

PROPERTY

I

Derek Evans used to work for a small computer firm that specializes in developing software for management tasks. Derek was a primary contributor in designing an innovative software system for customer services. This software system is essentially the "lifeblood" of the firm. The small computer firm never asked Derek to sign an agreement that software designed during his employment there becomes the property of the company. However, his new employer did.

Derek is now working for a much larger computer firm. Derek's job is in the customer service area, and he spends most of his time on the telephone talking with customers having systems problems. This requires him to cross reference large amounts of information. It now occurs to him that by making a few minor alterations in the innovative software system he helped design at the small computer firm the task of cross referencing can be greatly simplified.

On Friday Derek decides he will come in early Monday morning to make the adaptation. However, on Saturday evening he attends a party with two of his old friends, you and Horace Jones. Since it has been some time since you have seen each other, you spend some time discussing what you have been doing recently. Derek mentions his plan to adapt the software system on Monday. Horace asks, "Isn't that unethical? That system is really the property of your previous employer." "But," Derek replies, "I'm just trying to make my work more efficient. I'm not selling the system to anyone, or anything like that. It's just for my use -- and, after all, I did help design it. Besides, it's not exactly the same system -- I've made a few changes." What follows is a discussion among the three of you. What is your contribution?

II

Derek installs the software Monday morning. Soon everyone is impressed with his efficiency. Others are asking about the "secret" of his success. Derek begins to realize that the software system might well have company-wide adaptability. This does not go unnoticed by his superiors. So, he is offered an opportunity to introduce the system in other parts of the company.

Now Derek recalls the conversation at the party, and he begins to wonder if Horace was right after all. He suggests that his previous employer be contacted and that the more extended use of the software system be negotiated with the small computer firm. This move is firmly resisted by his superiors, who insist that the software system is now the property of the larger firm. Derek balks at the idea of going ahead without talking with the smaller firm. If Derek doesn't want the new job, they reply, someone else can be invited to do it; in any case, the adaptation will be made.

What should Derek do now?

III

Suppose Horace Jones is friends with people who work at the smaller computer firm. Should he tell them about Derek's use of the software system?

COMMENTARIES

Neil R. Luebke

The general problem area raised by this case is ownership and use of technical knowledge. One question might be phrased, "What is the right of the individual engineer to specific items of technical knowledge which he/she came to possess because of and while in the employ of a firm?" However, there are additional, more broadly ranging, questions such as, "How, through communicating or (mis)using technical knowledge gained in a previous employment, might an engineer cause a current employer considerable trouble and expense?" and "To what extent is an engineer responsible for the firm's use of his/her technical knowledge?" Particular cases dealing with intellectual property, as in the present instance, are often complicated by a number of legal considerations. In any event, Derek would be well-advised to seek the counsel of his firm's lawyers before proceeding and to urge his superiors to do the same.

There are at least two major gaps in the case description that must be filled before concrete, detailed advice could be given to Derek. One is the matter of ownership, and the particular type of ownership, of the innovative software system. The other is whether Derek's new firm has a license to use the original software system. Regarding the first, the case description does not explicitly state^{3/4}but strongly suggests^{3/4}that the software system belongs to Derek's former firm. It is said to be the commercial "Lifeblood" of the firm, Derek and other developed it while employed by the firm (presumably as part of their jobs), and Horace's remark "That system is really the property of your previous employer" is not challenged but apparently accepted by Derek. The fact that Derek did not sign an explicit agreement with his former employer may be immaterial. The former employer might have a company policy governing ownership. [My university has a detailed policy governing the ownership of patents and copyrights developed by university employees. No employee "signs" the policy and it went into effect, valid from its adoption date, years after I first joined the university faculty.] Then, too, there are legal precedents regarding design work done by employees while under hire to do such work. Derek's assumption that his helping to design the system gives him some sort of "right" to use it or change it may be dangerously flawed. It is remotely possible that Derek had and retains some sort of ownership right in the system, but there is nothing positive in the case description to suggest so.

