



# Journal of Internet Banking and Commerce

*An open access Internet journal (<http://www.arraydev.com/commerce/jibc/>)*

*Journal of Internet Banking and Commerce, August 2009, vol. 14, no.2  
(<http://www.arraydev.com/commerce/jibc/>)*

## The Return of the Public Domain

---

**Joren De Wachter**

**Founder “Integrating Technology, IP and Business models”**

**Rubensstraat 46, 1030 Brussels, Belgium**

*Author's Personal/Organizational Website: [www.jorendewachter.com](http://www.jorendewachter.com)*

*Email: [Joren.dewachter@jorendewachter.com](mailto:Joren.dewachter@jorendewachter.com)*

Joren De Wachter is trained as a lawyer, and qualified in Belgium and England & Wales. After ten years in private practice at the Brussels Bar, he worked in-house for software companies across the world. He recently set up his own specialized consultancy around Integrating Technology, Intellectual Property and Business Models.

---

### Abstract

We are observing an important change in the way Intellectual Property Rights are used in business models. Across industries, innovation is being introduced in models based on open or collaborative models, but also in ways that are not protected at all, i.e. based on the public domain. This is the Return of the Public Domain. It is visible in different industries, and will affect all business models based on innovation. This article establishes a trend that will allow you to understand and connect many separate developments, and will discuss consequences and ramifications of the Return of the Public Domain.

**Keywords: Intellectual Property Rights; Innovation; Public Domain; business models.**

© Joren De Wachter, 2009

---

## INTRODUCTION

A fundamental change is taking place before our eyes, but most businesses are not taking notice.

For the first time since the technological revolutions that started the industrial capitalist society a couple of centuries ago, the paradigm that more and stronger Intellectual Property Rights will be beneficial to innovation is seriously challenged, not just in theory, but also through behavior patterns across a multitude of economic activities.

I call this “the Return of the Public Domain”.

One of the most fundamental principles of the capitalist economy is the “right to copy”.

Why is this right to copy, and its realm (the Public Domain) not very well known or popular? Because of the existence of Intellectual Property Rights (“IPRs”), and the high profile attached to IPR enforcement. Nobody defends the Public Domain, because everybody owns it.

Intellectual Property Rights are legally imposed monopolies, which limit the fundamental right to copy, if certain conditions are met.

All of these IPRs have the same effect: they exclude a bit of knowledge or invention from the Public Domain. Specifically identified pieces of information, expression, software code, technical inventions, and other bits of hard- and software are excluded from the Public Domain for a certain amount of time, in a certain country, and under certain conditions.

Everything else, though, and that’s an awful lot, is in the Public Domain.

All the great classics are in the Public Domain. From Homer to Beethoven, from Shakespeare to Van Gogh, from Leonardo Da Vinci to the Wright Brothers, from the Diesel engine to the chemical compound of Aspirin, you are completely free to copy, edit, distribute and sell them as much as you like. Nobody can stop you.

And although the Public Domain has been around for a very long time (indeed, much longer than any Intellectual Property Right), it is amazing how little it is understood, and how little business models dealing with innovation actually take it into account.

That is about to change though, and the reason for that is the Return of the Public Domain.

What do I mean by “Return”?

It is the evolution where innovation, new inventions and creativity, are being brought into the economic realm and market without the use of Intellectual Property Rights that legally restrict or regulate the right to copy them.

We see all around us the signs that Intellectual Property Rights are failing, and that the Public Domain is coming back. Not because of the inherent weaknesses of IPRs (of

which there are many). Not because of legislators diminishing IPRs' scope or strength.

Quite the contrary, actually. And not because of a lack of interest in enforcement, as the founders of Napster and Pirate Bay, together with many others, will confirm to you. But because of a number of other factors, which I will discuss in more detail below, in order to demonstrate my central point: we are witnessing the Return of the Public Domain.

I now need to make a clear disclaimer: I'm not interested from a policy point of view whether the Return of the Public Domain is a "good" or a "bad" thing, and I do not want to take a position in the age-old discussion of whether or not IPRs, in their current form, or as a matter of principle, actually enhance or restrict innovation. You will find many people with very strong opinions on the matter. The jury is still out, and I have never found a totally convincing argument from either side.

