



Intellectual Property and the Employee Engineer

by Orin E. Laney

IEEE-USA E-BOOKS

**Intellectual Property
and the Employee Engineer**

By Orin E. Laney MSEE, MBA, P.E., NCE

I dedicate this work to the entrepreneurs and innovators
who use their ideas to start new companies,
or entirely new industries--
thereby keeping everyone else employed.

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Intent of the Guide

The purpose of this guide is to familiarize readers with personal intellectual property rights, and the associated issues that arise during employment. A brief intellectual property tutorial is included, but this work does not address inventing and authoring, in and of themselves. Although there are already many volumes on those topics, few address the intellectual property rights of employed individuals.

Most engineers and scientists employed in design, research, or other capacities that depend on creativity will benefit from this material. Artists, videographers, performers, and others in the wider creative community will also find useful content. Employees in countries other than the United States may also benefit, but should research the laws of their own nations, which are not considered here.

~Orin E. Laney

A Brief Primer on Intellectual Property

In the most general sense, "intellectual property" (IP) refers to intangible, or incorporeal property, such as detailed knowledge of a manufacturing process, a good story embodied in a novel, or a trade name. Although the abstract concept of intellectual property embraces many forms, the law restricts itself to commercially important categories. In fact, many intellectual property lawyers would argue that legislation defines the only kinds that exist. They base this viewpoint on legal, rather than philosophical definitions of property.

Four legislatively defined types of IP are important here, namely patents, copyrights, trademarks and trade secrets. Each has its own universe of terminology and case law. There are also mask works that protect semiconductor designs, protection for vessel hulls, certain post-sale rights for visual art, and other legal rights not germane to this discussion.

The law includes mechanisms to protect, sell, and inherit intellectual property, much as for real property. Because there is no physical property to possess, what one may purchase or inherit is title to the property, and includes a legal right to exclude others from exploiting the IP rights. For instance, patent infringement is analogous to trespassing on real estate.

In the United States, Article 1, Section 8, of our Constitution established federal authority over intellectual property. It simply states: "The 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..."

Consistent interpretation by the courts has made one point abundantly clear: Granting a patent or copyright has no basis in any theory of moral rights. Congress can implement any legally consistent compromise it deems adequate to satisfy the constitutional objective. The actual approach is a cold tradeoff between society's desire for books, songs, inventions, etc.; and the general, though not universal unwillingness of authors, composers and inventors, to provide these free.

Courts and legislators are pragmatic about the sorts of things they can control. Thus, as a general principle intellectual property law does not concern itself with ownership of mere thought. A consistent feature of the four legislatively defined categories is that each requires some form of embodiment or demonstration to gain status as a legally protectable entity.

For instance, one must first actually write a novel, or at least dictate it onto an audio recording, to gain copyright status. Copyright does not apply to a good tale merely carried about in one's head.

Likewise, an employer must protect a trade secret, by restricting it to appropriate personnel, and other demonstrable measures. It is not just any confidential knowledge of an employer.

In addition, trademarks are granted for identifiers in active commercial use, and cannot be issued for mere ideas stored for speculative future use.

Patents are only granted for inventions (machines, manufactured articles, processes, or compositions of matter) described in sufficiently concrete terms--that anyone "skilled in the art" could "practice" the invention--not for speculation about what an inventor could, or might, create.

Employment in the Context of Intellectual Property Law

The United States achieved technological preeminence on the strength of its entrepreneurial tradition. However, the ability of entrepreneurs to pioneer new industries depends heavily on the existence and fair application of intellectual property laws. These laws protect the profit incentive for inventors, artists and authors to make the fruits of their efforts available to the public.

The relationship between intellectual property law and the arts and sciences is intrinsic. Laws surround anything of commercial value to define and protect the contents. Intellectual property law, as the name suggests, is oriented toward the fruits of the mind.

Scientists discover new ideas, materials and processes that engineers draw upon for their work. Engineering embraces technical arts that yield practical benefits for the human race, such as safe bridges, new chemical processes, better television and radio systems, and faster and quieter aircraft.

Engineers are the closest thing society has to professional inventors. They are prolific creators of intellectual property, by the very nature of their work. Artists, songwriters, actors and others are likewise prolific intellectual property creators--in the creative arts.

Intellectual property law is carefully applied to the value created by employee efforts. Every schematic produced; each piece of software code; and every drawing, diagram and prototype has intellectual property rights attached, upon creation. These rights are the legal essence of such creations, for if a software file or prototype is lost, then one can always

obtain another. However, if the legal rights are lost, the file or prototype may be worthless, even if securely in hand.

Thus, it is not surprising that employers carefully guard the economic value their employees create. Just as manufacturing employees cannot stuff their pockets with products to keep at the end of the day, IP laws restrict creative employees in their use of knowledge and creativity; for instance, they cannot legally give confidential information to competitors.

There are certain well-established principles of common law called "shop rights." The legal doctrine of shop rights reached its greatest expression during the industrial revolution of the 19th century. Even in the complete absence of any formal agreement between a creative employee and employer, courts will generally hold that:

1. Confidential information, inventions, and other creations made during the course of employment, as a normal part of job duties, are employer property.
2. Rights to inventions or creations, made by an employee at home, using personal time and materials, will generally remain with the employee--even if they are work-related (absent fraud, or other special circumstances).
3. Inventions or other creations that involve nontrivial use of employer time, funds, or materials--but are not related to work duties, may still belong to the employee. However, the employer normally gains a limited right (shop right) to exploit the creation, without payment of royalties, or other compensation.

Shop rights are not adequate for the needs of many modern businesses. For instance, there is no common law barrier against an employee creating job-related inventions at home with personal funds, and selling them to any taker.

Pre-Assignment Agreements

Consequently, employers often override the limited protections of common law, through use of intellectual property pre-assignment clauses inserted into employment agreements. This type of clause expressly specifies that all employee created designs, inventions, graphic art, photographs, software, written material, spreadsheets, business plans, and other employee-created, work-related, intellectual property made during the term of employment (and sometimes beyond) belongs to the employer--regardless of where or how it was created.

The term "pre-assignment" refers to the fact that employees normally sign these agreements as employment begins--before they have performed any work. Accepting such agreements is a nearly universal requirement of employment for creative individuals, particularly for engineers, research scientists, and others hired primarily to design, create, invent, or discover.