There is also the question of Derek's current firm's license to use the software system, for they obviously do not own the original version. The case description suggests that the current firm has not purchased a license to use the original system, but wants Derek to replicate the whole system, with a few modifications, for extensive company use and (claimed) ownership. Such a move would seem to be a violation of copyright by the firm. It is not clear that Derek himself has a license to use the system^{3/4}he may be "pirating" it. There are situations in which a company buys a license to use a software system and, as part of the purchase, also buys access to and use of the "source code" for the system, legally permitting the company to modify the system for its own needs. If this were the case^{3/4}but there is nothing of the sort stated or implied in the description^{3/4}there would be no problem in introducing the modification and the firm is fortunate to have a person with Derek's experience. (There may still be a problem with "owning" the modified system.) More commonly, the license to use a system prohibits the licensee from modifying the system (which would at least void the warranty) or distributing it to other parties; the software supplier retains the right to service, updates, or otherwise control modifications in the system. The user's rights and their limits are usually spelled out in legal detail in the purchase agreement and warranty.

As both Derek and his new employers could be exposed to a major lawsuit, Derek should insist that his superiors obtain legal counsel before the situation develops further. Derek may already be guilty of using proprietary information.

[Perhaps a few background remarks are in order here concerning the topics of patents and copyrights, trade secrets, and agreements that might be signed regarding maintenance of confidentiality or other intellectual property rights. The United States Constitution, Article I, Section 8, Clause 8. There the Constitution provides that "Congress shall have the power . . . to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." The United States was one of the first countries to develop a patent and copyright system. Since the country was founded at the beginning of the modern industrial revolution, there was a concern on the part of the Constitution writers that creative individuals be protected and encouraged in their efforts to develop inventions or to produce artistically. The federal Patent Act grants a limited monopoly to a patent-holding inventor that gives him a 17-year right to exclude others from using, making, or selling his invention in the United States. Once a patent is applied for, it becomes a form of personal property; it may be bought, sold, traded, leased, licensed for the use of others, and so on. Not every invention is patentable; it has to meet certain standards, usually standards of novelty, utility, inventiveness, and what is sometimes called subject matter, that is, there are certain things which cannot be patented, such as mathematical formulas or managerial techniques, whereas other things^{3/4}such as actual devices, designs for processes, and chemical formulas^{3/4}may be patented. A copyright is similar to a patent in that it grants an exclusive right to the holder to publish, sell, etc., plays, music, textbooks, photographs, and other such material. The extent of protection is usually for longer for a copyright than for a patent. To infringe a copyright or to manufacture illegally, say, a patented device would be grounds for a lawsuit by the owner of the patent or the copyright against those who violated the right.

There is another category of protected information usually called "confidential information," "proprietary information," or more commonly "trade secrets." For a variety of reasons, companies may prefer to use the trade secret route to protect information, designs, formulas, and possibly even computer programs developed within their firms. One reason is the expense associated with patenting. Another reason has to do with the fact that a patented or copyrighted item becomes a matter of public record and hence is publicly accessible. While at the time of this writing there is no national trade secret law, there are a number of statutes on the books of various states and a large number of court decisions protecting the rights of a firm to maintain its own trade secrets. Companies have successfully sued each other for trade secret theft. (Surely they were never parties in signing any ownership agreement!) One process by which trade secret theft sometimes occurs is the hiring of an employee from another firm and then putting that employee in a position to use specialized knowledge obtained from the previous firm. A trade secret can be any specific piece of information^{3/4}a list of customers, a mathematical formula, a chemical formula, a process design, and so on^{3/4}that gives the company holding it a competitive advantage in the marketplace and has been identified or treated by the company as confidential. Generalized skills that an employee may pick up on the job, such as a skill in using certain programming techniques or a skill in the conducting some type of chemical analysis, would not be regarded as trade secrets but rather as general knowledge that becomes part of the employee's overall ability.