## **INDICATORS OF THE RETURN OF THE PUBLIC DOMAIN**

### **The Music Industry**

Let's have a look at the facts.

In 2008, according to IFPI (the International Federation of the Phonographic Industry), 95% of music downloads were illegal. It was estimated that in total, this represents at least 40 billion songs.

Worse is coming: programs like Muziic allow you to listen without copying, and are only the first in a new wave. Apple has abandoned its DRM system for iTunes; Nokia is offering free downloads as a marketing incentive for mobile phones.

A whole generation is growing up that will never have paid for downloading songs or listening online to music, and the Pirate Bay conviction is probably just another Napster Pyrrhic victory.

Microsoft has produced an interesting piece of software called Songsmith, that does the most amazing thing: it totally re-arranges an existing song, typically by keeping only the melody line and the lyrics, and creating a completely new arrangement. Listen on YouTube to the horrifying but exhilarating versions of such old hits as Roxanne (by the Police) and Wonderwall (by Oasis).

So who owns these versions? The original author? Microsoft? The dude who pressed the "go" button on the Songsmith user interface? Or nobody (and consequently everybody), which puts that particular version of the song (and anything else written by Songsmith) in the Public Domain?

A lot of music composition is already done with the assistance of software. Soon, software will produce full songs, including lyrics and arrangements.

The really amazing observation in music, though, is the apparent lack of innovation in business models. Other than redirecting some of the revenue sourcing to live performances, the music industry seems to have been unable to come up with a good answer to the rise of the Public Domain.

## **Software**

In the software industry, the return of the Public Domain has taken a different form, and is more about “Open” movements.

The open source movement effectively operates from the principle “if you can’t beat them, join them”, by using the tools of copyright to enforce community members and society at large to share their development efforts back with the community (the copyleft principle).

As a result, open source software is, technically, not actually in the Public Domain. However, it clearly aims to be, and the technique of copyleft may be more efficient in ensuring the open character of open source than simply throwing code into the Public Domain, where, in theory, it could be taken over, slightly modified, and then copyrighted.

But open source is not the full story when it comes to the rise of the Public Domain in software. Recent developments point at software that will really fall in the Public Domain.

Increasingly, software is being generated automatically. The automatic generation of code is no longer limited to specific tools like compilers, but is becoming a core functionality of “developer programs”, where the user provides the underlying algorithm, but the code of the software program is generated automatically.

The question as to who actually owns copyright, or whether copyright can actually exist on code generated by software programs does not seem to be the focus of a lot of attention. The practice is growing. XML code is a prime example.

In any case, it is clear that the Public Domain is very present in the software industry (one of the reasons seems to be that, contrary to some of the perceptions that non-technical users may have, open source is, under certain conditions, safer and more efficient than proprietary software), and the software industry is actually one of most inventive in trying to come up with an answer as to how the Public Domain can fit into business models.

## **Audiovisual (TV, film, video)**

Is fast becoming the next victim of market attitudes that so haunted the music industry, as band-width and other technological restrictions are being removed.

Ripping technology, YouTube and other developments like Applian will make it more and more difficult for IPR owners to protect their investment from copying, whether legal or illegal.

The scope of the Public Domain is set to grow at one of the fastest rates in this industry, which is likely to see a lot of changes to its business model.

The audiovisual industry has one advantage: it has experienced a number of disruptive technology and business model changes (think of the video standard battles, DVD, Blue Ray, the internet itself), so it is possible that there will be more flexibility in the business models available in trying to deal with the rise of the Public Domain.

One thing seems certain though: systems of technical restrictions per “region”(as currently applied to DVD’s) or similar technical or legal protection systems, are most likely doomed.

### **Content – creative commons, wiki’s, crowdsourcing**

In the publishing world, the main effect of the rise of the Public Domain seems to be an accelerator effect.

