconds. So Amazon hit on the idea of paying users a few cents for every duplicate page they could find.

In addition to the quote about “legions of click-slaves,” Howe has also described AMT as “the lowest-common denominator variety of crowdsourcing.” Perhaps this pessimism stems from AMT’s inauspicious beginning. Amazon used its valued customer base to perform routine, menial tasks it would otherwise have to assign to employees or contractors. This smacks of race-to-the-bottom outsourcing, and displays very little of judgments, based on pattern recognition. See ReTel Technologies, ReView Analysis Suite, http://www.reteltechnologies.com/home/review-retail-analysis-suite/ (last visited Apr. 12, 2011).


WORKING THE CROWD

the collaboration, innovation, and creativity that inspire Howe and
crowdsourcing's other evangelists.

Yet AMT is almost certainly the largest crowdsourcing platform on the
web, and has become the first stop for many individuals and firms seeking
cheap, on-demand crowd labor. As such, it provides an appropriate case
study for evaluating the legal ramifications of crowdsourcing. This Part
explains how AMT works, lays out the rules imposed by Amazon on
Requesters and Providers, and describes the people who participate, along
with their reasons for doing so.

A. How AMT Works

Amazon provides an online platform for firms or individuals to solicit
and accept “Human Intelligence Tasks” (HITs). “Requesters”—those
soliciting the HIT—and “Providers”—those accepting—must sign up for an
Amazon.com account, which subscribes them to an online payment service
and creates an AMT identity. In the process, they provide Amazon with
some personal and tax information. Users must also consent to AMT’s
User Participation Agreement.

Requesters post their task(s) to the website, specifying the
compensation (called a “reward”) and the duration of the HIT—i.e. the time
within which workers must complete it. Providers (also colloquially known
as “turkers”) browse through the HITs, look at example tasks, and accept
whichever HITs they choose. Once the Provider accepts an HIT, he or she
must complete it within the designated time and submit the work through
the website. The Requester can then accept or reject the work and authorize
payment. There is no set schedule for the acceptance or rejection of an
HIT, or for the payment of any rewards earned. The Provider can choose
whether to have the money transferred to a bank account or to an
Amazon.com account, which functions like an Amazon gift certificate.

If a Requester accepts the HIT and pays the Provider, the Requester
must also pay a 10% service fee to Amazon on top of the reward amount.
Amazon requires that Requesters place the full amount of the reward, plus
the service fee, in a payment account before posting the HIT. In some
cases, Requesters may decide to award bonuses to Providers, at the
Requester’s discretion.57

B. Amazon’s Terms of Use

Requesters and Providers have no real knowledge of each other on
AMT. Because of the way Amazon structures the platform, a Requester’s

57. Amazon.com, Requester Website FAQs, https://www.mturk.com/mturk/
help?helpPage=requester (last visited Apr. 12, 2011); Amazon.com, Worker Website FAQs,
posting of an HIT operates as a unilateral contract offer, which the Provider essentially accepts through performance. AMT contains no opportunity or method for negotiation. Amazon’s terms, to which both parties have agreed, functions as the transaction’s only governing document. However, Amazon does not wish to involve itself at all in the Requester–Provider relationship, as this disclaimer from the Participation Agreement clearly articulates:

2. Amazon Mechanical Turk’s Role. Amazon Mechanical Turk provides a venue for third-party Requesters and third-party Providers to enter into and complete transactions. Amazon Mechanical Turk and its Affiliates are not involved in the transactions between Requesters and Providers. As a result, we have no control over the quality, safety or legality of the Services, the ability of Providers to provide the Services to Requesters’ satisfaction, or the ability of Requesters to pay for Services. We are not responsible for the actions of any Requester or Provider. We do not conduct any screening or other verification with respect to Requesters or Providers, nor do we provide any recommendations. As a Requester or a Provider, you use the Site at your own risk.

Despite this disclaimer, the Participation Agreement sets fairly strict guidelines for the use of the site and does attempt to govern some aspects of the Provider–Requester relationship. In addition to the pre-payment obligation, the Participation Agreement contains a built-in, mandatory satisfaction clause, which authorizes the Requester to reject any submitted HITs without paying the Provider, without giving a justification, and without forfeiting possession or ownership of the work. The decision to accept or reject a submitted HIT remains entirely within the Requester’s discretion.

The Participation Agreement also mandates that Providers will only submit work, and Requesters will only accept it, through the AMT website. This prevents the parties from contracting independently, and ensures that Amazon will receive its service fee.

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59. AMT Participation Agmt., supra note 24, at § 2.

60. Id. § 3a–b.

61. Id.

62. The prepaid HIT requirement serves a similar interest. Prepaid HITs are non-redeemable and non-transferable. If an account lies dormant for thirty months, Amazon automatically converts the funds to Amazon gift certificates, ensuring that Amazon will get the money one way or another. Moreover, if Amazon removes a Requester for violating the Participation Agreement, Amazon gets to collect the balance after paying out any unpaid HITs. Amazon.com, Mechanical Turk Prepaid HITs Terms and Conditions §2–3, https://www.mturk.com/mturk/prepaidterms (last visited Apr. 12, 2011).
Providers get the short end of the stick. Along with the satisfaction clause, the Participation Agreement mandates that the work product will be “work made for hire,” which means that all ownership rights (including intellectual property) vest with the Requester upon performance, whether or not the Requester chooses to actually pay for the work.\(^{63}\)

The Agreement also asserts that Providers will perform services as independent contractors, and not as employees.\(^{64}\) In that capacity, Providers must acknowledge and agree, among other things, a) “not to use robots, scripts, or other automated methods to complete the Services,” b) to furnish the Requester with “any information reasonably requested,” and c) to agree that they (Providers) will not be entitled to any employee benefits, and will not be eligible to recover worker’s compensation if injured.\(^{65}\) Amazon can cancel a Provider account at any time for violation of the various terms of use imposed by Amazon upon registration. When this happens, the Provider may forfeit any earnings left in his or her Amazon account.\(^{66}\)

The Agreement does appear to contain some privacy safeguards for Providers, in that it permits Requesters to use information “solely to the extent necessary for you to use the Site and for no other purpose, including...solicitation, advertising, marketing, unsolicited e-mail or spamming, harassment, invasion of privacy, or otherwise objectionable conduct.”\(^{67}\) Requesters often obtain private information from Providers in response to a paid survey. But the Agreement leaves wide latitude for Requesters to use Provider information within the AMT platform, in ways that might compromise privacy without constituting an invasion or “objectionable conduct.”

Perhaps in reaction to the foreseeable problems arising under these terms, Amazon also clearly strives to extricate itself from any disputes that may emerge during the course of dealing. The Participation Agreement provides that “[b]ecause Amazon Mechanical Turk is not involved in the actual transaction between Providers and Requesters, Amazon Mechanical Turk will not be involved in resolving any disputes between participants related to or arising out of the Services or any transaction.”\(^{68}\)

This would seem perfectly clear and conclusive, but becomes more complex due to Amazon’s existing guarantees for account holders in other

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\(^{63}\) AMT Participation Agmt., supra note 24, at § 3b.
\(^{64}\) Id.
\(^{65}\) Id.
\(^{67}\) AMT Participation Agmt., supra note 24, at § 6b.
\(^{68}\) Id. § 3f.
contexts. For example, the “Amazon A-to-z Guarantee” covers all payments made through the Amazon Payments system, but exempts “payments for services”—which presumably includes AMT. However, Amazon Payments’ Buyer Dispute Program specifically applies to “transactions that are not covered by Amazon A-to-z Guarantee,” and states that users “may still seek our assistance in resolving disputes for these items by submitting a dispute.” These contradictory terms, which AMT users must accept in order to participate, leave a slightly confusing picture of the degree to which Amazon will take responsibility for disputes.

Finally, the Participation Agreement contains the expected (and broad) General Release: “Amazon Mechanical Turk is not involved in transactions between requesters and providers or other participant dealings.” Given the transactional restrictions described in preceding paragraphs, a reviewing court might take this disclaimer with a grain of salt.

C. Turkers

Who are these 200,000 “turkers” performing cognitive piecework on AMT? Why do they do it, and what do they get in return? This Section attempts to sketch out answers to these questions, based on limited data available as of the date of this writing.

1. Demographics and Motivation

Because turkers work anonymously, and Amazon collects only the most basic information, very little statistical data exist on the composition and motives of the AMT crowd workforce. However, a small number of researchers have used AMT itself to gather demographic information, paying turkers for their responses. A survey conducted in February 2010 by Professor Panos Ipeirotis revealed that forty-seven percent of turkers live in the United States, thirty-four percent in India, and twenty percent in other countries. The proportion of turkers in India has increased steadily in the last two years, seemingly driven by Amazon’s 2007 decision permitting Providers to withdraw payment in rupees. The demographics of Indian and U.S. turkers vary significantly. For example, over sixty percent of U.S.

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70. Amazon Payments, What is the Amazon Payments Buyer Dispute Program?, https://payments.amazon.com/sdui/sdui/about?nodeId=6025 (last visited Apr. 12, 2011).
71. AMT Participation Agmt., supra note 24, at § 8.
73. Professor Ipeirotis’s previous study, conducted in 2008, found only 8% of respondents from India. Panos Ipeirotis, Mechanical Turk: The Demographics (Mar. 19, 2008), http://behind-the-enemy-lines.blogspot.com/2008/03/mechanical-turk-demographics.html.
turkers are female, and thirty percent male, whereas among Indian turkers that proportion is flipped, with men outnumbering women seventy to thirty percent. The average age of the turker workforce is thirty–three, with a higher skew towards younger workers among Indians. The median annual income of turkers overall is between $15,000 and $25,000—below $10,000 for Indian turkers, and between $25,000 and $40,000 for U.S. turkers. Thirty–eight per cent of the AMT labor pool works full time, thirty–one percent part time, and another thirty–one percent of turkers is unemployed.

The more salient question, perhaps, is why turkers spend their time performing tasks on AMT. When Ipeirotis asked this question of a group of turkers, he found, contrary to popular expectations, that they were not all using AMT to fill otherwise idle minutes and hours. Though twenty–one percent listed “to kill time” as one of their reasons, a larger percentage (thirty–four percent) listed “Pocket Change / Extra Cash” as a motivation, forty–two percent listed “Entertainment,” and the most popular response, with forty–nine percent, was “Income Purposes.” This belies the notion that nobody joins or would join AMT in order to make money. Ipeirotis’s findings confirmed a 2009 U.C. Irvine survey, in which eighteen per cent of respondents described the compensation they receive on AMT as either “sometimes necessary to make basic ends meet” or “always necessary to make ends meet.”

Though the turkers who use AMT as a significant income source seem to be in the minority, the following quotes, drawn from Ipeirotis’s study, illustrate how important AMT is to the economic wellbeing of at least some turkers:

“I am a retired senior citizen on a limited income...I have found [AMT] to be an enjoyable way to occupy some of my time, and to add a bit to my monthly income for the extras I might not have with just my normal retirement income. The extra income becomes even more important now with higher gas prices, and the grocery bill becoming more costly each week.”

74. Id.
78. Ross, ET AL., supra note 76, at 4.
79. Ipeirotis, Why People Participate, supra note 75.
"For my wife and I, this is strictly a monetary endeavor. We have our [AMT] account linked up to a long term savings account and all the money we earn on it goes straight into savings." 80

"How do you make ends meet on a dollar an hour? You don’t. All you do is add to what you make with your regular job and hope it is enough to make a difference.”

