Abstract
Purpose – This paper uses an inductive approach to define “gray copyright.” It is needed to describe those situations in which the practical degree of copyright protection can best be measured in shades of risk rather than in simple terms of black and white.

Design/methodology/approach – Two methods are used. One is an inductive definition builds up the term’s meaning example by example and layer by layer. The second is a behavioral experiment in the spirit of the prisoner’s dilemma game.

Findings – In the examples of gray copyrights the deciding factor in the grayness is not its legal status, but the economic value of enforcing the usage rights. In the experiment the students have an opportunity to acquire a personal sense of the risks and choices involved in copyright infringements.

Originality/value – This analysis shifts the emphasis from the question of legal right and wrong to the economic issue of what risks are potential infringers and rights holders prepared to take.

Keywords Copyright law, Behaviour, Economics, Teaching

Paper type Case study

Introduction
The term “gray copyright” does not exist in the copyright literature as far as I am aware, but it ought to and it is needed to describe those situations in which the practical degree of copyright protection can best be measured in shades of risk rather than in simple terms of black and white. To define this term more precisely, I would like to apply an inductive method that offers several examples of situations where the term “gray copyright” seems to fit.

The term is intentionally analogous to the well-established term “gray literature” that covers a wide range of real but in some sense unofficial or unrecognized publications. The grayness here has to do with status, not risk and the overlap between gray copyrights and gray literature is certainly incomplete, though the likely risk of using a work of gray literature without permission is certainly less (and in that sense grayer) than a work from a standard commercial publisher.

As Hal Varian (2005) points out, there is renewed interest in the economic issues involved in copyright and other forms of intellectual property, and yet the discourse about them in the library community mainly engages the legal, social and moral aspects. Right and wrong plays a role, but as every library and computer center director knows, large amounts of money are at stake. A library or university that always errs on the side of paying or forgoing works that technically have copyright protection but practically seem unprotected will likely spend more than one that takes
reasonable risks. Avoiding the risk may be worthwhile for a number of non-monetary reasons, but it is a choice.

This column will discuss gray copyright in two parts. The first will offer examples of gray copyright in order to build a base for an inductive definition. The second part will discuss possible experiments using methods borrowed broadly from and based on behavioral psychology and economics.

Behavioral experiments offer an established research tool that can bring new data to an old debate. The experiments described here will be run in the April to July 2008 summer semester at Humboldt University in Berlin. The results will be reported in a subsequent column.

An inductive definition
An inductive definition grows not from a claim about what a term ought to represent, but from examples that build up the term’s meaning layer by layer. Inductive definitions may be less precise than those deduced by logic or created from whole cloth for a particular purpose, but they offer a richness and complexity that grows from real-world usage.

Risk and uncertainty in copyright have no single source. They can stem from ignorance of the law or from a temptation to use its loopholes. The risk assessment can also rely on economic strength or a perception of economic weakness in either the infringer or the rights owner. It is broadly accepted that most copyright cases end with a negotiated settlement rather than with a court decision. This is certainly true in my experience at universities, especially with cases against students that the RIAA (Recording Industry Association of America) has accused of infringement, and in any out-of-court settlement some bargaining is involved. The following examples move from situations where the legal rights seem very clear, at least to one party, to situations where legal uncertainty in a major factor.

Students downloading music
In general downloading music via a system like Kazaa, where no license exists and no permissions have been paid, is a black and white example of copyright infringement from a legal viewpoint. All the works almost certainly have copyright protection and from the viewpoint of the RIAA and similar rights-holder organizations that is all that matters. They label such downloading as “piracy” and “theft” (RIAA, 2008) with all of the moral opprobrium that those words carry.

From the viewpoint of the students the situation is more ambiguous for two reasons. One is that their risk of getting caught has seemed modest – more like picking up money that someone dropped in the street than shoplifting. The second is that downloading a song to preview it seems fundamentally no different to many than browsing through a chapter of a book in a bookstore before deciding to buy – or not to buy – it. For many students the risk assessment resembles that made by American drivers, who often go 5 mph over the posted speed limit, even when police are present, because everyone else on the highway is doing it.

If the risk analysis were calculated according to a standard economic model, the students would consider the monetary cost of being caught (C), the percentage chance of being caught (R), and the value of the work being downloaded (V). In rough terms, if C*R < V, then downloading might be worth the risk. The more risk-averse the students are, the more V has to exceed C*R in order to make downloading attractive. Social factors play a role – perhaps a bigger role – in the risk analysis too. Students
whose friends routinely download music on Kazaa might feel there is nothing wrong with it. The fear of expulsion from school or anxiety about parental wrath might have the opposite effect. These pressures are hard to quantify but are real nonetheless.