Often, we see the word "invention" and think of patents. However, the word "invention" in a pre-assignment agreement is a specific legal term, with much wider reach than the rare and special case of patentable inventions. It includes the unpatentable, the ordinary, the mundane, and the trivial. This point needs to be absolutely clear. An intellectual property clause's express purpose is to ensure that *all* intellectual property generated, in the course of the employer's business, is clearly understood to belong to the employer.

Implications of Agreement Terms

Of course, creative employees do not turn off their minds, when they leave the company parking lot. They continue to think, and even dream about their work, and often pursue related hobbies or side projects, on their own time. To some extent, this pursuit happens during working hours as well, because that is when suppliers and other resources are open for business.

What are the implications for intellectual property rights for personally conceived and funded creations? Will you need to disclose them? Can the company claim them? Will you need permission to work on them? Can you use them to start a business? What about a business that competes with the current employer? Or a former employer?

An employer's right and duty obtain adequate protection is indisputable. Modern businesses could not survive without adequate legal protection. However, it is imperative for creative employees to understand the scope and implications of the covenants they agree to. The importance is deeper than the ordinary duty of any citizen to understand the documents they are signing. An employment agreement is not like an appliance warranty -- it defines the terms of earning one's livelihood.

In most states, the only constraints on what an agreement can attempt to claim are the outer boundaries of what courts are willing to enforce. Given that private corporate counsel drafts most such agreements; and the agreements are not the result of open negotiation with any prospective employee, it is not surprising that the scope of the employer's claim is generally made as large as possible.

One-sided, overreaching agreements might never be an issue for a hypothetical employee—one who is never creative outside of working hours and never leaves employment to work elsewhere. However, creative professions enjoy high job mobility, are prolific new business starters, often have hobbies related to their field, and often moonlight and consult on the side. The creative orientation sometimes fosters a disdain for legal formalities, leading many to forget the contents, and even the location, of documents signed at the start of employment.

Experience proves that unquestioning acceptance of assignment agreements is a trap for the unwary. Innovative employees will do well to remember that unlike common law, pre-assignment agreements typically require:

- (1) That all inventions, patentable or not, or other discoveries, creations, or innovations, regardless of any relation (or lack thereof) to the employee's job responsibilities, be promptly disclosed in writing to the corporate counsel
- (2) That the company shall be the sole arbiter of whether said invention or discovery falls within the scope of the agreement
- (3) When the employer claims such property, the employee must assist in securing the intellectual property rights, without additional compensation. This duty might extend beyond employment termination, especially when agreements include a "trailing clause" that continues to claim job-related creativity, beyond the end of employment.

Clearly, the terms of an overreaching assignment agreement can greatly affect an individual, when an employer, or former employer, challenges the

rights to creative work. The agreement can be a tool to quash new businesses, or to prevent you from taking a job with a competitor.

Such an agreement can allow the company to claim what an employee thinks is merely hobby work, done at home, using personal funds, if it relates to the employer's business interests. Unless they provide for the contrary, the company can assert a claim, sans reimbursement, or other compensation.

The Legislative Response

Tremendous variations exist between assignment agreements, depending on the needs of the business, and the drafting attorney's skill. However, in general, two broad philosophies are in use. What we here term the *Massachusetts Model*, is so-called, because it is prevalent in the Northeastern United States, where it was developed during the industrial revolution, as a response to the shop rights doctrine. Agreements written on this model tend to imply that every sentient thought of the employee is company property.

If big companies grow from little companies, individuals who leave big companies often start little companies. This innovation and renewal cycle is fundamental to a healthy market economy. To foster this cycle, individuals need the same protections for non-work-related intellectual property that employers enjoy for work-related creations.

In 1977, Minnesota formalized this concept with a law that limits the enforceable terms of pre-assignment agreements. The *Minnesota Model* adopts the philosophy that while the employer should enjoy protection, it should not be at the expense of the ability of today's employees to become

tomorrow's new employers. In 1980, the State of California implemented similar protections for its famous entrepreneurial culture.

As of this writing, Utah, Washington, North Carolina, Kansas, Delaware and Illinois have also promoted new business formation, by means of similar laws (see Appendix B). Significantly, individuals have achieved the benefits of these laws, without discernable adverse effects upon employers.

Notwithstanding that, these laws benefit new business formation in these states; it creates potential administrative problems for businesses with operations in multiple states. The United States is virtually the only industrialized nation that lacks a pre-assignment agreement policy at the national level.

Employment Strategies for the Creative Individual

The handful of state laws limiting pre-assignment agreements are helpful, but are not of themselves sufficient protection for creative employees working in those states; and of course, are no help at all for those elsewhere. Although truly overreaching terms in employment agreements are of questionable enforceability in the courts, few individuals have the temperament and resources to overturn unfair claims through litigation.

The fundamental defense of any creative individual against poorly drafted or overreaching employment agreements is not to sign them.

Even when an overreaching agreement already binds employees, they can bring other defenses into play.

Consider the following suggested steps for dealing with intellectual property pre-assignment agreements. These strategies reflect the author's personal experience, knowledge of case histories, and discussions with intellectual property specialists, but remember: your circumstances are unique to you, as an individual. You must apply your own judgement; and seek counsel, as may be appropriate to your situation.

Although written primarily for creative workers in private industry, other individuals, such as applicants for faculty positions, graduate students seeking research or teaching assistantships, and even government employees can find application as well. Independent consultants should understand the points made, and adapt them to each consulting situation. The following six steps assume that you are looking for a job. Ideally, the preparation to take a new job began even before you accepted the job you are about to leave!

STEP 1: Get an Offer in Writing

As always, the first step is to find a job that appeals to you through the usual sequence of search, interview and offer. Step 1 is not complete, until a written employment offer is in hand. Verbal offers are notoriously subject to changes of heart, initial enthusiasm notwithstanding. Failure to put an offer in written form could indicate a lack of authority--or a lack of sincerity.

Without a provable offer, your status remains that of any other non-employee. It is not to say that, in principle, you cannot reach an agreement informally, and work out the details later. However, remember the legal maxim, *"Verbal contracts aren't worth the paper they are printed on."*

Translation: If it isn't written, then it isn't an offer. "Written" can include handwritten, as long as a corporate officer, with sufficient authority, signs it.

STEP 2: Inspect the Total Offer

A written offer of salary and benefits is only half the total offer, namely what the company promises to you. The other half is what you promise to the company in return, as specified in the documents you must sign upon start of employment.

Upon receiving a bona fide employment offer (but not before), request copies of these documents from the human resources department. There is no need to involve your prospective supervisor, who does not handle these forms anyway. You must read and understand them to make a rational decision based on the total offer.