"I realize I have a choice to work or not work on AMT, but that means I would also not need to make the choice to eat or not eat, pay bills or not pay bills, etc.” 81

"I don’t know about where you live, but around here even McDonald’s and Walmart are NOT hiring. I have a degree in accounting and cannot find a real job, so to keep myself off of the street I work 60 hours or more a week here on mTurk just to make $150—$200. That is far below minimum wage, but it makes the difference between making my rent and living in a tent.” 82

"No available jobs in my area, have applied to over 40 jobs no calls so far been 3 months. Do it to pay my bills which includes rent and diapers for my kids until I find work again.”

"I am currently unemployed and for some reason absolutely can not find a job. Every job I apply for either turns me down or I don’t hear from them at all. I have been doing online surveys, freelance writing, and mturk to try to make the most money I can. I don’t make much but when you literally have no savings and no income you take what you can get.”

"I am working as teacher and my salary is not enough to fullfil my needs so I am looking for some more money. That is why I am participating on Mechanical Turk.”

"The economy is horrific where I live. The only way to get a job is if you “know” somebody and I did not grow up here so I don’t know very many people who can help me. I do odd jobs to get by as I have lost everything. I now live in a 16 ft. travel trailer that leaks, with my two cats and little else

80. Id.
besides my computer. You really learn fast what you can live without, when you have no choice so in some ways it's been a blessing. I turk because it helps pay for my living expenses.”

“Was in a car accident many years ago and this is all I can do right now for income.”

“No work for a year now, without mTurk we wouldn't have a phone, electricity and sometimes groceries.”

2. Wages

Though AMT does appear to provide an important income source for at least some turkers, the low rate of pay makes closing income gaps with AMT an uphill battle. The average turker spends eight hours per week doing HITs, earning $1.25 per hour—well below the current federal minimum wage of $7.25.

A cursory examination of the available HITs reveals why turkers find it so difficult to make money on AMT. Requesters can set HIT rewards as low as $0.01, and many do. Tagging photographs, identifying relevant phrases, categorizing, and other routine “eyeball” work will commonly net the turker a penny per HIT. Writing a short, unique definition of an unusual word, without cutting and pasting from another source, may earn $0.03. In other words, to earn minimum wage doing eyeball work a turker would need to categorize 725 products per hour, or write 242 short, unique definitions of terms such as “leptospirosis” (a rare bacterial disease), at fifteen seconds apiece. Some tasks pay significantly more, up to around $4.00, but they take much longer and often require special skills or qualifications. Needless to say, it is essentially impossible to earn a living as a full time AMT Provider. But this does not prevent turkers from using the platform to earn some much-needed supplemental income.

3. How Turkers Feel About AMT

In 2008, U.C. Irvine social informatics researcher Lilly Irani asked turkers (by posting an HIT, naturally) to submit a “Bill of Rights,” or suggestions that would “make Mechanical Turk a better, more rewarding experience for the people doing the work.” The turkers who responded made hundreds of suggestions regarding how Amazon could improve the platform. Here is a selected digest:

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83. Ipeirotis, supra note 75 (drawn from the dataset provided with the paper).
84. ROSS, ET AL., supra note 76, at 3.
Some kind of appeal system; Amazon takes an active role in regulating Requesters who don’t pay; shortening the “auto-approve” window, in which unpaid HITs disburse automatically, down from thirty days to seven or two; some kind of collective voice for providers; Providers get the option to correct rejected HITs; no time limits; Requesters obligated to return messages from Providers; retention of intellectual property rights; a specific payment schedule (e.g. 10 business days); a dispute resolution mechanism; oblige Requesters obligated to explain why they rejected an HIT; Providers receive access to Requester’s approval/rejection rate prior to accepting an HIT, and have the ability to leave public feedback; minimum threshold reward for HITs, or a minimum compensation for work performed, regardless of acceptance; Requesters obligated to disclose their privacy policies for AMT surveys.  

This is an abbreviated list. Not all turkers will share these grievances, and the grievances themselves should not be considered exclusive to AMT or online work in general. The purpose of presenting them here is to demonstrate that turkers are not passive, time-killing slackers with no real investment in their work and no need of employment law protection. Many of them take the work they do on AMT seriously, and would likely welcome any help the law could provide.

IV. THE LEGAL STATUS OF CROWDS

In 2003, Joan Gabel and Nancy Mansfield observed: “The new cyberspace workplace...creates legal uncertainty with regard to the ability of existing legislation to operate in an Internet-enabled environment.” The authors predicted that online workers would “find themselves operating in a gray area between employee and independent contractor.” Even then, “legal uncertainty” was probably an understatement. There were virtually no cases, and few indications in the legal literature as to how courts might approach regulation of the “cyberspace workplace.”

That uncertainty endures to the present day, but it is not insurmountable. This Part explores the nature of the crowd labor relationship through two inquiries: 1) whether crowd workers meet the
definition of statutory employees under the Fair Labor Standards Act (FLSA) and the National Labor Relations Act (NLRA), and 2) what complications arise in applying those Acts to the crowdsourcing industry. The FLSA is included because wage and hour claims seem the most likely arena for future litigation. By contrast, the NLRA analysis appears in order to illustrate the yawning gulf between some arcane work laws and modern work models. Attempting to figure out how crowd workers might go about organizing under our current labor laws dramatizes how far we have to go in bringing work laws into line with the modern information economy.

For the sake of simplicity, this Part again uses AMT as a case study, because all the relevant facts were set out in Part III. Note that observations presented here will necessarily change according to the crowdsourcing platform, its terms of use, and its operational dynamics. The extent to which we can apply these conclusions to other scenarios will depend in part on the similarity between those scenarios and the Amazon model. Ultimately, each crowd labor platform would need to undergo its own analysis.

A. The Fair Labor Standards Act

Broadly speaking, the FLSA guarantees minimum wages and overtime pay to anyone classified as a statutory "employee." So, for FLSA purposes, the first and most important question is whether crowd workers are statutory employees. The FLSA unhelpfully defines "employee" as "any individual employed by an employer," and defines "employ" as "to suffer or permit to work." Congress has written a number of exemptions directly into the statute, while courts and the Department of Labor have carved out other exemptions through interpretation. Most important in this context is the independent contractor exemption, as it would appear to be the most apt and the crowdsourcing vendors have certainly latched onto it. Many

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90. In fact, jurisdictional questions arise even before (or concurrent with) determinations of employment status. The FLSA generally does not apply outside the United States. Should the employee's physical location determine jurisdiction? Crowdsourcing requires only a personal computer and an internet connection, so employee location may well change over time. Should the employer's location, also potentially unfixed, determine the law? Should it be the headquarters of the company that provides the crowdsourcing venue—e.g. Seattle, WA, for Amazon.com—or the location of the servers that "host" the platform? Jurisdiction may be the most difficult subject in internet law, and it lies beyond the scope of this Article. Though many crowd workers live and physically perform work outside the U.S., the analysis presented herein presumes that the firm, the worker, and the vendor all fall within the jurisdiction of federal courts.


92. Some might argue that crowd workers ought to fall under either the volunteer exemption or the computer worker exemption. These can be easily dispensed with. Some volunteering, in the sense of uncompensated labor, certainly does take place on crowd labor platforms. See supra note 10. Such activity would meet the "volunteer exemption," especially when performed for a public agency or a private charitable or non-profit cause. Under the "volunteer exemption" case law, established by the
vendors include in their terms of use an explicit provision defining crowd workers as independent contractors. For example, the AMT Participation Agreement states: “As a Provider, you are performing Services for a Requester in your personal capacity as an independent contractor and not as an employee of the Requester.”

In high-volume crowdsourcing, the prospect of a sequence of hundreds or thousands of independent contracts, lasting a few minutes apiece and producing pennies in compensation, seems slightly ridiculous. But as with any independent contractor designation, the impact is serious. The posture of the law towards nearly every aspect of the employment relationship depends on that threshold classification.

Independent contractors are not covered under the Fair Labor Standards Act (FLSA), the National Labor Relations Act (NLRA), Title VII of the Civil Rights Act and related anti-discrimination legislation, the Family Medical Leave Act (FMLA), the Occupational Safety and Health Act (OSHA), or other similar federal statutes. Similarly, state work laws, such as statutes establishing workers compensation, tend to contain parallel exemptions for independent contractors. Because of these exemptions, independent contractors usually must buy their own workers compensation insurance, pay self-employment taxes, and obtain unemployment insurance to secure coverage when work dries up.

Fortunately for workers falsely classified as independent contractors, the label attached by the parties is not dispositive. In the FLSA context the U.S. Supreme Court has held that “[w]here the work done, in its essence, follows the usual path of an employee, putting on an ‘independent contractor’ label does not take the worker from the protection of the Act.” This means that the designations so forcefully applied by crowdsourcing vendors will not necessarily insulate firms (or the vendors themselves) from liability.

Supreme Court in Walling v. Portland Terminal Co., 330 U.S. 148, 152–53 (1947), and refined in Tony and Susan Alamo Foundation v. Secretary of Labor, 471 U.S. 290 (1985), the presence of a compensation agreement will generally remove the volunteer exemption, as will any arrangement where the employer receives the “immediate advantage” of the labor. There is some leeway for nominal remuneration, and $0.01 HITs could match the “nominal” description, but as long as the immediate advantage goes to the employer, the volunteer exemption will probably remain unavailable. As for the computer worker exemption, it applies to employers performing fairly high-end software engineering and systems analysis, not to data entry and web searches. See 29 U.S.C. §213(a)(17) (2006); 29 C.F.R. §541.400 (2009). In other words, the fact that an employee uses a computer does not automatically permit an invocation of the exemption. However, some macro tasks and complex projects, such as software coding and interface design, will involve the sort of computer work envisioned by the exemption.

93. See, e.g., examples cited supra note 24.
94. AMT Participation Agmt., supra note 24, at §3a–b.
Courts investigating employment classification under the FLSA apply a multi-factor “economic realities” test, which eschews common law agency principles for a wider-lens consideration of the nature and history of the employment relationship.\textsuperscript{96} The Department of Labor formulates the factors as follows:

1) the extent to which the services rendered are an integral part of the principal’s business;
2) the permanency of the relationship;
3) the amount of the alleged contractor’s investment in facilities and equipment;
4) the nature and degree of control by the principal;
5) the alleged contractor’s opportunities for profit and loss;
6) the amount of initiative, judgment, or foresight in open market competition with others required for the success of the claimed independent contractor;
7) the degree of independent business organization and operation.\textsuperscript{97}

The following Section applies these factors to AMT, in an attempt to accurately perceive the economic reality of certain crowd work relationships. But it is worth noting at this point that if we take the vendors at their word and treat crowd workers as independent contractors, the legal ramifications do not necessarily become clearer. The structure of these contracts, and the obligations they entail, remain quite murky.

A contractual agreement of some kind appears to exist between the firm and the worker, insofar as the firm makes a contractual offer by broadcasting a task, and the worker accepts by clicking a button and performing the task. Apart from the brief description and stated compensation, this contractual agreement includes very little information about what each party is bound to do.\textsuperscript{98} Instead, both parties learn their obligations to one another by consulting the clickwrap agreement they have both been compelled to execute with the vendor. The vendors, in binding both workers and firms to their clickwrap, have, in essence, prospectively filled in the content of the worker–firm contract.