It is also possible, even in the contemporary climate of active copyright information campaigns at universities, that some students do not know that most music downloads via Kazaa represent likely infringements. In their minds the situation may seem so gray as to appear relatively safe. The point here is not that their sense of grayness excuses infringement, but that it explains why this form of infringement persists.

Google digitization
When Google announced its intention to digitize all of the books in the library of the University of Michigan, including books clearly still under copyright, a number of publishers protested what they considered obvious infringement. They claimed a black and white case in law: they held the copyright, Google was making copies, ergo Google was infringing. Google is not, however, a poor and uninformed student. It has lawyers and argues that its plan to show only a tiny snippet of the work falls under the USA “fair use” clause (17 USC 107, 2008). This is a claim that cannot simply be dismissed.

US courts have upheld the right to use copyright protected materials in a number of notable cases, in which one side considered the infringement obvious. The Feist ruling, for example, (US Supreme Court, 1991) opened the way to copying factual materials regardless of the effort involved in assembling them, and the Bridgeman Art Gallery decision (US District Court for the Southern District of New York, 1991) reversed a long-standing assumption that any photograph had enough creativity to meet the requirements of the law even when the goal was to make an exact copy of a public domain original.

The fact that Google has the economic resources to fight any court case all the way to the Supreme Court adds to the grayness of the situation. A student making a similar claim would likely not have the resources to go to court at all. Google also has the money to buy a settlement, if the need arises. A settlement would not necessarily represent an admission of guilt and would in effect validate the grayness of the case by permitting Google to do some part of what it has planned.

The longer that Google is able to digitize works and make them available in snippets, the more ordinary it will seem and the more economic impact it might have. This will not necessarily favor (or harm) Google’s case, but a factor in the Sony Betamax case that allowed private copying of TV programs for time-shifting was the fact that a portion of the population was already using the recording technology and would resist giving it up.

Orphan copyrights
The legal status of an orphan copyright ranges from post 1978 publications, where no question of legal coverage exists, to works in the USA from the late 1920s or early 1930s, where a real possibility exists that the copyright was not renewed and is now in the public domain. In theory renewals can be checked at the copyright office or (now) online, but these renewal records rely on an old card catalog, and anyone who has worked with a card catalog remembers how vulnerable they are to missing or misplaced cards. The record that counts is not the catalog, but the renewal certificate in the hands of the rights owner. In other words, failing to find a renewal record is no guarantee that the work is in the public domain. It merely increases the likelihood.
The legal status matters less with orphan copyrights than the readiness of the rights holder to bother with enforcement. Many publishers simply do not have clear and unambiguous records of the intellectual property that they, for example, acquired as part of a merger or acquisition. Even if they can find the paperwork, the publication contract may contain complicating clauses that return some portions of the rights to the author. It takes time to find, read, and understand such contracts, and the cost may not seem worthwhile if the potential amount to be recouped from an infringement action seems too meager. The most economically sensible action for a rights holder may be to ignore both permissions requests, which may cost more to process than they gain in fees, and small-scale infringements.

The scale infringement and how lucrative it is strongly affects the grayness of an orphan copyright. In general if an earnest attempt to find the rights holder fails, the risk of legal action for minor infringements is small, especially for text-based materials. But the moment that, for example, an orphan novel from 1930 becomes a best seller, the economic value of asserting rights becomes worthwhile. A less extreme example has a much lighter shade of gray. A similar 1930s novel that a university makes freely available on the internet and that gets only minor traffic by a few specialists may not be worth the trouble of sending a letter to request that it be taken down. The author/rights holder might even be pleased that the work is available again.

Death dates
Death dates for obscure authors are notoriously hard to find. The USA is an exception in having a clear date when works fall into the public domain. In most countries the point where that happens depends on the death date of the author plus 70 years. Without a death date, only a guess is possible. The author of an 1860 work, who wrote a book at 20 and died at 100 in 1940 could have 160 years of copyright protection and the work would still be protected today in 2008. Since signatories to the Bern Convention grant protection to works protected in other countries, the 1860 book could in theory have protection in the USA. How US courts would actually apply protection for such a work based on the Bern Convention is unclear.

