

STANFORD

UNIVERSITY

OFFICE OF

TECHNOLOGY

LICENSING

Creator's Guide to
Commercializing

Copyrighted Work





CONTENTS

THE BASICS.....	2
STANFORD'S COPYRIGHT POLICY.....	5
SOFTWARE.....	8
CONTENT AND COURSES.....	15
OPEN SOURCE SOFTWARE LICENSING.....	18
COMMERCIALIZING THROUGH OTL.....	23
NAVIGATING COPYRIGHT.....	27
KEY TERMS.....	28
RESOURCE GUIDE.....	30

Note: This booklet was written in 2015. Different forms of creative expression continue to evolve along with technology. Also, Stanford's policies and practices may be revised from time to time. Stanford copyright creators should refer to the online resources referenced in this booklet for current policy information and guidance on copyright issues.

The Stanford University Office of Technology Licensing (OTL) promotes the transfer of Stanford technology for society's use and benefit. This technology grows out of the boundless creativity found in the faculty, staff, and students at the University. When that creative expression is protected by copyright, OTL and our Stanford creators face a distinct set of commercialization and distribution issues that they do not encounter for other forms of intellectual property.

OTL created this booklet to help Stanford creators successfully identify and navigate those issues. The booklet is focused on out-licensing or distributing creative works owned by Stanford. It does not cover either in-licensing (i.e., receiving copyrighted works from others) or creator-owned copyrighted works (for example, books, articles, and presentations that are intended for academic purposes and not claimed by Stanford under policy).

The Stanford University Libraries (SUL) offers resources for in-licensing and other common copyright issues that arise on campus. For example, they furnish a Copyright Reminder (stanford.io/copyrightreminder) that highlights common copyright concerns and outlines the fundamental elements of U.S. copyright law that apply in those situations. The Copyright Reminder includes specific information regarding copyright considerations for online learning (stanford.io/onlinelearning). Also, SUL and the Office of the General Counsel can offer support related to the management of copyright in publishing contracts for books and other works owned by Stanford creators.

Disseminating or commercializing copyrighted works can be complicated and decisions are based on the unique facts related to a particular creative work. While this booklet can help answer general questions, Stanford creators should contact OTL to discuss the most appropriate strategy for disseminating or commercializing their specific Stanford-owned work.

The Basics

Copyright is a class of legal rights covering original works fixed in a tangible medium of expression – the forms in which creators express their ideas. These forms include novels and other textual media as well as mixed media works such as videos, photographs, etc. In technological disciplines, copyright covers computer programs/software but not data per se. Copyright protection covers these forms of expression at the moment of their creation and is available for both published and unpublished works.

Copyright protects the way creators express their creations, but not the facts, ideas, systems, or methods of operation. For a book, a copyright covers the combination of words the author used to convey ideas, but not the ideas themselves. In a painting, a copyright covers the combination of colors used to convey the images, but not what the images represent. In a computer program, a copyright covers the program's lines of code, but not its function or use.

WHAT ARE THE RIGHTS OF A COPYRIGHT OWNER?

Only the owner of a copyrighted work, and those who have the owner's permission, can:

- **Reproduce:** Make copies of the work.
- **Prepare derivative works:** Derivatives include expansion, abridgements, or other modified forms of a preexisting work. Derivatives may also include translations, movie versions, reimplementations of code in a different computer language, or any other form in which the original work may be recast.

- **Distribute and disseminate:** Copyrighted works can be distributed via printed or electronic media. Stanford creators who would like to distribute their work should consider whether or not they will permit others to further distribute that work. This is particularly applicable to software.
- **Perform publicly:** This right usually applies to performing arts and it includes the right to stage a ballet or a play. It can also apply to software demonstrations at trade shows.
- **Display:** This right usually applies to works of art, but can also be construed to include a display of a copyrighted work on a website.

Stanford software creators who would like to distribute their work should consider whether or not they will permit others to further distribute that software.

Creators sometimes collaborate with others. If more than one person contributes to a creative work then there may be joint copyright owners and they have a duty to account to each other for any profits earned from the licensing or use of the copyright (i.e., share in the economic benefit).

Furthermore, creators need permission from the original copyright owner to make a work that derives from an original work ("derivative work"). If a creative work is derived or compiled from a preexisting source, then the new copyright extends only to the original material contributed by the new author and does not imply any right in the preexisting material.

HOW LONG DOES A COPYRIGHT LAST?

Copyright protection is automatically secured when a work is fixed into a tangible medium such as a written document, book, software code, video, digital audio file, etc.

- For works created on or after January 1, 1978, the copyright remains in effect for its creator's life plus 70 years.
- In the case of works-for-hire (see page 5), copyright endures for either 95 years from the date of first publication or 120 years from creation, whichever is shorter.

Stanford's Copyright Policy

Under Stanford policy (stanford.io/copyrightpolicy), all rights in copyright shall remain with the creator unless the work: is a work-for-hire; is supported by a direct allocation of funds through the University for the pursuit of a specific project; is commissioned by the University; makes significant use of University resources or personnel (including students); or is otherwise subject to contractual obligations. In addition, Stanford claims rights to institutional works.