So, for example, the AMT participation agreement gives employers the right to reject unsatisfactory work, without pay. The firm and the worker

\textsuperscript{97} Id.
\textsuperscript{98} Elance, a crowdsourcing vendor specializing in internet-focused freelance work such as web design and marketing consultation, does allow workers and firms to negotiate an independent set of terms, and requires the assent of both parties. Elance still binds both parties to a set of “mandatory terms,” which could complicate the independent contractor designation, but overall the existence of a true, independently negotiated contract seems to remove most of the risk of misclassification. Elance.com, Elance Help, http://help.elance.com/forums/30971/entries/34685 (last visited Apr. 12, 2011).
have not bargained over that term with each other, but each has independently agreed to it as a condition of using the site.

Can they enforce such terms against each other? Theoretically, both the Providers and Requesters on AMT have agreed to arbitrate disputes, and each could compel the other to do so by virtue of them both being “signatory” to the arbitration clause. But with regard to everything except compensation and the specifics of the task, there exists no true privity between the workers and their employer. Where privity does exist, i.e. with the vendor, the terms of the agreement uniformly disclaim any vendor responsibility.  

In other words, though it may seem expedient from a policy perspective to conceptualize crowd work as a string of independent contracts, doing so will still involve confronting a thicket of complications and unresolved law.

1. Turkers’ status as employees or independent contractors under the FLSA

Amazon acknowledges in the Participation Agreement that “repeated and frequent performance of Services by the same Provider on your behalf could result in reclassification of [independent contractor] employment status.”  

In other words, Providers could become statutory employees under some circumstances. Whether Providers could then claim employee benefits presents a slightly more complex problem, since the Participation Agreement also contains a benefits waiver. But ultimately, if Providers have been misclassified, that waiver would likely fall along with the erroneous “independent contractor” label. In that sense, the AMT situation resembles that in Vizcaino v. Microsoft Corp. (Vizcaino II), where the Ninth Circuit invalidated contractual waivers of employee benefits as flowing from the underlying misclassification:

In effect, the other terms merely warn the Workers about what happens to them if they are independent contractors. Again, those are simply results which hinge on the status determination itself; they are not separate free-standing agreements. Therefore, the Workers were employees, who did not give up or waive their rights to be treated like all other employees under the plans.

100. AMT Participation Agmt., supra note 24, at § 3a.
101. 120 F.3d 1006 (9th Cir. 1997) [hereinafter Vizcaino II]. This case is known as Vizcaino II because in an earlier action, the Ninth Circuit determined that Microsoft’s “permatemps” were misclassified. Vizcaino v. Microsoft Corp., 97 F.3d 1187 (9th Cir. 1996).
102. Vizcaino II, 120 F.3d at 1011–12.
Here, as in *Vizcaino II*, the fact that AMT Providers agree to classify themselves as independent contractors and waive all employee benefits should not preclude them from attempting to demonstrate that they are actually statutory employees, or from claiming any benefits due to them as employees.

The “economic realities” test set forth above does not yield a clear answer when applied to AMT. The factors, considered in turn below, certainly do not obviously weigh in favor of an employer–employee relationship, nor do they mandate an independent contractor designation. Instead, turkers fulfill Gabel and Mansfield’s prediction, finding themselves somewhere in the “gray area.”

1) The extent to which the services rendered are an integral part of the principal’s business. This factor focuses on whether the work, by its nature, constitutes an “essential part of the alleged employer’s business.” It does not measure the proportional contribution of an individual worker or group of workers. So the fact that a single Provider performs only a small percentage of a Requester’s overall number of HITS is immaterial, and the same goes for situations where the Requester buys only a small percentage of labor on AMT. What matters is the nature of the work.

But the nature of the work will change with the Requester. Some Requesters could not exist without AMT, because their entire business model depends upon crowd labor. For example, the “article spinning” company SpunWrite takes a completed article, breaks it into sentences, asks Providers to re-write each sentence, and then reassembles the sentences into a set of new, non-duplicate articles. In this way, a single article can be “spun” out into multiple versions such that search engines will not recognize them as duplicative and thus will not remove them from search results (providing additional exposure and web “presence” for the subject of the article). SpunWrite could not function without AMT’s economies of scale and the granular linguistic variations only a diverse and individuated crowd of workers can provide.

Other companies use AMT to perform periodic market research on their product, which is important but not integral or distinguishable from what a firm might contract out to a third party. Finally, some companies or individuals use AMT only at isolated, critical moments—such as an urgent need to process a large dataset. For these companies, the services rendered by Providers are merely convenient, not integral. Because of this variety in

103. See Cherry, Working for (Virtually) Minimum Wage, supra note 6, at 1097-98.
104. Gabel & Mansfield, supra note 87, at 304.
Requesters, the “integral part” factor can only offer brief, conditional answers based on the nature of the Requester’s business. It may help illuminate individual Provider–Requester relationships, but its limitations highlight the difficulty of determining a Provider’s employment status from hour to hour.

2) The permanency of the relationship. Like the previous factor, the “permanency” analysis will produce widely varied results depending on the ways in which Requesters and Providers engage with AMT. Some Providers may return repeatedly to the same Requester, especially if the Provider’s skills match the Requester’s HITs. However, the continuous “open call” nature of AMT discourages permanency, and may make the rationale underlying this factor somewhat irrelevant in the crowdsourcing context. In *Brock v. Superior Care, Inc.*[^7] the Second Circuit observed that “even where work forces are transient, the workers have been deemed employees where the lack of permanence is due to operational characteristics intrinsic to the industry rather than to the workers’ own business initiative.”[^108] The “operational characteristics” of AMT replace long-term relationships between workers and firms with a long-term relationship between both parties and the vendor. For that reason, courts might choose to ignore this factor altogether.

3) The amount of the alleged contractor’s investment in facilities and equipment. In the traditional framework of a fixed physical worksite, this factor would point decidedly towards classifying Providers as independent contractors. However, the concept of “facilities and equipment” does not fit well into the cyberspace paradigm. Assuming they work at home, Providers do buy their own equipment—computers and bandwidth, primarily. But these pieces of equipment, on their own, would never be sufficient to perform HITs. Requesters must, at minimum, design an interface for Providers to perform HITs—which essentially means that Requesters must furnish some of the software technology necessary for the work. Moreover, Amazon builds and maintains the AMT web platform, on which the parties complete tasks, communicate, and make payments. This requires servers and software engineers, support employees, etc. Compared with the contributions from Amazon and the Requester, the Provider’s computer and bandwidth may in fact be the least significant part of the operation.

In this situation, courts could look to telecommuter cases such as *Janette v. American Fidelity Group*,[^109] in which a broader definition of “facilities and equipment” led to a neutral finding on this factor. The employee (Janette) argued that the fact that she used her employer’s

[^7]: 840 F.2d 1054 (2d Cir. 1988).
[^106]: *Id.* at 1060–61.
[^108]: 298 F. App’x 467 (6th Cir. 2008).
“software, network, and programs” from her home office weighed in favor of a statutory employee designation. The Sixth Circuit credited this assertion, but also found that Janette worked from home, on her own computer, ultimately concluding that the factor—in this case, labeled “tools and instrumentalities,” but essentially serving the same function as the FLSA “facilities and equipment” test—was neutral. Making a similar characterization in this case would likely produce the same result.

4) The nature and degree of control by the principal. Obviously, Requesters have no control over where Providers perform the work. Nor can they control which Provider actually accepts a given HIT. They do have some control over when the work gets done, based on when they post the HIT and how much time they allot. But the legal significance of this type of control is murky, considering Requesters’ inability to delegate the work to a particular person.

Requesters also have some vital control—given to them by Amazon—over how the work gets done. Requesters design the interface for the HIT, and in many cases provide detailed instructions. They can communicate with the Providers who accept their HITs at any time, and Providers are required by the Participation Agreement to respond to reasonable information requests. Providers are also prohibited from using robots, scripts, or other automated methods to complete the HITs, which in practice compels Providers to perform the HITs exactly as directed. If Requesters wish, they can set up a qualification test or threshold, then restrict access to only those Providers who meet the qualifications. Theoretically, the Requesters could also engage in fairly close virtual supervision, by using information requests and building tracking mechanisms into the HITs that show how the Provider approached the task.

After performance, Requesters have a right to reject work, which also means that they can return it with feedback or further instructions and condition payment upon compliance. For example, a Requester could reject an article for failure to meet the length or uniqueness criteria, but inform the Provider that payment would be authorized after a revision. Whether Requesters actually take advantage of these supervision techniques depends on the Requester, but active Requesters with high standards might well reach through the platform to get the results they want.

Of course, independent contracts also often permit one party to exercise substantial control over the other, through the negotiated terms. The satisfaction clause, for example, is a common feature in independent contracts. Similarly, independent contracts may impose threshold qualifications (such as a license), and require regular progress reports. None of these provisions would automatically convert the work into statutory Labor Standards Act.
employment. Most important, the Providers’ ability to choose when to work, and which HITs to accept from which Requesters, seems to resemble exactly the trademark flexibility of the prototypical self-employed independent contractor. How does a court determine the economic reality of control?

*Donovan v. DialAmerica Marketing, Inc.* offers an instructive example from the pre-Internet days of remote work. In *Donovan*, the alleged employer (DialAmerica) distributed 500-card sets of names to home researchers, and tasked them with ascertaining the correct telephone number on each card. The home researchers all signed an “Independent Contractor’s Agreement,” and were paid piece rates of five to ten cents per completed card. These telephone research tasks were in fact quite similar to the internet research routinely performed on AMT. The Secretary of Labor brought an action under the FLSA, on behalf of the home researchers, but the district court dismissed. The court found that they were independent contractors because they “had the freedom to work at any time and for as many hours as they desired” and were not “directly supervised” by DialAmerica.

The Third Circuit reversed, finding that the lower court “misapplied and overemphasized the right-to-control factor in its analysis,” because of the nature of homework. “That the home researchers could generally choose the times during which they would work and were subject to little direct supervision inheres in the very nature of home work. Yet, courts have held consistently that the fact that one works at home is not dispositive of the issue of ‘employee’ status under the FLSA.” Apart from the striking similarities between DialAmerica and a typical AMT Requester, *Donovan* illustrates the flexibility of employment status determinations under the FLSA. In particular, *Donovan* shows the relative lack of weight accorded to the “right-to-control” factor under the FLSA, compared with other employment status tests. Even if a court was unimpressed by the degree of control Requesters exercise over Providers, this factor may prove less outcome-determinative in an FLSA action than it might be under traditional agency analysis.

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111. 757 F.2d 1376 (3d Cir. 1985).
112. *Id.* at 1379–80.
113. *Id.* at 1380.
114. *Id.* at 1380–81.
115. *Id.* at 1383.
116. *Id.* at 1384.
117. *Id.* The court cited a long list of cases supporting the proposition that working from home does not preclude “employee” status under the FLSA, including Hodgson v. Cactus Craft of Arizona, 481 F.2d 464 (9th Cir. 1973).
118. See Part IV(B)–(C), infra.
5) The alleged contractor’s opportunities for profit and loss. In the strictest sense, most AMT Providers probably turn a profit. As long as they do not purchase and use their computers and bandwidth solely for AMT, and there is no opportunity cost for choosing AMT over other money-generating options, even the $0.05 HITs likely net something.