An organization that republishes such a work would likely run little risk and may well believe that the work is unambiguously in the public domain based either on the US 1923 rule or the broader European rule of thumb that nineteenth century works are safe. In fact some slight grayness exists.

Copyright enforcement
In each of these examples the deciding factor in the grayness of a copyright is not its legal status, but the economic value of enforcing the usage rights. The ideal for rights-holders is that those who want to use their works bear all of the expense in time and money of discovering the rights and compensating the rights holders for every use. The reality is almost the inverse. The costs of discovering infringements and enforcing rights falls on the rights-holders, except in those cases where an infringer is caught and forced to pay.

Compliance with copyright law depends in large measure on social acceptance, as do the laws against speeding. When people think the law makes no sense, it can be difficult to enforce. The RIAA’s current campaign against students can be seen as an attempt to change a perceived lax attitude toward copyright compliance by persuading potential infringers that they will be caught, just as police sometimes intensify
highway patrols to discourage speeding. If the former is as effective as the latter, the RIAA may end up spending a great deal for fleeting results.

The RIAA clothes its efforts in a certain amount of moral rhetoric as noted above, but fundamentally their goal is to change the perception of the risk (R), so that the equation always comes out \( C \cdot R > V \) because the risk percentage is high. This makes experiments that test subjects’ willingness to risk copyright infringement worth considering.

**Experimental method**

Experimental psychology uses a number of role-playing scenarios to understand how people will behave in particular situations. Experimental economics creates micro-economies in which behavior can be observed under controlled circumstances. Library science, despite the word “science” in the name, has no experimental tradition or preferred method. Librarians collect survey data and have recently started to employ anthropological observation and analysis. With few exceptions experiments are foreign to the profession. This section describes a possible experiment using a prisoner’s dilemma scenario.

**Prisoner’s dilemma**

In the classic prisoner’s dilemma scenario two people have been arrested in connection with a robbery. The police hold and interrogate them in separate cells with no possibility of communication between them. For each prisoner, the best individual choice is to accuse the other. The other will then be convicted and receive a long sentence, while the accusing prisoner goes free. But since this is the best choice for both, both are likely to take it, which means they accuse each other and both get convicted of the crime and receive moderate sentences. The best result for both is to refuse to cooperate with the police, because then both are convicted of a trivial offence with only a few months’ sentence, but this requires a level of trust that may be difficult without (or even with) communication between them.

The prisoner’s dilemma scenario can be run over multiple periods and with more complex options. The essential characteristics are the lack of communication between players and the fact that the best choice for each individually deciding separately (accusing each other) results in a worse outcome for both than if the two could have reached an effective agreement to remain silent.

In actual copyright cases the communication between rights holders and potential infringers is essentially non-existent. Organizations like the RIAA present a situation in which the consequences of an infringement accusation have a one-way effect. While this is true for students too poor to go to court, the situation is more balanced when an individual rights-holder accuses an individual infringer, or a publisher accuses an organization like Google with the financial and legal resources to mount a serious case. Lawyers and court costs become expensive fast and the time and effort to discover potential infringement also costs money. A worse risk for the rights-holder is that the courts (if an infringement goes to court) dispute the putative infringement or accept it as a fair use. Then not only are the court and legal costs lost, but the infringement will go on. In some cases the rights-holder could be forced to pay the expenses of the accused. There is a real risk that both rights holders and potential infringers will be worse off as a result of a prolonged court battle than if they could have reached an agreement earlier.
Copyright infringement game

A copyright game in the spirit of the prisoner’s dilemma will use chocolates instead of real money. Chocolates are something of value, even if small value, and generally popular among students. The students get to keep and eat any chocolates they have at the end.

There are multiple potential infringer players, generally teams of up to three students, and a single team of two or three students representing right holders. This is realistic, since potential infringers vastly outnumber rights-holders. Each team starts off with five chocolates.

The choices are more complex than in a standard prisoner’s dilemma game, because the real world options for rights holders and potential infringers are more various. Any game must reduce the complexity somewhat. In this case the option of a settlement has been eliminated. While settlements are common between parties of unequal strength, it is more common for those with equal resources to argue their case in court.

The potential infringer teams get the following choices (see Table I and Table II):

1. **Pay for permission.** They choose not to infringe. In this case they must give up at one chocolate to the rights holder to pay for a permission.

