**Computer Law Syllabus**

**Berkeley School of Law, Fall 2019, 276.4 sec. 001**

*Prof. Dr. Lothar Determann*

We meet on Wednesday mornings from 8 to 9:50 AM in Room 130, Aug 28; Sept 4, 11, 18 and 25; Oct 9 and 30

Credit-only course. No exam. 1 Unit, 7 sessions, from August 28, 2019 to October 30, 2019

In this Syllabus, you find a brief course description, an overview of classes in table format, assignments to complete before each class and quizzes to complete after each class.

**Course Description**: This course explores laws, industry practices and policy considerations relating to the development, protection and commercialization of software, computers and information technology services. The primary focus will be on two areas of law: intellectual property and contracts. We will also cover international and commercial issues, antitrust law, as well as current hot topics, such as apps, cloud, Internet of Things, open source licensing and the Digital Millennium Copyright Act. We will also cover data as an asset, but not information privacy or data security topics.

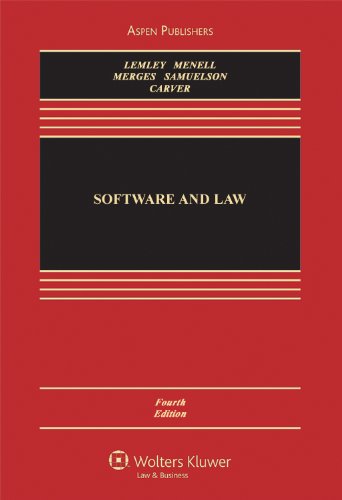
The course is interactive, focused on practical problem-solving, exercises and quizzes.

Prior courses in intellectual property topics are recommended but not required; there will be no or minimal overlap with other courses. No technical background is required; a hands-on introduction to information technology will be provided as part of the course.