However, the “opportunity for profit and loss” factor aims less at actual net profits and more at the capacity of the individual to make investments in his or her business, take on risks, and increase profits through diligence and innovation. In general, any extra effort or ingenuity put forth by statutory employees produces profit for the employer, some of which may return in the form of bonuses. Independent contractors, by contrast, are meant to create their own profits, and endure their own losses.

Amazon does not appear to have structured AMT such that Providers can use their diligence and ingenuity to build and grow a business. Providers cannot use the most obvious means at their disposal—automated software—to perform even the most automatic tasks.119

Theoretically, Providers could adopt the classic independent contractor technique of hiring their own employees to perform the contractual services. This might allow them to realize some profit from each HIT without actually having to spend the time performing it. But in AMT’s controlled environment, hiring extra employees would likely prove easier said than done. Amazon prohibits Providers from setting up multiple accounts, ostensibly in order to prevent them from skirting tax thresholds. The practical result is that, unless a Provider wants to divulge her personal account and banking information to employees, or play a highly-supervised version of musical chairs with a single computer terminal, only one Provider can work on a set of HITs at a time. Providers’ opportunities for profit and loss, in the sense intended by the DOL, are quite limited.

6) The amount of initiative, judgment, or foresight in open market competition with others required for the success of the claimed independent contractor. As described under the previous factors, AMT leaves very little room for initiative, judgment or foresight. Providers with particular talents or experience may be better equipped to complete high-reward HITs in less time, meaning that AMT does contain some competitive elements. Those Providers may also do the kind of work that prompts Requesters to issue a bonus. Certainly Providers who spend more energy monitoring and filtering HITs and keeping track of generous requesters can gain some edge on over the rest of the crowd. But ultimately, unlike some other crowd labor platforms, AMT is not filled with requests for complex projects and professional services. The vast bulk of the HITs posted on AMT can be

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119. Perhaps Amazon imposed this restriction in order to preserve the core premise of AMT—that there is some class of tasks for which humans are better suited than computers.
performed by almost anyone of any skill level, in roughly the same manner and period of time.

7) The degree of independent business organization and operation. While some Providers might well own their own business, and might spend some of their time performing similar work on AMT, it would be surprising to find a turker with an “independent business organization” devoted entirely to performing HITs. Given the vast disparity in compensation, it is hard to imagine that a freelance writer would “spin” articles for $1.50 apiece when the same work pays so much more outside AMT. crowdSPRING and 99Designs, both competitive crowdsourcing platforms for design work, may well attract professional designers using off time to tackle a challenge and maybe earn a few hundred dollars. But AMT offers nothing close to those platforms in terms of compensation, and consequently would be much less attractive to an entrepreneur with an existing business. At best, a Provider whose “independent business organization” was limited to performing HITS would have an unviable business and a short-lived entrepreneurial career.

On the whole, the employment status of Providers for FLSA purposes remains unresolved, partly because some of the factors seem inapposite. The first three factors vary widely by Requester or lack relevance. The fourth factor—right to control—appears to weigh in favor of independent contractor status, but is complicated by the restrictions Amazon places on both parties. The fifth, sixth and seventh factors all weigh in favor of statutory employment. Here Providers might benefit from a judicial tendency to “[adopt] an expansive interpretation of the definitions of ‘employer’ and ‘employee’ under the FLSA, in order to effectuate the broad remedial purposes of the Act.” A sufficiently broad definition would incorporate AMT work under the umbrella of FLSA-regulated activity.

If crowd workers do succeed in proving themselves statutory employees, the actual application of employment and labor laws in the crowdsourcing context will still be a daunting task. Congress and state legislatures designed these statutes in the middle of the 20th Century, with a particular version of employment in mind. They envisioned physical

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120. Real v. Driscoll Strawberry Associates, Inc., 603 F.2d 748, 754 (9th Cir. 1979).
121. States have also established employment classification tests to determine coverage under state employment and labor statutes, including wage and hour laws as well as safety-net programs such as workers compensation and unemployment insurance. For example, in S.G. Borello & Sons, Inc. v. Department of Industrial Relations, 48 Cal. 3d 341, 350 (1989), the California Supreme Court instructed that the “right to control work” is the “most significant” factor in the employment status test. But because the “right to control” test may not always fit the facts, California courts should also give weight to an employer’s right to discharge at will, without cause, as well as the other factors enumerated in the Restatement. Id. at 350–51. State tests tend to track the federal tests fairly closely, sometimes with a minor variation in the factors, or with more flexibility given in application. Where state claims are at issue, state tests will govern. Whether the factor-by-factor analysis will produce a different result depends on the degree of variance between state and federal tests.
worksites, one-to-many relationships between employers and employees, and lengthy employment durations. Modern work displays the opposite trends, and, in fact, crowdsourcing's very appeal is that it seems to make the 20th Century concept of employment obsolete.

2. Complications in Applying the FLSA

The FLSA guarantees minimum wage and overtime pay for statutory employees, regardless of compensation method. Where workers earn piece rates, as in many crowdsourcing platforms, the Department of Labor requires that the amount paid satisfy minimum wage and overtime requirements, given the number of hours worked. If the amount paid via piece rate falls short, the employer must make up the difference in a lump sum.

But what happens when a piecework employee works for multiple employers? In the crowdsourcing context, it would not be unusual for an employee to perform work for fifty or a hundred different employers in the course of a week. Theoretically, every employer would have to calculate a piece rate based on weekly earnings and make up any difference between that rate and the federal minimum wage. Many crowdsourcing platforms make it difficult to earn anything close to the minimum wage, so employers would likely be making weekly coverage payments. In practice, this would prove difficult to accomplish and even harder to enforce. If an individual worked for six employers in the course of an hour, she would have to extract coverage payments from each just to scratch her way up to minimum wage for that hour. In addition, even the most generous and law-abiding employer cannot easily determine what reward to set in order to satisfy the minimum wage requirements, due to the difficulty of predicting exactly how long a given task will take to perform.

Similarly, the overtime protections built into the FLSA do little to protect an employee with multiple employers. Though a crowd worker might spend fifty hours in a week performing cognitive piecework, it would be rare—outside of “complex projects”—for that employee to spend more than forty of those hours in the service of a single employer. That simply does not reflect the structure of high-volume paid crowdsourcing.

124. See U.S. Dept. of Labor, Employment Law Guide: Minimum Wage and Overtime Pay (2009), http://www.dol.gov/compliance/guide/minwage.htm. Calculating hourly rates and overtime for an employee performing piecework is fairly straightforward—1) divide the total weekly earnings by the total number of hours worked to obtain an hourly wage rate, 2) ensure that the wage rate is at or above minimum wage, and if not, make up the difference, and 3) for any hours worked over forty hours during the week, multiply the piecework wage rate by 0.5 and add that amount to the total piecework earnings to cover overtime. See 29 C.F.R. § 778.11(a) (2010).
Equipment, waiting time, and preparation time also pose awkward problems. Under the FLSA, employers must factor certain costs born by the employee into the minimum wage calculation. If an employer compels an employee to pay for equipment, the employer cannot pay so little that the equipment cost lowers the employee’s wage rate below minimum wage. But how would the law apportion this employer burden among the many crowdsourcing employers? A similar question arises concerning time spent waiting and preparing for work. The DOL considers this time compensable, but which employer should pay for the time the crowd worker spends preparing a computer workstation or clicking through the options to accept the next task?

The multitude of separate employment relationships and the turnover volume complicate all these questions considerably. Such complications might well dissuade an individual crowd worker from seeking vindication of minimum wage and overtime rights in court. However, the amount of back-pay and penalties potentially at stake with a larger group—even given the unanswered questions—could make a class action both worthwhile and not unlikely in the near future.

B. The National Labor Relations Act

The National Labor Relations Board utilizes a more restrictive common law agency test to separate employees from independent contractors for the purposes of the NLRA. The Board and the courts regularly look to Restatement (Second) of Agency, §220, which provides a list of ten factors to be considered in making the distinction. Though the list is not exhaustive, and the factors varied, courts generally concentrate on the degree to which the alleged employer exercises control over the details of the work.

Recently, however, two circuits have shifted the focus somewhat, from “right of control” to “entrepreneurial opportunity.” In NLRB v. Friendly

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128. See, e.g., NLRB v. United Ins. Co. of Am., 390 U.S. 254, 256 (1968) (“[T]here is no doubt that we should apply the common law agency test here in distinguishing an employee from an independent contractor.”); NLRB v. Friendly Cab Co., 512 F.3d 1090, 1096–97 (9th Cir. 2008); Roadway Package Sys., Inc., 326 N.L.R.B. 842, 849–50 (1998).

129. See, e.g., Associated Indep. Owner-Operators, Inc. v. NLRB, 407 F.2d 1383, 1385 (9th Cir. 1969) (“The common-law agency test rests primarily upon the amount of supervision that the putative employer has a right to exercise over the individual, particularly regarding the details of the work.”).
Cab Co., the Ninth Circuit emphasized the question of whether the alleged employees possessed "entrepreneurial freedom to develop their own business interests like true independent contractors." By way of background, the Friendly Cab Company had designated its cab-drivers independent contractors, but had also specifically forbid them from pursuing any outside business opportunities. As a condition of leasing the cab, drivers had to agree to comply with Friendly's Standard Operating Procedures, including the following:

[A]ll calls for service must be conducted over company provided communications system and telephone number. No private or individual business cards of phone numbers are allowed for distribution to customers as these constitute an interference in company business and a form of competition not permitted while working under the lease. The entrepreneurship restriction held "particular significance." According to the court, such a restriction "strongly supports" a designation of statutory employee rather than independent contractor, and in this case outweighed notable indicia of an independent contractor relationship.

Meanwhile, the D.C. Circuit in FedEx Home Delivery v. NLRB reversed the Board's classification of FedEx truck drivers as statutory employees, describing its current interpretation of the common law agency test as having "shift[ed] the emphasis away from the unwieldy control inquiry in favor of a more accurate proxy: whether the putative independent contractors have significant entrepreneurial opportunity for gain or loss." Though FedEx did exercise control over the drivers in various ways, the company also permitted drivers to hire their own workers, assume multiple routes, incorporate, and, in fact, to sell their routes to others without FedEx's permission. In other words, FedEx essentially represents the inverse of Friendly Cab, and demonstrates that the "entrepreneurial opportunity" factor can cut both ways. Though these holdings have generated some criticism, they do signal a potential adjustment to the classification test under the NLRA. The Friendly Cab decision is particularly relevant, since Amazon's Seattle headquarters is located within

130. 512 F.3d at 1098.
131. Id. at 1094, 1098.
132. Id. at 1098.
133. 563 F.3d 492 (D.C. Cir. 2009).
134. Id. at 497.
135. Id. at 501.
136. Id. at 499-500.
the Ninth Circuit and the forum selection clause in the AMT Participation Agreement specifies Seattle, Washington as the governing jurisdiction.\(^{138}\)

1. Turkers under the NLRA

AMT's restrictions do not appear as broad as those instituted by Friendly Cab, but Amazon does prohibit Providers from contracting directly with Requesters outside the confines of the site. It is unclear whether this restriction applies only to HITs that Requesters have already submitted, or to all possible work that Requesters might offer. Under the Participation Agreement, Requesters affirm that they "will only accept work product from Providers that has been submitted through the Site."\(^{139}\) For their part, Providers must agree to "submit all work product through the Site only, and not directly to a Requester."\(^{140}\)

The question then turns on the definition of "work product." The Participation Agreement does assign a specific term, "Services," to refer to "any service that [users] sell, offer to sell, request, purchase, and/or provide on or through the Site," and no similar definition appears for "work product."\(^{141}\) A court could certainly give "particular significance" to the fact that Amazon has placed a substantial restriction on the entrepreneurial activity of Providers by preventing them from pursuing contractual relationships with Requesters outside the AMT platform, and this might outweigh other independent contractor indicia for NLRA classification purposes. The fact that Amazon also essentially precludes turkers from hiring others or using automation, and thus constrains entrepreneurial activities, might also figure into a Friendly Cab-style analysis.

