May the Source Be With You

By Lawrence Lessig

The laws protecting software code are stifling creativity, destroying knowledge, and betraying the public trust. It's time to bust the copyright monopoly.

In the early 1970s, RCA was experimenting with a new technology for distributing film on magnetic tape - what we would come to call video. Researchers were keen not only to find a means for reproducing celluloid with high fidelity but also to discover a way to control the use of the technology. Their aim was a method that could restrict the use of a film distributed on video, allowing the studio to maximize the film’s return from distribution.

The technology eventually chosen was relatively simple. A video would play once, and when finished, the cassette would lock into place. If a customer wanted to play the tape again, she would have to return it to the video store and have it unlocked. In this way, the outfit that owned the film would be guaranteed compensation for every use of the copyrighted material. RCA presented the technology to the Disney Company in early 1974. Pat Feely, a young researcher and technologist, demonstrated the device for five Disney executives.

They were horrified. They would "never," Feely reported, permit their content to be distributed in that form, because the content - however clever the self-locking tape was - was still insufficiently controlled. How could they know, one of the Disney execs asked Feely, "how many people were going to be sitting there watching" a film? What's to stop someone else from coming in and watching for free?

We live in a world with "free" content, and this freedom is not an imperfection. We listen to the radio without paying for the songs we hear; we hear friends humming
tunes that they have not licensed. We tell jokes that reference movie plots without the permission of the directors. We read our children books, borrowed from a library, without paying the original copyright holder for the performance rights. The fact that content at a particular time may be free tells us nothing about whether using that content is theft. Similarly, in arguing for increasing content owners' control over content users, it's not sufficient to say "They didn't pay for this use."

Second, the reason perfect control has not been our tradition's aim is that creation always involves building upon something else. There is no art that doesn't reuse. And there will be less art if every reuse is taxed by the appropriator. Monopoly controls have been the exception in free societies; they have been the rule in closed societies. Finally, while control is needed, and perfectly warranted, our bias should be clear up front: Monopolies are not justified by theory; they should be permitted only when justified by facts. If there is no solid basis for extending a certain monopoly protection, then we should not extend that protection. This does not mean that every copyright must prove its value initially. That would be a far too cumbersome system of control. But it does mean that every system or category of copyright or patent should prove its worth. Before the monopoly should be permitted, there must be reason to believe it will do some good - for society, and not just for monopoly holders.

One example of this expansion of control is in the realm of software. Like authors and publishers, coders (or more likely, the companies they work for) enjoy decades of copyright protection. Yet the public gets very little in return. The current term of protection for software is the life of an author plus 70 years, or, if it's work-for-hire, a total of 95 years. This is a bastardization of the Constitution's requirement that copyright be for "limited times." By the time Apple's Macintosh operating system finally falls into the public domain, there will be no machine that could possibly run it. The term of copyright for software is effectively unlimited.

Worse, the copyright system safeguards software without creating any new knowledge in return. When the system protects Hemingway, we at least get to see how Hemingway writes. We get to learn about his style and the tricks he uses to make his work succeed. We can see this because it is the nature of creative writing that the writing is public. There is no such thing as language that conveys meaning while not simultaneously transmitting its words. Software is different: Software gets compiled, and the compiled code is essentially unreadable; but in order to copyright software, the author need not reveal the source code. Thus, while the English department gets to analyze Virginia Woolf's novels to train its students in better writing, the computer
science department doesn't get to examine Apple's operating system to train its students in better coding.

The harm that comes from this system of protecting creativity is greater than the loss experienced by computer science education. While the creative works from the 16th century can still be accessed and used by others, the data in some software programs from the 1990s is already inaccessible. Once a company that produces a certain product goes out of business, it has no simple way to uncover how its product encoded data. The code is thus lost, and the software is inaccessible. Knowledge has been destroyed.

Copyright law doesn't require the release of source code because it is believed that software would become unprotectable. The open source movement might throw that view into doubt, but even if one believes it, the remedy (no source code) is worse than the disease. There are plenty of ways for software to be secured without the safeguards of law. Copy-protection systems, for example, give the copyright holder plenty of control over how and when the software is copied.

If society is to give software producers more protection than they would otherwise take, then we should get something in return. And one thing we could get would be access to the source code after the copyright expires.