SCHOLARLY WORKS OWNED BY CREATORS

Stanford does not claim copyright for the products of scholarship in the form of books, articles, and presentations that are intended for academic purposes. Stanford authors and creators seeking assistance with author agreements and other licensing of their personally-held copyrights will find some recommendations in Stanford's annual Copyright Reminder (stanford.io/copyrightreminder_pub). Questions can also be directed to the Office of the General Counsel (Lauren Schoenthaler) or the Stanford University Libraries (Mimi Calter).

WORK-FOR-HIRE

Under copyright law, if a Stanford employee creates a work in the course of his or her job responsibilities, Stanford automatically owns the copyright. For example, if an OTL associate writes a copyright handbook as part of her job, Stanford owns the copyright. Likewise, if a member of the Stanford staff is paid to write code for a computer program, Stanford owns the copyright. However, under copyright law and Stanford policy, non-employees (including

HOW IS COPYRIGHT LEGALLY SECURED?

Copyrightable works are protected as soon as they are captured in a tangible medium, e.g., written on paper or saved as a file on a computer. A copyright notice is NOT required for copyright protection to be in effect. However, OTL recommends that creators use a notice. For example, this attribution can

be included in a publication, on a website, as a footnote to a figure, as a text graphic at the beginning or end of a video clip, as a statement within an audio file, or in the program for a performance.

A copyright notice is NOT required for copyright protection to be in effect. However, OTL recommends that creators use one.

For works owned by the University, the following notice should be used:

"© 20XX The Board of Trustees of the Leland Stanford Junior University."

OTL recommends that creators also include their contact information with the notice because some individuals use copyrighted materials without permission simply because they do not know whom to ask.

In addition, for a nominal cost, a copyright can be registered with the U.S. Copyright Office to make a public record of the basic facts of a particular copyright. Registration may be made at any time within the life of the copyright, but it is only necessary if a copyright owner wishes to enforce copyright against an infringer (i.e., someone who is using the copyrighted work without permission).

FAIR USE

U.S. copyright law allows certain limited use of copyrighted material without permission from the copyright owner. Please refer to fairuse.stanford.edu for more information about the four factors that can be used to measure fair use.

outside contractors) generally assign in writing any copyright to Stanford when their services are procured.

WORKS SUPPORTED BY A DIRECT ALLOCATION OF FUNDS

If Stanford makes a direct payment for the creation of a copyrighted work, Stanford owns the copyright. For example, if a faculty member would like to embody one of her novel teaching methods in an app and Stanford provides the funds to do so, Stanford owns the resulting copyrighted work. Likewise, the University retains ownership of institutional works that are created at the direction of the University for a specific purpose. Outside contractors generally assign copyright to Stanford when their services are procured.

COMMISSIONED WORKS

Stanford retains the copyright to commissioned works. For example, if a department at Stanford commissions an independent contractor to create its logo, Stanford would obtain the copyright to the work through a written agreement between the commissioned contractor and Stanford. However, if no agreement is in place, the contractor will own the work's copyright.

WORKS OTHERWISE SUBJECT TO CONTRACTUAL OBLIGATION

Stanford owns copyright to creative works subject to sponsored research agreements and other contracts. If this work is done by someone who is not an employee, there should be a written agreement by which the copyright is assigned to Stanford.

WORKS CREATED WITH SIGNIFICANT USE OF STANFORD RESOURCES

If significant Stanford resources (such as faculty, staff or paid student time, or equipment) have been used to develop a copyrighted work, Stanford retains title. For example, if resources from Stanford's Office of the Vice Provost for Teaching and Learning (VPTL) have been used to create the work, Stanford will likely own the work as a matter of policy. Examples of non-significant use include ordinary use of desktop computers, University libraries, and limited secretarial or administrative resources. Questions about what constitutes significant use should be directed to the Dean of Research.

INSTITUTIONAL WORKS

If works cannot be easily attributed to a discrete set of creators, they may be deemed institutional works. Institutional works are owned by Stanford. Under Stanford policy, institutional works include works:

- that are supported by a specific allocation of University funds;
- that are created at the direction of the University for a specific University purpose; or
- that cannot be attributed to one or a discrete number of authors but rather result from simultaneous or sequential contributions over time by multiple faculty, staff, and students.

In a general sense, when OTL determines whether or not a specific work is an institutional work, it considers several factors:

- **Funding:** What grants, University funds, or other resources were used to support the development?
- **Time:** How long was the work in development and will that development continue after the disclosure to OTL? For example, how many versions of the software have existed over the years?
- **People:** How many people were involved in creating the work and can those people be easily identified?

For example, in one case, the University hired staff specifically to create a software program with 3D models of the human body for educational purposes. Because those staff members were directed to create the work and were paid with University funds, it was deemed to be an institutional work.

In addition, software tools and databases that are developed and improved over time by multiple people where creative input is not easily attributable to a single or defined group of authors would constitute an institutional work. However, the mere fact that multiple individuals have contributed to the creation is not sufficient to establish it as an institutional work; OTL must take all of the criteria above into consideration.

Software

Software is copyrightable and Stanford owns certain software developed at the University as defined in the Copyright Policy (stanford.io/copyrightpolicy). Regardless of ownership, the University allows software creators at Stanford to disseminate their work. The options for doing so are: placing the software in the public domain; publishing the code; distributing the software through open source licensing; or commercializing through OTL (which may include pursuing patents or trademarks).