Numerous reasons abound for early inspection of these documents. The most cogent ones include:

1. If you accept an offer, and quit your existing job; then, sell your house, or break your lease; move spouse, kids and furniture across the country; sign a new lease; enroll your kids in a new school; show up in the company lobby on the first day of your new job--*and then discover what is in the documents*--your negotiating power is essentially nil.
2. The corporate mentality displayed in handling this trivial request is diagnostic of what you should routinely expect during employment. Unwillingness to show you the documents beforehand, says powerful negative things about the cultural atmosphere.

3. Outright refusal to allow you to inspect the employment agreement prior to acceptance of the offer is unacceptable, unethical, morally indefensible, and legally challengeable.

Companies that pay active attention to their policies may provide copies of appropriate documents, at the time of an offer, regardless of the interest or lack thereof expressed by a prospective employee. This sign is generally a positive one, regarding the company culture.

In rare instances, a company may refuse to disclose certain documents before you are an employee, because some of the contents are company proprietary information. In this instance, you should insist on inspecting the documents--but accommodate the company by signing a nondisclosure agreement, or by reading the confidential documents on company premises. Do not accept an offer before reading these documents, or else make your acceptance conditional.

During your inspection, carefully examine the agreement for language that limits your rights in any subject matter. Also look for non-compete clauses that might limit your future options, and for trailing clauses that will continue to claim creative work past the end of employment.

Policy manuals, even if you don't read or sign them, constitute part of the employment agreement. These manuals are mostly legal and administrative housekeeping. Typical contents cover the obvious, such as lack of permission for criminal activities on company premises.

Some companies provide an employee handbook to each new employee; while others use binders distributed mostly to management, but available for employee inspection upon request. Typically, the versions mostly for

management include administrative detail, regarding such issues as sick leave and labor accounting practices.

Although such manuals rarely cause concern, competent manuals are written in clear, easy-to-understand language; include clear reporting mechanisms for reporting misconduct or harassment; and include the company's drug testing policy.

STEP 3: When the Agreement Is Unacceptable

Step 3A: If the Agreement is Unacceptable, and You Don't Want the Job

If you decide to refuse the job, it is an opportunity to mention employment agreement terms, as part of your rejection. You obtained the forms from the HR department, but you should point out unfair or overreaching terms to your prospective supervisor. At that level, he or she will best understand and appreciate your issues, and pressure for change can be generated from there, within.

Stating reasonable objections is a potential gift for future applicants. However, do not set yourself up for embarrassment, if the company is willing to negotiate, yet you still refuse employment. Be up front and honest, if the agreement is not the only reason for refusal.

STEP 3B: If the Agreement Is Unacceptable but You Want the Job

If you want the job but cannot accept the agreement, then nothing ventured, nothing gained. Circumstances arise where negotiated

modifications are the alternative to refusing a desired job. Most employers are willing to listen to legitimate concerns, and it may be that the company will respond with a willingness to change the agreement. If the agreement is the largest single objection, then it is your opportunity to negotiate better terms--prior to accepting the offer.

Be aware that human resources employees often lack authority to change documents, are sometimes paralyzed by lack of precedent, and unwilling to approach a corporate officer of sufficient authority. One way to deal with this resistance is to mark up the agreement yourself; and submit it before accepting the offer, or include it as part of your acceptance.

If the company responds favorably, make sure that you deal with someone of sufficient authority to approve modifications. Responses from those lacking sufficient authority are merely advisory (notwithstanding that the advice may be good).

An employer's continued silence is problematic. Employees can interpret it as tacit approval; and as such, it creates a presumptive right to use the altered agreement. If inaction is actually due to confusion, decision paralysis, or even lack of awareness of the changes, those are internal company matters beyond your control.

After the employer files a signed, altered agreement in your folder without comment, and you begin employment—then, they have accepted the altered terms. However, that does not mean that the employer cannot later require a newly prepared agreement as a condition of continued employment. An employer is not likely to retain modifications to the original agreement (if

not negotiated openly and fairly) in a new agreement, nor will courts enforce terms that are unreasonable.

It is cleaner, wiser, and certainly more professional to either accept or reject the company agreement as offered; or to negotiate openly and up front, so both sides formally approve the alterations. An employee who unilaterally modifies an agreement may have the burden of explaining the need to do so, when signers of the unmodified agreement lacked a similar need.

For the same reason, it is not a sufficient defense for a company that withholds disclosure of their agreement until you start work; to point out that pre-assignment agreements are common; and that any new employee should expect them, as a matter of course. The point is that agreements vary, sometimes considerably; and it is the potential presence of overbearing or unusual terms, that creates the need for prior inspection and possible modifications, to accommodate individual circumstances.

STEP FOUR: If You Accept Employment

As step four, when the terms are acceptable and you take the job, remember that you now have a professional obligation, to both understand and work within, the terms of your agreement.

When you show up on the first day, you can have the forms ready and completed more thoroughly than would otherwise be possible; but do not sign or date anything, until your employer asks you to do so, on company premises. It leaves open the opportunity to make last minute requests and changes, and addresses the possibility that your employer may place additional forms in front of you--at the last moment.

Some agreements contain space for listing prior creations and inventions that will be excluded from agreement coverage. It is a prime opportunity to protect your personal intellectual property. If your list is longer than will fit on the form, prepare a list separately and put *"See attached list"* in the space on the company form. Make sure the list bears your name, in case it becomes separated.

Even if your employer doesn't solicit such a list, you still have a right to create one, and include it with the paperwork. Label your list, *"Creations and Inventions Excluded by Conception Prior to Employment."* As mentioned, make sure it bears your name.

In preparing your list, the most you owe is enough information to tag each list entry, without actually disclosing details. On the other hand, you should not be excessively vague. Do not include inventions or creations that have already been assigned (for instance to a previous employer), because they are not your personal intellectual property. Mentioning their existence could be a breach of confidentiality.

Failure to mention an idea on your list does not limit your rights, if other proof of prior conception is available--such as a date of publication; provable disclosure to others, such as an attorney; dated notes kept in ink; the date on a patent application, etc. Bear in mind, however, that disclosure to someone not involved in developing an invention, can be a bar to virtually all foreign patents.

Remember that a submitted list is a most important opportunity for declaring subject matter that you consider your own. Unless there are valid reasons for keeping an excludable idea off the list, (a duty of confidentiality

owed to someone else, for instance); it should be included, irrespective of any amount of other proof. You can use a pen to jot additional ideas onto your list, right up until the moment you and the employer sign the documents.

