Look Before You Leap: Legal Pitfalls of Crowdsourcing

Stephen M. Wolfson
School of Information
University of Texas
swolfson@law.utexas.edu

Matthew Lease
School of Information
University of Texas
ml@ischool.utexas.edu

ABSTRACT

Crowdsourcing is quickly shifting the traditional landscape of how people work, invent, fund new enterprises, and create new artistic works. Such innovative shifts often run ahead of the law and raise new legal questions that may not yet have very definite answers. This paper considers five such legal issues that the crowdsourcing community (providers and customers) should discuss, both to inform their own practice and to advise future policy. Specifically, we consider employment law, patent inventorship, data security and the Federal Trade Commission, copyright ownership, and securities regulation of crowdfunding. Ultimately we offer three practical suggestions for crowdsourcing: be mindful of the law, define relationships in advance, and be open and honest with crowdworkers. While we limit the scope of legal regulation considered, we hope to provide a useful introduction to several areas where crowdsourcing and the law may (soon) intersect, and to offer some insight on how a court/lawyer may view them.

Keywords

Law, crowdsourcing, copyright, patent, employment law, securities, data security

INTRODUCTION

In 2006, Jeff Howe (2006) identified a trend: companies were shifting jobs that had formerly been assigned to an employee or a contracted worker, and instead distributing them to large groups of people. As James Surowiecki recognized in *The Wisdom of the Crowds* (2005), large groups can effectively and accurately solve some tasks better than individuals, and businesses were beginning to apply such thinking. Howe called this "crowdsourcing."

Even before Howe coined the term, crowdsourcing has been changing the way people think about conducting work. New platforms seem to develop daily, allowing

businesses to connect with and distribute various tasks to multitudes of prospective workers. Amazon Mechanical Turk (www.mturk.com), oDesk (www.odesk.com), Crowdspring (www.crowdspring.com), Kickstarter (www.kickstarter.com), and many others all help people use the power of the crowd in various ways. As the crowdsourcing industry grows and diversifies, however, it seems increasingly likely that it will experience legal regulation. This paper discusses several areas of the law that will likely impact crowdsourcing in the future.

We begin with employment law. Both federal and state laws stipulate how "employers" must treat "employees." We especially discuss the federal Fair Labor Standards Act, which guarantees anyone who qualifies as an "employee" things like a minimum wage and overtime regulation.

Next, we consider inventorship issues under patent law. One way to use crowdsourcing is for the research and development of patentable inventions. However, joint inventorship issues naturally arise where multiple people work on an invention. Under the law, all inventors must be included on a patent application and if they are not, the patent might be rendered unenforceable. Thus, anyone who wants use the crowd for research and development must consider joint inventorship issues and act accordingly.

Regarding innovation, more companies are now beginning to tap into "wisdom of crowds" based innovation by sharing more customer data in new ways, e.g. for academic research or with open-innovation providers like InnoCentive (www.innocentive.com). Unfortunately, developing effective methods for protecting customer privacy remains an open research problem (Narayanan and Shmatikov, 2008) with some highly visible recent failures (Barbaro & Zeller Jr., 2006, Ohm, 2010). The Federal Trade Commission (FTC) has recently begun aggressively acting to protect consumers from such data breeches caused by commercial entities. Companies should be mindful of this.

Crowdsourcing can also be an effective way to source and/or develop creative works. Yet because of copyright's works made for hire and joint works provisions, crowdsourcers can easily lose control over crowd-developed creative works if they do not pay attention to

these doctrines. Thus, anyone interested in crowdsourcing creative design must carefully consider copyright laws.

Finally, with its wide-reaching potential, crowdsourcing can be a very effective way to raise money for various projects through crowdfunding (e.g. the Obama presidential campaign). U.S. law, however, regulates certain transactions, and crowdfunders who raise money incorrectly could run into problems with securities laws. In fact, on April 6, 2011, the chair of the Securities and Exchange Commission (SEC) announced that the agency would consider changes to its regulations affecting crowdfunding. Potential crowd-based fundraisers should be aware of such issues to avoid potential legal scrutiny.

While we cannot hope to provide a complete survey of legal questions faced by crowdsourcing, we do introduce several legal issues and offer some insights into how lawyers and/or courts may (soon) think about the concerns that crowdsourcing raises. Ultimately we offer three practical suggestions: be mindful of the law, define relationships in advance, and be open and honest with crowdworkers.

BACKGROUND

As Howe (2006) saw it, crowdsourcing takes the ideals of open sourcing and applies them outside of software development. However, crowdwork today includes many more labor models than Howe's definition seems to imply. Bent Frei (2009) divides paid crowdwork into four categories, moving from the simplest to the most complex. At the simple-work end of the spectrum, there are Micro Tasks, which are small, easy, and tend to be distributed in high volume for very little compensation. These jobs are often as basic as image tagging. Next there are Macro Tasks, which also tend to be high volume and low pay, but require more skill and effort, like writing simple product reviews. In the first two categories, employers generally do not need to direct or communicate with their workers much if at all. Moving to more substantial work, Frei identifies Simple Projects, which are lower volume, higher pay, and require more skill and time commitment. These jobs are often tasks like basic website design or creating outlines for presentations. Finally, Complex Tasks are the most difficult form of crowdwork. These jobs require specialized skills and a significant time commitment from the workers. Moreover, they are usually high paying, single project jobs, like designing software modules. These latter two categories typically require employers to communicate with and direct their workers more than with the simpler tasks.