The publishing industry has some experience of exploiting the Public Domain (after all, people still buy the complete works of William Shakespeare, not to mention the bible), but what we are seeing is that the rise of the Public Domain vastly accelerates the amount of information freely or technically available without any regard to copyright.

The clearest indication of the rise of the Public Domain is the behavior of large players such as Google, who show an interesting disregard of copyright, and seem to get away with what is technically illegal copying.

Another interesting development is the attitude of Facebook. Although Facebook had to back down when it wanted to change its terms of use, its current (and previous) terms still give it very large powers over the content posted by its users. In short, Facebook gets unlimited rights to whatever you post, as long as you have an account (the fury was over the last bit, where Facebook wanted to keep those rights even after you close your account). While not putting your stuff in the Public Domain, Facebook does force you to relinquish control of your IPRs of whatever you post on Facebook.

One of the main causes of the rise of the Public Domain here is the enormous power of networks made possible by the rise of the Internet, and more specifically Web 2.0. People share their content and knowledge freely, and, as freely as they copy without thinking twice, they share stuff that can, under the old business models, be protected by a legal monopoly.

Other points of interest are literature and poetry written by software (as with music – the question is: who owns them?), and the increasingly lower cost of producing physical copies of books (even the ones that are “out of print”). That lower cost is likely to induce piracy, just as with music.

### **Hardware – the next stop on the horizon**

The first tentative signs of the rise of the Public Domain are clearly visible.

There are the many examples of collaborative design, exemplified by projects like the Open Source Car (“OSCar”). The idea of sharing IPRs for designing manufactured products is not limited to cars, however. In many industries, there are signs of collaborative communities, copying the open source software approach to share innovation, and ultimately, push it into the Public Domain.

There is one obvious factor slowing down the rise of the Public Domain in manufacturing. It is not, as you may think, the existence of the patent system. Rather, it is the fact that copying hardware is not as cheap as copying information or software.

However, there are certain developments that will cause the Public Domain to enter even this field. 3 D printing is an evolution that will most likely have devastating effects on the potential to protect industrial design across a whole field of manufacturing.

Secondly, the possible development of a “universal machine” (I know, it sounds like Science-Fiction, something like a Star Trek Replicator), capable of producing pretty much any conceivable bit of hardware is actually not that remote. It is certainly an ongoing process in a lot of industries, each of which are designing more and more automated machines to manufacture their kind of product. The cost of translating design into an actual product will continue to drop, and will lead to the point where copying becomes very cheap, to the extent that the market will turn away from the “quality” original.

Another precursor to this effect is of course the whole industry of counterfeiting luxury goods, from handbags to perfume, which is doing as well as ever.

### **Chemicals, Pharmaceuticals and new materials**

Ordinarily, one would think that these industries need not to worry too much. Most of the business models are based on patents, and patent law is not currently subject to the technological and behavioral tidal wave that is threatening copyright law.

However, there are a number of clear indications that also in these industries, the Public Domain is growing.

The first development is of course the growing importance of generic drugs in the market.

The second is the interesting phenomenon of growing political pressure against patents in certain fields, such as patenting products or chemicals found in nature, patenting parts of genetic information, etc.

Some recent developments indicate changing attitudes towards the possibility to patent as much as possible. Patenting business methods has become much harder recently. Moreover, there seems to be a tendency to reject more patent applications, and to be stricter in applying the conditions of allowing a patent.

As the Public Domain continues to grow, the main effect on patents will probably be the growing importance of prior art, i.e. the difficulty to prove that something is really “new” will be enhanced by the amount of information that is available to patent reviewers of what information is actually available out there.

Less obvious than in other sectors, the growth of the Public Domain in areas like big Pharma, new materials and chemicals, seems set to originate from both political and technical sources. It will alter the use of IPRs significantly, and will profoundly affect business models, even if the effect may not be as overwhelming as in some other industries.

One of the phenomena that will have a profound effect on research and development in

all industries relying on patent protection is the rise of the Public Domain in models of innovation and business models, as I will discuss now.

## **INNOVATION AND BUSINESS MODELS**

### **Open/Collaborative Innovation**

One of the most interesting recent developments is the rise of open or collaborative innovation models across all industries and economic activities.