In order to help the company in protecting trade secrets (an activity that is extremely important in more technological firms) as well as in alerting employees to policies governing patents and copyrights, employees are often requested to read and sign an employment agreement. These agreements explain the company's policy regarding patents, copyrights, and trade secrets and usually call attention to the employee's obligation to continue to maintain confidentiality indefinitely, not just during the time of employments with the company.]

Let us suppose that the company, at Derek's insistence, does carry out negotiations with the smaller company producing the original software. Derek's ethical commitments to his previous and his current employers would not be violated. He will have kept faith with his previous employer, and he cannot be charged with knowingly

doing anything to damage his current employer. His current firm may be able to work out some kind of relationship with the previous employer and possibly even come to a business arrangement for the marketing of the adaptation for even more commercial profit.

On the other hand, let us suppose that the company does not talk with the supplier of the software and insists on going ahead with or without Derek in making the adaptations company-wide. Let us also suppose, as is likely to be the case, that at least someone in Derek's previous company finds out about the new use of the software system. Derek's new employer, as well as possibly Derek himself, could be confronted by a lawsuit having to do with the infringement of copyright. Even if the lawsuit is not successful, the legal action could prove costly for Derek's employer. It certainly might besmirch his reputation, both within the company and outside of it. Derek should at least do what he can to urge his superiors to seek legal advice in this matter. His professional responsibilities to his current employer as well as to his previous employer would call for no less. If his superiors are too pig-headed to seek and listen to legal counsel on this matter, Derek would probably be better off working for a more enlightened firm^{3/4}at least one that would not ask him to act illegally.

John B. Dilworth

This is one of the few cases where the specific legal provisions governing the matters at issue are of primary importance in clarifying and resolving the problems. In the case of software, some basic points about copyright law, and some related matters concerning software licensing, are vital to understanding the case, and to distinguishing it from other cases of ownership or rights as they apply to employees. Therefore these legal provisions will be spelled out as an integral part of this commentary.

1. Copyright in software is treated under current U.S. law as being essentially similar to copyright in any literary or creative work. In all these cases, one acquires initial ownership of the copyright simply by being the author of the work in question. (Several persons may jointly author a work and so jointly hold copyright to it.) The government (through the Copyright Office, Library of Congress) does provide a Registration of Copyright mechanism. This does not create ownership, but instead officially acknowledges that it already exists. Typically one submits a manuscript, whether of a novel, movie script or source code for a program, as evidence of one's authorship/copyright.

Authorship as discussed above is subject to the following important qualification. The author of a work might prepare it as a "Work Made for Hire" (defined as a work prepared by an employee within the scope of his/her employment), and explicitly state this on the Copyright Registration form. In this case, the copyright statute provides that the employer rather than the employee is considered as the author (and hence as the copyright holder). However, it is important to note that, in the absence of any such explicit acknowledgement by an author that the work was "Made for Hire", the normal assumption would be that the actual author/s hold copyright to the work, unless other substantive evidence could be produced to prove that it was "Work Made for Hire".

In the current case, we are explicitly told that Derek was never asked by the small computer firm to sign an agreement that software designed during his employment there becomes the property of the company. If he signed no such agreement, nor (as we may consequently assume) specified that his work was a "Work Made for Hire" in any copyright registration application, then legally he would have a strong presumptive case that he was (and still is) the copyright owner of the software in question. (The possible complication that he was the primary, but not the only, contributor to the software will be considered later.)

It might be objected that in most cases of employer-employee relations, if one works for someone then they own

the products of one's labor. This is broadly true, but creative works falling under the copyright laws work differently. A familiar example in higher education is the fact that professors retain copyright in their books or papers even if they were hired to carry out such creative research.