Crowdsourcing systems like Amazon Mechanical Turk (Mturk) fall on the Micro Tasks end of this spectrum (Frei, 2009). Mturk is a bulletin board like website that allows "Requesters" (employers) to post "Human Intelligence Tasks" (HITs) (jobs) which "Providers" (workers) can accept and accomplish. Generally, HITs require little time to complete and return very little pay – each can be as low as $0.01 (Felstiner, 2009). Indeed, Ross et al. (2010) found

in a study of Mturk worker demographics that Providers earn an average of less than $2.00 per hour. Furthermore, Requesters tend to be relatively hands-off with their workers. Dow and Kelmmer (2011) write that Requester and Providers are normally anonymous to each other; there is little direct interaction between them. Employers often treat workers as merely "interchangeable replacements for computational processes" (p. 1). Workers have been termed "human processing units" (HPUs), a new functional component of computer architecture to complement the central processing unit (CPU) **(Davis et al., 2010)**.

Moving to the more complex end of the spectrum of crowdwork, systems like oDesk allow employers to connect with highly skilled workers to complete much more substantial types of jobs. In a survey of oDesk workers, Brett Caraway (2010) found that oDesk more closely resembles a traditional work environment than the anonymous workforce on Mturk. First, oDesk allows employers to distribute work for hourly pay rather than as fixed price, single task contracts. Second, the platform encourages employers to communicate with, direct, and supervise their workers more. Through oDesk's "Team Application" software, employers can monitor their workers' keystrokes and mouse clicks, and even take screen shots and webcam pictures while they are working. Caraway (2010) writes that oDesk workers feel that they are held accountable for their work. Meanwhile, they earn substantially more money on oDesk than Providers can on Mturk. oDesk reports that its workers commonly make between $10-$25 per hour on its platform ("oDesk").

Importantly, crowdwork is more than a niche labor market. Mturk, oDesk, and other types crowdwork represent a significant and growing amount of workers and money. In 2009, Mturk and oDesk had 200,000 and 331,000 registered users respectively (Frei, 2009). Further, from 1999-2009, workers across ten crowdsourcing companies earned a gross of $750,000,000. Looking at Mturk specifically, Ipeirotis (2010) found that, from January 2009 through April 2010, 9436 requesters posted a total of 6,701,406 HITs, for a total value of *at least* $529,259. Since this study did not capture redundant HITs and may have missed many short-lived HITs, the actual sum of money which changed hands is likely far greater. oDesk reports that employers spent more than $15,000,000 on online work in April 2011 and over 2000 people join its workforce daily ("oDesk").

With advantages for both, the crowdwork market might be attractive to workers and employers alike. For employers, crowdwork offers a highly scalable workforce of on-demand labor that they can easily tap into with little transaction costs. Meanwhile, workers can profit from their "spare cycles", or, in the case of platforms like oDesk, use their specialized skills (Felstiner, 2010). Moreover, with unemployment at 9% (Bureau of Labor Statistics, 2011), and very high underemployment (Newport and Muller,

2011), it is likely that more people will consider crowdwork in the future when looking for supplementary or primary incomes. As the crowdlabor market grows in profile and importance, however, it seems increasingly possible that we should expect legal regulation.

EMPLOYMENT LAW
One area where crowdsourcing could clearly intersect with the law is in Labor and Employment law. With a substantial labor market, and numerous platforms enabling various types of work, the crowdsourcing industry could face federal and/or state regulation over employment practices in the near future. While crowdlabor has many benefits, anyone considering it must be aware of the potential consequences of having crowdworkers as "employees."

In the United States, both state and federal laws put restrictions on employers to protect against harm to employees. Since a complete survey of employment and labor law is outside of the scope of this paper, we focus on the federal Fair Labor Standards Act (FLSA). Not only is this a very important law itself, but it will also help elucidate how other similar regulations may work.

The Fair Labor Standards Act
In 1938, Congress passed the Fair Labor Standards Act in response to declining wages caused by the Great Depression. "Low wages perpetuated a downward economic spiral," and the federal government decided to step in rather than let the market fix its own problems (Cherry, 2009). So, with the FLSA it established things like the federal minimum wage (currently $7.25 per hour), overtime protection, and special rules for children workers.

Before the FLSA can apply, however, the parties in a potential employment situation must be "employers" and "employees" within the meaning of the statute. Generally, employers fall under the FLSA if they conduct interstate business, or generate more than $500,000 in yearly gross revenue (United States Department of Labor, 2009).

Unfortunately, the act is unclear about who qualifies as an "employee." Struggling with this uncertainty, courts have developed several tests to determine whether someone is an employee under the FLSA. For example, the Common Law test looks at how much control the employer has over the worker's work. Meanwhile, the Economic Reality Test focuses on the economic relationship between the worker and the employer and the degree of financial dependency between them (Smith, Hodges, Stabile, & Gely, 2009).

Courts applying the FLSA most commonly consider seven factors to determine employment status (Felstiner, 2010). No single factor is determinative, but all must be weighed:

1. How integral the work is to the employer's business;
2. Duration of relationship between worker and employer;
3. If the worker had to invest in equipment or material himself to do the work;
4. How much control the employer has over the worker;
5. The worker's opportunity for profit and loss;
6. How much skill and competition there is in the market for this type of work;
7. If the worker is an independent business organization.

Importantly, FLSA employment status depends on the actual relationship between the employer and employee, not their subjective opinions of their relationship. Felstiner (2010) writes that even though both Mturk and oDesk classify their workers as independent contractors, this does not determine their status. The U.S. Supreme Court has held that workers may be employees under the FLSA even if both the employer and employee agree that they are independent contractors (Felstiner, 2010). Moreover, Cherry (2009) notes courts are more likely to find someone is an employee where employers are able to exert greater control over workers and can direct their work. Conversely, courts often classify workers as non-employees where they use their own equipment, set their own schedules, and are paid per project instead of hourly or via salary.