While you should list everything applicable, with a reach commensurate with the company's own use of the words "creation," or "invention", pay special attention to things that you might pursue on the side, especially things that might become a basis for generating income. Notwithstanding that future income can be hard to predict, give yourself the benefit of the doubt--while the giving is good.

In the normal course of signing forms at the start of employment, you will receive copies of everything you sign. Bring two copies of your list, or ask HR to run the original through a copier. Have someone in HR, or your supervisor, sign or initial both copies. Leave one with HR for inclusion in your employee file, and keep one with the copies given back to you. Keep these at home, rather than in your desk. If you want a reference copy for your work desk, run everything through a company copier, and use those copies.

STEP FIVE: During Employment

Step Five is optional, but is also the most complex. Remember that in all instances, the intent is to accord to yourself the same care for your personal intellectual property that you owe to your employer for theirs.

As a general principle, fair policies are products of the executive suite. Unfair policies are often symptomatic of deferral to specialists. Defaulted executive responsibility creates an inversion of who works for whom, and ignores that individual departments such as legal, human resources and accounting lack

adequate breadth and perspective to optimize policy for the business as a whole.

Attorneys base their decisions, not on what is fair, but on what is legally permissible. Absent executive guidance, an attorney will protect the employer at all costs--including reduced morale and productivity, and increased employee turnover--if that's what it takes. So, another general principle: direct inquiries about rights to ideas and modifications to employment agreements to management, rather than the corporate legal department.

This suggestion does not imply that attorneys are habitually unfair, rather that you should not ask them to make decisions, without sufficient guidance. Legal will give a different reception to an inquiry from managers who believe your request is reasonable, than from individual employees hoping for legal favors.

If you want to develop a new idea during employment, it is a good time to review your agreement terms. It might be an idea that you placed on your exclusion list, or it might be a new idea--sufficiently unrelated to your employment. You can either work on it at home (possibly in violation of your agreement), or you can disclose it to your employer to determine whether the company will claim it, or not.

You may even find circumstances of sufficient importance, that the advice of independent legal counsel may be wise. It is important to understand--such issues are not intellectual property matters, per se. Employer/employee

dealings are labor law matters, and you should choose your specialist accordingly.

Where a contemplated invention will clearly belong to the company, one approach to retaining rights is to request modification of your employment agreement. For instance, in a state without a law limiting agreements, your private agreement can still incorporate the terms of a suitable law in another state, by reference.

Employees may be in a better position to request modifications after they have worked for the company long enough to prove their value to the organization. If your employer will not modify the agreement itself, you can still request a waiver for a specific invention. Your employer might give back even submitted inventions that are clearly the employer's property.

In many instances, however, an employee cannot discern whether a contemplated creation will be company claimable subject matter. This lack of assurance creates a dilemma. You need reasonable certainty for making an intelligent decision to commit personal time and funds to develop an idea. Nevertheless, employer-claimable ideas become company property, regardless of the use of personal resources for development. Moreover, reimbursement after the fact is undependable, if the company did not agree to it in advance.

Also, remember that ideas that could have remained personal property will still belong to the company, if you use company resources in development. Only non-claimable ideas, developed entirely with personal resources have a chance of remaining employee property. Therefore, it is essential to assess

whether your idea is claimable, prior to starting development, and before expending considerable personal resources on a project.

You can ask a company officer of sufficient authority to determine whether the subject area of a proposed creation will fall within the interests of the corporation. If you do so, emphasize that you have not yet created anything claimable, but that you need the information to decide whether to proceed.

If the company declares the subject area claimable, the employee will have avoided personal development risk. If they declare it non-claimable, it provides invaluable guidance for future inventions.

In practice, such guidance from a company attorney is often not that useful. By training, attorneys habitually evade firm commitments and written assurances. You might receive the answer some report, *"First make the invention (or create the product), then we'll decide."* This non-answer is of no help whatsoever, and your inquiry might only serve to alert the company that you are someone to keep an eye on.

Refusal to provide guidance on if subject matter is claimable does not automatically mean that the company will be unfair. If the employment agreement claims all inventions, whether business related or not, the company has no incentive to provide such information anyway, yet may still be reasonable about releasing rights back to you. However, refusal in a state with limitations on claimable inventions sends a signal that the definition of company interests might depend upon the potential of the invention itself-- the classic definition of a "Catch 22" situation.

Suppose an employee receives a determination that proposed subject matter is company claimable. In that instance, one should invent or create in that area, with company approved time and funds. However, if the company claims an idea, but no activity results, it may be evidence that corporate counsel is simply casting too wide a net, with regard to the company's active plans. In this instance, the employee can point out the inaction, and still ask for a waiver or return of rights, as previously discussed. You would not typically have this discussion with the corporate attorney, but you should take it up with management.

You have a common law duty of loyalty to your employer that includes disclosing creations related to your employment duties. The employer has a reciprocal duty of good faith and fair dealing. If you have reasonable doubts about the employer's intent, it does not release you from the ethical requirement of loyalty, including candor and honesty in meeting your agreement terms, but it does increase the vigilance level required to protect your personal intellectual property.

A harsh, but necessary corollary that cannot be overstated is, ***proceed with caution if you attempt to sell an idea to your employer.*** Such prudence does not depend upon whether you conceived the idea, applied for, or even received a patent, or secured the copyright, prior to starting employment. If it applies to the business of the company that has you on their payroll, the company may strongly presume that somehow, it is already theirs. Remember that corporate counsels are likely the only people formally skilled in the subtleties of property ownership, and they represent the business, not you.

The bottom line is that the normal course of employment trades paychecks for ideas. Attempting to go outside of this relationship both breaches this conceptual arrangement, and does it with parties holding an abnormal amount of power over you.

Including an idea on your list of excluded inventions when you began employment is an important defense, but the advice and early involvement of an independent attorney might be a wise expenditure, when pursuing such an arrangement. Needless-to-say, selling an idea to your employer's competitor is ever so much more problematic, regardless of whether the personal property status is legally defensible.

In the instance when an employee maintains secondary employment, i.e., a side job, the same principles apply. A second paycheck and a second pre-assignment agreement is a sale of ideas elsewhere. Secondary employment must not be with a competitor, unless all parties agree. The best choice of side job will have no direct relationship to the business of your primary employer.

Personal projects often require workday hours, because that is when suppliers and other merchants are open for business. To avoid shop right claims, or worse, avoid using work resources for personal projects you want to keep the rights to. Personal time off is one solution, as is judicious use of lunch breaks, perhaps taken off-premises. However, personal time during working hours is often unavoidable for spur of the moment demands, such as when emails or telephone calls need an immediate response.