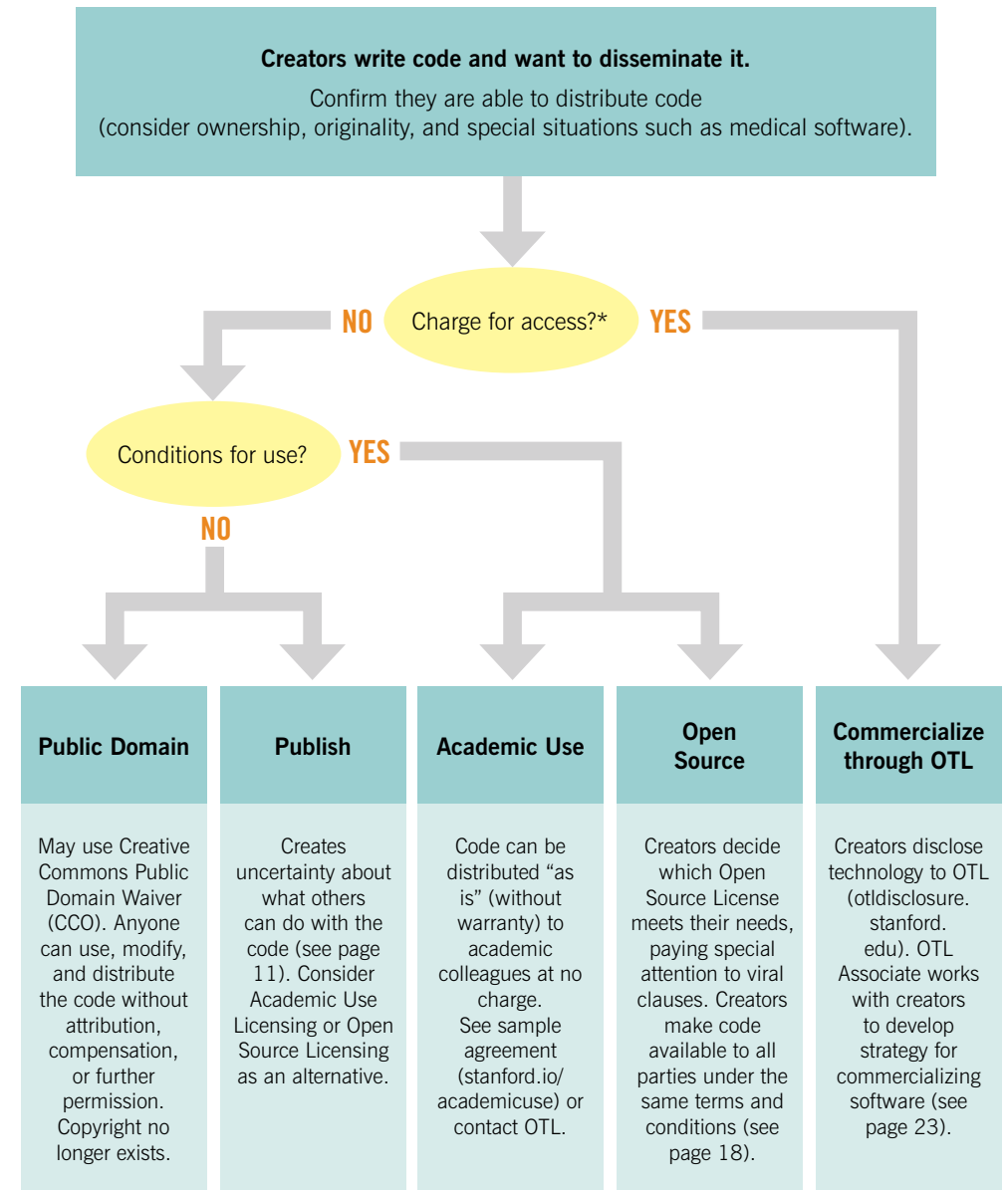
Creators may select more than one of these options if they do not conflict with each other. For example, creators may decide to distribute software to academic colleagues without charge under an Academic Use Agreement (stanford.io/academicuse) and to companies under commercial licenses granted through OTL.

OWNERSHIP AND ORIGINALITY

Before distributing the software in any manner, *the creators must establish ownership and originality.*

- **Ownership:** To verify ownership, the creators need to identify all of the individuals who contributed to the work and make sure their intellectual property rights are unencumbered by other obligations (such as requirements of consulting or sponsored research agreements). Stanford must have a clear ownership position before any software is disseminated.
- **Originality:** To verify originality, all creators must confirm that they did not take any material from any other source (e.g., the internet, other written materials, or software tools/scripts available under viral open source

SOFTWARE LICENSING OPTIONS



* Creators may choose different options for different users as long as they don't conflict with each other.

Before distributing the software in any manner, the creators must establish ownership and originality.

agreements like GPL) and that their contribution is original. If parts of the work are NOT original, then the rights of the original creator must be considered before disseminating the software.