Applying the FLSA to crowdwork, Felstiner (2010) and Cherry (2009) argue Mturk workers could possibly be "employees" under the FLSA. For example, Felstiner (2010) writes that Providers who repeatedly conduct HITs for the same Requesters may be more like FLSA employees, even though they can complete individual HITs quickly. Still, it seems unlikely that a court would classify them as such. Requesters cannot exert much control over Providers, Providers use their own equipment, their employment is ordinarily for a very short time, and they are paid per-job. Even if some factors weigh toward Providers being employees, the others strongly weigh against them being classified as such under the FLSA.

Of course, this analysis may be different across the various types of crowdwork. oDesk is a prime example because its workers seem closer to "employees" under the FLSA than Mturk's Providers. First, employers on oDesk have more power and opportunity to control their workers. The "Team Application" software allows employers to monitor their workers in ways that are impossible even in conventional workplaces. Caraway (2010) writes that one survey respondent said that this software is like "being in an office environment where you have a boss or coworkers looking over your shoulder" (p. 117). Second, many oDesk workers are paid hourly, like traditional employees. Indeed, oDesk encourages this. Finally, oDesk proclaims that workers can build reputations so employers can choose whom they know and like to work with ("oDesk"). Thus, employment relationships may exist longer than single projects.

Ultimately it is not clear if *any* crowdworker would be classified as an employee under the FLSA. This

uncertainty, however, means that potential employers must be aware of the possibility of regulation. Indeed, as crowdlabor grows, this seems to become more likely.

PATENT LAW

Another area where crowdsourcing may intersect with legal regulation is in Patent Law. As crowdsourcing methods become more sophisticated, and more skilled labor enters the workforce, the number of complex projects that use crowdlabor for some or all of their production is likely to grow. One area that will probably experience this is the research and development of patentable inventions. However, having multiple people working on an invention raises important questions of joint inventorship. Anyone considering using the crowd's inventiveness and specialized skills to develop patentable design ought to consider such issues which could jeopardize their patents.

As previously discussed, crowdwork can help effectively solve complex problems. Schenk and Guittard (2009) profile InnoCentive as an example. Pharmaceutical giant Eli Lilly created InnoCentive in 2001 as a way to help develop novel solutions to various problems. Today, over 225,000 of "the world's brightest problem solvers" are part of this community that works on problems across many disciplines, from Business to Engineering to Computer Science. The purchase cost for one of these solutions can range from $10,000 to $1,000,000 ("InnoCentive"). Like Mturk and oDesk, problem seekers and solvers alike have many incentives for using platforms like InnoCentive. However, with multiple workers helping to develop useful items, these systems implicate problems with inventorship.

U.S. Patent law grants creators of new, non-obvious, useful inventions limited duration monopolies over the exploitation of their works. Patents last maximally 20 years and give inventors the negative right to prevent others from practicing their inventions (Mueller, 2006). In exchange, inventors must disclose certain information about their inventions by disclosing it on the application, including the design, the purpose, and *all* the inventors contributing to the inception of the invention (Seymore, 2006).

Joint Inventorship

Under 35 U.S.C. § 116 (2011), multiple people making an invention must apply for the patent together. Interestingly for crowdsourcing, the law specifically holds that people can be joint inventors even if they work at different times, in different places, or contribute to different degrees. Moreover, a patent could be rendered unenforceable if an inventor is not on the application (Seymore, 2006).

As Seymore (2006) writes, determining inventorship is especially difficult where multiple parties work on different parts of the same project. Writing about academic research settings similar to crowdsourcing, he notes that inventions may derive from many institutions, research groups, outside contractors, and graduate students all working together, but not necessarily aware of each other. Figuring out who deserves inventor status, who does not, and even who worked on an invention can be difficult.

Of course, not everyone who works on an invention must be on the application. An "inventor" must contribute to the conception of the invention; merely working under the direction of an inventor is insufficient. Conception is the "touchstone of inventorship" (*Burroughs Wellcome Co v. Barr Laboratories, Inc.*, 1994, p. 1227). Each inventor "must contribute in some significant manner to the conception" (*BJ Services Company v. Halliburton Energy Services Inc.*, 2003, p. 1373). Accordingly, an inventor must add to the invention's core ideas.

Unfortunately, the line between co-inventor and worker is often unclear. As the Court of Appeals for the Federal Circuit wrote in *Burroughs Wellcome Co.* (1994), "inventorship cases tend to be highly fact-specific and seldom provide firm guidance on resolving future disputes" (p. 1227). Still, one can make several observations about potential crowdsourced inventions. If, for example, a crowdsourcer offers a reward for a solution to a problem without further direction, similar to InnoCentive, the person/team that answers that problem successfully would likely be inventors. Conversely, if a crowdsourcer directs the crowd to perform research tasks that help develop the concept for a patentable design, the workers likely would not be inventors. Finally, if multiple teams work to solve multiple problems that are then combined as claims on one patent, everyone who contributes to the conception of a claim would be an inventor who must be included on the application (Seymore, 2004; Sibley, 2008).

Crowdsourcing may be an attractive and effective way for companies to develop novel solutions to any number of problems. Crowdsourcers, however, must be aware of patent law before conducting such work or they risk losing control over their intellectual property.

