

Intangible Assets and Intellectual Property

University research involves a robust mix of intangible and tangible assets. Intangible assets include inventions, works of authorship, software, data, know-how, experimental designs, technical information, and documentation. Lists of intangible assets are common in university policy definitions of intellectual property, often making for absurd results when ownership claims are made for intangible assets for which there is no available theory of ownership, such as know-how.

Asset Anything for which one anticipates future value.

Tangible Asset Real property, chattels (such as equipment or cell lines), buildings, and cash.

Intangible Asset Intellectual property, debt and equity instruments, contracts, and relationships.

IP Patents, copyrights, and trademarks are statutory forms of intellectual property.

NIPIA Non-IP intangible assets, including trade secrets, publicity rights, and domain names.

Intangible assets may be owned, possessed, or accessed. Thus, one does not own one's fame for a photograph made in one's research appearing on the cover of major scientific journal, but one may own a copyright in the photograph itself, and may have a right to control publicity for commercial purposes associated with one's personal information associated with the photograph or the research.

Intellectual property may be used in a variety of ways, memorialized by the cautionary heuristic WASTES.

Waive Waive the ownership position in IP. Defer ownership responsibilities to others, or dedicate to the public domain.

Assert Use ownership positions to require payment from others for the use of, or right to use, intangible assets covered by the intellectual property. Patent trolls operate in assert mode, and so may also universities and other non-operating entities.

Share Use the underlying intangible asset and provide others with access to these same assets, often with an expectation of reciprocity in the form of "share and share alike." Basis for much open source software.

Transfer Convey by assignment or license the responsibility to manage intellectual property and thus exercise control over related intangible assets. Use patent licenses to promote private investment in the creation of commercial products based. Often monopoly based.

Exclude Exclude others from practicing or exploiting intangible assets. Accumulate value in the right of exclusion relative to perceptions of future demand. The basic premise of intellectual property, and a primary use by companies. Antagonistic to a basic premise of faculty-led research, that broader use (through publication, instruction, licensing) equals success.

Squander Fail to use claimed and established ownership positions to secure value, promote use, or enhance public benefit.

Properties of Intellectual Property Relationships

Intellectual property relationships consider five key elements. Often only one or two such elements, such as ownership or money, are addressed openly. Usually, however, all five elements are in play in any given intellectual property relationship, whether among inventors, between inventors and their research team, between the team and the university, or between the team (or university, or invention management agent) and users and developers of the invention.

- Ownership** Legal title to intellectual property separates intangible assets into IP and NIPIA. Intellectual property allows the owner to exclude others. Excluded users infringe and are subject to penalties that may be enforced by a court. Ownership of a patent does not ensure control of an invention—practice of the invention may still be within the claims of other patents, and other parties may have a claim on the use of the invention, as is the case with inventions made with federal support.
- Control** Control involves management of intellectual property by rights, permissions, contracts, or access. Such management may include control of quality, use in for-profit settings, conformity with standards, claims on variations and improvements, naming conventions, and responsibilities for support and damage or injury. A license in a contract is a means of distributing control. Contracting carries its own apparatus in addition to conveying permissions in intellectual property, and shifts interactions from informal and social to formal and legally enforceable. Contracting also generally requires a shift from personal to institutional and specialist involvement. Without patents and the contracts required to distribute control of the claimed invention, control is based on personal choices and such social intangible assets as relationships, trust, reciprocity, and availability of assistance.
- Money** A frequent concern, and more broadly, “value” both present and future. Ownership of intellectual property may create a claim for payment, increase apparent value, or may diminish value through uncertainty, competitive response, and antagonism. Value may arise from the use of IP (exclusion, licensing) or from the exploitation of underlying intangible assets (benefits of use or sale of product or services) or from the creation of new intangible assets. Many disputes over money are actually over the potential for money, or over the acknowledgement of contributions leading to either an invention or the financial success of an intellectual property position in the invention.
- Attribution** Acknowledgement and use of names of individuals, organizations, inventions, products, and services. Establishes priority of inventors, authors, and uses in commerce. Basis for trademarks, rights of privacy and publicity, and goodwill, and reputation.
- Risk** Risk takes up uncertainty based on capabilities, liabilities, events, unknowns. A common adage in intellectual property management is that a license distributes both rights and risk. In addition to product liability, there are risks of the market and unknowns regarding whether new technology will work as anticipated when put in a product form and placed in the field.