2. **Infringe.** They choose to infringe, which costs nothing if they are not discovered, but they have to choose of how to infringe:
   - **No defense.** Infringers will lose everything if they are discovered.
   - **With defense.** If they are discovered they risk all their chocolates in a moot court case. The nature of the defense varies each period. It could be a fair use defense, or claim of a reasonable attempt to find the owner of an orphan copyright or a case where the law or the ownership is unclear. They gain or lose whatever the court decides.

The rights holder teams get the following choices (see Table III and Table IV):

1. **Tolerate infringement.** They tolerate the infringement, and get chocolates from any team that does not infringe.

2. **Discover infringement.** Discovering who infringed in the real world costs money, so the rights holder team must pay one chocolate for this option. If an infringer is discovered and has no defense, the rights holder gets all of the infringers’ chocolates. If the infringer has a defense, they argue the case in the moot court. They gain or lose get whatever chocolates the court decides.

<table>
<thead>
<tr>
<th></th>
<th>Rights holder tolerates</th>
<th>Rights holder discovers</th>
</tr>
</thead>
<tbody>
<tr>
<td>No infringement</td>
<td>Pays 1 chocolate per team for a permission</td>
<td>Pays 1 chocolate per team for a permission</td>
</tr>
<tr>
<td>Infringement</td>
<td>Pays nothing</td>
<td>See Table II</td>
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</tbody>
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<table>
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<tr>
<th>Infringers before discovery</th>
<th>Rights holder discovers</th>
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## Table II

Outcomes for possible infringers when discovered

<table>
<thead>
<tr>
<th>Infringement without defense</th>
<th>Rights holder discovers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infringement with defense</td>
<td>Losts all</td>
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</tbody>
</table>

Goes to moot court, which decides
The experiment can run through several periods. Before each experiment, the potential defense will be discussed and the key arguments for each side described. A team of up to three students will serve as judges in the moot court. Judges receive two chocolates each regardless of the outcomes.

The potential infringer teams have a certain outcome if they choose option 1, but they always lose at least one chocolate. They lose nothing if they infringe, but risk everything if they are caught. The rights holder generally wins if most teams agree not to infringe, but may lose if they go to court on a weak case.

Possible outcomes
A game like this has multiple possible outcomes and with relatively small numbers of students, the outcomes will depend in part on personal preferences. The initial experiment with this game is not running a particular hypothesis to being tested.

Instead the goals are: to give students a personal sense of the risks and choices involved in copyright infringements; and to observe and record their behaviors to understand better why they are making the choices. In this sense it functions as a kind of focus group with a complex set of tasks. Brief surveys will be used before and after the game to provide further information for understanding why the students reacted as they did. The students will also have an opportunity to discuss the game and its results.

In the USA a human subjects review would be necessary at most universities for an experiment like this, especially if it were being used in published research. This kind of review and permission is not common at German universities. Nonetheless students will be asked for their consent before participating in the game. They should

<table>
<thead>
<tr>
<th>Tolerates infringement</th>
<th>Infringement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gains 1 chocolate per non-infringing team</td>
<td>No gain from infringing team</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tries to discover infringement</th>
<th>Infringement without defense</th>
<th>Infringement with defense</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pays 1 chocolate to discover infringement. Gains one chocolate per non-infringing teams</td>
<td></td>
<td>Go to Table IV</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Discovers infringement</th>
<th>Infringement without defense</th>
<th>Infringement with defense</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gets all chocolates from infringing team</td>
<td></td>
<td>Goes to moot court, which decides</td>
</tr>
</tbody>
</table>

Table III. Outcomes for rights holders before infringement is discovered

Table IV. Outcomes for rights holders when infringement is discovered
understand the rules of the game and the possible outcomes. No student will be forced to play, though most will likely find the active involvement in a research project attractive.

**Conclusion**

The point of this column is to emphasize the degree to which actual copyright protection has a degree of grayness. This grayness rests on economic risk factors and depends on the law only in so far as potential infringers are willing to follow the law. Since libraries and librarians are notoriously law-abiding, this may seem irrelevant, but it is not. Libraries may not take the kind of risks that students do in downloading music, but they face temptation in how they treat orphan copyrights or in how they set up electronic or even paper reserves. Library practices offer an established precedent for the latter, but even the common practice of photocopying articles for reserves is infringement in the same sense that every fair use is an infringement – just one with an established defense that is generally expected to stand up in court. It is a very light shade of gray, but gray nonetheless.

In the end most people and most organizations take some infringement risk. Most minimize it or deny it, but the risk exists and the better people understand it, but more rational their choices can be.

**References**


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