DATA SECURITY

A third area where crowdsourcing and the law will likely intersect is in data security. Businesses today are increasingly sharing information about themselves with the crowd in order to strengthen research and development. Realizing crowdsourcing's potential for innovation, these companies may be tempted to disclose data about their customers/users to researchers to facilitate and stimulate these efforts and help drive the crowd's ingenuity. Indeed, both America Online (AOL) and Netflix attempted to do so (Barbaro & Zeller Jr., 2006; Ohm, 2010). However, as both found out, doing so risks violating data security regulations.

The FTC is the federal agency charged with protecting consumers from adverse acts committed by commercial entities. 15 U.S.C. § 45 (2011) gives the FTC power to prevent businesses from engaging in "unfair or deceptive acts or practices" that affect commerce. Recently, the FTC

has begun aggressively protecting consumers from data breaches by commercial entities, even scrutinizing the release of supposedly "anonymous" data. While crowdsourcing offers new opportunities for better analyzing and processing user data, businesses considering engaging in such crowdsourcing should tread carefully and stay informed to minimize risk of FTC data security regulations.

Even though this authority may not initially seem to include data security, since the 1990s the FTC has extended its power to scrutinize commercial entities that put their users' privacy at risk. Michael Scott (2008) details this development. The FTC first acted to protect online privacy was in 1999. In that case, the web hosting service Geocities disclosed its users' personal data to third parties who used that information for purposes that the users had not agreed to. The FTC found that Geocities acted improperly and needed to inform its users about data it collected, for what purpose, and to whom it would be disclosed.

Since the Geocities case, the FTC has further developed its power over data security. First, in 2005, the agency found that BJ's Wholesale Club violated the "unfair or deceptive practices" standard by failing to adequately protect its customer records from thieves. Shortly thereafter, the FTC filed a similar complaint against DSW when hackers broke into the company's database. The agency found that DSW failed to protect its customer's private data and thus violated the deceptive acts prohibition. Then, in 2006, the FTC extended its reach even further in a complaint against CardSystems Solutions (CSS). CSS provided businesses with products that authorized credit card transactions. The FTC found that CSS violated privacy regulations by failing to protect the personal information it collected by storing data in an unsecure format, failing to assess the vulnerability of its system, and not implementing strong protections against hackers (Scott, 2008).

What is more, the FTC also regulates how businesses treat supposedly anonymous user data. Recently, some companies have found that they can source innovative business ideas by sharing user information to the crowd. In 2006 AOL released data from 650,000 users and 20 million search queries to the information retrieval community for research. Before doing so, the company attempted to anonymize the data. A New York Times article, however, showed that one could still find the identities of individual users (Barbaro & Zeller Jr., 2006). In response, the Electronic Frontier Foundation (EFF) filed a complaint with the FTC, requesting it act against AOL (EFF, 2006). AOL ultimately fired the individual responsible and effectively shut down its research division (Ohm, 2010).

Later that year, Netflix released one hundred million anonymized user records as part of its "Netflix Prize" Contest. In this, the company offered one million dollars to the first team to significantly improve Netflix's recommendation algorithm. This contest was so successful the company decided to hold another one. However, two researchers discovered it was "surprisingly easy" for a malicious party to use Netflix's data, combined with a little other information, to find the identities of the users in the dataset (Narayanan and Shmatikov, 2008). Soon thereafter, a class action suit was filed against the company and the FTC entered the picture. Fearing legal troubles and agency pressure, Netflix cancelled its second contest (Ohm, 2010).

Maureen Ohlhausen (2011) writes that the FTC's views on data security have evolved from a "notice and choice" approach, where an online business would remain safe by adhering to its stated privacy promises, through a harms-based model, to today's hybrid approach. In 2010, the agency proposed a new framework for protecting consumer privacy, broadening its scope even further. Now it applies to all commercial entities that collect information from consumers, online or offline, whether they interact directly or indirectly with consumers (Ohlhausen, 2011). This includes "any data that can reasonably be linked to a specific consumer, computer, or other device" (Ohlhausen, 2011, p. 44). Instead of focusing on privacy promises, this model looks at company actions likely to cause physical or economic harm or intrude into the lives of their customers.

With such actions, the FTC has shown it is moving toward a broad approach on consumer data security. This may impact the crowdsourcing industry in at least two ways. First, online businesses that collect user data must both protect them and only use them in ways that their users consent to. Second, as AOL and Netflix examples show, while there may be benefits to using crowdsourcing to analyze user data, such disclosure can be create new data security problems, even if an honest attempt is made to anonymize customer records. Businesses interested in using the crowd in this manner should understand the FTC's stance on data security and weigh their actions carefully.

COPYRIGHT

Another legal area at issue is intellectual property ownership under copyright. Anyone considering crowdsourcing creative works should be aware of copyright implications bearing on control over rights to those works.

Crowdwork can support creative designs in several ways. Consider Crowdspring, whose platform provides a place where users searching for creative designs can connect with a crowd of artists who are looking to sell their works (Schenk and Guittard, 2010). In particular, Crowdspring advertises itself as a place where businesses can source things like company logos. Users can go on the site, provide general ideas for a design, and request proposals from the crowd. Artists then take the instructions, work out their ideas, and offer back potential designs from which the users can purchase their favorite ("Crowdspring").

Another example of crowdsourcing creative work is The Johnny Cash Project. Created by Chris Milk, The Johnny Cash Project is a collaborative art project that brings together contributions from many artists into a single work (Ehrlich, 2010). Anyone can register on the site and contribute a drawing to the project. These drawing are then combined to make a music video. Each person's work is part of the final artistic creation ("Johnny Cash Project").