If Friendly Cab does not dispose of the case, the common-law "right of control" test will still apply, and the analysis will probably proceed in as it would under the FLSA "nature and degree of control" factor discussed above. Donovan v. DialAmerica, being an FLSA case, cannot help much here, but nevertheless the Board and the courts might take the remote, transient nature of the work into account and soften the "control" factor somewhat. If so, Providers may have a better chance of qualifying as employees under the NLRA.

2. Complications in Applying the NLRA

Needless to say, the original Act did not contemplate online work environments. In fact, the NLRB and the courts have built an extensive body of interpretive law that relies on the existence of a physical workplace,

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138. See AMT Participation Agmt., supra note 24, at § 10.
139. See id. at § 3a.
140. Id. § 3b.
141. Id. at para. 2.
a bounded geographic area, or some other form of centralization that allows for the selection of an appropriate bargaining unit. But online workplaces will not fit easily into the existing mold, making the NLRA even less relevant to the growing class of workers who perform their labor in cyberspace. This Section explores five immediate problems resulting from applying traditional labor law to the crowdsourcing industry.

First, the concept of a "community of interest," upon which the NLRB bases its selection of an appropriate bargaining unit has either very little meaning in cyberspace or requires a completely different analytical approach. The traditional factors involved in the "community of interest" inquiry include: employees' wages, hours, and other working conditions; commonality of supervision; degree of skill and common functions; frequency of contact and interchange with other employees; bargaining history; operational integration; and geographic proximity.143

Many of these factors do not translate into the online work environment. Martin and Perritt put it succinctly, over ten years ago: "As long as workplaces were physically determined, no one had to define community of interest in social or political terms because the physical features of plants, reporting locations, and employer organization provided useful mechanical tests for assessing community."144 But "now," the authors observed in 2000, "information technology makes it possible to organize work across formerly immutable physical boundaries, substantially decreasing the relevance of physical space as a consideration in the organization of work."145

How will the relevant stakeholders and regulators determine an appropriate bargaining unit when the type of labor, terms, qualification, supervision, and duration of the employment relationship can change with the acceptance of each new task? Here we do have some guidance from an early NLRB case dealing with remote work. In Technology Services Solutions, decided in 1995, the Board implicitly rejected the suggestion that an electronically networked community could constitute an appropriate bargaining unit under the NLRA.146 Under §9(b),147 workers must share a

142. See, e.g., NLRB v. J.C. Penney Co., 559 F.2d 373, 375 (5th Cir. 1977).
143. See, e.g., Brown v. Sandimo Materials, 250 F.3d 120, 128 (2d Cir. 2001); Sundor Brands, Inc. v. NLRB, 168 F.3d 515, 518 (D.C. Cir. 1999); NLRB v. Purnell's Pride, Inc., 609 F.2d 1153, 1156 (5th Cir. 1980); NLRB v. J.C. Penney Co., 559 F.2d at 375.
145. Id. at 11.
“community of interest” in order to constitute an appropriate bargaining unit.\textsuperscript{148}

TSS structured its customer service workforce in large geographic territories, with a group of customer service representatives (CSRs) supervised by a customer service manager (CSM) in each territory. There were no physical worksites—everyone, including the CSMs, worked from separate locations and communicated electronically. TSS did, however, have regional headquarters covering multiple states and multiple CSM territories. It argued to the Board that these multi-state regions represented the smallest appropriate bargaining unit.\textsuperscript{149}

The NLRB Regional Director did not agree, choosing instead to apply the Board’s “single location” presumption,\textsuperscript{150} under which single locations are presumed to constitute an appropriate bargaining unit. The Regional Director reasoned that virtually supervised territories were analogous to “single locations,” and thus each CSM territory should constitute a separate bargaining unit.\textsuperscript{151}

Effectively, the Regional Director embraced the proposition that a group of CSRs sharing a single supervisor would have sufficient community of interest to satisfy the §9(b) requirements. Though this was not strictly an internet case, in the sense of work being performed online, the situation did require the Board to analyze a technology-enabled remote workforce. The Regional Director observed and recognized an intangible sort of community, akin to a cyberspace community of interest.

But the NLRB reversed the Regional Director’s ruling, finding instead that the large multi-state regions were the smallest appropriate bargaining units because they contained physical headquarters.\textsuperscript{152} The Board seems to have privileged the “organizational integration” prong over the others, especially the “commonality of supervision” prong. It emphasized the fact that CSRs shared no actual physical worksite. If remote workers who share a single employer and a rough geographical location cannot establish a community of interest, it is difficult to imagine that online workers—with no common physical site or geographical location—would be more successful.

Assuming, however, that the NLRB does find some community of interest, the second problem resulting from the application of traditional labor law to crowdsourcing is that the process of selecting a bargaining representative becomes almost prohibitively complex. Though most crowdsourcing platforms impose some barriers to prevent individuals from

\textsuperscript{148} See, e.g., NLRB v. J.C. Penney Co., Inc., 559 F.2d 373, 375 (5th Cir. 1977).
\textsuperscript{150} Id.
\textsuperscript{151} See id.
\textsuperscript{152} Id. at 1–4.
creating multiple accounts, it is difficult to police such behavior. So the actual number of individual workers behind the anonymous usernames and IP addresses that comprise the "crowd" will be hard to discover. Voting would have to take place electronically, without much guarantee that each worker would cast only one vote. Also, even a secret ballot election requires that the NLRB possess some personal information about employees, for verification purposes. The Board gathers this information in part because NLRA election procedures give both parties an opportunity to challenge allegedly illegitimate ballots. This disclosure would potentially compromise the expectations of anonymity held by many crowd workers.

Third, the traditional mandatory subjects of bargaining may prove inapposite in the crowdsourcing context. The NLRA requires that employers and recognized bargaining representatives negotiate over "wages, hours, and other terms and conditions of employment." Some traditionally mandatory terms and conditions are simply antithetical to crowdsourcing. Seniority, for example, poses a challenge because the "open call" is a fundamental element of crowd labor markets. Questions of job security would also prove troublesome, since without turnover the "crowd" stops being a crowd and starts resembling a definite remote workforce.

Fourth, the many-to-many dynamic in crowdsourcing makes contract administration close to impossible. Not only do employers employ an ever-shifting pool of workers in micro-timed increments, but employees also shift from employer to employer on the same rapid schedule. Collective bargaining agreements with individual employers would make little sense and cause such problems that the meager benefits a contract might provide would pale in comparison. Theoretically, crowd workers could seek some sort of master agreement, as other unions often do when individual bargaining appears impracticable. But the number of employers is probably too large and their priorities too various to force implementation.

Fifth, the current principles governing union access to employees do not translate well into cyberspace, because they rely on concepts of physical property. Normally, under the precedent set by the Supreme Court in *Lechmere v. NLRB*, employers can bar union organizers from access to

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the worksite as long as the organizers have reasonable access to the employees outside the employer’s property. Only where there is no alternative means of accessing workers may the Board order an employer to allow the union access to its private property in order to communicate with workers.

Here again the TSS organizing drive proves instructive. In 2000, the Teamsters argued that Lechmere’s “no alternative means” exception should apply to CSRs, because they were spread out and working mostly on the private property of third parties. The union did not demand access to employer property, since that would be both useless and impossible in this context. Instead, the union requested a list of employee addresses. The Board found that even though the CSRs worked all over the place, and the Teamsters had requested the employee list as a less intrusive substitute for entering private property, the NLRB General Counsel (on behalf of the union) still had not met its burden of actually proving that the union had “no alternative means” of access. The Board then suggested a few avenues that the union could have pursued as evidence of alternative means, including using existing contacts to approach out-of-state workers.

The dissenting member argued eloquently that the Board should be willing to adjust its doctrine to fit the “unique characteristics” of a remote workforce:

The structure of the bargaining unit in the present case, however, is an outgrowth of the ongoing changes in the American work force and the continuing creation of new and varied forms of workplaces in response to advances achieved by American business and technology. The unique characteristics of this bargaining unit, which largely isolate these employees and restrict them from exercising their organizational rights, call for a different result.

But the Board did not accept the dissent’s argument, choosing instead to adhere strictly to the Lechmere test. Viewed in a vacuum, the majority’s interpretation makes sense and represents a fairly straightforward and faithful application of Lechmere. But the Lechmere test relies heavily on the balancing of employers’ real property rights against employees’ §7 rights. It is hard to see what relevance Lechmere has in a situation with no physical worksite, and thus no real property, at issue. Much of crowd work is anonymous, so unions would need access to some kind of information to begin organizing. Unless the court adjusts Lechmere to accommodate cyberspace workplaces, the inherent features of crowd work may frustrate union organizing at an early stage.

158. Id. at 537–39.
160. Id. at 1097–99.
161. Id. at 1102.
C. Other Protective Statutes

Apart from the NLRA and FLSA tests, courts determining employment status under most other relevant federal statutes follow the thirteen-factor test put forward by the U.S. Supreme Court in Community for Creative Nonviolence v. Reid,162 a copyright case, and applied to the Employment Retirement Income and Security Act (ERISA) in Nationwide Mutual Insurance Co. v. Darden.163 Courts have subsequently imported the Darden test into the context of other federal statutes, including OSHA and the ADA.164 Under Darden, the “right to control” remains paramount, but courts also look at “the skill required...the location of the work...whether the hiring party has the right to assign additional projects to the hired party...the method of payment; the hired party’s role in hiring and paying assistants...whether the hiring party is in business; the provision of employee benefits; and the tax treatment of the hired party.”165 Some of these factors, such as skill and the role in hiring assistants, would weigh in favor of employee status. Others, such as the payment method and the right (or rather, absence of a right) to assign additional projects would weigh in favor of independent contractor status.

A thorough discussion of crowd worker employment classification under every federal and state law lies beyond the scope of this Article. In any event, classification questions are always highly case-specific. The more important conclusion to draw from the above analysis is that, contrary to expectations of vendors and firms, a crowd worker’s claims to employee status are neither presumptively barred nor inherently invalid. This area of the law exhibits substantial flexibility, and to the extent that we can apply the facts to an ill-suited legal regime, the outcome is inconclusive.

D. Vendors as Joint Employers

Even if Providers persuade a court to grant them employee status, enforcing employment and labor laws against the vast array of AMT Requesters could prove immensely complicated, if not fruitless. Providers would substantially simplify litigation and enforcement by gathering in Amazon as a joint employer. Amazon has deeper pockets after all, and a vested interest in the continued success of the AMT platform. Amazon is also in the best position to regulate employment and labor standards, since it maintains the platform, writes the Participation Agreement, and controls who can access AMT.