Thus, I would dramatically reduce the safeguards for software - from the ordinary term of 95 years to an initial term of 5 years, renewable once. And I would extend that government-backed protection only if the author submitted a duplicate of the source code to be held in escrow while the work was protected. Once the copyright expired, that escrowed version would be publicly available from the copyright office.

Most programmers should like this change. No code lives for 10 years, and getting access to the source code of even orphaned software projects would benefit all. More important, it would unlock the knowledge built into this protected code for others to build upon as they see fit. Software would thus be like every other creative work - open for others to see and to learn from.

There are other ways that the government could help free up resources for innovation. Congress could, for example, create incentives to build intellectual property conservancies - where IP owners have an incentive to contribute some of their rights back to the public. I've worked with others to build one such conservancy - the Creative Commons - but ours is not the only possible one. If the government gave tax benefits to donors of IP that paralleled the tax benefits given to donors of art,
then there would be much greater motivation to simply give works to the general weal.

One context in particular where this could do some good is in orphaned software. Companies often decide that the costs of developing or maintaining software outweigh the benefits. They therefore "orphan" the software by neither selling it nor supporting it. They have little reason, however, to make the software's source code available to others. The code simply disappears, and the products become useless.

Software gets 95 years of copyright protection. By the time the Mac OS finally falls into the public domain, no machine will be able to run it.

But if Congress created an incentive for these companies to donate their code to a conservancy, then others could build on the earlier work and produce updated or altered versions. This in turn could improve the software available by preserving the knowledge that was built into the original code. Orphans could be adopted by others who saw their special benefit.

The problems with software are just examples of the problems found generally with creativity. Our trend in copyright law has been to enclose as much as we can; the consequence of this enclosure is a stifling of creativity and innovation. If the Internet teaches us anything, it is that great value comes from leaving core resources in a commons, where they're free for people to build upon as they see fit. An Innovation Commons was the essence - the core - of the Internet. We are now corrupting this core, and this corruption will in turn destroy the opportunity for creativity that the Internet built.
二、請閱讀以下文章後回答問題：(以中文作答)(20分)

It was a dispute between husband and wife in 1800s. They entered a contract in which the husband promised to pay his wife a certain amount of money per year if she kept the home and family in a comfortable condition. The wife performed the contract, but he refused to pay. The wife brought an action for breach of contract. The court denied the enforceability of the contract on the grounds that the content of the contract contracted the public policy, assuming the work she promised to undertake was an integral part of their marriage.

If the dispute had been brought to modern court, what the likely outcome would have reached? And why?
三、請閱讀下列文獻並回答問題（本題 40 分）

臺灣台北地方法院檢察署檢察官聲請簡易判決處刑書

被 告 嚴 OO 男 廿歲（民國 0 年 0 月 0 日生）

住台北市 O 區 O 路 O 段 O 巷 O 號 O 樓

身分證字號：0000000000 號

右列被告因竊盜等案件，已經偵查結案，認為宜聲請簡易判決處刑，茲將犯罪事實及證據並所犯法條分敘如左：

犯罪事實

一、嚴 OO 意圖為自己不法所有，並基於之概括犯意，自民國（下同）九十年六月某日起，在台北市 O 路 O 段 O 號 O 樓由強 OO 所經營之「網 O」網路咖啡廳（即「O 網」資訊社）內之某電腦，利用店內電腦，已遭不明之人所植入或自行植入木馬程式（Trojan horse，原出自西元前九、八世紀之古希臘荷馬史詩，描述西元前十二世紀希臘國王攻打特洛伊城，因久攻不下，遂造一大型木馬於馬腹內暗藏軍士後退去；嗣特洛伊人將木馬引入城內，隱身馬腹內之軍士即乘機離開馬腹，自城內與仍在城外之古希臘軍隊應合破城，又稱為木馬屠城。此處借該史詩暗喻，其概念似遠端管理程式，係指電腦在無預警之情形下遭植入安裝木馬程式或後門程式，其後果可能藉由電腦對外連線傳遞電腦使用人不欲洩漏於外或應隱藏，非以明碼方式呈現之資訊，例如連絡密碼、信用卡號碼等，或將前揭應保密之資訊集中儲存在電磁硬碟特定資料夾中，再伺機至本機存取），而該木馬程式會在硬碟主開機區 C 之 TEMP 資料夾內，將電腦使用者經由鍵盤敲擊過之所有按鍵如 A、B、C、1、2、3、@、# 等，悉數以純文字檔或 HTML 檔格式，記錄在該資料夾之 KEYLOG.TXT 檔案內；嚴 OO 即利用此木馬程式，蒐集曾經使用該電腦經由網際網路連接「遊戲橘子數位科技股份有限公司」（下稱「遊戲橘子公司」）所架設維護之伺服器（頻寬係向網路服務業者 ISP 「中華電信數據通信分公司」（下稱中華電信，址設臺北市信義路一段廿一號）及和信超媒體股份有限公司（址設臺北市松山區復興北路三三三三號四樓）租用），參與「天堂」線上遊戲者之帳號及密碼，此舉除對「網戰」網路咖啡廳電腦主機內電磁記錄之處理產生干擾，並足以生損害於經營網路咖啡廳之強 OO，及帳號、密碼遭盜用之強 OO、李 OO、王 OO 等人。嚴 OO 於取得強 OO、李 OO、王 OO 等人之帳號及密碼後，即出於為自己不法之利益，自九十年六月六日起至同年七月廿二日止，連續多次在其臺北市 O
國立交通大學九十一學年度碩士班入學考試試題