It is currently estimated that less than 20% of all R&D is done by businesses' internal R&D departments ("closed" or traditional innovation, the kind that typically leads to a classical application of IPRs, and kept out of the Public Domain). More than 60% of innovation today occurs in open, semi-open or collaborative models, using more or less of the Public Domain, and about 20% comes from what is called "mass innovation", from the consumer market or using crowdsourcing, relying almost completely on the Public Domain.

This amazing phenomenon clearly shows how the strong rise of the Public Domain is not something that is caused by weak or insufficient IPRs or by inefficient enforcement of IPRs, but has become an essential part of any innovative business.

Not only business models, but also innovation itself, is quickly becoming dependent on the Public Domain, and is, in return, vastly contributing to it.

### **Business models**

The ultimate question is of course, how will businesses adapt to this rise of the Public Domain?

The answer is of course not as simple as we would like, but it can probably be broken down into a number of factors.

I see six approaches that can help businesses deal with the rise of the Public Domain.

*First: strengthening of existing IPRs does not seem to be the answer.*

There are a number of legislative and other initiatives that are trying to strengthen existing IPRs, or ensure their enforcement.

Some initiatives extend the duration of copyright or neighboring rights. Others try to develop more efficient tools to enforce IPRs (e.g. cross-border mutual recognition), or raise awareness of the importance of IPRs to innovation and public policy.

It is no surprise that at this level, the failure of the nation-state in enforcing its laws and policies is reflected in attempts to make private actors responsible for upholding the law.

The initiatives to make ISPs responsible for customer's use of their services are an obvious example.

However, none of these initiatives has the ring of credibility or legitimacy around them.

In general, it is remarkable how the concepts of strengthening the law and improving policing of IPRs are patently failing to make a dent in practices that the market endorses.

The conclusion seems to be that business models relying solely on legal enforcement against the Public Domain have an evolutionary handicap.

*Second: Knowledge and expertise are essential.*

IPRs don't protect ideas or knowledge; they only protect specific expressions of ideas or knowledge. Actual knowledge and expertise will remain important; their importance will grow as a result of the Return of the Public Domain.

While it may be true that a particular expression of your knowledge or expertise may no longer be as protectable through a legal monopoly, the value of that knowledge or expertise, applied properly, still has tremendous value in the marketplace.

What needs to change is the approach of the business model towards the use of that expertise and knowledge.

It is in changes like this that the impact of the Public Domain will be felt most acutely.

Knowledge and expertise can no longer exist in isolation. Almost all knowledge and expertise will need to connect to outside knowledge and expertise in order to have an impact. Knowledge in isolation will quickly lose value, and the only way to retain and increase the value of research, development and innovation is to open it up to the world.

That can only be done through business models that will accept and anticipate working with the Public Domain.

*Third: being cost effective will become ever more important*

All monopolies come at a price; that price is mostly paid by the customer. A monopoly typically allows the provider to avoid cutting costs.

IPR theory states that the legal monopolies imposed by IPRs are justified by the reward they give to innovation, and the fact that they allow investments in innovation that would otherwise not be made.

That may or may not be true. However, what is certain is that the Return of the Public Domain will reduce the possibility for businesses to avoid becoming more cost-efficient.

The most immediate effect will probably be that businesses confronted with the Public Domain will have to move or re-allocate costs and investments.

While costs will have to be addressed, the competitive value of any offering will on the other hand be more obvious to the market, and it should become easier for businesses to position themselves as a result of the Return of the Public Domain.

In other words, being more cost-effective should also mean being more focused on your



target market.

Any business that wants to deal efficiently with the Return of the Public Domain will have to take a good, hard look at the way its costs are structured.

*Fourth: Innovation in business models has always been in the Public Domain, and "first-to-market" will continue to be a very important differentiator*

From Henry Ford to Dell, from Kaizen to the shift to services by IBM under Louis Gerstner, important innovations in business models have always been in the Public Domain.

As the Public Domain becomes more important, occupying market space by being first to market, and effectively applying innovation in your business model will be ever more important.