These platforms raise two separate questions about copyright ownership. While Crowdspring implicates copyright's doctrine on works made for hire, the Johnny Cash Project raises issues about joint works/authorship. Fortunately for their users, both systems address these questions for them. However, a crowdsourcer who decides to act outside of these platforms might not realize the copyright issues involved and could easily lose control over the work that the crowd produces.

Copyright Basics

Similar to Patent law, Copyright law gives authors certain rights to protect their works from improper use. Instead of pertaining to useful inventions, however, copyright protects original creative works (17 U.S.C. § 102, 2011). Once a work is copyrighted, its author receives various rights, including the ability to stop unauthorized copying, distribution, and/or public display (17 U.S.C. § 106, 2011).

Obtaining a copyright today is quite easy. Works automatically receive copyrights if they are original and fixed in a tangible medium of expression. Authors must only contribute "a modicum of creativity" to a work for it to be to be original (*Feist Publications, Inc. v. Rural Telephone Service Co.*, 1991). A work is fixed when it is "sufficiently permanent or stable to be perceived, reproduced, or otherwise communicated for more than a transitory duration" (17 U.S.C. § 101, 2011). After creating the work, the author does not need to do anything else; a copyright is valid without registration.

Works Made For Hire

Typically creators own the copyrights to their works. They create their works, capture them in a tangible medium of expression, and the copyrights vests in their creators immediately thereafter (17 U.S.C. § 201, 2011). This changes, however, when a work is a "work made for hire." Under 17 U.S.C. § 101 (2011), works made for hire occur in two situations. First, works made by employees within the scope of their employment are works made for hire. Second, certain specially commissioned works are works made for hire if the parties agree to such in writing.

While a crowdsourced creative work could fit in the second category, systems like Crowdspring more immediately implicate the first: works made by employees. Once again, the issue turns on who is an employee. Stated simply: employees make works made for hire and their employers own those copyrights; non-employees do not make works made for hire and they own their own copyrights. Accordingly, a court must first determine if a person is an employee or not to understand copyright ownership.

Fortunately, the U.S. Supreme Court has provided guidance on who is an employee under Copyright law. In *Committee for Creative Non-Violence v. Reid* (1989), Committee for Creative Non-Violence (CCNV), hired Reid to design and build a sculpture. After hiring him, CCNV left him to work with only minimal interference. He submitted a few proposals that the CCNV considered and rejected, but he operated mostly on his own. Once Reid was finished, CCNV paid and took possession of the sculpture. Soon, however, they began to argue over how CCNV could use the sculpture. Reid asserted copyright over it, claiming that he owned the intellectual property as its creator and could control its use. CCNV, however, felt that it owned the intellectual property because Reid was its employee.

The Court rejected CCNV's claim and sided with Reid. It instructed lower courts to look at twelve factors when considering employment status under Copyright (*CCNV v. Reid*, pp. 751-752). While similar, these are distinct from the seven factors used by FLSA to determine employment status. The twelve factors are:

1. The hiring party's right to control how the product is accomplished;
2. Who owns the tools that the worker uses;
3. Where the work is done;
4. The duration of their relationship;
5. If the hiring person can give the worker more work;
6. If the worker can self-decide when and how to work;
7. The method of payment;
8. If the worker can hire assistants without employer;
9. Whether the employer is a business;
10. If there are employee benefits;
11. If the work is in regular business of the hiring party;
12. Tax treatment of the worker.

A detailed analysis of these factors and their treatment in subsequent cases is outside of the scope of this paper. Nevertheless, a few observations are useful. To paraphrase the Court in *Reid* (1989)*,* the question is whether a relationship resembles a conventional employer-employee relationship. Nearly every time courts have held workers to be en employees under this clause, the hiring party has participated directly in creating the work (Nimmer, 2011, § 5.03). Essentially, if something looks more like a regular work situation, with a hands-on employer actively directing the worker and involved in the work, then the worker will be an employee and his work will belong to the employer. If, as in Reid, an employer mostly leaves a worker alone to complete a single task while using his own tools, he will probably not be considered an employee and he will own the work himself. Moreover, while highly skilled workers are not insulated from being employees, the task here is to

weigh the factors against each other to determine the nature of the relationship between the hiring and working party.

If a worker is an employee under the copyright statute, the inquiry turns to the scope of employment. An employee who conducts work outside his scope of employment does not create a work made for hire. Courts addressing this prong usually consider three factors: 1. Is it the kind of work the employee was hired to perform; 2. Did it occur during authorized work hours; 3. Was it done, at least in part, to serve the employer (Nimmer, 2011).

Applying all these factors to a platform like Crowdspring, a crowdworker would likely not be considered an employee and would retrain copyright. Like Reid, crowddesigners work mostly independent of the employers, using their own equipment, for limited times, in their own spaces, and are paid by the project instead of hourly. Indeed, they may be even more independent than Reid himself was. Even though it seems likely that a contracted design would probably be within the worker's scope of employment, these designers would probably own the copyrights to their works absent a written agreement changing the relationship, because they would likely not be employees under copyright.

So, a small business that crowdsourced its company logo design but did not receive the copyright to the design from the creator would not have the right to reproduce, distribute, or publicly display copies of that logo. Crowdspring solves this problem for its users by providing a readymade contract for them. However, no one needs Crowdspring to crowdsource creative designs, and there may be reasons to forgo this platform. Indeed, such work could even be done on Mturk or without any specific platform. Yet, such crowdsourcers must account for the works made for hire doctrine or they could lose control over their designs.