**Syllabus Overview Table** (more detail below, following this table)

| **Class** | **Topic** | **Assignments before class** *(more details below, following this table)* | **Learning Outcome** |
| --- | --- | --- | --- |
| #1 (8/28 | Intro to subject, syllabus, materials, method | Review first assignment, prepare bullet points with legal references on how information technology can be protected under different legal regimes and prepare answers for the first hypo to questions for each of the IP regimes. | Understanding which legal regimes are available to protect IT |
| #2 (9/4) | Collaborating on development of IP for information technology, trade secret protection for information technology | 1. Review second assignment, outline what rights and remedies SCO has against Daimler Chrysler and against IBM, and consider what SCO, IBM and Daimler Chrysler could have done to better protect their respective interests  2. Prepare a trade secret protection program and policy for your friend’s start up (hypo from 1st assignment) | Understanding the benefits and limitations from a legal perspective of (1) collaborating on IP development for information technology and (2) using trade secret law to protect information technology and what practical steps to take to make trade secret law protection effective |
| #3 (9/11) | Copyright protection - cases and business models (interoperability, SaaS, licensing models, first sale doctrine, fair use) | 1. Read *Computer Associates International, Inc. v. Altai, Inc.*, *Sega v. Accolade*, *Sony Computer Entertainment, Inc. v. Connectix Co.*, and *Oracle Am., Inc. v. Google, Inc.*  2. Prepare written outlines regarding the rights and remedies of the plaintiff in the three cases using the format we have been using in class. | Understand how copyright law can protect software, identifying protectable aspects of software programs |
| #4 (9/18) | Copyright protection - cases and business models (interoperability, SaaS, licensing models, first sale doctrine, fair use) | 1. Read *Vernor v. Autodesk*, EU court of justice decision of July 3, 2012, 2012 *UsedSoft GmbH v. Oracle International Corp.* and consider for #2 how to shape your license agreement, contracting process and business terms to mitigate the risk that the first sale doctrine applies.  2. Prepare a concise software license agreement, intended to protect the licensor and a brief protocol for mass market contract formation, to render the license agreement as effective as possible while minimizing the effort and administrative burden; consider click-through, shrink wrap, browsewrap and similar possibilities. | Understand first sale doctrine in the US and the EU and gain practical contract drafting experience |
| #5 (9/25) | Copyleft, free and open source | 1. Please read the “Cole Codewriter” hypo and prepare an outline of rights and remedies that Cole has against RIM, RAM and Rolf Ringer under US copyright law and the GPL vs 2.  2. Consider whether software should be protected under patent law given the wording of 101.  3. Consider whether the legal mechanisms on which “copyleft” and the open source code movement are founded work with patent law as well as with copyright law? Prepare a list of legal considerations for discussion in class. | Understand how the General Public License works, concepts of free and open source licensing, and form a view on whether something similar to the “copyleft” movement would work for patent law from a legal perspective |
| #6 (10/9) | Patent protection | Please read *Bilski v. Kappos*, and *Alice Corp. v. CLS Bank International*, and outline the rights and remedies that the patent owner could assert against an infringer  Please consider whether the Supreme Court has provided clear guidelines on patent eligibility of computer software | Understand development of patent law protection for computer software and form a view on whether the current test incentivizes development of software |
| #7 (10/30) | Data ownership, comparison of IP regimes, summary | For this class, please:  1. read "No One Owns Data" (available at <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3123957>) and develop arguments and positions for and against data ownership (and send me any edits or questions you have by email)  2. familiarize yourself with the dispute between hiQ Labs v. LinkedIn (see, e.g., <https://docs.justia.com/cases/federal/district-courts/california/candce/3:2017cv03301/312704/1> and [www.eff.org/cases/hiq-v-linkedin](http://www.eff.org/cases/hiq-v-linkedin)) and develop arguments for each company  3. consider who, if anyone, should own copyrights or other property rights to data in works of authorship (e.g., photos, book sequels, movie scenes created with/by software programs, see [www.law.com/therecorder/2018/02/22/judge-turns-back-software-makers-copyright-claims-over-film-special-effects/](http://www.law.com/therecorder/2018/02/22/judge-turns-back-software-makers-copyright-claims-over-film-special-effects/)) and data bases created by artifical intelligence  4. consider practical steps business can take to protect their property or other interests in data, databases and works created by software programs, sensors, technologies, etc.  5. prepare a summary of PROs and CONs re. the different intellectual property law regimes for information and information technology | Legal, policy and practical considerations re. property rights in information; summary of information technology protection regimes advantages and disadvantages. |

**Details for Class Preparation**



Below you find details regarding each of the seven class sessions and assignments to complete before each class. After the classes, you will receive quizzes to complete also.

In addition to the required reading for each class, please consider my optional reading suggestions for each class - and one general recommendation: The text and case book "Software & Internet Law" by Mark Lemley, Peter Menell, Robert Merges and Pam Samuelson is an excellent resource.

**Assignments for Class #1.**

**Your friend developed a computer program - how to commercialize it?**

Before class, please read and prepare answers for the following first hypothetical case: Your friend has developed a new computer program, which can pull data from the Internet and other sources, and compile and organize such data in an intuitive way for use on mobile devices. For example, you can type in “Green Day “ and the program creates a brief summary biography and then downloads songs, lyrics, movie files from various sources and links them to the summary biography. Or, if you type in “Mono Lake”, the program pulls photos, video and information on Mono Lake, including the news regarding arsenic-incorporating bacteria from outer space.



Your friend asks you: Havent you just gotten licensed to practice law? How should I go about commercializing this product? Any legal stuff I should be worried about? How can I make the law work in my favor?

*Assignment:* Please prepare a bullet point outline of 5-10 legal considerations to discuss with your friend. Remind yourself about the different types of intellectual property laws regimes that exist and prepare a brief outline for each regime and how they are relevant for your friend’s business plan.

Please also prepare answers to the following questions for each of the IP regimes (Copyrights, Patents, Trade Secrets, Trademarks) and add a column where you answer the same questions for Contracts:

- What is protected? (*e.g.*, works of authorship under copyright law, namely, regarding software, 102(a), ...)

- What is not protected? (*e.g.*, see 102(b) Copyright Act)

- Against what is the IP protected? (*e.g.*, copying, under Copyright Act, and ...?)

- What conditions apply (*e.g.*, registration? filings?)