164. See, e.g., Loomis Cabinet Co. v. OSHA Review Comm’n, 20 F.3d 938, 942 (9th Cir. 1994) (applying the Darden factors to OSHA).
165. 503 U.S. at 323–24.
In fact, Requesters themselves might well press Amazon into joint employer status on their own initiative. The Requesters rely primarily upon Amazon to enforce their rights through the Participation Agreement. They do not know where Providers are located, and thus what laws may apply. Nor do they know whether the Providers performing their HITs are of legal age to work. They have simply taken Amazon’s word, but they have no control over the actual employment relationship. When Providers eventually do bring an action against a Requester or group of Requesters, we can expect a motion to join Amazon and an effort to shift some or all liability.  

As evidenced by the provisions of the Participation Agreement, Amazon has done its best to distance itself from any responsibilities as an employer or contractor. However, the labels attached by the parties will not resolve the legal question of employment status. If Providers can show that the economic realities of AMT reflect an employment relationship between Amazon and its pool of crowd workers, the courts could declare Amazon a joint employer.

1. Joint Employment Tests under the FLSA and NLRA

Department of Labor regulations state that “a single individual may stand in the relation of an employee to two or more employers at the same time under the [FLSA],” and that “a determination of whether the employment by the employers is to be considered joint employment or separate and distinct employment for purposes of the act depends upon all the facts in the particular case.” The regulations focus on whether “employment by one employer is not completely disassociated from employment by the other employer(s),” a situation also described as “work which simultaneously benefits two or more employers.” The same

166. In such a scenario, Amazon would doubtless rely on the general liability releases contained in the Participation Agreement. See AMT Participation Agmt., supra note 24, at § 8–9. Whether Amazon succeeds would depend on the enforceability of the clickwrap generally, and upon the enforceability of waivers such as these in an employment context. It is worth noting that while employees generally cannot waive their statutory rights, see infra, note 202, courts applying standard contract law may have no qualms about giving effect to a general release between an employer and a service-provider such as Amazon.

167. Note that a “joint employment” finding depends on the existence of at least one established employer. But if a group of workers cannot prove themselves statutory employees with respect to one employer, this does not mean that they remain independent contractors with respect to every other employer. Though they cannot be “jointly” employed, the economic realities of their relationship with a second employer could still give rise to an employer-employee relationship. This Article examines Amazon as a joint employer, but if AMT Providers were found to have an independent contractor relationship with Requesters, Amazon could still theoretically operate as the Providers’ single statutory employer.

168. 29 C.F.R. § 791.2(a) (2009).

169. Id. at § 791.2(a)–(b).
provision contains a nonexclusive list of scenarios in which a joint employment relationship might exist:

(1) where there is an agreement between the employers to share the employee’s services;
(2) where one employer is acting directly or indirectly in the interest of the other employer (or employers) in relation to the employee;
(3) where the employers are not completely disassociated with respect to the employment of a particular employee and may be deemed to share control of the employee, directly or indirectly, by reason of the fact that one employer controls, is controlled by, or is under common control with the other employer.

The Ninth Circuit (where Providers might bring an action against Seattle-based Amazon) has applied different joint employment tests over time, and also seems to distinguish between “vertical” joint employment, “in which a company has contracted for workers who are directly employed by an intermediary,” and “horizontal” joint employment, in which the operations of more than one company “[become] very closely coordinated.”

In vertical joint employment situations, the Ninth Circuit uses an economic realities test that closely tracks the standard seven-factor employment classification test described above.

For example, in Bonnette v. California Health & Welfare Agency, the court examined whether the alleged joint employer “(1) had the power to hire and fire the employees, (2) supervised and controlled employee work schedules or conditions of employment, (3) determined the rate and method of payment, and (4) maintained employment records.” The court chose these factors in part because they had traditionally been used in joint employment scenarios, but also, and more importantly, “these four factors are relevant to this particular situation.”

Bonnette involved an effort by in-home care workers to hold counties responsible as joint employers, where the county had chosen to give money directly to patients so the patients themselves could hire their own employees. In that vertical-type situation, the court found that the counties “exercised considerable control over the nature and structure of the employment relationship,” and had “complete economic control.” That the counties had “delegated to the [in-home care] recipients various responsibilities.”

170. Id. at § 791.2(b)(1)-(3).
172. 704 F.2d 1465 (9th Cir. 1983).
173. Id. at 1470.
174. Id.
175. Id.
responsibilities" did not remove the counties from responsibility as joint employers.\textsuperscript{176}

In \textit{Real v. Driscoll Strawberry Associates},\textsuperscript{177} a case dealing with the verticalized structure of farm labor contracting, the Ninth Circuit considered a similar, but slightly more extensive, set of factors: 1) the degree of the alleged employer's right to control the manner in which the work is to be performed, 2) the alleged employee's opportunity for profit or loss depending upon his managerial skill, 3) the alleged employee's investment in equipment or materials required for his task, or his employment of helpers, 4) whether the service rendered requires a special skill, 5) the degree of permanence of the working relationship, and 6) whether the service rendered is an integral part of the alleged employer's business.\textsuperscript{178}

However, in \textit{Chao v. A–One Medical Services Inc.}, a horizontal joint employment case, the court looked instead to the DOL joint employment regulations, specifically §791.2(b)(3).\textsuperscript{179} \textit{A–One Medical} involved two companies connected by a single person. The president of one company "oversaw the work being done for [the other company's] clients" and "managed [its] employees."\textsuperscript{180} The court found that the two companies were not "completely disassociated with respect to the employment of the individuals at issue," and were operated under "common control."\textsuperscript{181}

The upshot is that courts will often fashion their own list of factors, picking from those promulgated by the government, those used by courts in similar situations, and those that seem to fit the particular facts of the case. They may disregard some and emphasize others, depending on the situation. The Second Circuit stated its position frankly in \textit{Zheng v. Liberty Apparel Co. Inc.}, "economic reality is determined based upon all the circumstances, [and] any relevant evidence may be examined so as to avoid having the test confined to a narrow legalistic definition."\textsuperscript{182}

Just as the FLSA joint employment test reflects the "economic realities" inquiry that guides FLSA employment classification, the NLRA test reflects the principles of common law agency underlying employment

\textsuperscript{176.  Id.}
\textsuperscript{177.  603 F.2d 748 (9th Cir. 1979).}
\textsuperscript{178.  Id. at 754. Driscoll and similarly broad tests have also received their own criticism. Some of the factors appear to simply distinguish statutory employment from independent contracting, rather than identify whether two entities jointly share employer responsibility. See Baystate Alternative Staffing, Inc. v. Herman, 163 F.3d 668, 675 n.9 (1st Cir. 1998).
\textsuperscript{179.  See Chao, supra note 171, at 918; 29 C.F.R. § 791.2(b)(3) (2009).
\textsuperscript{180.  Chao, supra note 171, at 918.
\textsuperscript{181.  Id.}
\textsuperscript{182.  355 F.3d 61, 71 (2d Cir. 2003) (quoting Herman v. RSR Security Servs., Ltd., 172 F.3d 132, 139 (2d Cir. 1999) (emphasis in original). In Zheng, because of the nature of the employment hierarchy, the court crafted its own set of factors that focused more on the degree of overlap between the putative employers. 355 F.3d at 72.}
classification under the NLRA: “where two or more employers exert
significant control over the same employees—where from the evidence it
can be shown that they share or co-determine those matters governing
essential terms and conditions of employment—they constitute ‘joint
employers’ within the meaning of the NLRA.”183 It is hard to know exactly
where the recent “entrepreneurial opportunity” focus plays into this
determination, but perhaps a putative employer’s restrictions on
entrepreneurial activity might establish the kind of shared control
envisioned by the joint employment test.184

Where does AMT fit into all this? If Amazon is indeed a joint
employer, is the joint employment more “horizontal” or “vertical?” The
following sections will not attempt to generate a set of factors specific to
AMT, or analyze joint employment under every statute. Rather, the
discussion below focuses on key issues that surface regularly throughout
the joint employment caselaw. Specifically, it considers the factors that
concern the relationship between the worker and the alleged joint employer,
disregarding the factors (such as investment in facilities and equipment)
that shed no light on whether joint employment exists.

2. Control

The question of control plays a significant role in nearly every joint
employment case, especially those concerning classification under
statutes—such as the NLRA—that use common law agency principles to
determine coverage. But “control” in the context of a virtual work
environment may mean something very different from control in a physical
worksite.185 Neither Amazon nor Requesters can control where Providers
perform HITs. Unlike Requesters, Amazon also lacks any control over the
“How,” “when,” and “what” of the HITs themselves. Nevertheless, through
the Participation Agreement Amazon does structure the relationship and
exert control over the terms and conditions of work, in at least seven ways.

First, Amazon essentially writes a satisfaction clause into the
supposedly “independent contract” between Providers and Requesters,
where none would otherwise exist.186 Not only has Amazon set a key
employment condition, it has skewed that condition in favor of Requesters
by allowing them to keep and use rejected work, without compensation.

183. NLRB v. Browning-Ferris Indus., 691 F.2d 1117, 1124 (3d Cir. 1982). See also Kenneth A.
Jenero & Mark A. Spognardi, Temporary Employment Relationships: Review of the Joint Employer
184. Clara Seymour, NLRB v. Friendly Cab Company: Entrepreneurialism and the Independent
185. See Gabel & Mansfield, supra note 88, at 352 (“To simply look for control, when the
employer and employee are linked more by technology than physical commonality, will defy logic.”).
186. AMT Participation Agmt., supra note 24, at § 3 a–b.
Like the rest of the terms in the Participation Agreement, the supposed criteria for rejection—that Requesters may reject work that does not meet their "reasonable satisfaction"—has no enforcement mechanism and thus offers no real protection to Providers when Requesters reject satisfactory work in order to avoid payment obligations. If turkers had their way, they would remove this option, or alter it such that Requesters could not keep rejected work, or would have to offer a reason for rejection and an opportunity to cure the problem. But Amazon compels acceptance to this term in its unilateral adhesion contract, without giving Providers any opportunity to change it, or to hold Requesters or Amazon accountable for abuse.

Second, Amazon mandates that Providers perform and submit work only through the AMT site. In essence, Amazon seeks to be not just a "venue" where Providers and Requesters "enter into and complete transactions," but the exclusive venue. They cannot contract independently to perform the work, nor can they change the terms of their existing "contract" to better suit their needs without risking expulsion from the AMT site. As long as both parties participate in AMT, the Participation Agreement appears to foreclose any outside relationship—at least with respect to the HITS submitted by the Requester.

Third, Amazon requires Providers to relinquish all property rights to work submitted through AMT. Even if Providers wished to safeguard their personal information contractually, or retain some shared rights to their intellectual property, they cannot do so. "Work made for hire" provisions are fairly common in independent contractor agreements, but the parties generally negotiate those agreements. When bargaining, the independent contractor can agree to relinquish property rights in exchange for higher wages or other favorable contract terms. On AMT, Amazon sets "work made for hire" as the unalterable default.