A certain amount of personal business during working hours is normal and expected, but some employment situations may have rational reasons to

forbid it. If so, the policy manual should explain the rationale clearly; it should not be an individual manager's arbitrary decision.

Using personal e-mail accounts and personal electronic devices, such as a smartphone, to handle personal business is best. Avoid using the camera to capture documents and screen shots, while on company premises. Such activity will always appear questionable, even if you scrupulously restrict it to your own materials.

In short, entanglement between your employment and your personal efforts has no benefit to you. Do not discuss or brag about your personal projects--because they are, quite literally, none of the company's business. For instance, do not discuss outside projects with your manager--because the time spent is using a company resource. Events as trivial as running a few pages through an office copier have resulted in upholding an employer's claim.

During employment, acquisitions, by corporate growth, by contractual legal obligations, or other matters might necessitate changes to the original employment agreement. Changes may include revised intellectual property terms, or inserting non-competition agreements¹ that restrict alternative employment options.

In most states, a doctrine of "at will" employment prevails, meaning that just as employees are free to quit their jobs, an employer is equally able to meaning that just as employees are free to quit their jobs, an employer is

¹ Non-competition agreements are generally unenforceable in the State of California.

equally able to terminate employment at any time; for any cause, or none at all.²

Termination can include refusal to sign a new or revised employment agreement offered as a condition of continued employment. An employee's personal circumstances might make it infeasible to refuse, regardless of the implications. Agreements (contracts) offered under circumstances making it difficult or impossible to refuse acceptance are "contracts of adhesion." The terms of such contracts are generally enforceable, to the extent that they are reasonable. Bear in mind that the ambiguous word "reasonable," is a loaded term in legal discussions.

Circumstances where the employer gives employees an afternoon or a few days to sign and return a revised agreement are not satisfactory. A new or revised agreement potentially becomes a decision about whether to remain with the employer.

The acceptance period should allow reasonable time for employees to find other employment. It should at least be commensurate with the period given outside recruits for accepting an offer. However, few employee handbooks address this situation, leaving it to affected employees to insist on, and negotiate, accommodation, when they need more time.

² For instance, see [The employment-at-will doctrine: three major exceptions](https://www.bls.gov/opub/mlr/2001/01/art1full.pdf)
<https://www.bls.gov/opub/mlr/2001/01/art1full.pdf>

The bottom line is that creative employees must be both vigilant and discreet. The intent is to maintain parity with the employer regarding intellectual property protection, by applying the same principles of confidentiality to your personal intellectual property that employers require for theirs, always with due attention to your employment agreement terms.

STEP SIX: Leaving Your Job

Step Six applies to the task of leaving for new employment, or self-employment. Rather than clearing everything out of your office (possibly while under scrutiny) on your final day, it is better to quietly remove

anything related to personal projects a week or more beforehand. Leave a clean desk on quitting day.

Make sure that company-owned materials stay put--including customer lists, cost data, and other proprietary information. It may be best to hand off sensitive company materials to colleagues a day or more in advance, so you leave little or nothing confidential at your desk.

If your departure is abrupt, such as in the case of involuntary termination, your employer will likely scrutinize the personal contents of your workspace. Under such circumstances, a habit of discretion is a great asset. Consider carrying to work only such sensitive personal items as are needed that day, and returning them home afterward. Personal stashes kept in your desk should be generic items that are not sensitive.

After your departure, a former employer cannot claim certain things. One is normal growth in your profession. Employers expect every creative employee to continuously learn and improve, during the course of

employment. The fact that you learned a generic skill during employment is no bar to using it elsewhere. However, your knowledge of proprietary applications for a former employer must remain confidential.

An employer cannot force you to keep working for them, nor can a former employer legally prevent you from earning a living. It is normal that a soon-to-be past employer will not like you leaving for a competitor, but it is difficult to argue that you must abandon the very skills that make you valuable. Even so, circumstances do arise, where the courts temporarily deny a competitor access to a particular worker's talents. One solution is for the former employer to pay a former employee not to work for a certain length of time!

If you leave for consulting, you may find that your former employer is a willing client. Be sure no conflicts of interest with other client assignments arise. Do not solicit other employees before leaving, and be circumspect about hiring former colleagues, or using them as consultants for job-related projects. It is important for both intellectual property and tax reasons to avoid any further identification as a company employee. For instance, checks issued to you should no longer bear your old employee number, or have tax withholding.

If you intend to become a competitor to your former employer, you might do well to move away. Your former employer will be less likely to quarrel with a new competitor several cities away or in another state, as opposed to a former employee who is still calling former colleagues for advice, and meeting them for lunch.

These six steps outline strategies for specific periods in the relationship between creative employees and their employers. The overriding philosophy is mutual respect between the various parties, attention to rights and obligations in both directions, and the benefits for both employees and employers of an atmosphere where creativity can thrive, both on and off the job.

Appendix A: Anatomy of an Intellectual Property Pre-Assignment Agreement

The proper place to begin learning the language of assignment agreements is with your own. Find and read the copy given to you, when you took your current job. If you can't find it, get a copy from the Human Resources department. Sometimes, it is a separate document, but often it is a clause, or set of clauses in a general employment agreement. The generic terms "pre-assignment agreement," or "pre-invention assignment agreement" are likely not in it, but if it contains a clause that refers to inventions, copyrights, or intellectual property, in general; then, it's a pre-assignment agreement.

The most fundamental clause in any assignment agreement is the assignment itself. Such an assignment can be narrow, perhaps naming the areas of subject matter that are claimable, or it can be virtually unlimited in scope. An example of the latter type is:

"The employee agrees:

(a) That all inventions and improvements made, developed, perfected, devised, or conceived by the Employee--either solely, or in collaboration with others during the Employee's employment by [corporate name], whether or not during regular working hours, relating to the business, developments, products, or activities of [corporate name], or its subsidiaries, shall be and are the sole and absolute property of [corporate name]; and to disclose promptly in writing to [division name]'s Legal Department, or to such other person as [corporate name] may designate, such inventions and improvements;"

An example more benign and more comprehensive example is:

"In consideration of my employment by [corporate name], and of the salary or wages paid to me, I agree:

(a) To disclose and assign to the Company as its exclusive property, all inventions and technical, or business innovations developed or conceived by me solely, or jointly with others during the period of my employment, (1) that are along the lines of the business, work, or investigations of the Company, or its affiliates, to which my employment relates, or as to which I may receive information due to my employment; or (2) That result from or are suggested by any work which I may do for the Company; or (3) That are otherwise made through the use of Company time, facilities, or materials."