- How long is protection available (*i.e.*, term of intellectual property rights - “IPR”).

- What remedies are available?

Please review the excerpt of statues as necessary.

**Assignments for** **Class #2.**

**Collaborating on development (How protect my code?)**

*Assignment:* 1. Prepare a written outline of SCO’s rights and remedies based on the following fact pattern:

SCO owns the Unix computer code and has licensed it to IBM for purposes of allowing IBM to provide services to SCO. IBM enginers working on the Unix project often talk to IBM engineers working on a different project - the Linux project - where they contribute to the further development of the Linux open source software code, which is a substitute for SCO’s Unix code. Occasionally, IBM engineers working on Linux take ideas and know-how from IBM engineers who are working on the Unix project and ultimately, Linux includes some ideas and know-how originating from Unix. The Daimler-Chrysler company downloads copies of Linux and uses it in its business (car manufacturing).

*Question: What rights and remedies does SCO have against Daimler Chrysler and against IBM? What could SCO, IBM and Daimler Chrysler have done better to protect their respective interests?*

2. Prepare a trade secret protection program and policy for your friend’s start up (hypo from 1st assignment).

Please review the excerpt of statues as necessary.

*Optional reading for background purposes:*

1. *Data General Corp. v. Digital Computer Controls, Inc. Delaware Court of Chancery*, 297 A. 2d 433

2. *Schalk v. State*, 823 S.W.2d 633

3. Article Lothar Determann, Andy Coan, Spoilt Code? SCO v. Linux — A Case Study in the Implications of Upstream Intellectual Property Disputes for Software End Users, Computer Law Review International 2003, 161

4. Article: Lothar Determann, Luisa Schmaus, Jonathan Tam, Trade Secret Protection Measures and New Harmonized Laws, Computer & Internet Lawyer, 2017, 1

5. Wikipedia: https://en.wikipedia.org/wiki/SCO/Linux\_controversies

**Assignments for Class #3.**

**Is my program copyrightable 1 (Does it matter what my program does and how?)**

*Assignment*: 1. Please read the facts of *Computer Associates International, Inc. v. Altai, Inc.*, 982 F.2d 693 (2d Cir. 1992), *Sega v. Accolade* (977 F.2d 1510 (9th Cir. 1992), *Sony Computer Entertainment, Inc. v. Connectix Co.*, 203 F.3d 596, and *Oracle Am., Inc. v. Google Inc.*, 750 F.3d 1339.

2. prepare written outlines regarding the rights and remedies of the plaintiffs in the three cases in the format we used in class;

3. analyze the differences in the fact and law in *Sony* and *Sega* - could Sony have won its case even if the court maintained the rationale of the Accolade decision?; and

4. analyze whether the court in *Computer Associates v. Altai* could have explained its decision based on the‘fair use’ reasoning.

**Assignments for Class #4.**

**Licensing or selling software (Can I sell the software program I got at Best Buy? I don’t need it anymore.)**

*Assignment:*  Please prepare

(1) a concise software license agreement, intended to protect the licensor

(2) a brief protocol for mass market contract formation, to render the license agreement as effective as possible while minimizing the effort and administrative burden; consider click-through, shrink-wrap, browsewrap and similar possibilities and case law relating thereto

Please also review *Vernor v. Autodesk, Inc.*, 621 F.3d 1102 and the EU Court of Justice decision of July 3, 2012 *UsedSoft GmbH v. Oracle International Corp.* (Case C-128/11) (1), Official Journal 2012/C 287/16 and consider how to shape your license agreement, contracting process and business terms to mitigate the risk that the first sale doctrine applies.

For optional reading, please consider:

- Lothar Determann and David Nimmer, Software Copyright’s Oracle from the Cloud, Software Copyright's Oracle from the Cloud, 30 Berkeley Tech. L. J. 161 (2015).