Statutory Intellectual Property

Patent

A utility patent issues to the first to file for a new, useful, non-obvious invention. A patent teaches and claims the invention. 30 months on average to obtain. 20 year term from date of application. \$280 to file. \$10K to \$20K typical attorney cost. Foreign patents more. \$12,600 in maintenance fees over patent life. Product marked with patent number. Also design patents and plant variety protection.

Owner decides who may make, use, and sell; have made, offer for sale, import. No fair use or research exception. Injunction. Actual damages for infringement. Triple damages and attorney's fees for willful infringement.

Bayh-Dole Act, CREATE Act, 2 CFR 215(b). Concepts include publication bar, grace period, small entity and micro entity fees, provisional application, shop right, prior user rights, derivation, equivalents, file wrapper, continuation, divisional, re-examination, and misuse. No invent for hire.

Copyright

Author owns original works of authorship fixed in a tangible medium of expression. Copyright vests when a work meets the definition of the law. Registration confers right to sue for infringement. Term is life of author plus 70 years; for works made for hire, 95 years from date of publication or 120 years from date of creation. Registration fees \$35 to \$220.

Owner decides who may copy, distribute, transmit, publicly display or perform, and create derivative works. Work for hire by employee within scope of employment or by written agreement. Author is employer or commissioning party. Infringement requires access and substantial similarity. Statutory damages. Up to \$30K. Up to \$150K for willful infringement.

TEACH Act, DMCA, 2 CFR 215.36(a), Berne Convention. Concepts include copyright notice, 35 year termination right, merger, scenes a faire, four-factor test for fair use, tenants in common, joint accounting, subsidiary rights, mechanical license, clean room. Exclusive license transfers ownership.

Trademark

Covers arbitrary or suggestive identifiers that distinguish goods or services in a marketplace. Typically a proper adjective. Common law trademark vests with use. State and federal registration systems. \$375 for basic federal registration. With attorney assistance, \$750 to \$1K typical. Term is indefinite with continuous use. Specific to classes of use. A mark owner owns as well the goodwill attached to the mark.

Owner decides who may use a mark in commerce. Infringement involves use of identical or similar mark that has the likelihood to cause confusion in a market place. Injunction. Accounting for profits. Actual damages. Triple damages for bad faith.

Concepts include intent to use application, dilution, opposition period, loss of secondary meaning. Four forms of mark: trademark, service mark, certification mark, collective mark.

NIPIA (Non-IP Intangible Assets)

- Trade Secret** Information that has independent economic value, is not generally known by the public, and is subject to reasonable efforts to prevent disclosure. Established by agreements not to disclose. No registration or application system. Indefinite term.
- Owner decides who may use or disclose. Confidential information might not be also a trade secret. Disclosure is springboard to recipient use. Typical exclusions: already known, independently developed or disclosed, required to be disclosed, becomes public. Injunction, damages.
- UTSA, FOIA, ITAR, EAR, 2 CFR 215.36(c). Concepts include independent development, DoD classification, non-compete covenants, reverse engineering, misappropriation, poison.
- Publicity** Right of privacy, personality, or publicity involving one's name, image, or likeness. Similar to trademark. Statutory right of publicity in some states, common law in others, unfair competition in others. No registration. No fee. For life, sometimes longer.
- Individual has right to determine the use of name, image, or likeness, including for commercial use. Statutory protections. Four torts: intrusion, appropriation, unreasonable publicity, false light. Injunction, accounting of profits, actual or statutory damages.
- Lanham Act. Identity theft.
- Domain Name** Alphanumeric name for the Internet Protocol address of a website or other internet resource. Domain names are registered with a registrar. Often an annual fee.
- Registrant has exclusive right to use of the domain name. Trademark in domain name provides additional leverage. Similar to a lease of the domain name. No actual legal ownership.
- Whois, DNS, registrars, search, analytics.
- Network** Attributes of network dynamics. Not owned. Indefinite term. Outcomes of interplay of identity and control across communities of agents. Some participants may exploit outcomes as assets.
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| <i>Critical Mass</i> | Number of participants becomes an attribute of the activity |
| <i>Congestion</i> | Demand for activity exceeds available supply |
| <i>Relationship</i> | Contract, loyalty, habit or other stable association |
| <i>Weak ties</i> | Remote participants provide information and refer opportunity |
| <i>Externalities</i> | Value created for others by participants |
| <i>Channel</i> | Repeated transactions through a stable network |
| <i>Scale</i> | Ability to reach many participants through common network |
| <i>Centrality</i> | Location among network participants to see greater share of interaction |
| <i>Commons</i> | Context in which participants share assets on common terms |
| <i>Defection</i> | Breaking commons expectations for advantage |