Fourth, Amazon prohibits Providers from using any "automated methods" to complete HITs, and does not allow Providers to hold multiple accounts or authorize multiple users on a single account. Requesters retain some discretion in crafting the HIT interface, with which Amazon will not interfere. But it is Amazon, and not the Requester, that forecloses the option of using automation to increase productivity and profit, and it is Amazon that prevents Providers from delegating HIT responsibilities to

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187. See Part III(C)(3), supra, describing turkers’ suggested reforms.
188. See id. § 2.
189. Id. §3a–b.
190. AMT Participation Agmt., supra note 24, at § 3b.
191. Id.
others to increase efficiency.\textsuperscript{192} These restrictions limit the ability of Providers to generate any competitive advantage, and also restrict Providers’ entrepreneurial opportunity in the sense contemplated by \textit{Friendly Cab}.\textsuperscript{193}

Fifth, Providers must agree that they “will not be entitled to any of the benefits that a Requester or Amazon Mechanical Turk may make available to its employees.”\textsuperscript{194} This could be seen as a simple notification regarding the effects of an independent contractor classification (independent contractors, by definition, do not normally qualify for “employee” benefits). But nothing prevents independent contractors from negotiating to receive certain benefits, whether or not the laws that protect only statutory employees will cover those contractors. If, by communicating directly with a Requester as an independent contractor, a Provider did negotiate to receive certain benefits, the Participation Agreement could be read as barring the Provider from claiming those benefits.

Sixth, Amazon imposes mandatory arbitration, and waives class arbitration, for any dispute “arising out of or relating to” the Participation Agreement.\textsuperscript{195} Besides disputes between Amazon and AMT users, this clause could also apply to disputes between Requesters and Providers, since they “arise out of” the Participation Agreement. In fact, the Participation Agreement constitutes the sum total of Requesters’ and Providers’ rights and duties, apart from the bare contractual exchange created when a Provider accepts an HIT. So the arbitration provision may represent Providers’ first and only stop for resolving a dispute. If so, Amazon has effectively sought to curtail the right to litigate employment disputes under state or federal employment law.

Seventh, it is Amazon, not the Requester, that has the power to terminate a Provider’s account. This is the only real way for a Provider to “lose” his or her job on AMT. Moreover, losing an AMT account prevents the Provider from performing any tasks for \textit{any} Requesters on the platform, not just those involved in whatever misconduct prompted the termination. If a Requester was the sole employer, or simply party to an independent contract, ending the employment or terminating the contract would not

\footnotesize{\textsuperscript{192} It is worth noting that some automated methods, referred to as “scripts,” are permitted or at least tolerated on AMT. Providers can use scripts to filter HITs and alert them to new postings, navigate the site, and adjust images to improve workflow. \textit{See}, e.g., Turk Berserk, http://turkberserk.blogspot.com (last visited Apr. 10, 2011) (collecting automated scripts); Turk Alert, http://www.turkalert.com (last visited Apr. 10, 2011) (offering script that alerts Providers when particular Requesters have posted new HITs) .

\textsuperscript{193} \textit{See} Part IV(B), \textit{supra}.

\textsuperscript{194} AMT Participation Agmt., \textit{supra} note 24, at § 3b.

\textsuperscript{195} \textit{Id.} § 10.}
normally produce such a sweeping severance, affecting so many other potential employment relationships.\textsuperscript{196}

In sum, although the arrangement on its face appears to offer a great deal of flexibility, and although Amazon purports to disclaim all involvement in the Requester–Provider relationship, in fact Amazon exerts substantial control over the nature of that relationship and the obligations of the parties.

3. Supervision

Because AMT exists exclusively online, there can be no "supervision" in the traditional, physical sense. There are some surrogates. Requesters can build qualification tests, communicate directly with Providers about their work, review HITs after submission, and offer feedback. Amazon does not involve itself directly with crowd work as it is being performed. But Amazon can warn or ban users for violations of the Participation Agreement, and presumably does so. Amazon also maintains records of work already accepted and completed by Providers, including their rejection percentage. These figures function as a virtual resume, which Requesters then rely on in dealing with the Provider.

Overall, though Amazon facilitates many methods of supervision, Amazon does not itself perform much of that supervision, leaving it instead to Requesters. The fact that Amazon furnishes a means for Requesters to supervise Providers does not in and of itself swing this factor in favor of joint employment.

4. Permanence of the Relationship

In general, the courts look to duration in order to determine the degree of the alleged independent contractor’s dependence on the hiring party.\textsuperscript{197} Though some Providers may return again and again to the same Requester, the core advantages of crowd labor—scalability and immediate response—only exist when the bulk of the Requester–Provider relationships are short and sporadic. However, the Amazon-Provider relationship begins with acceptance of the terms of use and continues throughout the entire AMT participation period. This relationship also necessarily precedes and outlasts any relationship with a Requester. From the standpoint of dependence, it could be argued that Providers need Amazon much more than they need any particular Requester. Amazon builds and promotes the

\textsuperscript{196} To make matters worse, in some cases Amazon actually seizes the balance in the Provider's account, which is—for all intents and purposes—unpaid wages.

\textsuperscript{197} See, e.g., Lopez v. Silverman, 14 F. Supp. 2d 405, 421 (S.D.N.Y. 1998) ("The plaintiffs' steady—and at times virtually uninterrupted—working relationship with [the employer] indicates that they were dependent on [the employer] for their employment.").
platform, and facilitates every aspect of work and compensation. Unlike in
the original employment status determination, where short duration might
argue against employee status, here the permanence of the Amazon–
Provider relationship weighs in favor of joint employment.

5. Rate and Method of Payment

Apart from setting the lower limit for an HIT reward ($0.01), Amazon
does not control the rate of payment. The Mechanical Turk Best Practices
Guide does advise Requesters to “pay fairly,” and to think of the reward as
an hourly rate rather than a reward per HIT,\textsuperscript{198} but does not go any further.
Despite this suggestion, there is no actual way for Requesters to set an
hourly rate for HITs. Amazon mandates that the parties adopt a piece-rate
compensation system.

On the Provider side, Amazon requires that compensation be paid to
U.S. bank accounts or Amazon gift certificate dollars. For Requesters,
Amazon also requires prepayment of HITs and takes unilateral action if
HITs remain unpaid for over thirty days. The fact that Amazon will step in
and force payment in those circumstances, coupled with the cloudy nature
of Amazon’s various guarantees and disclaimers regarding dispute
resolution, may well give Providers the impression that they can rely on
Amazon to enforce payment in extreme circumstances. From that
perspective, Amazon has both concrete and (perhaps) perceived influence
over the compensation process.

6. Integral Part of the Business

Providers are more than an “integral part” of Amazon’s AMT
enterprise. They \textit{are} the business. Without the 200,000–person crowd,
Amazon cannot function as a crowdsourcing venue. True, each individual
Provider adds very little, but together they generate nearly all of AMT’s
value. This conflicts with the traditional notion of an independent
contractor as tangential to the enterprise. It does not resemble more
frequently litigated joint employment scenarios, such as those where the
employees of an outside company work in a physical environment overseen
by the putative joint employer. Without the Providers, AMT would
essentially vanish.

7. The DOL Regulations

Department of Labor regulations, which the Ninth Circuit, at least, uses
for “horizontal” joint employment situations, describe three potential joint

\textsuperscript{198} Amazon.com, Amazon Mechanical Turk Best Practices Guide (2009), \textit{available at}
employment scenarios. The first, in which two employers agree to share an employee’s services,\(^{199}\) seems inapposite here. But the second and third both are possibly relevant to AMT and other crowd work models. The second scenario involves one employer acting directly or indirectly in the interest or on behalf of another.\(^{200}\) A court, or the DOL, could plausibly characterize Amazon’s \textit{ex ante} restrictions—the satisfaction clause, the ban on automated scripts and multiple accounts, etc.—and its enforcement power throughout the relationship, as action on behalf of the Requesters. That the nature of crowd labor effectively prevents Requesters from exercising these powers themselves may strengthen the case here.

The third regulatory scenario, in which two employers “are not completely dissociated with respect to the employment” and “share control...by reason of the fact that one employer controls, is controlled by, or is under common control with the other employer,” could also apply.\(^{201}\) The Ninth Circuit relied on this factor in \textit{A–One Medical}. Though the type of control may vary somewhat in the AMT example, Providers could credibly argue that either AMT controls Requesters or that AMT and Requesters share “common control” over Providers’ work.

In sum, the prospect of Amazon acting as a joint employer should not be dismissed out of hand. Amazon has made several crucial interventions in the operation of AMT, to shape the platform and remove flexibility. Because of these interventions, and the nature of the AMT platform, Amazon may have more trouble escaping responsibility\(^{202}\) for the work rights of its turkers.\(^{203}\)

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200. \textit{Id.} at § 791.2(b)(2).
201. \textit{Id.} at § 791.2(b)(3).
202. Amazon might seek to rely on its General Release in order to disclaim responsibility under any federal or state employment laws. See AMT Participation Agmt., \textit{supra} note 24, at § 8. However, this argument will not carry much force, because employees generally cannot waive their statutory coverage under employment and labor laws. See \textit{Brooklyn Sav. Bank v. O'Neil}, 324 U.S. 697, 712 (1945) (“the legislative history and provisions of the Act support a view prohibiting such waiver”).
203. This Article does not address whether or not AMT could actually survive a reclassification of its Providers as statutory employees. Courts might be swayed if Amazon or the Requesters could show that AMT will simply cease to exist as a result. However, even a reclassification under the FLSA would not rob AMT of all the attributes that make it attractive to workers and firms. Requesters (or Amazon) would have to pay federal minimum wage and overtime, but the crowd still provides an on-demand, scalable labor pool with diverse skills, at comparatively cheap prices and with relatively low risk. There is no reason to believe that firms would flee crowdsourcing platforms entirely if compelled to pay minimum wage. Most likely, AMT would evolve, perhaps jettisoning some of its existing policies and beefing up others. Provided the courts, or Congress, can get their heads around virtual work environments and establish some reliable rules and guidelines, crowdsourced labor should be able to survive a migration into the regulatory ambit of the FLSA and other employment and labor laws.
V.
PROTECTING THE CROWD

The previous Part attempted to offer the best possible argument that either firms or vendors may have some legal responsibility for the terms and conditions under which crowd workers perform cognitive piecework. Admittedly, those arguments stretch thin in places, perhaps too thin for experienced employment law practitioners to countenance.

But consider the people who perform this work. Whether idle college students or fixed-income retirees, they do not really seem to fit the picture of the kind of worker legislatures and courts sought to exempt from statutory protection. They are not entrepreneurs, bargaining independently and using initiative to maximize their profits. They are fungible particles in an on-demand labor pool. If they fail to fit the legal definition of “statutory employee,” it is not because they fall squarely into some other bracket. Our gap-ridden and outdated legal regime simply does not accommodate new labor models very well.

Social harms and regulatory failures can persist despite our inability to point our finger at a party we can hold liable under current law. In fact, it is precisely that situation that will often prompt new rounds of regulatory intervention. Nor should the novelty of crowdsourcing cause us to presume that regulatory responses would prove futile at this stage of development. Now—before crowdsourcing stakeholders build and entrench their expectations—is the appropriate moment for legal intervention, and perhaps for a deeper dialogue about our priorities in this sphere. Jonathan Zittrain puts it eloquently: “[a]lthough we cannot predict exactly the issues that will arise, if we can forge a coherent philosophy of what we want and what we cannot accept in these areas, we will find these networks easier to regulate as they come about.”

Of course, we could just wait and hope that things improve on their own. Many stakeholders in the crowdsourcing industry would doubtless advocate such an approach. The argument goes that as demand for crowd labor increases in the coming years, we can expect wages to rise and working conditions—including benefits and job security, as well as transparency and employer accountability—to improve. On the other hand, the fact that crowdsourcing vendors can offer access to an essentially unlimited global labor supply may prevent the normal competitive effects from taking place for quite some time, if at all. We need not identify and assess market failures, or engage in policy debates, in order to recognize that right now all this work is taking place in a regulatory vacuum, with no current guidance and a body of cases that does little to illuminate the law. That, in and of itself, should raise a red flag for all stakeholders.