This wording at least acknowledges that an employee can engage in independent creativity unrelated to job responsibilities, or confidential information. (However, similar work at the other end of the building, or even at far-flung subsidiaries, of which the employee may be totally unaware, can create a presumption that the employee might somehow know about it.) It also references the quid pro quo--something given for something received--at the heart of every employment agreement.

The clause typically following the assignment requires the employee to assist the company in securing the rights to disclosed matter:

"(b) At the request and expense of [corporate name], to make, execute and deliver any and all application papers, assignments, or instruments; and to perform, or cause to be performed, such other lawful acts as [corporate name] may deem desirable or necessary in making or prosecuting applications, domestic or foreign, for patents and reissues and extensions thereof; and to assist and cooperate (without expense to employee), with [corporate name], or its representatives, in any controversy or legal

proceedings relating to said inventions and improvements; or the patents which may be procured thereon;"

As a second example:

"(b) to execute all necessary papers, and otherwise provide proper assistance (at the Company's expense), during and subsequent to my employment; to enable the Company to obtain for itself, or its nominees, patents, copyrights, or other legal protection, for such inventions in any and all countries";

The second example is explicit that the duty to assist extends beyond employment. This duty also applies to the first example, because it did not specify a time limitation. The first example's open-ended wording may be obvious to an attorney, but can be a trap for laypersons.

During employment, time spent assisting the corporation is just another job responsibility. Although both examples promise that the company will bear incidental expenses, neither offers compensation for post-employment labor. Uncompensated post-employment labor can be a considerable burden. Simple copyright matters may be trivial; but in some cases, employers force former employees work free for 10 hours, or more, per week—for months, when complicated patent matters are at hand. Fairness dictates that employers should provide compensation for former employees at an hourly or daily rate, not less than the equivalent of what the employees received during employment.

Another common clause is a requirement to keep records:

"...To make and maintain for the Company adequate and current written records of all such inventions and innovations..."

An employer might provide notebooks for the employees to log daily work details. Otherwise, the usual paper trail and the work product itself is the documentation. Employees should retain, and not arbitrarily discard, or obscure such information.

The agreement typically includes a confidentiality clause:

"To regard and preserve as confidential all information pertaining to [company name]'s business, or that may be obtained by the Employee from specifications, drawings, blue prints, reproductions, and other sources; and not to publish or disclose either during the term of employment, or subsequent thereto, without the written approval of [company name], such, or any other confidential information, obtained by the Employee, while in the employment of [company name]."

This example has a more comprehensive, yet fairer, wording:

"Upon termination of my employment, to deliver promptly to the Company, all written and other materials, of a secret or confidential nature, relating to the business of the Company, or its affiliates; not to use, publish, or otherwise disclose (except as my Company duties may require), either during or subsequent to my employment, any secret or confidential information, or data of the Company; or any information or data of others

the Company is obligated to maintain in confidence; and not to disclose or utilize in my work with the Company any secret or confidential information of others (including any prior employers); or any inventions or innovations of my own, not included within the scope of this agreement."

Having disposed of these matters, some agreements add incentive clauses. For instance:

"To pay the employee a cash award of fifty dollars, upon execution of the employee of application for United States Letters Patent; upon such execution, or improvement, together with an assignment to [company name]."

In this example, the agreement's age explains this example's dollar amount. Many employers wrote agreements with low dollar amounts, in the economic and technical boom following the Second World War. In 1951, fifty dollars could cover a monthly mortgage payment. Today, fifty dollars is likely less than the company's cost to write the check. It is also below minimum wage, for the effort required for an employee to disclose an invention, and assist in securing the rights. Contemporary agreements might offer amounts ranging from low hundreds of dollars, to \$25,000, or more.

Many companies do not offer financial incentives on the theory that more rapid promotions, or larger pay increases will accrue to productive employees. This theory also avoids the often-difficult problem resolution of determining the isolated importance of any given improvement to the company.

An example of a royalty-sharing clause is:

"To pay to the employee for each of the employee's inventions, additional compensation consisting of a percentage of any income derived by [company name], from any sale of rights in such invention or part thereof, or from any royalties which [company name] may collect from licenses to others, except the sale or license of any invention or part thereof, for use outside the United States, on a sliding scale, as follows:

of the first \$1,000 or part thereof..... 30%

of the next \$1,000 or part thereof..... 25%

of any further sums in excess of \$2,000... 20%"

Again, these dollar breakpoints represent an incentive designed for an earlier generation. In the context of contemporary economics, the employee is essentially always at 20% for any meaningful revenue stream. The clause suffers in other ways. Additional compensation is only for licenses or sales agreements with other companies, not governments, and only within the United States. Restriction to domestic sales is increasingly parochial, as the world market matures.

The existence of license agreements depends very much upon management's intent to make them. Inventions and improvements often remain captive within a company, to protect a competitive position. In addition, the schedule is inverted with respect to those created by negotiation. For instance, book publishers usually offer small or no royalties at first--and then increase the rate, as up-front costs are recovered--rather than reducing them as sales increase.

The agreement continues:

"It is further understood and agreed that [company name] may sell such invention or improvements, or license the manufacture thereof, for such price or royalty as [company name] shall, in its sole judgement and discretion, determine; or if [company name] elects to do so, grant royalty-free licenses for the use of such invention; or waive future royalties for a definite or indefinite period of time on any license theretofore issued; and that the employee shall have no claim or claims against [company name], except to receive the percentages above set forth of such amounts, as [company name] shall collect through sale or licenses of such inventions or improvements."

The employee should assume that any decision to collect or not collect royalties and fees is strictly a business decision that includes the cost of providing the employee's share. Many contracts use cross-licensing, or other terms to avoid the trouble of accounting for and collecting payments. Thus, the promised benefits may prove illusory. If a share of revenue is important to you, and the employer offers you such a clause, it may be useful to inquire how many employees have received such payments within the last decade, and to get some idea of the amounts involved.

A final type of clause, common in the aerospace and defense communities is:

"The employee understands that [company name] has assumed and will continue to assume certain obligations, with respect to inventions and patents, under or by virtue of its contracts with the government of the United States and other customers; and employee agrees that any rights

under this agreement are subject and subordinate to any obligations [company name] has assumed, or may assume in the future, in its contracts with the United States Government, and other customers."