科目名稱：法學文獻評述（831）

考试日期：91年4月20日 第3節

系所班别：管院碩士專班科技法律組

組別：科技法律組

第7頁，共9頁

*作答前，請先核對試題、答案卷（試卷）與准考證上之所組別與考試科目是否相符！！

區0路0段0巷0號0樓住處，以其向中華電信所申請之ADSL（指非對稱數位式用戶線路Asymmetric Digital Subscriber Line，係一種利用傳統電話線來提供高速網際網路上網服務的技術）寬頻數據帳號、ADSL ATU-R數據機、個人電腦主機兩臺（各含鍵盤、螢幕、滑鼠等週邊設備連接網際網路至遊戲橘子公司所維護之「天堂」線上遊戲伺服主機，再利用其所有二部電腦，分別輸入自己在其「天堂」線上遊戲所使用之帳號、密碼；及在另一部電腦輸入於前開網絡咖啡廳所抄錄之強OO、李OO、王OO等人帳號、密碼，同時連線至「天堂」線上遊戲伺服主機，使遊戲橘子公司陷於錯誤，提供該線上遊戲伺服主機予強OO使用；強OO並將強OO、李OO、王OO在「天堂」線上遊戲所扮演角色所擁有之「武士刀」（kanata）、「力量手套」（powglove）、「長靴」（boots）、「金屬鎧甲」（echmail）、「十字弓」（crossbow）、「抗魔頭盔」等無法複製之虛擬裝備、武器、道具等在虛擬空間即「天堂」線上遊戲時，須以該線上遊戲所使用之「天幣」（指在該虛擬空間中所使用之貨幣）購買，惟現實生活中，仍具有一定財產上交易價值之電磁記錄（如「天幣」與新臺幣得約定交易價格一定之比例兌換，或逾以一定價值之新臺幣購買虛擬裝備、武器、道具），藉由強OO、李OO、王OO所扮演之角色以直接交付（伺服器所顯示之記錄為give）予自己所扮演之角色，或藉由現線線上遊戲者所扮演之角色丟棄在虛擬空間（伺服器所顯示之記錄為drop）後再由自己所扮演之角色以拾獲（伺服器所顯示之記錄為get）等方式，竊取至自己所扮演之遊戲角色身上，計算總價值約「天幣」一百六十二萬元，折合約當新臺幣一萬六千元電磁記錄財物，嗣被害人強OO等三人至「天堂」遊戲網站查閱遊戲歷程記錄後，發覺上情報警查獲。

