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MEMORANDUM

Date: May 3, 2018

To: USC Software Developers

From: USC Stevens Center for Innovation

Re: Distribution of USC Software

CC: Randolph Hall, Vice President of Research

Attachments: Exhibits 1-3

This memorandum provides guidance to USC software developers -- including faculty, staff, and students -- on considerations for how to distribute USC-owned software. Such decisions can affect research collaborations, satisfaction of sponsor requirements, ability to patent inventions and software commercialization (thus affecting potential for future royalties or other income for developers or inventors). We cover:

- I. [Considerations in Distribution of Software](#)
- II. [What Is an Open Source Software License?](#)
- III. [Releasing Software at USC](#)
- IV. [USC Policies That Apply to Open Source Software](#)

While USC policies give software developers flexibility to pursue various distribution pathways, such decisions can be complex and have significant future consequences, including losing out on commercialization benefits that accrue to others. These consequences are hard to predict without careful assessment. Therefore, USC developers (also called “authors”) are strongly encouraged to clarify all issues of ownership and future commercialization with USC Stevens in connection with software development as soon as practicable.

Key takeaways from this memorandum:

- When USC Authors wish to share software with fellow researchers or developers, the preferred approach is through an academic/non-profit use license, utilizing the copyright language in section II.c below.
- If an open source license is needed, the Berkeley Software Distribution 3-clause license is preferred.
- Contact the Stevens Center for Innovation for guidance on the best pathway for software distribution and to resolve any authorship, ownership or proper attribution questions.

I. Considerations in Distribution of Software

When distributing University owned software to the public, developers may choose one of three paths: 1) a commercial license via USC Stevens, 2) an academic/non-profit license that restricts commercial development, or 3) an open source license.

The foremost consideration is whether the authors **intend to allow public use of the software for commercial purposes**. USC Intellectual property policy requires a waiver from USC Stevens prior to allowing third parties commercial use of university owned software, so in most cases it is most expedient to distribute software with the academic/non-profit license provided below.

A second consideration is **whether the software is encumbered** by restrictions imposed by third party obligations such as from a sponsor. To address this consideration, authors complete the USC Stevens Software disclosure form, covering these elements:

- When releasing code developed under a sponsored project or some other funding, are there any terms that would encumber or cause USC to have a requirement to grant rights to another entity?
- Does a related grant/contract contain any requirements regarding open source (either specifying a grant of rights or the form of open source required)?
- Increasingly, government grants and commercial company sponsorship funds are coming with strings attached to the final product, which they require to be released in open source (often under a specified license).
- Has 3rd party code or libraries been incorporated, either open source or under a commercial license, or any code developed by a USC colleague, into your work?
- Are there any other assets that went into the project (video files, audio files, photos obtained online, art assets, library files etc.) which do not fall under a typical code definition, but are under an open source license or require consents?
- Are there differing permissions in the software you downloaded depending on whether it will be personally used or redistributed commercially?
- Do the permissions granted by any software you downloaded make a distinction between providing end-users with the output of the compiled program versus the providing the program itself?
- Additionally, the disclosure form requests specific details on (1) The name of the asset, (2) where the asset was obtained with any applicable links and, (3) a copy of the license the asset was acquired under. If you do not know what license type an asset was downloaded under, USC Stevens can help you find the software asset online and the applicable license.

A third consideration is **whether the software embodies a patentable invention**. Placing software that may embody a patentable invention into the public domain is a publication for patent purposes and may make protecting the innovation difficult or impossible.

II. What Is an Open Source Software License?

Open source software is software (including code, art assets, images, video, and others assets) for which the copyright owner(s) has made its source code available for use and/or collaborative development by anyone, while the owner still maintains the copyright. An "open source" agreement is a license that allows others to use/modify/distribute the software free of charge. There are dozens of popular open source licenses and each has unique terms and conditions that affect how the software can be used and re-distributed. With the growing popularity of open source software in both the commercial and academic sectors, it is increasingly likely that

you will use open source software in your work and that 3rd party code you receive will most likely be under some form of open source license. The Open Source Initiative, a nonprofit organization, tracks the different open source licenses most commonly used and provides copies of common licenses on their website at: opensource.org/licenses.

It is extremely important to understand that Open Source Software as it is defined today in both academic and commercial settings is licensed software, and **the open source license is a binding and enforceable legal contract entered into when the software is downloaded or used**. Non-compliance with the requirements of the license can entail serious ethical, legal and financial risks to both the individual and the University. It is thus important to carefully consider the distinct terms and conditions of these licenses when using code acquired under an open source license and when releasing code that you have written under an open source license (See section III for more information).

Open source licenses (unlike academic/non-profit licenses) permit for-profit entities to commercialize USC created software. Therefore, USC Stevens needs to review open source licenses prior to software distribution. However, whenever permissible, developers are encouraged to use an academic/non-profit license rather than an open source license.