Appendix B: State Laws on Intellectual Property Assignment Agreements

The following is a paraphrase of the elements found in various states' statutes. Although these laws have many similarities, each state phrases them in their own ways; they may not include every provision, and may include details or nuances not mentioned here. The intent of this Appendix is general understanding; therefore, the reader should consult the applicable statute's text, with counsel's assistance--as may be required, for understanding specific cases.

The first item of business in each statute is the basic exception to what an employer can claim:

"Any provision in an employment agreement that provides the employee shall assign, or offer to assign, any rights in an invention, shall not apply to an invention that the employee developed entirely on his own time, without using the employer's equipment, supplies, facility, or trade secret information..."

Certain caveats immediately follow this fundamental protection, to ensure fairness to the employer:

"...except for inventions that relate to the employer's business, or actual or demonstrably anticipated research or development, or result from work performed by the employee for the employer."

Simply limiting the enforceability of agreements does not prevent an employer from proffering unenforceable terms. That is the next task:

"An employer may not require a provision of an employment agreement, made unenforceable under this section, as a condition of employment, or continued employment."

The lack of penalties for breach of this clause means that it has value, primarily as a defense for the employee.

Companies grow and change, enter new business areas, merge with other companies, and otherwise encounter circumstances that may require a new or changed assignment agreement:

"An employer may require his employees to agree to an agreement, enforceable under this section, as a condition of employment, or of continued employment."

Ordinary citizens are not expected to know the law in full detail. Thus, disclosure of the statutory limits is a reasonable requirement:

"The employer must, at the time the agreement is made, provide a written notification to the employee that the agreement does not apply to inventions falling under the exceptions created by this section."

While disclosure of the law is laudable, the ideal time for notification is at disclosure of the employment agreement, rather than at the time of signature. A common form of notification is simply to provide a copy of the statute.

Next, comes a statement of responsibility:

"The employee shall bear the burden of proof in establishing that an invention qualifies under this section."

This statement sets the basic terms of an employee's legal strategy in a dispute. The company is presumed to possess the rights, unless the exceptions created by the statute are demonstrated to apply. Kansas and Washington add a further burden:

"Even though the employee meets the burden of proving the conditions specified in this section, the employee shall disclose, at the time of employment, or thereafter, all inventions being developed by the employee, for the purpose of determining employer and employee rights in an invention."

While the duty to disclose even personal creations during employment is usual, this trailing clause has ***no time limit***. Outside of Kansas and Washington, trailing clauses are left to the discretion of the agreement drafter, and can be altered or negotiated. Privately drafted trailing clauses (and they are not that common) are for periods typically ranging from six months to two years--not an employee's remaining career!

In practice, former employees typically ignore such requirements, as they get on with their lives. Given that most confidential technical knowledge from a former employer rapidly becomes stale, indefinite trailing clauses are a classic example of law that creates such a burden in its literal observance, that it is virtually designed to be ignored, yet still offers a trap for the unwary.

Illinois includes a statement of what most courts would hold:

"This act shall not preempt existing common law applicable to any shop rights of employers, with respect to employees who have not signed an employment agreement."

Another statement of the obvious is found in Utah law:

"This act shall not apply to any right, intellectual property, or invention that is required by law; or by contract between the employer and the United States Government, or its agencies; or a state or local government to be assigned or licensed to the United States."

This is legally obvious, because federal law preempts state law. Another statement of the legally obvious is:

"This act shall not apply to an agreement between an employee and his employer, which is not an employment agreement."

While these paraphrased clauses are not an exhaustive sum of the provisions of the various states, they are the main ones. As of this writing, the extant state laws limiting pre-assignment agreements are:

California	CA Labor 2870 – 2872
Delaware	19 Del.C. s 805
Illinois	765 I.L.C.S. 1060/2
Kansas	K.S.A. 44-130
Minnesota	M.S.A. 181.78
North Carolina	G.S. s 66-57.1
Washington	RCWA 49.44.140, 150
Utah	UT ST s 34-39-1, 2, 3

Appendix C: Types of Intellectual Property

Patents

When the word "patent" is used, it usually means a utility patent, since this category is the most germane to invention. A utility patent is a government grant of a right to exclude others from making, using, selling, or offering to sell an invention of a process, apparatus, or composition of matter. The duration is 20 years.

There are also design patents, which protect shapes, decorative embellishments, and ornamental features. A third category is plant patents, which protect asexually reproduced botanic creations, such as new varieties of flowers or crops.

As part of the tradeoff between inventors' and the public's needs, one of the requirements for a patent is that it must contain a sufficiently clear description of the invention--for others skilled in that invention field to understand and apply it.

Once issued, the patent's contents are in the public domain (not the patent rights). The legislative intent is to grant to the inventor a limited monopoly right--to exclude others from making or selling the instances of the invention; yet enable others to understand, improve, or obsolete the invention--hopefully in the form of more patents. In this way, the progress of the technical arts is made as rapid as possible. A secondary benefit for society is that the accumulation of patents serves as a technology library, as well as documentation of the history of technology.

By law, a patent must issue in the name(s) of the actual inventor(s). A joint inventor must actually conceive and contribute some element covered in the patent claims. Technicians, or other individuals who work on the invention, under the direction of the inventor(s), are *not* a joint inventor(s), unless they make an independent contribution. Nor can anyone legally be included as a joint inventor merely as a matter of courtesy, or recognition.

Given the technical content inherent in patent matters, the U.S. Patent and Trademark Office (PTO) has its own procedure for registering individuals who wish to act on behalf of inventors seeking patents. One requirement is an adequate technical background—of an undergraduate degree in engineering, physics, chemistry, or a similar technical discipline; or sufficiently documented equivalent experience.

Most attorneys lack this grounding in the technical arts. In fact, the law allows non-attorneys to practice in this area, as it concerns administrative, rather than statutory law. Non-attorneys must pass the same qualifying examination on PTO law and practices as attorneys; and after registration, they become "patent agents." They perform exactly the same functions as patent attorneys, in assisting clients to obtain patents; although they cannot sue for infringement, or otherwise provide legal services beyond practice before the PTO. The fraternity of patent attorneys and patent agents is a small and exclusive one, compared to the legal profession as a whole.

The very nature of an issued patent is that it entitles the owner to sue others for infringement. Moreover, patent owners bear the entire expense and labor of doing so. Some industries are so sufficiently specialized, that a scarcity of relevant literature leaves little for the PTO to research. This lack of literature makes it possible to obtain patents (not necessarily valid), even for common industry practices within that niche, and to entangle competitors in legal battles for years.