Joint Works

Turning to the Johnny Cash Project example, another way that Copyright law can affect crowdsourcing is with the joint works doctrine. 17 U.S.C. § 101 (2011) defines a joint work as a work that is created by two or more people who intend their contributions to be merged into inseparable parts of a whole. To be a joint author, each person must contribute independently copyrightable parts to the finished product (*Gaiman v. McFarlane*, 2004). As mentioned, it is easy for something to be copyrightable. So, a putative joint author must only contribute something that is original and not in the public domain, and both authors must intend to end up with a copyrightable final product.

The joint works doctrine is significant for crowdsourced creative works because each author owns them in common. Consequently, all authors to a work have equal rights to control, sell, and profit from it if it is sold, or can sue to recover their share (*Davis v. Blige*, 2007). A collaborative project like the Johnny Cash Project clearly implicates joint works issues. Its explicit purpose is to join artists' works together into a single art project. So, there seems to be an expectation that the users are creating a copyrightable work together by contributing parts which will be combined into an inseparable whole. If those pieces are copyrightable, then each artist could be a joint author and each would have ownership rights over the work.

Once again, like Crowdspring, the Johnny Cash Project addresses copyright ownership issues for its users. However, the danger for future crowdsourcers comes from how easy it is to use crowdsourcing to develop joint creative projects without using an extant platform or model. The Sheep Market (www.thesheepmarket.com), for example, created an online mosaic of hand drawn sheep by sourcing drawings from Mturk. Moreover, Kittur, Smus, and Kraut (2011) have proposed new mechanisms to automatically divide and combine complex tasks like article writing to be crowdsourced better. Indeed, the internet allows almost anyone to tap into the crowd's creativity. Thus, anyone considering crowdsourcing a collaborative project must consider Copyright law before moving ahead or they could potentially lose sole control over their works.

CROWDFUNDING
A fifth legal area where crowdsourcing and the law may cross paths is with securities regulation. Crowdfunders not mindful of the law may run into federal rules on securities.

Beyond being a pool of available workers, the crowd may serve as a font of generosity that people can use to finance their projects. Jeff Howe (2008) writes that instead of using people's spare time, crowdfunding "taps their spare dollars, pounds, and pesos" (p. 247). Platforms like Kickstarter allow people with various projects from movies to gadgets to connect directly with those who may be interested in their ideas. Further, Kickstarter suggests that users offer special incentives to encourage donations ("Kickstarter").

Judging from the myriad of projects on Kickstarter and other similar platforms, crowdfunding appears to be both popular and effective. Once again, however, one might conduct crowdsourcing outside of established platforms. Indeed, anyone with a Twitter or Facebook account can solicit money from the crowd. However, this could quickly conflict with the law if done incorrectly. Consider an analogous case. In 2002, the SEC brought a complaint against Heritage Film Group et al. for raising more than $13 million from investors through the sale of unregistered securities. They offered ownership units of their production companies through telephone solicitations to fund several movies. In doing so, the SEC found they violated several securities laws (*SEC v. Heritage Film Group et al.,* 2002).

While the above situation used telephone solicitation, it is easy to imagine how a similar project could be done with the internet's power to contact the crowd. Suppose, instead of telephone solicitations, John Doe creates a Facebook account and decides to offer an ownership interest in a project to incentivize donations. Similar to the Heritage

Film Group case, this seems like an effective way to build interest and raise money. However, it implicates federal securities laws and might fall under the control of the SEC.

Investment Contracts

Two federal statutes lay the groundwork for U.S. securities regulation. The Securities Act of 1933 primarily deals with the distribution of securities, requires them to be government registered. The Securities Exchange Act of 1934, among other things, established the SEC, which still oversees and regulates U.S. securities today (Hazen, 2005).

To fall under SEC jurisdiction, something must qualify as a "security." 15 U.S.C. § 77b (2011) lists numerous financial instruments that are "securities," including: notes, stocks, bonds, evidence of indebtedness, and "investment contracts." Unless there is an exception, securities must be registered with the SEC, which has authority to regulate these instruments in several ways (Hazen, 2005).

The key question with crowdfunding is whether an offer constitutes an investment contract and thereby a security under the law. In 1946, the U.S. Supreme Court articulated a test for an investment contract. The Court held that it is: (1) An investment of money in a (2) common enterprise with (3) an expectation of profits (4) derived solely from the actions of others (*SEC v. W.J. Howey Co.,* 1946).

Hazen (2005) writes that this definition "depends not so much on what is actually being offered but how it is being offered, and what is being promised" (p. 28). Investor perception is key in whether something is a security or not. Courts will often look at how an investor understood a situation when considering whether something is a security. So, if an investor buys something from a broker, it is more likely to be a security than if it is sold by a nonprofessional.

Considering the hypothetical situation above, it is easy to see how this could run into federal Securities law. John Doe would be asking for monetary donations (an investment of money), pooling from multiple investors (probably a common enterprise), offering an expectation of profit, and investors need only give money. While a crowdfunder probably would not be a securities broker, this hypothetical still seems to run into securities law. Importantly, it reveals how easily a crowdfunder could have legal problems simply by offering the wrong incentives. Thus anyone considering crowdfunding must be aware of securities regulation.

The Future of Crowdfunding

The world of crowdfunding is in flux. On April 6, 2011, the chair of the SEC announced that the agency would consider changes to its regulations affecting crowdfunding, which could make it much easier to perform without fear of SEC interference (Shane, 2011). Unfortunately, it is not clear what the SEC will do. For now, anyone who is looking to the crowd to finance a project must be aware of the potential legal ramifications. Even if the regulation changes benefit crowdfunding, one should still monitor and stay abreast of SEC actions and evolving guidelines.