If Stanford has clear ownership and the software is original, creators can decide to distribute their software to others. Regardless of how they choose to disseminate the software, OTL recommends that

creators include an “as is” clause when transmitting the code. The following language can be used for this purpose:

The software is provided “as is”, without warranty of any kind, express or implied, including but not limited to the warranties of merchantability, fitness for a particular purpose and noninfringement. In no event shall the authors or copyright holders be liable for any claim, damages, or other liability, whether in an action of contract, tort or otherwise, arising from, out of, or in connection with the software or the use or other dealings in the software.¹

PLACING IN THE PUBLIC DOMAIN

Public domain software is not protected by copyright. “Public domain” means that no one claims any intellectual property rights for a particular work or technology. Thus, anyone can use the software for any purpose without compensating the creator. Copyrighted software can be dedicated to the public domain using the Creative Commons Public Domain Waiver, also known as CCO (us.creativecommons.org/public-domain). Stanford discourages this option due to the risk of infringing on someone else’s rights if ownership and originality have not been properly determined. Creators who would like to share their software with others at no charge should consider an Academic Use Agreement (stanford.io/academicuse) as an alternative to public domain.

Public domain is NOT the same as open source and the terms should not be used interchangeably. Unless specifically stated, software and other creative works made accessible on the internet are NOT necessarily in the public domain.

PUBLISHING

By law, copyrightable works are protected as soon as they are captured in a tangible medium, e.g., written on paper or saved as a file on a computer. Therefore, published code should be considered copyrighted whether or not it includes an explicit copyright notice. This means that no one can distribute, reproduce, display, or create derivative works of the software without permission of the copyright owner. Because of this, Stanford creators should consider permitting others to use their original published code through either an Academic Use Agreement (stanford.io/academicuse) or through other forms of licensing discussed in this section (if software is not encumbered by other rights or obligations).

Public domain is NOT the same as open source and the terms should not be used interchangeably. Unless specifically stated, software and other creative works made accessible on the internet are NOT necessarily in the public domain.

1 Open Source Initiative, *The MIT License*, opensource.org/licenses/MIT.

As explained in “A quick guide to software licensing for the scientist-programmer”:

Licenses are important tools for setting specific terms on which software may be used, modified, or distributed. Based on the copyright protection automatically granted to all original works, a software license—essentially, a set of formal permissions from the copyright holder—may include specific “conditions” of use, and are an important part of the legally binding contract between program author (or rights owner) and end-user.

Without a license agreement, software may be left in a state of legal uncertainty in which potential users may not know which limitations owners may want to enforce, and owners may leave themselves vulnerable to legal claims or have difficulty controlling how their work is used. This is equally true for software that is commercialized and offered for a fee, and software that is made available without cost to others. While end-users often balk at overly restrictive software licenses, the uncertainty caused when no license is given can also discourage those wishing to make use of a piece of code. It is important to note that licenses can be used to facilitate access to software as well as restrict it.¹

OPEN SOURCE LICENSING

A license is a contract that allows a copyright owner to give discrete rights to others regarding their work. “Open source” refers to a diverse set of different software licenses. As with any contract, open source licenses are legally enforceable contracts.

Distributing code under an open source model is NOT dedicating the code to the public domain. Open source is a software licensing model and all open source software is copyrighted. If creators decide to open source software, they make source code available for use by anyone. Even so, after the code has been open-sourced, *copyright still exists*.

1 Morin, A., Urban J., & Silz, P. (2012). A quick guide to software licensing for the scientist-programmer. *PLoS Comput Biol*, 8(7), e1002598.

Open source licenses are frequently characterized as permissive licenses allowing “software to be freely used, modified, and shared.” But the reality is more complex because open source software comes with strings attached to the recipient’s use.

More information about Stanford’s policies on open-source licensing, considerations, and options can be found on page 18 of this booklet.

COMMERCIALIZING THROUGH OTL

This option is best for Stanford creators who believe that their software could be of interest to industry either as a tool to use or as a product to sell. OTL handles licensing of Stanford’s intellectual property, including copyrighted works. After creators disclose their software, OTL may decide to also protect the intellectual property through patenting. If OTL successfully licenses the software (either exclusively or nonexclusively), royalties are generally shared with the creators, unless the work is deemed an institutional work. More information about patenting, licensing models, and royalty sharing can be found on page 23 of this booklet.

SPECIAL SITUATIONS

Mobile Apps

A mobile app is a specific form of computer program that is designed for a very well-defined and readily available distribution platform – namely, smartphones and tablets. Mobile apps developed at Stanford are subject to the same copyright policies as any other software developed at the University (see page 5).

Usually, if an app is developed by students without significant use of Stanford resources and outside of their regular coursework or research, then the students would retain ownership of that app. In this situation, they are free to distribute and commercialize the app without accounting to the University. However, the students may not use Stanford’s name in association with the app unless it is permitted and has been approved under Stanford’s name use policy (stanford.io/nameuse).

Content and Courses

Creators who wish to distribute apps owned by the University should disclose the app to OTL. Then OTL will follow their normal process for marketing and licensing. In some cases, licensing will include making the app available through app stores with the support of the creators. Certain types of apps – for example, those that are subject to IRB approval or those that collect sensitive information such as medical data – may have constraints on how they can be distributed.