- Lothar Determann, Digital Exhaustion - New Law from the Old World, 33 Berkeley Tech. L. J. 185 (2018)

**Assignments for Class #5.**

**Sharing and passing it forward (How can I let others use my software for free without risking that they later restrict the use of it?)**

*Assignment:* 1. Please prepare an outline of the rights and remedies that Cole Codewriter has against RIM, RAM and Rolf Ringer under U.S. copyright law and the GPL vs. 2 based on the following facts:

Cole Codewriter volunteers in his free time for the Linux project. He wrote many improvements and adaptations to the code that were accepted by the Linux project managers. Cole likes the GPL vs. 2 and Linus Thorvald's take on these license terms. One day, he finds out that the operating system (called "R2D2") on his new RIM phone is based on Linux, but he is prompted to accept a proprietary license agreement that gives no attribution to the Linux team and does not apply the GPL vs. 2. Cole is irritated and wants to sue RIM (the maker of the phone), RAM (the software company that licenses R2D2 to RIM) and his co-worker Rolf Ringer, who has the same phone as Cole and always annoyed Cole because he doesn't believe in open source code licensing.

You can find the text of the GPL vs. 2 license below and you can find reports on disputes - albeit with different facts - on various websites if you type into your favorite search engine the terms "Android Linux GPL infringement," *e.g.*, http://www.linuxinsider.com/rsstory/70960.html?wlc=1300662732; and http://www.itworld.com/open-source/140667/helpful-lawyers-think-google-stole-linux-code.

For background, please consider reading

- Lothar Determann, Dangerous Liaisons – Software Combinations as Derivative Works? Distribution, Installation and Execution of Linked Programs under Copyright Law, Commercial Licenses and the GPL, 21 Berkeley Technology Law Journal 1421 (2006)

**Assignments for Class #6.**

**Patent law protection (Could I get a patent on my program?)**

*Assignment:* 1. Please read *Bilski v. Kappos*, 561 U.S. 593 and *Alice Corp. v. CLS Bank International*, 134 S. Ct. 2347 (2014) and outline the rights and remedies that the patent owner could assert against an infringer

2. Please read *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 and *TLI Communications LLC v. AV Auto., LLC*, 823 F.3d 607 and consider if these cases provide further clarity on software patentability.

**Assignments for Class #7:**

**Data Ownership, PROs and CONs of IP Regimes**

*Assignments:* Please:

1. read **No One Owns Data** 70 Hastings Law Journal 1 (2018) and develop arguments and positions for and against data ownership (and send me any edits or questions you have by email)

2. familiarize yourself with the dispute between hiQ Labs v. LinkedIn (see, e.g., <https://docs.justia.com/cases/federal/district-courts/california/candce/3:2017cv03301/312704/1> and [www.eff.org/cases/hiq-v-linkedin](http://www.eff.org/cases/hiq-v-linkedin)) and develop arguments for each company

3. consider who, if anyone, should own copyrights or other property rights to data in works of authorship (*e.g.*, photos, book sequels, movie scenes created with/by software programs, see [www.law.com/therecorder/2018/02/22/judge-turns-back-software-makers-copyright-claims-over-film-special-effects/](http://www.law.com/therecorder/2018/02/22/judge-turns-back-software-makers-copyright-claims-over-film-special-effects/)) and data bases created by artifical intelligence

4. consider practical steps business can take to protect their property or other interests in data, databases and works created by software programs, sensors, technologies, etc.

5. compare PROs and CONs of intellectual property law regimes for the protection of information and information technology more generally.

Optional reading: Lothar Determann, Internet Freedom and Computer Abuse, 35 Hastings Communications & Entertainment Law Journal 429 (2013).

Quizzes

Please complete and email to [ldetermann@bakernet.com](mailto:ldetermann@bakernet.com) and [frances.say@bakernet.com](mailto:frances.say@bakernet.com) answers to the following quizzes after each class, as indicated, and before the beginning of the next class (where we will first discuss the Quiz answers in each class):

***Computer Law Quiz after Class 1.***

***1. Which of the four IP laws (copyright, patents, trademarks, trade secrets) are regulated by both U.S. federal and state law? (pick one correct answer)***

a. Copyright and Patents

b. Copyright and Trade Secrets

c. Trade Secrets

d. Trademarks and Trade Secrets

***2. Which of the following statements are true re. software? (pick all true statements)***

a. Software code is usually subject to copyright protection as source code (literary work), object code (literary work) and user interfaces (literary and audio-visual works)

b. Object code consists of mere zeros and ones and thus can never meet originality requirements under copyright law

c. Operating system software is highly functional but usually contains some original elements and therefore can derive some level of protection

d. Under U.S. copyright law, the author is entitled to protection for 70 of years after creation