In the present case, the fact that Derek was indeed working for a computer firm while preparing the program etc. is not sufficient to establish copyright ownership by the firm. For in the case of software copyrights, there are other rights or permissions to use the software which the firm will have acquired as a result of Derek's activities, which are fully adequate for their business purposes and which justify their hiring and compensating of Derek for his work. They get broadly what they want, but it is rights and permissions to use the software which they get, rather than ownership of it. (Recall that they could have had ownership too, but neglected or elected not to take the necessary legal steps to secure it.) Here is a brief discussion of rights and licensing in relation to copyright, to help clarify these matters.

2. Everyone is familiar to some degree with literary and movie rights, for example that a producer may have to pay a novelist a large sum to get the movie rights to a book. These rights give the movie producer the right to produce a film version of the novel, but do not in any way transfer the copyright (or ownership) of the novel to the producer. Similar considerations apply to software too: acquiring the right to make certain uses of software does not transfer its ownership. Derek's firm acquired rights to use his software system for customer services in virtue of his being employed by them to produce the software, but the firm does not thereby acquire property rights in the software.

More distant still from ownership considerations are issues about licensing. Almost all actual software contracts involve some kind of software licensing, in which the copyright owner gives permission to one or more licensees to make certain kinds of use of the software. Though an exclusive license is possible, most licenses are of a non-exclusive kind, so that many different licensees could make similar uses of the software without violation of their contracts. Clearly in such cases there is no question of any transference of ownership in the legal arrangements.

3. In the present case we are given no specific information about what rights or licensing arrangements were in force between Derek and his original small computer firm, but these can be reasonably inferred from the conduct of the parties. Minimally his firm needed from Derek a perpetual, non-exclusive licence to use and modify his source code for the software. Then they could use the software indefinitely, and modify it at any time in the future as changes became desirable. However, unless there was a written contract in existence (signed by the firm and Derek) in which Derek granted the firm an exclusive license to use the software, Derek is free at any time to license the same software (whether or not he chooses to make changes in it) to anyone else, and under any terms he wishes.

The implications for the present case are clear. Derek as the copyright holder can use or modify his software for use in his new larger computer firm in any way he pleases, with or without discussing it with his former employer. What is more, his new employer cannot claim ownership of the software, because it was developed prior to Derek's current employment rather than as part of his current design work.

However, Derek would certainly be wise to come to some explicit agreement with his new firm about how he would allow them to use the software. In effect, the new firm wants Derek to produce a customized version of the software for them, and he could agree to do this as part of his regular compensation, while also negotiating a monthly or yearly licensing fee in return for granting them appropriate rights to use the software. Or to simplify things, Derek might be tempted to sell them the package outright for a suitable compensation, in which case there would be an actual transference of ownership of the package.

4. We are told that Derek was a "primary contributor" in the original development of the software. This suggests the possibility that he may jointly hold the copyright to the software with one or more other designers. How would this affect the case? Generally, joint ownership allows each owner to exercise all rights of ownership, except for those whose exercise would materially affect the rights of the remaining owners. (Commonplace examples include such matters as joint ownership of a home or bank account.) In the present case, this means that Derek is free to grant non-exclusive licenses to use the software to anyone (but not to everyone), since other joint owners would not be thereby prevented from exercising similar rights. On the other hand, Derek should refrain from attempting to grant an exclusive license, or from attempting to sell the software outright, because both of these actions would materially affect the interests of any other joint owners.

Does Derek have any moral obligation to contact his former employer, or his co-workers there, before exercising his legal rights as detailed above? First, it is prudent for anyone in business to stay on good terms with both present and former associates. In the interests both of common courtesy and of safeguarding his own career, Derek would be well advised to explain his actions and his view of the case to anyone who might otherwise resent or be annoyed by them, including his former associates and friends.

Second, if there are indeed co-authors from his previous firm whom Derek could contact, he should do so. A basic principle of legal ethics, assumed in contract law, is that parties who enter into a contract or agreement are thereby obligated to make a good-faith effort to carry out the terms of the contract, both explicit and implicit. Co-authorship, as with other forms of joint ownership, could appropriately be viewed as requiring that one should keep co-authors informed of one's actions with respect to the joint property, even if this is not explicitly spelled out in a written agreement between the co-authors.