二、案經被害人強OO、李OO、王OO等訴由內政部警政署刑事警察局移送偵辦。

證據並所犯法條

一、訊據被告嚴OO於警訊及偵查中之對答皆事實坦承不諱，核與告訴人強OO、李OO、王OO指訴情節互相一致，又「天堂」線上遊發所賦予參與遊戲角色之虛擬裝備、武器、道具等，均由該線上遊發伺服器所控制，無從自單機複製之方式重製，有單一電磁記錄之性質，並無證人即遊戲橘子公司操作主體李永欽到庭結論屬實，此外並有遊戲橘子公司出具告訴人強OO、李OO、王OO等人「天堂」線上遊戲歷程記錄表（LOG，即稽核檔）一冊、「天堂」線上遊發虛擬裝備、武器、道具之英文代碼表及網路遊發金錢交易前揭虛擬裝備、武器、道具之對談記錄列印資料在卷可資佐證，本件事證已臻明確，被告犯行堪以認定。
二、按刑法第三百二十三條第二項規定，增列「電磁紀錄」關於
竊盜罪之規定，以防止；同法第三百五十二條亦增列第二項干擾他人電磁
紀錄報案之規定。是電磁紀錄雖屬無形體物，仍受竊盜罪及毀損罪之客體，合先敘
明。次按竊盜罪中所謂竊取，係指破壞原所有人對於財物之持有支配關係而
建立新的持有支配關係。查被告嚴OO竊取之電磁紀錄（天堂虛擬裝備、武
器、道具）等，恆須利用遊戲伺服器所虛擬空間。方能支配使用，無法經由單
機複製。且被告係經由「天堂」線上遊戲伺服器，同時破壞被害人所持有「天
堂」遊戲虛擬裝備、武器、道具等電磁紀錄之支配關係，並與其建立自己之
持有支配關係；又被告利用木馬程式，使電腦將使用者曾經輸入「天堂」線
上遊戲之帳號及密碼非依原應有之處理，集中儲存在特定之檔案供被告蒐集
使用。顯而易見網路咖啡廳之電腦主機內電磁紀錄之處理產生干擾，並足以生
損害於應OO、李OO、王OO及其他人等使用電腦之不特定人；再被告又
輸入其所蒐集之OO、李OO、王OO等人之帳號及密碼登入「天堂」線上
遊戲伺服器並消耗彼等以金錢所購買之遊戲時數（點數），免除支付於「天
堂」線上遊戲之對價，有其自己不法利益之意義甚明。核其所為，係犯刑法
第三百二十三條、第三百二十條第八項之竊電磁紀錄罪、第三百五十二條
第二項之干擾電磁紀錄罪及第三百三十九條第二項之普通詐欺罪嫌；所犯前
揭三罪間，互有方法結果之牽連關係，請依刑法第五十五條之規定，從一重
之竊電磁紀錄罪論擬；又被告先後多次竊電磁紀錄之犯行，時間緊接，
犯罪構成要件相同，顯然基於概括犯意而為之，請依連續犯之規定以一罪
論，並加重其刑。未審酌被告職業為學生，並無前案紀錄，僅係一時貪念，
致觸刑章，又其犯罪後坦承犯行，並積極彌補被害人受損失，態度尚稱良
好，衡情並無再犯之虞，請酌情判處三刑期昭愷徹，若符緩刑之要件，並
予請予宣告緩刑，以啓自新。

三、依刑事訴訟法第四百五十條第一項聲請迅速簡易判決處刑。

此致

臺灣台北地方法院

中華民國九十年十月O日

檢察官OOO

附錄本案所犯法條全文：
刑法第三百二十條
意圖為自己或第三人不法之所有，而竊取他人之動產者，為竊盜罪，處五年以下
有期徒刑、拘役或五百元以下罰金。
意圖為自己或第三人不法之利益，而竊佔他人之不動產者，依前項之規定處斷。
前二項之未遂犯罰之。
第三百三十八條
電能、熱能及其他能量或電磁紀錄，關於本章之罪，以動產論。
第三百五十二條
毁棄、損壞他人文書或致令不堪用，足以生損害於公眾或他人者，處三年以下有期徒刑、拘役或一萬元以下罰金。
干擾他人電磁紀錄之處理，足以生損害於公眾或他人者，亦同。
刑法第三百三十九條
意圖為自己或第三人不法之所有，以詐術使人將本人或第三人之物交付者，處五年以下有期徒刑、拘役或科或併科一千元以下罰金。
以前項方法得財產上不法之利益或使第三人得之者，亦同。
前二項之未遂犯罰之。

問題：（每小題各二十分）

1. 對於「竊盜電磁紀錄」與刑法傳統竊盜罪章於適用法理上是否相符？（試舉學說與實務上見解說明之。）

2. 試評論本案所起訴之各項罪名是否該當？