***3. Which of the following statements are true re. software patents? (pick all true statements)***

a. Software cannot be patented under U.S. patent law, because software is expressly excluded from patentable subject matter under 35 USC Section 101

b. Software-enabled inventions can be patentable under U.S. patent law so long as the invention meets all statutory requirements

c. The U.S. Patent and Trademark office publishes software patents in a separate register

d. Patent protection is always available for the first to invent new software

***Computer Law Quiz after Class 2.***

***1. Which of the following statements are true re trade secret protection under California law? (pick all true statements)***

a. Trade secret protection is not available for software, because software is not information

b. Software can’t be kept secret, because running a program means the software is not subject to reasonable efforts to keep it secret

c. Trade Secret protection for software is available under the Defend Trade Secret Act and California state law in addition to any contractual protections agreed between parties +

d. Employers can strengthen their trade secret protection position if they contractually prohibit employees from disclosing trade secrets to competitors by including a non-compete covenant in employment contracts or requiring separate non-disclosure agreements +

***2. The Defend Trade Secrets Act does which of the following? (pick all true statements)***

a. Provides for a definition of trade secret that is significantly broader compared to California state law

b. Grants a right, under certain circumstances, for trade secret owners to obtain seizure orders +

c. Preempts all state trade secret law

d. Excludes software from the definition of trade secret

***3. What are some things software companies could do to protect the IPR in their code? (pick all true statements)***

a. Permit their programmers to only write code their own code, without ever using any third party code +

b. Only host, as “software as a service”, and never distribute, the code in their programs +

c. Have all employees sign non disclosure agreements +

d. Grant stock options to employees to induce employees to stay with the company and not take know-how to competitors +

***Computer Law Quiz after Class 3.***

***1. Which of the following statements are true re Application Programming Interfaces (“APIs”)? (pick all true statements)***

a. Copyright protection is never available for APIs

b. The abstraction, filtration, comparison test can be used to determine whether APIs or other elements of software are copyrightable under section 102 of the Copyright Act

c. The Court of Appeals for the Federal Circuit found in Oracle v. Google that some Oracle APIs were copyrightable

d. The jury verdict in the Northern District of California found that Google's adaptation of Oracle APIs constituted fair use

***2. Which of the following statements are true re reverse engineering of software? (pick all true statements)***

a. It is a violation of trade secret law

b. It is always permissible under patent law

c. Intermediate copying for purposes of reverse engineering can be justified under copyright law

d. Developers often use a decompiler program to covert object code to source code

***3. Which of the following statements are true re fair use? (pick all true statements)***

a. Copying a whole software program makes it less likely that the fair use defense is available

b. Because software can never be considered highly creative, the defense of fair use is rarely available

c. When evaluating the fourth fair use factor under 107 of the Copyright Act (effect on the potential market) courts look to the effect on the potential market for the copyrighted work

d. In Sega v Accolade, the court found that reverse engineering a program to create an add on program weighed in favor of a finding of fair use

e. When courts consider the first factor (purpose and character of the use), courts consider transformative use in favor of the defendant and commercial use against the defendant

f. When educators or private individuals make copies and distribute them free of charge, their conduct can be qualified as "commercial" for purposes of a "fair use" analysis if they could have purchased the copies instead, because they acted to save purchase money.