Software-as-a-service

Software-as-a-service (SaaS) is a subscription-based distribution model where users access software that is hosted on an outside server and run over a network. Software that is disseminated through SaaS or cloud-based access is still subject to copyright protection and has the same licensing options as traditional software. If Stanford creators would like to pursue open source licensing for SaaS software, please contact OTL for guidance on which open source license to use.

Medical software

Some Stanford creators develop software that may be used at hospitals and clinics. This type of software is typically limited to research and may be subject to government regulation. This limitation applies to both software that is distributed and software that is provided as a web-based interface or service. Stanford employees and trainees must conform to legal and regulatory requirements if they develop software for use in connection with treatment, diagnosis, cure, prevention, or mitigation of a patient's disease. To ensure that regulatory requirements are met, Stanford creators of medical software should contact OTL before allowing others to use the code.

A wide variety of original works of authorship can be protected through federal copyright law, such as literary works, musical works, dramatic works, choreography, visual arts, motion pictures, and sound recordings.

How to apply Stanford's policy to the full range of copyrighted content – from individual photographs to collections of materials used for online courses – depends on the specific circumstances and will likely evolve with changing distribution platforms. This section provides a guideline for a few situations that are common at the University.

TEXTBOOKS AND PEDAGOGICAL WORKS

Generally, Stanford does not claim ownership to pedagogical, scholarly, or artistic works, regardless of their form of expression. This includes works that students create in the course of their education, such as dissertations, papers, and articles. The University claims no ownership of popular nonfiction, works of fiction, textbooks, articles (whether academic or op. ed.), poems, musical compositions, unpatentable software, or other works of artistic imagination which are not institutional works and did not make significant use of University resources or the services of University non-faculty employees working within the scope of their employment.

COURSE MATERIALS, VIDEO RECORDINGS, AND ONLINE COURSES

The Office of the Vice Provost for Teaching and Learning (VPTL) provides services to assist with teaching, learning, and developing innovations in the classroom. Stanford faculty, staff, and students can contact VPTL

(vptladmin@stanford.edu, vptl.stanford.edu, (650) 723-9611) for information on copyright as it relates to:

- using written and illustrative material from their courses in a book;
- courses taught and courseware developed by faculty while employed at Stanford;
- video and audio recordings of courses; and
- online courses that are open to the public.

DATA

Access to large data sets has become a key component of research at Stanford. Issues related to database creation and use can overlap with copyright. Stanford researchers who write software that uses or collects data (especially personal health information, social security numbers, or financial account numbers) should be aware of security precautions that must be taken to protect it against unauthorized access. More information about risk classifications and protective measures can be found at stanford.io/itriskclassifications.

Often, the data providers or recipients require an agreement (either written or online “click-through” agreements). In addition, data sets created by Stanford researchers can sometimes be licensed for commercial purposes. In these cases, researchers can contact the appropriate office at Stanford to help navigate the specific type of agreement. These offices are:

- **Office of Sponsored Research (OSR):** for agreements with non-industry entities, including government or non-profits (stanford.io/osr)
- **Industrial Contracts Office (ICO):** for agreements with industry for research purposes (ico.stanford.edu)
- **Procurement Office:** for agreements to purchase or store data
- **Office of Technology Licensing (OTL):** for data created at Stanford that is intended for licensing for commercial purposes (otl.stanford.edu)

Under limited circumstances, researchers may be authorized to sign data agreements on their own behalf. The Dean of Research has provided a memo with guidelines for reviewing and signing these agreements (stanford.io/datamemo).

CREATIVE COMMONS LICENSING

Creative Commons (CC) provides a set of standard licenses that are used to distribute copyrighted works to the public free of charge. These licenses can be applied to content, creative works, and copyrighted works other than software. Creators can choose the appropriate CC license according to a standardized set of criteria, such as whether the work can be modified or used commercially. Although CC is not recommended for software itself, these licenses can be used for software documentation, as well as for separate artistic elements such as game art or music. Also, the CCO (Public Domain Waiver) is suitable for dedicating copyrighted works, including software, to the public domain, to the fullest extent possible under the law. Additional information about Creative Commons can be found at creativecommons.org.

Open Source Software Licensing

Open source licensing enables creators to make software available at no charge but with conditions on use and further distribution. Creators should be sure to understand these conditions before selecting an open source license because it could affect future options for disseminating the software.

WHEN STANFORD CREATORS CAN OPEN SOURCE

Software developed in the course of research at Stanford may be open sourced by:

- faculty members, as long as doing so does not conflict with any Stanford contractual obligations;
- students, post-doctoral scholars, and research staff, with faculty permission; or
- staff, with the appropriate departmental approval.

Also, certain Industrial Affiliates Programs intend that any software released in the Program will be released under an open source model (such as BSD). These programs are open to all Stanford faculty who share this goal.

As a reminder, in order to pursue open source licensing, Stanford must have clear title to the software and the software must be original (or the other copyright owners must permit licensing of their rights in the work). In addition, all the creators must agree on the distribution model and be certain that they have the right to do so.

Open source licensing may not be possible under certain circumstances:

- **Institutional Works:** If the software is considered an institutional work (see page 7), the creators should not open source the software without approval by OTL.
- **Sponsored Projects:** If the software was developed under a sponsored project, then Stanford must comply with the contract that governs the project. These contracts could include provisions such as providing code to the sponsor or following a specified distribution model.
- **Third Party Code:** If the software includes code from a third party (such as a colleague or previously open sourced code) the creators must obtain permission before open sourcing that software and any licenses must be consistent with that permission.