WHAT YOU CAN DO

The various scenarios we have discussed beg the question, what should someone who is considering crowdsourcing do? In short, do not panic! While lawyers may seem often to preach doom and gloom about possible legal consequences, our intent is to empower readers with basic information to better consider their actions and possible effects of them. We suggest at least three lessons below.

Be Mindful of the Law

The first lesson might seem obvious: be mindful of the law. With exciting new opportunities and technologies, one may naturally be tempted to rush in without worry, especially in virgin territories where no regulation is immediately apparent. For better and worse, however, the diverse scenarios we have considered show that legal regulation is everywhere. From employment to privacy, the law touches various dimensions of crowdsourcing. Furthermore, it is constantly evolving. While this may be obvious from the rapid development of securities regulations the FTC's approach to data security, it is also true throughout the law.

Legal challenges frequently fit old laws into new situations. As Felstiner (2009) argues, the FLSA, a statute from 1938, could apply to a method of business that was inconceivable when Congress created it. Moreover, it is possible that federal and state legislatures and agencies will create new laws and administrative rules to protect the growing crowd-workforce. Anyone interested in crowdsourcing should therefore consider the potential legal ramifications, weigh the costs and benefits, and proceed accordingly.

Use Contracts to Clearly Define Your Relationships

Our second lesson is to clearly define the relationship between employer and worker by contract before beginning any work. Patent law, for example, allows inventors to transfer their rights in a patent using written contracts (35 U.S.C. § 261, 2011). Seymore (2006) writes that schools frequently require professors and graduate students to sign contracts before they are hired that assign away their rights in their inventions. Furthermore, some courts have found that researchers have a duty to assign their work to their employers in some situations. Even though the workers may be inventors in both instances, they are not owners and cannot control the invention. Similarly, Copyright owners can transfer or license some or all of their rights to their works with written documents (17 U.S.C. § 201, 2011). So, employers can have a copyright transferred to them, even if it initially belongs to their worker. Finally, crowdfunders can clearly state when a transaction represents a donation rather than an investment, with no expectation of profits offered. This avoids any confusion up front.

Online entities commonly use "clickwrap" or "browserwrap" agreements to define their relationships

with their users. Anytime users click "I agree" or something similar to a list of terms before accessing a site, they bind themselves to the requirements therein. Clickwrap agreements are very popular, and most courts have held them to be valid contracts unless their terms are unconscionable (Davis, 2007). Indeed, all of the crowdsourcing systems discussed above require their users to accept such agreements before using the services. Of course, some things cannot be contracted away, like employment status under the FLSA or inventorship status. Some crowdsourcing agreements we have seen may not stand up in court. Still such contracts can help resolve many problems in advance and help to clarify the relationship boundaries between crowdsourcer and crowdworker.

Be Open and Honest

Our final suggestion is that crowdsourcers should always be open and honest about their expectations, work offered, and how they will treat the data they collect. As mentioned, the FTC has become increasingly aggressive in protecting data security. Accordingly, any crowdsourcing enterprise that collects and/or distributes user data must protect those data, as well as inform its users of what information it collects and how it will use that information.

More broadly, having clear expectations and policies might help crowdsourcers avoid legal conflicts in general. Consider *Reid* (1989) again. Reid and CCNV's legal dispute stemmed, in part, from their differing expectations. CCNV thought it rightfully owned the statue and could use it anyway it wanted. As the artist, however, Reid saw his creation differently. He would not allow CCNV to use it in ways that he did not intend. If the two parties had discussed these issues earlier, they may have been able to avoid litigation. Admittedly, communication cannot prevent all legal problems and it is impossible to predict every situation that may arise. Nevertheless, by being open, honest, and clearly stating their expectations, crowdsourcers can hopefully avoid legal troubles, and crowdworkers can understand their roles without false expectations.

CONCLUSION

As the crowdsourcing industry grows increasingly popular, it may face a variety of potential legal challenges. This paper introduces just five areas where legal regulation and crowdsourcing may intersect. First, under employment/labor laws, crowdsourcers may risk having crowdworkers deemed employees, potentially raising the costs of conducting crowdwork. Second, though crowdwork can help design patentable inventions, crowdsources must pay attention to the rules of inventorship or their patent could be unenforceable. Third, while the crowdsourcing may be a great way of analyzing supposedly anonymous user data, business may run into data security regulations as both AOL and Netflix did. Fourth, because of Copyright's ownership doctrines, crowdsourcers may lose solitary control over creative works unless they address the issues of works made for hire and joint works. Finally, while

Crowdfunding ventures are increasingly popular, misusing them can lead to problems with securities regulations.

Further issues will undoubtedly arise as crowdsourcing develops, moves into new areas, and impacts a greater number of people. Future work in this area may look to the open source industry for guidance. This similar, but distinct industry has already weathered some legal challenges which may be instructive for crowdsourcers. For now, however, we simply suggest you look before you leap to avoid the potential legal pitfalls of crowdsourcing.

REFERENCES

15 U.S.C. § 77b (2011).

17 U.S.C. § 101 (2011).

17 U.S.C. § 102 (2011).

17 U.S.C. § 106 (2011).

17 U.S.C. § 201 (2011).

35 U.S.C. § 116 (2011).

35 U.S.C. § 261 (2011).

Barbaro, M. & Zeller, T. Jr. (2006, August 9). A face is exposed for AOL searcher no. 4417749. *NY Times*.