Joseph Ellin

I

This is a debate over who owns a software system, the company or the designer. Horace says the system is 'really' the property of the company, but Derek, the designer, claims to possess certain property rights in it. My contribution to the ensuing discussion would be to say: "Gentlemen. Questions of property are determined by law, not philosophy. It is true that some philosophers, such as Locke and Nozick, think there's such a thing as property apart from law; but this opinion is untenable, as no rational criteria can be provided by which 'natural' property can be determined. (For instance, Locke says that I own anything with which I 'mix my labor'; but what is that? If I build a fence around a forest, does that mean I own the entire forest? Or only the land under the fence? Or the fence itself and nothing else? And if I own the fence, do you have a right to climb over the fence to get into the forest?) Whether the system is or is not the property of the previous employer depends on what the law says. It's not a moral question whether Derek or his prior employer have legal control over the work Derek did there. This may or may not depend on any agreement Derek signed, or didn't sign. So Derek should consult his, or the company's, lawyer and determine what his rights are.

Derek's arguments are feeble rationalizations for his desire to fiddle with the software he invented. He'd be more honest to say, 'Look, if I had signed my rights away, my hands would be tied. But I never did, and the previous company didn't seem to care. So now I'm free as a bird to do what I want with this system. That's my understanding of my legal rights, and I intend to exercise them fully. If I'm wrong, they can sue me.'"

II

As the case develops, things go farther than intended and now Derek's new employer not only wants him to make greater use of the software system than he initially thought would be right, but claim to own it themselves. Derek has gotten himself into a moral pickle and he wants someone to rescue him from it. He signed an agreement with his new company that his work belongs to them. He then revised the work he did for the first company, half-thinking that he really shouldn't; and now he regrets that the new company claims that the whole thing is theirs! It's really too late for him to conclude that the old company is being treated badly, since he's the one who made it happen. The only remedy here is for the first company to sue the new employer and have the court determine the legal property rights.

III

Should Horace, Derek's friend, tell the old company that Derek is using the software? Why not? There are no secrets involved in this, unless Horace is under a pledge of confidentiality, which wasn't stated. The smaller company needs to know that their systems are at risk unless they secure legal title to them; it's surprising that they have never been told this before by their lawyers! (Maybe they need new lawyers).

Michael S. Pritchard

It might seem that this case is basically about law rather than ethics. Clearly it does raise a number of legal questions. However, there is a strong ethical dimension as well. Derek's desire to adapt the software program to his new job circumstances seems innocent enough. But the fact that his new employer required him to sign a software agreement that what he designs becomes company property should have alerted him to a potential problem. Although Derek did not sign a similar agreement with his previous employer, this does not conclusively settle the question of ownership. Others were involved in the initial design.

At the very least, Derek should have inquired about the ownership matter prior to adapting the software to his purposes. This would not only protect his current employer from a potential law suit (should the previous employer choose to sue), it would also evidence respect for the interests of his previous associates. Carelessly placing one's employer at legal risk is both an ethical and a legal concern. Indifference to the interests of his previous associates is an ethical concern, unless we can assume that Derek is estranged from them (and even if he is, there might have been an implicit understanding about the disposition of the software). After all, Derek is very possibly legally entangling the "lifeline" of his previous employer, given his current employer's apparent desire to claim ownership of its employees' software designs.

It might be objected that Derek did not know that his new employer would use all means at its disposal to adapt the software system throughout the company. True, but his having to sign an ownership agreement should have put him on alert.

It seems clear from the case that Derek bore no special animosity against his previous employer and associates. Now, to his regret, he has become involved in a legal and ethical quagmire. Perhaps a careful investigation of law can clarify the legal rights involved in this case, but the ethical concerns cannot be handled so readily. So, I conclude that Derek should have proceeded with greater caution, heeding the concerns of Horace. A call to his previous employer before adapting the system might have avoided these problems.