WORDS OF CAUTION

If you don't own it, you can't license it without permission.

If software includes code written by a third party then that code cannot be disseminated without permission. If the third party code was obtained under an open source license, that license may impose conditions that apply to further distribution.

Strings are attached.

Open source licenses have terms and conditions imposed on the recipient (a.k.a. licensee). For example, an open source license may require users to attribute the licensed work to the original creators, to divulge source code, or to not enforce any copyright for any derivative work. Creators must consider their long term plans for the software when deciding which strings are appropriate for them.

Free does not necessarily refer to price.

Many people consider open source software to be “free software.” In this situation, “free” refers to freedom to run, copy, distribute, study, change, and improve the software. Free does NOT refer to the price as it does in “free beer.”

Stanford creators should only open source code and not patents.

If creators choose open source licensing, they may choose whatever agreement meets their goals as long as it does not include explicit or broad

patent rights. Software creators should select a license that only grants rights to the copyrighted code itself and not to patents that cover associated methods or algorithms. In other words, Stanford creators should NOT choose Mozilla/IBM/Apple style, GPL, or Affero licensing.

The terms are the same for everyone.

If creators choose open source licensing, they must offer it to all parties on the same terms and conditions. The software and the license should be easy for third parties to access and should remain available over time.

TYPES OF OPEN SOURCE LICENSES

Creators can choose among several kinds of open source licenses, all of which have strings attached. An extensive list of common open source licenses can be found at blackducksoftware.com/resources/data/top-20-open-source-licenses (this list is based on popularity, not merit). (For free

Creators should make an informed choice about open source licensing by carefully reading any license they are considering and making sure they have a clear understanding of the rights and requirements of the agreement.

distribution of creative works that are not software, please see Creative Commons Licensing on page 17.) Creators should make an informed choice about open source licensing by carefully reading any license they are considering and making sure they have a clear understanding of the requirements of the agreement. Then they are free to select which license best suits their needs.

One important question to consider when deciding on an open source license is whether or not to include a “copyleft” clause, also known as a viral clause. Viral clauses require redistribution of source code and derivative

works on the same terms of the original license. The principal viral/copyleft licenses are GNU General Public License (GPL) and GNU Lesser General Public License (LGPL). Viral/copyleft clauses impact derivative works and may well determine how the software is developed. This may become an obstacle for future licensing to commercial entities.

In contrast, some open source licenses are “permissive” with regard to derivative code. These so-called “notice” licenses merely require that the appropriate author notices be retained in the original or replicated open source code.

COMMON OPEN SOURCE LICENSES

BSD/MIT/Apache Style License

These licenses are “notice” or “permissive” licenses. They generally allow freer distribution, modification, and license changes, much like public domain software. These licenses usually require attribution but do not have future open source requirements.

Mozilla/IBM/Apple Style License

These licenses combine facets of both “notice” and “viral” style licenses and include access to source code. OTL discourages Stanford creators from using these licenses because they include a grant of patent rights which the creators do not own and have no authority to convey.

GNU General Public License (GPL)

GPL is a “viral” license that grants the right to copy, modify and distribute. It requires that the source code be made available to future licensees upon distribution, including distribution of derivative works. Stanford creators who wish to use GPL should use GPLv2 rather than GPLv3 because GPLv3 contains broad patent grants. Additional information about GPL can be found at www.gnu.org.

GNU Lesser General Public License (LGPL)

LGPL is similar to GPL. It is also a viral license but it makes it somewhat easier for licensees to combine the LGPL code with a separate program and distribute the combination under a separate license. LGPL is often used with open source libraries that are used in combination with other software.

GNU Affero General Public License (AGPL)

AGPL is similar to GPL. It is a viral license that includes a provision for software developed to run over a network with a software-as-a-service distribution model. However, OTL discourages Stanford creators from using AGPL because it includes a grant of patent rights.

Commercializing through OTL

OTL manages licensing for intellectual property owned by Stanford. This includes copyrighted works such as software, databases, educational materials, photographs, and audio files. Stanford creators should disclose to OTL (otldisclosure.stanford.edu) when they believe their work either could be of interest to companies or could be licensed to other users for a fee. Creators can choose to combine commercializing through OTL with Academic Use Licensing or another distribution model. OTL can discuss various strategies with creators to help them understand the implications of their choices.

OWNERSHIP

Before Stanford can license any copyrighted work, OTL must confirm that we have the right to do so. This means we need to:

- verify the names of all creators who contributed to the work;
- confirm that Stanford owns the copyright to all contributions;
- determine whether or not the work contains material from any other source (if parts of the work are derived from other sources such as the internet, another research institution, other written material, or open source software, then we must either obtain permission from the copyright owner or confirm that it is in the public domain); and
- investigate whether any research sponsors have rights that might restrict Stanford's ability to license the copyright to third parties.