Patents also make a great marketing tool. A patent can add a cachet to advertising copy, implying competitors are old hat or inferior— notwithstanding; a new idea might not be superior to an established one.

Some companies also use patents as a negotiating tool for cross-licensing agreements; which may include trade secrets, and other "know how." In some industry segments, licensing income from intellectual property can rival that derived from product sales.

Organizations also use patents defensive measures to disclose information, without giving it away. The public disclosure a patent creates becomes prior art to any later patent application. In this instance, the patent holder may not actually enforce the patent rights, or exact only token royalties.

Publication in a trade journal or company literature can produce much the same effect, at lower cost. However, a patent creates a presence that an obscure journal might lack; and leaves open the possibility of improved license terms, if the invention becomes established.

Finally, occasionally, some hardy individuals labor to make money by patenting ideas, and then licensing or selling the rights. The difficulties and rewards of doing so are beyond the scope of this guide--but the stories of those who have traveled this route are instructive--and recommended reading for others who would endeavor to do so.

Copyrights

Originally, copyrights were intended to keep publishers from copying the books of other publishers, without license. Many commercially valuable forms of property have managed to shoehorn into this concept. Copyright protection has been extended to motion pictures and sound recordings; also computer software, paintings, architecture, and even decorative belt buckle designs. The basic concept is that some spark of creativity or originality must be present, for copyright protection to apply.

For instance, a new column format for a telephone directory may be a copyright protectable element, but the courts have held that the alphabetical list of names, addresses and telephone numbers is not. Also, utilitarian considerations (such as speed of execution or efficiency) that dictate

software code with instruction content--such that any competent coder driven by the same goals will tend to converge on the same sequence--are also not protectable by copyright.

A fundamental concept is that copyright protects the expression of ideas, but not ideas themselves. The *idea* of a spreadsheet is not copyrightable, but a particular choice of screen representation may be. A copyrighted schematic is no barrier to creating a new schematic directly from inspection of equipment, because the ideas embodied in the equipment are not protectable by copyright, and the new schematic is an independent creation. Decompiling code is an obvious and often used means to discover the internal workings of software products. The use of "clean room" techniques is one formal approach to abstracting underlying ideas from the copyrighted expression.

The ideas versus expression dichotomy is important, because new works created with nontrivial reference to copyrighted ones generally are considered derivative works. Derivative works are not original; notwithstanding; considerable additional originality and much labor may have been required and expended to create the alternative expressions. Such dodges as recoding a program in a different language, so that the resulting code bears no obvious resemblance to the original, has not been a barrier to successful infringement suits by the original authors.

Copyright is not available for short strings of words, such as the titles of books, songs, or movies. However, such content may be eligible for protection as trademarks. Copyright protection is also denied to works made

by animals; for instance a painting an elephant makes, or a selfie photograph a monkey takes.³

Copyrights have long terms of protection, compared to patents. For works made for hire, or anonymous or pseudonymous works, the duration of copyright is the shorter of 95 years from first publication or 120 years, from creation. If the Copyright Office records reveal the author's identity, the term becomes the author's life, plus 70 years.

Since 1 January 1978, copyright protection automatically extends to new works, and lack of a formal copyright notice does not imply that the work is in the public domain.

Trademarks

Trademarks are the logos, stylized lettering, and other flourishes that businesses use as a shorthand identity. For instance, everybody recognizes General Electric's uniquely ornate lettering; International Business Machines just by the initials; the NBC television network, by a sequence of three tone chimes; and Owens-Corning brand building insulation, by the color pink. The commercial value of these recognition aids is considerable, thus trademarks have a long history of legal protection.

The purpose of trademark protection is to prevent confusion among consumers, regarding the source of a product or service. Among other factors, protection is generally restricted to the market place for the good. For instance, Owens-Corning's trademark protection for pink insulation does not extend to using the color pink outside of that industry niche.

³ For instance, see https://en.wikipedia.org/wiki/Monkey_selfie

Another example was the legal battle between Mead Data's Lexis-Nexis computer assisted legal research, and Toyota's 1987 introduction of the Lexus automobile line. Mead Data sued for trademark infringement, on grounds that consumers would confuse "Lexus" with "Lexis." A subsequent market survey showed that only a small fraction of people thought of the legal search service; a similarly small fraction associated it with Toyota; and an overwhelming plurality thought of a soap opera character. The Court of Appeals for the 2nd Circuit held that there was little chance consumers would be confused.

If one uses and defends a trademark properly, it can have indefinite life. However, you can lose a trademark, if you abandon its use for a sufficiently long period; or if it is too successful, and becomes generic for the product or service it represents (linoleum, cellophane, aspirin, and escalator come to mind). The USPTO would reject applications for trademarks that are merely descriptive, such "Septic Tanks Inc.," or "Taxes and Bookkeeping Corp.," as already generic for the products or services they describe. While trademarks are often suggestive of the products they represent, the strongest are often those that are arbitrary or non-descriptive, such as Apple brand computers.

Trade names, trade dress, and service marks are all similar to trademarks.

Trade Secrets

Trade secrets are the only form of intellectual property you cannot make public, without losing protection. What does and does not constitute a trade secret depends very much, on how one *protects* the secret knowledge; and not merely on the fact that it may not be widely known. Consequently, trade secrets may have an indefinite life, such as the carefully guarded formula for

Coca Cola; or a very short life--if the owner takes few or no security precautions.

Once made public, one cannot recall trade secrets; and those secrets are permanent, regardless of how the knowledge came to be public. The only recourse is to seek damages and/or criminal prosecution against those responsible--if you can prove fraud, carelessness, or malicious intent; assuming you can demonstrate appropriate treatment of the knowledge as secret information --not merely confidential or proprietary information.

Appendix D. Non-Competition Agreements

To be considered valid, a non-competition agreement must:

- Be supported by consideration, at the time it is signed
- Protect an employer's legitimate business interest
- Be reasonable in scope, geography and time.

Employers generally support non-competition agreements with valid consideration--the employee must receive something of value, in exchange for the promise to refrain from competition. If an employee signs a non-competition agreement *prior* to beginning employment, the employment itself will be sufficient consideration for the promise not to compete.

However, if an employee signs a non-competition agreement *after* beginning employment, employers will not consider the mere promise of continued employment valid consideration for the promise. In this case, the employee must receive something else of value, in exchange for the promise. Such additional consideration may consist of a promotion, or other additional benefit--that was not part of the original employment agreement.

- Quoted from <http://employment.findlaw.com/hiring-process/non-competition-agreements-overview.html#sthash.OdmDqFTL.dpuf>

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