III. Releasing Software at USC

a. Using code governed by an open source license

When third party code or third party libraries are downloaded and/or used by USC authors, the license governing this code has the potential to affect how you may distribute the overall combined work that includes the code or libraries. Some “open source” licenses require that a combined work be made freely available on request, or that only the compiled version can be shared. These potential limitations are important to understand at an early stage, as they will ultimately shape not only commercialization efforts by USC, but the USC author’s ability to use and or distribute their work.

The decision on which open source license to utilize can have a large impact on the ability to collaborate with partners or commercialize software. For example, the **General Public License (GPL) (including all its related licenses, such as GPL2 and GPL3)** is an example of a “viral” license. If code obtained under the GPL is combined with other code, the general rule is that the combined software must be released under the GPL and source code for the entire combined work must be made freely available upon request. Using code acquired under the GPL, can, therefore, impede later research and hinder commercial goals (such as, for example, when software incorporating the code might form the basis of a start-up company or when university collaborators do not wish to accept a GPL license). In choosing what assets to use in a software project aiming toward commercialization, it would be good practice to avoid GPL software or to take steps early in the development process to compartmentalize GPL code into discrete packages that can be separately released.

Although **Apache** is generally considered a permissive “Copyleft” open source license, its use in the distribution of USC owned software is discouraged due to the explicit grant of any associated patent rights required under the Apache terms.

In contrast, **Berkeley Software Distribution (BSD)** licenses allow any user to use or redistribute code obtained under the license as long as certain minimal copyright notices and legal liability disclaimers are included. If code obtained under the BSD license is combined with code that you have written, the new software may be released under **any** terms and conditions including a traditional commercial license and only the original BSD

code will remain under the terms of the BSD license. Using the BSD license to release your work avoids many of the problems with the GPL, but also allows both academics and commercial companies to download and then modify and sell your software without owing you any money or updates.

See Exhibit A for a more detailed look at different open source platforms. Authors are encouraged to go to the Open Source Initiative and familiarize themselves with the sliding scale of restrictions that accompany open source software; when in doubt USC Stevens can help you understand the nuances of particular licenses and how they will affect an author's work. **However, when open source is desired or required, BSD is strongly preferred over GPL or Apache, whenever permitted.**

b. Releasing code under an open source license

Typically, once your software has been disclosed and release of that code is approved by USC Stevens, USC will make the software available under an open source license that allows broad use and dissemination, while achieving the goals of the authors and preserving their intent in open sourcing.

c. Academic/non-profit use licenses

Academic use licenses are a form of **Public Domain Licenses**. **Academic/non-profit licenses are the preferred method for sharing software with research collaborators.** USC developers frequently make software or copyrighted material available under a license that allows the same broad use as an existing open source license, but restricts commercial activity or any activity outside the research and academic space. **USC developers should use our most current copyright notice, provided below:**

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IV. USC Policies That Apply to Open Source Software

- a. Who owns the software I have developed while working at the university?

Under the USC Intellectual Property policy (with some exceptions called out within the policy), the University owns software that is produced by its employees in the course and scope of their employment, as well as software that is produced with the use of University facilities or funds, and software that is produced by or through the University in the performance of a written agreement between the University and a sponsor. (See USC IP Policy at: policy.usc.edu/files/2014/02/intellectual_property.pdf).

- b. Who handles open source software and the copyright policy at USC?

Under the USC IP Policy decisions regarding software and Copyright are made, by the USC Stevens Center for Innovation (See: stevens.usc.edu/).

- c. Do I need to disclose software to USC Stevens that I want to be released open source?

Yes. All software should be disclosed to USC Stevens before it is distributed outside the University, and USC Stevens is the only office charged with determining conditions under which software may be legally distributed. If the software disclosure indicates the authors' preference for a specific form of distribution, such as distribution under a specific open source license, these considerations will be factored into the determination. Additionally, disclosure or notice to the sponsor may be required by the sponsorship or other funding contract under which the software was developed. Even if your ultimate end goal is the distribution of the software under a broadly permissive open source license, it is still important for USC Stevens to evaluate and track this release.

- d. Who decides whether software can be released by open source?

Whereas USC's Intellectual Property Policy permits creators to make software owned by USC publicly available (surrendering all of their rights, or surrendering all rights for academic/non-profit uses), copyright protection (even via open source) needs to be in accordance with USC policy, coordinated with USC Stevens. Please keep in mind that placing one's intellectual property in public domain can have negative consequences and should be carefully considered by the entire research team.

- e. Do open source licenses require conflict of interest management?

Free and open software distribution is consistent with USC's mission, and therefore in most circumstances does not create a conflict of interest. **However, a conflict of interest review is required if USC faculty, staff or students intend to commercialize USC developed software.** For instance, it would be a conflict if open source software were an avenue for commercialization that circumvented paying license fees, or if the software were not freely and widely available. For these reasons, open source software should be made freely available through sites available to all, such as GitHub, and in no way restricted in terms of access to others.

If commercialization is intended, a disclosure should be filed through [diSClose](#) prior to pursuing open source.

For further questions contact:

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