HOW TO CHOOSE

Deciding which open source license is best for a particular piece of software depends on what the creators hope to achieve with the licensing and what restrictions they want to place on derivative works. For example, researchers can allow other researchers to use the software for free but still retain the possibility of licensing the code for commercial purposes under the appropriate license. If the creators are considering charging for the software in the future, they should discuss their license choices with OTL because certain open source licenses may hinder potential commercial use. Some considerations to keep in mind are:

- **What are the creators hoping to achieve?** Broad adoption in the academic community? Broad adoption in industry? Continued development by others? Synergy with widely open sourced applications like Linux?
- **What level of access do the creators want to permit?** Source code? Object code?
- **What do the creators want others to be able to do with the software?** Modify and develop other versions or derivatives? Create competing software? Incorporate it with their existing products?
- **What do the creators want others to be able to do with any derivatives?** Contribute to open source community? Bundle and sell as a supported product?
- **Do the creators want changes or bug fixes sent back to them?** Do they want to be able to incorporate these contributions into the next release? (If yes, they will need an assignment from the contributors.)

After considering these questions, creators should read and understand any open source license before selecting it for their software. Several online resources are available to help determine which open source license best meets their needs. These online tools include:

- Github's ChooseALicense tool: choosealicense.com
- Open Source Initiative's licenses page: opensource.org/licenses
- OSS Watch's license differentiator: oss-watch.ac.uk/apps/licdiff

Open source licensing is complex and creators should feel free to reach out to OTL with any questions.

Because copyright ownership can be murky, Stanford generally does not warrant or represent that Stanford does not infringe other copyrights/patents or that we have complete rights in a copyrighted work.

Sometimes, in the process of reviewing a particular invention disclosure, OTL determines that the University does not have title to the copyright under Stanford's Intellectual Property Policy. The stories of Yahoo and Google can help illustrate how this policy is applied.

In the case of Yahoo, two students, Jerry Yang and David Filo, disclosed their software to Stanford. They had used Stanford computers to develop the software but their faculty advisors confirmed that their invention was not related to their University responsibilities as students. Because use of basic desktop computers is considered incidental, Stanford did not claim ownership to what became the Yahoo platform.

In contrast, Google founders Sergey Brin and Larry Page had been paid through government funding when they developed a search engine in the course of research toward their Ph.D. degree requirements. Because of the specific facts in this situation, both the written code for the search engine and the underlying novel ideas behind it were owned by Stanford under the University policy.

Both cases had similar technologies but the disposition of title to the intellectual property was different. Happily, both sets of students were able to successfully commercialize their innovation.

PATENTING COPYRIGHTABLE WORKS

Sometimes the intellectual property rights from copyright can be combined with patents to protect the same creation. While copyright protects the way a creator expresses his creation, a patent can protect the fundamental idea or concept.

Patenting can be expensive and recent court decisions have made it difficult to patent software. Therefore, OTL does not usually pursue this option for creative works. But, OTL may decide patenting is appropriate if the ideas

behind the work are truly novel, non-obvious, and enforceable and if the potential royalty returns can justify the investment. OTL has had success commercializing software both with and without patent protection.

In the case of Google, Stanford filed a patent application on the page ranking method to improve web searches. Then OTL licensed both the software code and the associated patent application to the newly formed company.

About two years earlier, OTL licensed software for delivering video over the internet to a different inventor start-up company, VXtreme. In this case, Stanford only licensed the code and there was no patent on the underlying concept.

EXCLUSIVE VS. NON-EXCLUSIVE LICENSING

Whether intellectual property takes the form of a copyrighted work or a patentable invention or both, OTL can decide to pursue either an exclusive or non-exclusive licensing strategy. An exclusive license grants rights to only one company. A non-exclusive license enables licensing to multiple companies. OTL typically decides which route to take based on the stage of development of the particular technology.

If a creative work needs additional improvements before it can be widely used, an exclusive license is often the best option to provide the company with an incentive to invest the resources needed for commercialization. This was the case in the earlier examples of Google and VXtreme.

Other times, companies simply want access to the copyrighted work and do not need a proprietary position in order to commercialize the invention. This was true for the microprocessor technology developed by John Hennessy, President of Stanford. This invention was non-exclusively licensed to several companies, including MIPS (the start-up founded by Prof. Hennessy).

Sometimes an even broader non-exclusive licensing strategy is the best way to disseminate the technology. An example of this is the copyrighted content in the Chronic Disease Management Programs developed by Prof. Kate Lorig. These self-management programs are licensed to over 90 non-profit

Navigating Copyright

community organizations, governments, and commercial entities. They are used in over 25 countries to help patients manage conditions such as arthritis, diabetes, and HIV/AIDS.

MINOS and SNOPT, unpatented linear and non-linear optimization programs, were also broadly licensed. OTL began licensing this software over 30 years ago and it has been used by over 50 companies and non-profit entities in different fields of use.


Regardless of the licensing strategy, OTL ensures that the copyrighted work can continue to be used by researchers at the University by retaining rights for Stanford in license agreements.

ROYALTY SHARING

In general, Stanford has a policy of sharing royalties with inventors and creators.¹ However, with copyright, it can be complicated to determine who is a creator. According to copyright law, a creator is someone who actually creates the work. In the case of software, this would be the programmer who writes the code. For other kinds of work, this may be the author, artist, songwriter, or performer. The person who had the idea for the work is not necessarily a creator. However, in certain situations, royalties may be shared with the person who provided direction for writing code. In the case of patented inventions, an inventor is someone who conceived an essential element of the invention. Thus, for patented software, an inventor could be entitled to receive royalties without writing any code.