Innovation will no longer be able to rely on the duration of a legal monopoly, but will have to deal with the shifting boundary of the Public Domain.

Product and business cycles will change, and innovation in products and services will have to be accompanied by innovation in business models, in order to gain or retain competitive advantage.

The Return of the Public Domain will increase the importance of innovation in business models, rather than reduce it, and will probably have a very positive effect on the amount of innovation we will see applied in business models that will properly take into account that Return of the Public Domain.

*Fifth: Networking is essential*

Web 2.0 is one of the most important phenomena that is at the same time allowing and pushing the development of the Public Domain.

Today, innovation needs to be exposed in order to create additional value. Only through networking will businesses be able to tap into the vast knowledge available through Web 2.0.

That necessarily means that any business that innovates, will have to allow part of its innovation to fall into the Public Domain, either as a teaser, as marketing, or as an investment.

In the last model, a business will allow key/large parts of its know-how and expertise to become part of the Public Domain. In doing so, such a business will place itself in a much better position to obtain, in return, other useful and necessary expertise and know-how from the Public Domain, which it will be able to use as a competitive advantage when combining this public information with its own expertise, in order to develop further its niche of knowledge, expertise and relations, no other provider will be able to offer in the same way.

Networking will become a core skill and business method for any business dealing with the Return of the Public Domain.

*Sixth: innovation never stops*

One of the great effects of the Return of the Public Domain is the increase in available information for any business involved in innovation.

As stated before, innovation today requires an open and collaborative approach, in order to be successful. At the same time, proper use of the Public Domain will require businesses to continue to invest in innovation, in order to preserve their unique selling proposition.

Only an ever-growing interoperation between your innovative business and the Public Domain will allow you to reap the ever-increasing benefit of the Public Domain, and integrate it into your business model.

That means constant innovation, and interaction with the Public Domain.

## **EU VS. USA – SIMILAR OR DIFFERENT?**

Although in general, the Return of the Public Domain can be seen in similar developments in the EU and the US, there are some interesting differences in approach.

As a matter of practice, US firms take a much more aggressive approach to filing patents than European firms. European firms rely a lot on secrecy and first to market.

Which approach will be better protection against the Return of the Public Domain? It is likely that they both will have similar limited effect. Over-patenting will likely reduce the efficiency and enforceability of the patent system (Bilski is an indication), and strengthen the public domain. Secrecy is traditionally a problematic approach, and certainly more than ever in today's information society.

There is also a slight difference in the way government action is seen. On both sides of the Atlantic, governments and public authorities are taking measures to extend or strengthen Intellectual Property Rights. In Europe, governments sometimes try to go further (e.g. the French "three strikes" anti-piracy legislation, whose enforcement is doubtful), whereas the US seem to rely more on private litigation. Nothing surprising, really, except that both approaches seem to be confronted with the boundaries of effective IPR enforcement.

Surprisingly similar therefore, regardless of the sometimes overhyped differences in areas such as software patents, genetic drugs, etc...

## **CONCLUSION**

So, what have we seen?

First, we have established the Return of the Public Domain across a number of

industries and economic activities.

Second, we have seen how business models already use the Public Domain, and how they will need to adapt in order to be successful in an environment where the Public Domain is increasingly present.

What does that mean in practice, and why is the Return of the Public Domain important?

It means that any business dealing with innovation, IPRs or other aspects of the creative society, will have to integrate into its business model its strategy for dealing with the Public Domain.

And, that any business that does not anticipate working with the Public Domain, and integrating it into its business model, will, most likely, have a severe competitive disadvantage.

What does that mean in practice?

It means that, when your business is wholly or partly based on an Intellectual Property Right, you have to think about how the disappearance or unenforceability of all or part of that IPR will affect your business. Reflecting on the disappearance of your IPR will be necessary, regardless of whether the loss of your IPR is due to market pressure, piracy, political change or your own marketing and business needs.

You will then have to make sure you are prepared for this change. It will affect each business differently, at different times and with different effects.

But you will ignore the Return of the Public Domain at your peril.