BJ Services Company v. Halliburton Energy Services, Inc., 338 F.3d 1368 (Fed Cir. 2003).

Bureau of Labor Statistics. (2011). Employment situation summary. *Bureau of Labor Statistics*.

Burroughs Wellcome Co. v. Bar Laboratories, 40 F.3d 1223 (Fed. Cir. 1994).

Caraway, B. (2010). Online labour markets: an inquiry into oDesk providers. *Work organisations, labour and globalisation, 4*(2), 111-125.

Cherry, M.A. (2009). Working for (virtually) minimum wage: Applying the Fair Labor Standards Act in cyberspace. *Alabama Law Rev. 60*(5), 1077- 1110.

Community for Creative Non-Violence v. Reid, 490 U.S. 730 (1989).

Crowdspring – How it works. http://www.crowdspring.com/how-it-works.

Davis, N.J. (2007). Presumed assent: The judicial acceptance of clickwrap. *Berkeley Technology Law Journal, 22*, 557-598.

Davis v. Blige, 505 F.3d 90 (2nd Cir. 2007).

Department of Labor. (2009). Employment law guide – minimum wage and overtime pay. *United States Department of Labor.*

Dow, S.P., & Kelmmer, S.R. (2011). Shepherding the crowd: an approach to more creative work. *CHI.*

Electronic Frontier Foundation. (2006). EFF demands FTC investigation and privacy reform after AOL data release. *EFF.org.*

Ehrlich, B. (2010). Crowd-sourced Johnny Cash music video is a work of digital art. *Mashable.*

Feist Publications, Inc. v. Rural Telephone Service Co., 499 U.S. 340 (1991).

Felstiner, A. (2010). Working the crowd: employment and labor law in the crowdsourcing industry. *SSRN.*

Frei. B. (2009). Paid crowdsourcing: current state & progress toward mainstream business use. *Smartsheet.com.*

Gaiman v. McFarlane, 360 F.3d 644 (7th Cir. 2004).

Hazen, T.L. (2005). *Principles of securities regulation.* St. Paul, MN: Thomson/West.

Howe, J. (2006). *Crowdsouring: a definition.* http://crowdsourcing.typepad.com/cs/2006/06/crowdsourcing_a.html. Retrieved July 14, 2011.

Howe, J. (2008). *Crowdsourcing: Why the power of the crowd is driving the future of business.* New York: Crowd Business.

InnoCentive – FAQ. www.innocentive.com/faq/Seeker.

Ipeirotis, Panagiotis G. Analyzing the Amazon Mechanical Turk Marketplace. *XRDS 17*(2), 16-21.

Kickstarter – FAQ. www.kickstarter.com/help/faq.

Kittur, A., Smus, B. Kraut R. E. (2011). CrowdForge: Crowdsourcing Complex Work. *CHI 2011.*

Mueller, J. M. (2006). *An Introduction to Patent Law.* (2nd ed.). New York: Aspen Publishers.

Narayanan, A. & Shmatikov, V. (2008). Robust de-anonymization of large sparse datasets. IEEE Symposium on Security and Privacy, pp. 111-125.

Newport, F., & Muller, G. (2011). In U.S., underemployment lowest in North Dakota, Wyoming. Retrieved May 8, 2011, from http://www.gallup.com/poll/146486/Underemployment-Lowest-North-Dakota-Wyoming.aspx.

Nimmer, M. B. & Nimmer, D. (2011). *Nimmer on Copyright.* New York: M. Bender.

oDesk – How it works. www.odesk.com/w/odesk_story.

Ohlhausen, M. K. (2011). The FTC's new privacy framework. *Antitrust, 25*, 43-46.

Ohm, P. (2010). Broken promises of privacy: Responding to the surprising failure of anonymization. *UCLA Law Review, 57*, 1701-1777.

Ross, J., Irani, I., Silberman, M., Zaldivar, A., & Tomlinson, B. (2010). Who are the crowdworkers?: Shifting demographics in Amazon Mechanical Turk. *CHI*, 2863-2872.

Schenk, E., & Guittard, C. (2009). Crowdsourcing: what can be outsourced to the crowd, & why? *Hal-Shs.*

Scott, M.D. (2008). The FTC, the unfairness doctrine, and data security breach litigation: Has the commission gone too far? *Administrative Law Review, 60*, 127.

SEC v. W.J. Howey Co., 328 U.S. 293 (1946).

SEC v. Heritage Film Group, Complaint 17658 (2002).

Seymore, S.B. (2006). My patent, your patent, or our patent? Inventorship disputes within academic research groups. *Albany Law Journal of Science & Technology, 16*(1), 125-167.

Shane, S. (2011, May 3). Let the crowd buy equity in private companies. *BusinessWeek: Small Bus.*

Shibley, A. J. & Sparks, R. L. (2008). The difficulty of determining joint inventorship, especially with regard to novel chemical compounds and their applications. *Loyola Law and Tech. Ann, 8*, 44-62.

Smith, P. R., Hodges, A. C., Stabile, S. J. & Gely, R. (2009). *Principles of employment law.* West.

Surowicki, J. (2005). *Wisdom of the crowds.* New York: Anchor Books.

The Johnny Cash Project. www.thejohnnycashproject.com.

United States Department of Labor. (2009). Employment law guide – minimum wage and overtime pay. *United States Department of Labor.*

Wishner, C.L. (1994). Whose work is it anyway: Revisiting Community for Creative Non-Violence v. Reid in defining the employer-employee relationship under the work made for hire doctrine. *Hofstra Labor Law Journal, 12*, 393.