Another special situation occurs when the copyright is an institutional work (see page 7). Royalties for institutional works are not shared with individuals and are often designated to an unrestricted lab or project account.

¹ Under Stanford royalty sharing policy, a deduction of 15% to cover the administrative overhead of OTL is taken from gross royalty income, followed by a deduction for any directly assignable expenses, typically patent filing fees. After deductions, royalty income is divided one third to the inventor, one third to the inventor's department and/or independent lab/institute (as designated by the inventor), and one third to the inventor's school and/or Dean of Research for independent labs/institutes.



Copyright licensing can be complicated. This booklet provides creators with guidance on some common situations. But we always encourage creators to contact OTL to discuss the unique facts of their copyrighted work when deciding how to disseminate it.

When evaluating copyright, OTL must consider who was involved in creating the work, who owns the copyright, and who (if anyone) has the authority to license it. This can be tricky if Stanford creators work with collaborators outside the University or if they utilize content such as code, images, or audio clips from other sources. Creators also have their own personal goals for how they would like their work to be adopted or utilized. OTL can help creators navigate these complexities to find the best path to distribute their work and have an impact on the world.

KEY TERMS

CCO – a tool provided by Creative Commons that allows a copyright owner to hasten a creative work’s entry into the public domain by permanently and irrevocably giving up copyright in the work; this tool has been used by scientists who want to clear away incidental copyrights that might attach to their data sets and by creators who really do believe that their copyrighted works should be in the public domain.

Copyright – a class of intellectual property rights covering works fixed in a tangible medium of expression; copyright protection covers forms of expression (e.g., novels, songs, photographs, software) at the moment of their creation.

Copyright registration – a legal formality intended to make a public record of the basic facts of a particular copyright; registration is not required but does provide several inducements or advantages as outlined by the U.S. Copyright Office (see copyright.gov/circs).

Creator – any person who contributes to the creation of a copyrighted work; if more than one person contributes to a creative work then they jointly own the copyright and have a duty to account to each other for profits.

Derivative work – work based on one or more preexisting works; examples of derivative works include translations, movie versions of novels, or reimplementations of code in a different computer language.

Institutional work – Stanford policy (stanford.io/copyrightpolicy) outlines specific situations whereby a creative work would be considered an institutional work; institutional works are owned by Stanford.

License – a contract that allows a copyright owner to give discrete rights to others regarding their work.

Notice – attribution of a copyrighted work to its author or owner (e.g., ©2015 The Board of Trustees of the Leland Stanford Junior University); a copyright notice is NOT required for copyright protection to be in effect but it helps in a copyright enforcement action.

Open source licensing – a software licensing model that allows source code to be used, modified, and shared with defined requirements for the recipient’s use; open source licensing is NOT the same as placing software in the public domain.

Patent – a form of intellectual property that can be used to protect fundamental ideas or concepts that are new, useful, and non-obvious; some creative works can be covered by both copyright and patent protection.

Permissive licenses – open source licenses that generally allow freer distribution and modification, but usually require attribution to the original creators; these are also known as “notice” licenses (BSD, MIT, and Apache style licenses are permissive licenses).

Software-as-a-service (SaaS) – a subscription-based distribution model where users access software that is hosted on an outside or “cloud” server and run over a network; SaaS is subject to the same copyright protection and Stanford policies as any other software.

Viral clause – a provision in open source licenses that requires redistribution of source code and derivative works on the same terms as the original license; these are also known as “copyleft” clauses, for example they are found in the GNU General Public License (GPL) and the GNU Lesser Public License (LGPL).

VPTL – Stanford’s Office of the Vice Provost for Teaching and Learning (VPTL), this office is responsible for Stanford Online classes among other teaching and learning resources at Stanford.

RESOURCE GUIDE

Creative Commons

creativecommons.org

Stanford Industrial Contracts Office (ICO)

ico.stanford.edu

Stanford Office of Technology Licensing (OTL)

otl.stanford.edu

Stanford Office of the Vice Provost of Teaching and Learning (VPTL)

vptl.stanford.edu

Stanford Research Policy Handbook Copyright Policy

stanford.io/copyrightpolicy

Stanford University IT, Information Security Risk Classifications

stanford.io/itriskclassifications

Stanford University Libraries (SUL)

- Copyright Reminder: stanford.io/copyrightreminder
- Copyright and Fair Use: fairuse.stanford.edu
- Copyright and Public Online Learning: stanford.io/onlinelearning
- Data Management Plans: stanford.io/dmp

United States Copyright Office

- Main Website: copyright.gov
- Circular on Copyright Basics: copyright.gov/circs

Resources for Selecting Open Source Licenses:

- Black Duck's Top 20 Open Source Licenses: blackducksoftware.com/resources/data/top-20-open-source-licenses
- Creative Commons License Chooser: creativecommons.org/choose
- Github's ChooseALicense Tool: choosealicense.com
- Open Source Initiative's Licenses Page: opensource.org/licenses
- OSS Watch's License Differentiator: oss-watch.ac.uk/apps/licdiff

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