***Computer Law Quiz after Class 4***

***1. Which of the following transactions likely qualify as a sale of a software copy for purposes of Section 109 of the U.S. Copyright Act? (pick all true statements)***

a. Offering a disk for a one-year term for a one time fee, where customers must delete the software from their device and return the disk at the end of the rental agreement.

b. Offering access to hosted software, accessible online, for a recurring monthly fee.

c. Offering access to hosted software, accessible online, perpetually for a one time fee.

d. Offering a disk with software, for a one time fee, subject to a shrink wrap license agreement that includes limitations of licensor’s liability and warranty disclaimers but no other material restrictions.

e. Offering, for a one time fee, a fitness tracker with preinstalled software that connects to a mobile app, which can be downloaded free of charge to a smart phone, and which can connect to hosted software perpetually; during the installation process, users have to click "accept" on an end user license agreement that declares that all software is licensed only, not sold, and can be used only in connection with the fitness tracker.

(1) preinstalled software copy on the fitness tracker

(2) mobile app that is available for download

(3) server-side software that can be accessed remotely

***Computer Law Quiz after Class 5***

***In the hypothetical involving RIM, RAM, Cole Codewriter and Rolf where Cole and thousands of other developers contribute to the development of software governed by the GPLv2, and then RIM and RAM modify and distribute the software on phones to end users in violation of the GPLv2 (because RIM and RAM don't make their adaptations available in source code form and don't apply the GPLv2), and Rolf uses a phone with the modified software:***

a. Rolf is permitted to upload and run the software on the phone under Section 117 of the Copyright Act regardless of whether RIM and RAM were legally permitted to make or distribute the software in violation of the GPLv2.

b. Rolf cannot rely on Section 117 of the Copyright Act, because Cole and the other developers did not consent to the sale of the software version by RIM or RAM (they consented only on the terms of the GPLv2, which RIM and RAM did not comply with). Even if RIM and RAM had complied with the GPLv2 a court may not qualify the transaction with Rolf as a sale if the license agreement with Rolf had restrictions atypical for a sales transaction.

c. Rolf can rely on the general license to all end users under Section 0, 1 and 6 of the GPLv2 regardless of whether RIM and RAM were legally permitted to make or distribute the software in violation of the GPLv2 to Rolf.

d. License restrictions in the GPLv2 are effective as unilateral conditions and limitations on the scope of the permission even if licensees do not agree to the GPLv2 and a contract is not formed

***Computer Law Quiz after Class 6:***

***1. Which of the following statements are true? (pick all true statements)***

a. Patent owners hold the exclusive right to use the patented invention.

b. Copyright owners do not own an exclusive right to use the copyrighted work.

c. Patent and copyright law both recognize a first sale doctrine.

d. Software can be protected by copyrights and patents.

***2. Which of the following statements are true? (pick all true statements)***

a. Patent attorneys have tried to cast software-related invention as processes, systems and apperati to increase their chances of obtaining patent grants.

b. The Patent Act expressly recognizes as patentable subject matter "anything man-made under the sun, except laws of nature, natural phenomea and abstract ides." (This is a literal quote from the statute).

c. The U.S. Supreme Court interpreted Section 101 of the U.S. Patent Act to recognize as patentable subject matter anything man-made under the sun, except laws of nature, natural phenomea and abstract ideas. The exact scope remains unclear based on case law.

d. Software and business method patents are prohibited in the United States.

***3. Which of the following statements about Bilski v. Kappos, 561 U.S. 593, are true? Pick all true statements.***

a. *Bilski v. Kappos* confirmed that the machine or transformation test is a useful clue to determine patent eligibility under 35 U.S.C. Section 101, but rejected the federal circuit’s conclusion that it should be the exclusive test

b. *Bilski v. Kappos* provided a test in addition to the machine or transformation test

c. After *Bilski v. Kappos*, only using a general purpose computer to carry out a process may satisfy the machine or transformation test

d. After *Bilski v. Kappos*, practitioners attempted to claim software as being tied to a machine so as to overcome the threshold for patentability under *Bilski v. Kappos*

***4. In Alice Corp. Pty. Ltd. v. CLS Bank Int’l, 134 S. Ct. 2347, which of the following claims were held as directed to patent eligible subject matter under 35 U.S.C. Section 101? Pick all true statements.***

a. A method for exchanging obligations (process claims, which required implementation on a general purpose computer)

b. A computer-readable medium containing program code for performing the method of exchanging obligations (machine claims)

c. A computer system configured to carry out the method for exchanging obligations (machine claims)

d. None of the above