204. Zittrain, supra note 2, at 1.
Some cyberlaw theorists argue that regulatory bodies should delay intervention until the true dynamics of a particular online activity have become clear. They reason that premature intervention could unintentionally suppress the healthy development of online democracy, commerce, and information exchange. Their arguments appear to be motivated by a sense that we ought to wait and see how a particular technology will bloom before using blunt regulatory machinery to squeeze it down or stomp it out.

Whether or not this rationale holds water in the context of privacy, virtual property, or cyber-torts, such procrastination has proven extremely unhelpful to the effective regulation of employment and labor. Our work laws are already so far out of touch with the modern physical labor market, never mind virtual work, that they often quite simply cease to function. We cannot afford to exacerbate this problem. If crowdsourcing turns out to be as transformative a shift in the organization of work as, for example, the expansion of contingent and temporary labor, employment law may simply never catch up.

**A. Legislatures**

Just as Congress has acted to regulate the content of communication on the internet, so it could regulate employment relationships that exist solely or even partially in cyberspace. One good reason to do so is that the information economy bears very little resemblance to the industrial economy from which our employment and labor laws emerged. The FLSA and NLRA were responses to a paradigm shift in work and production, brought about by industrialization. Online crowd work represents a similar paradigm shift, and justifies a similar response.

True, a comprehensive revamping of federal employment law to accommodate cyberspace is unlikely in the near future. But states could fill the gap to some degree. While state legislatures cannot preempts the NLRA or undercut the FLSA, states can use police powers to create industry-specific regulations that steer clear of federalism problems. For example, to curb misclassification of construction laborers, Minnesota built into its labor code a presumption that construction workers are statutory employees unless they obtain an exemption certificate from the state. Meanwhile, California law specifically regulates “job listing services,” requiring a bond along with various notifications and disclosures.

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205. See, e.g., Trotter Hardy, *The Proper Legal Regime for “Cyberspace”*, 55 U. PITT. L. REV. 993, 1026 (1994) (“[W]hen a ‘new’ problem is identified in cyberspace, we should initially respond with the lowest, most decentralized level of control possible.”).


208. See CAL. CIV. CODE § 1812.515–.521 (West 2010).
States could create an employer-employee presumption for work taking place on internet venues fitting certain criteria, and could also potentially extend that presumption to include the operator of the venue itself. States could also directly regulate crowdsourcing vendors, as they have job listing services and day labor sites, in order to ensure a modicum of fairness and transparency. This would not resolve classification problems under federal law, nor would it address substandard wages and other market failures (to the extent such things exist). But state regulation could ease the path to litigation and spur firms and crowdsourcing venues to change their approach.

B. Administrative Agencies

Employment and labor statutes usually charge administrative agencies with making initial determinations regarding employment classification. Agencies such as the Department of Labor and the National Labor Relations Board are expected to possess particular expertise in examining work relationships. They also have the power to issue regulations, guidance, and advisory opinions, and they can use that authority to change industry practices. In employment law this power is generally underused, leaving ambiguities to be resolved by the courts.

Administrative agencies should be the tip of the spear in modernizing employment and labor law, especially where technology has dramatically altered the workplace. This has taken place in some instances. For example, in 1990 Congress exempted computer employees from coverage under the FLSA. Since then, the Department of Labor has used rulemaking and opinion letters to clarify who exactly constitutes a computer employee, and what kind of computer work properly falls within the exemption. Similarly, the rise of telecommuting has prompted administrative agencies to incorporate telework into federal minimum wage and disability law.

Both employers and employees would benefit from standards and guidelines that identify what aspects of the employment relationship matter

in the virtual workplace. More aggressive rulemaking, and a more substantial record of decisions regarding virtual work, would go a long way towards this goal.

C. Courts

If the judicial system undertakes to modernize employment and labor law on its own, as it may be forced to do, it must embrace two critical objectives. First, the courts must revise the definition of "employer" and "employee" to recognize the economic realities of online and virtual work. If courts blindly, doggedly apply the employment law precepts of the industrial age to the information economy they will fail to secure the purposes of protective statutes such as the FLSA and the NLRA. We need better-calibrated tests for remote workers, and a finer-grained approach to online work. Recognizing crowdsourcing vendors as potential joint employers represents just one small step in that direction.

Second, courts must begin to build a body of law around compensation, dispute resolution, and collective action in cyberspace. In the past, a worker could not physically perform a unit of piece-rate labor in under a second. Parties did not make employment contracts from the other side of the planet with the click of a mouse. Employees were unlikely to have twenty-five separate employers in the course of a single workday. Those judges who created the existing bodies of common law and statutory interpretation did not and could not have contemplated a phenomenon like AMT. Courts should adjust existing doctrines, and create new ones as appropriate, to confront the utterly novel set of questions upon which they will increasingly be asked to rule.

The few judicial decisions addressed above provide some examples of how courts might work through these questions. But the cases are sparse. Courts should consider looking beyond employment to other areas in cyberlaw. Our judicial system has spent over fifteen years grappling with the general question of how to apply existing rules to the internet. Cases dealing with online property, tort, crime, and contract can tell us a great deal about how judges have approached the migration of regulated (or arguably regulated) activity into a virtual environment. Following the path of leading cyberlaw opinions, courts might look to analogies\textsuperscript{213} or "functional equivalencies"\textsuperscript{214} between online and offline work

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\item \textsuperscript{213} See, e.g., Kremen v. Online Classifieds, Inc., 337 F.3d 1024, 1030 (9th Cir. 2003) (finding in internet domain names both a well-defined interest, "like a share of corporate stock or a plot of land,” and a legitimate claim to exclusivity, “like staking a claim to a plot of land at the title office”).
\item \textsuperscript{214} See, e.g., Cubby v. Compuserve, 776 F. Supp. 135, 140 (S.D.N.Y. 1991) (holding, in the defamation context, that "a computerized database is the functional equivalent of a more traditional news vendor, and the inconsistent application of a lower standard of liability to an electronic news
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arrangements. Or judges may find it necessary to craft entirely new doctrine215 to address a novel problem. In order to protect interests as they migrate into cyberspace, courts have proven willing to analogize to, adjust, or abandon existing doctrine. Nothing prevents them from doing the same when a group of turkers brings the industry's first class action.216

D. Firms and Crowdsourcing Vendors

Like all employers in unregulated industries, the firms that use crowdsourcing platforms can either exploit the regulatory absence to increase profit or act voluntarily to establish a more habitable, sustainable labor market. Crowdsourcing firms are largely at the mercy of the platform operators, such as Amazon, but they can at minimum commit to paying fair wages and delivering compensation for any work they request. In the chaotic and opaque world of crowdsourcing, making such a public commitment might actually pay off by increasing competition among qualified workers for tasks posted by that firm. To whatever extent permitted by the venue, firms should also disclose their identity and business purpose, communicate with workers, and provide privacy guarantees.

Crowdsourcing vendors have a larger role to play. They can set mandatory wage floors (crowdSPRING),217 create default rates (CrowdFlowcr),218 or simply build into the job posting process a method for firms to tailor their compensation to meet minimum wage.219 They can establish mechanisms for dispute resolution, perhaps staffed by platform participants.220 They can enhance transparency and institute mandatory disclosures to address the information asymmetries that tilt the scales
distributor such as CompuServe than that which is applied to a public library, book store, or newsstand would impose an undue burden on the free flow of information”).


against crowd workers.\textsuperscript{221} They can invest resources in policing those who abuse their system.

One of the more intriguing suggestions, put forward by Jonathan Zittrain, is that crowd workers “ought to be able to take their reputations with them,” so that the experience and positive feedback they have accumulated performing crowd labor does not evaporate once they leave the platform.\textsuperscript{222} Crowdsourcing vendors could enable this kind of reputation portability without losing competitive advantage.

Any of these changes might dramatically improve crowd workers’ labor conditions at relatively low cost. Moreover, there is no reason why crowdsourcing vendors could not accompany improvements made on behalf of workers with corresponding enhancements for firms, such as more robust, real-time supervisory mechanisms. For example, oDesk requires workers to complete a “Work Diary” that tracks their activity on a project in ten-minute increments, and firms can use proprietary “TimeAnalyze” reports to see who is working on what, for how long, and which tasks have been completed.\textsuperscript{223} Such adjustments could pay off in increased participation, as firms overcome their fears and workers gravitate towards the promise of a more fair and stable work environment.

\textbf{E. Worker Action}

Of course, crowd workers need not wait for changes from government or their employers. They could test the waters by filing individual state law claims, or by organizing to bring a class action suit against a large crowdsourcing employer or vendor. They certainly might get an unfavorable decision, but pursuing an appropriate litigation strategy against a carefully selected target could also yield groundbreaking new doctrines for virtual work, and thus prove worth the risk.

A more immediate course would be to undertake some form of collective action. Turkers have already created various online fora to share information and build relationships,\textsuperscript{224} as have participants in other crowdsourcing platforms. One of their most successful collaborative efforts

\textsuperscript{221} On the question of transparency, the joint Stanford/Harvard class mentioned in note 217, supra, suggested that platforms could create virtual “badges,” along the lines of the “Real Name” badge that Amazon uses in its retail marketplace, in which a user vouches for online conduct by tying to a verified real-world identity. See Cloudwork: Technological Solutions, http://docs.google.com/Doc?docid=0AV1_o3QOXwqGczEjN4OG5f7MjEZ2Z3pijNWIR2ZGM&hl=en (last visited Apr. 12, 2011).

\textsuperscript{222} Zittrain, supra note 2, at 6.


is Turkopticon, created by Six Silberman and Lilly Irani. Turkopticon is an application that plugs into the web browser of AMT users. When installed, Providers can click on the name of any Requester and see how other users have rated that Requester in communicativity, fairness, generosity, and promptness. Providers can also access the feedback behind these ratings, and add their own contributions. Turkopticon aims to eliminate some of the risk and opacity inherent in AMT, and also to "[draw] attention to an information imbalance." It allows Providers to avoid exploitative or irresponsible Requesters and focus their energy on Requesters with proven reputations.

These online communities could also serve as a natural springboard for more formal collective associations. Following the example of writers, graphic artists, and other groups generally neglected by organized labor, crowd workers could establish membership-based organizations to promote their interests. A crowd workers' association could lobby on behalf of crowd workers, establish group benefits, handle disputes, inform crowd workers of their legal rights, and serve as a clearinghouse for information and strategy.

With such a foundation in place, crowd workers might even take more direct action to raise their compensation and working conditions. Virtual environments depend entirely on the presence and contribution of a dedicated community. When faced with an upset but organized group that already communicates primarily online, crowdsourcing vendors might prove more responsive. Crowd workers could boycott particularly abusive employers, or adopt self-imposed standards—such as a blanket refusal to perform tasks pegged below a certain wage level.

In the end, crowdsourcing relies on the crowd for its very existence. Legal intervention can only buttress and protect the organized efforts of crowd workers; it cannot replace those efforts. Crowd workers could transform virtual labor and move worker concerns to the forefront of debates around the new information economy. By following the principles of crowdsourcing, they could harness their shared potential to be greater than the sum of their parts.

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226. Irani, supra note 11.