

Understanding intellectual property - 1. An overview

Peter Drahos

Well, the, the theme of these talks is transformation. And in my talk, I'd like to talk about an institution that is foundational - that many people would say is the most important institution for transformation - and that's property. If we think about property, and the history of property, we can see that this institution creates or has future effects that really create a history for countries. Think about the institution of slavery for a moment. Slavery has been with us for thousands of years and we have not really eliminated the practice. And slavery was propped up by many detailed rules of property. And if we think, for example, about the Atlantic slave trade and the many countries that were involved in that slave trade, for example, European countries such as Portugal, England, France, the countries of Africa, and countries from North America and South America, these countries had their histories profoundly affected by the institution of property - property in human beings. Now these countries are still living with the consequences of institution of property. And that's just one example of how and why property matters to the present and to the future.

Part 1. Questions about intellectual property

Today, though, I don't want to talk about the rules of property in human beings, or the rules of property in land, rather I want to talk to you about intellectual property. Now, an immediate reaction might be, well, surely intellectual property, which includes things like patent law, trademark law, copyright law, surely these are good things. These are things that help us to make investment decisions, to make planning decisions, they are things that benefit us. By the end of this talk, I'm hoping that you will be a little bit more sceptical about intellectual property rights, because although they confer some benefits, they also have lots and lots of costs. Now with any property institution we should always ask three questions.

The first is, what is the moral justification for this particular property institution. Obviously, in the case of slavery, there really was none - although it took a long time for societies to agree that there was no moral justification for this institution.

A second important question to ask about property is, who are the winners, and who are the losers, as a result these rules. Now in the case of slavery, particular elites, whether we're talking about Southern plantation owners or slave owners in Brazil, benefited and profited enormously, disproportionately so, from the situation of slavery. And by the end of this talk you should be able to see that intellectual property rights actually serve comparatively a small number of elites, and don't benefit a lot of people.

And a third question that we should always ask about property is what are the social consequences of this particular institution?

Part 2. What are Intellectual Property Rights?

So I've given you some examples already - for example, patent law, trademark law, copyright law. These are examples of old rights. We have examples of patent law going back to the 15th century and copyright law going back to the 18th century but we also have new rights that were enacted in the 20th century - things such as plant variety rights, semiconductor chip legislation that deals with the chips in various information technology products. Aside from that it's not just legislatures that have been active in this area. Courts have done a lot to create forms of intellectual property, such as trade secret protection, as well as extending intellectual property rights in various ways through decisions. And when we look at the international level we see, for example, that the World Intellectual Property Organization, which is the organisation in this field, it administers more than 20 international treaties. And on top of that, we have thousands of bilateral treaties, that's to say treaties between countries or multilateral treaties, so this is an area which is very, very rich in terms of the law - very dense, very detailed and very technical. So what is it that unites all of these areas of law.

Well, intellectual property relates to what are sometimes called by lawyers is intangible objects or intangible rights. This is different, for example, to the property rights that you holding your house or the property right that you have in your car. Now what is an example of an intangible object. Well, take knowledge for example. All knowledge is intangible. We can touch representations of knowledge. You can pick up a book but you're touching the representation of knowledge, you're not actually touching the knowledge itself. Or to make it more specific, think of the rules of addition or the rules of the division. These are things that you learned as a child. Multiplication tables. They're driven by what we might call algorithms - the rules of arithmetic lying behind them are algorithms. So think of an algorithm of addition - that might be, for example, $X + 0 = X$. That's the kind of thing a computer programmer might write. Now that's the sort of thing that an intellectual property right, potentially might become, might become the subject of ownership. An intellectual property owner could lay claim to an algorithm.

Now what is the justification for creating an exclusive right in an algorithm. Why might we choose to do that? Well, the standard answer, here, is that we need these rights in order to create incentives for people to research, to discover or create these things. But let's think about the rule of addition for a moment. Every day we use that rule. We do mental calculations in our head. Every day trillions of calculations are performed by computers using the algorithm for addition, of addition. So the social consequences of creating a private property right in something as important as the algorithms for addition are very, very profound. Moreover do we really need to have private property rights in algorithms. I mean, let's think for a moment, about the history of mathematics. The rules of arithmetic were created, invented, discovered many, many centuries ago in ancient civilisations - in Persia, in Greece, in Egypt and later in the great Islamic empires, and Europe was something of a latecomer actually, to mathematics. So many Europeans of course benefit from these profound discoveries in mathematics. Imagine if Europe had to pay licensing fees to these earlier societies. How would that have affected Europe's development?

So the important point here, I think, here is that people are naturally creative in areas that are really important to society, and if we think about the history of technology, history is littered, in fact, most of, for most of human history we've had the benefit of

human beings, being creative without intellectual property rights. And there's another important point about the example of the algorithm. That is, if you think that we do need more research in the area of mathematics, it might be better if we offered mathematicians prizes. We could give, for example, an mathematician a particular, a prize perhaps £1 million for solving a very complex problem that would be of benefit in an area related to encryption technology, for example, and once we did that we could make that algorithm freely available in the same way that the algorithm for addition or division is freely available to all of us. So in other words, even if we think we need to create incentives for creativity and we need to ask the question whether there are better incentives than intellectual property rights for that particular purpose.

So these are two important points – do we really need intellectual property rights to stimulate creativity and are there better alternatives more socially efficient alternatives to intellectual property?

Not rights but privileges

I've been using the phrase 'intellectual property' or 'intellectual property rights' but when we look at the history of intellectual property and the history of intellectual property rights, this history, as I've already indicated, goes right back to the mediaeval period. And particularly in the case of patents these rights originate out of privileges. There were in many mediaeval kingdoms elaborate systems of privileges in which kings and queens granted artisans privileges - monopoly privileges.

Now why did kings and queens do this? Well putting it simply they either want to raise money, because people had to pay for these privileges, or alternatively they wanted to attract technologies to their kingdom that would benefit the citizen, the citizens of that kingdom. What's very clear is that these privileges were seen as temporary things. They were not things that went on forever and, in particular, the King and the Queen that granted them had an obligation to do so for the good of the realm. So they were meant to serve the public in particular ways - they were ultimately not designed for private benefit.

Now this language of privilege has dropped out. We tend glibly to refer to these things, as I have been doing, as intellectual property and in doing so we tend to think of them as property, like the property in a house or the property in a car, or the property in the clothes that I'm wearing. And yet the fact that knowledge is, as the economist would say, is non-rivalrous in consumption - that means that you and I can both use the same equation without consuming it, that quality makes these property rights, these privileges very, very different to the property rights in our house or in our car. And so we need, probably I think, to go back to this older the way of talking about intellectual property, we should really refer to them as monopoly privileges.

This leads onto one more point. Monopoly privileges were a way of raising revenue - that was one way in which kings and queens were able to raise revenue. And so in creating intellectual property rights or monopoly privileges one is placing in private hands the power to tax. So, for example a company like IBM or a pharmaceutical company, like Pfizer, when they hold patents, they in a sense they have a private power of taxation - they can charge license fees to anyone who wants to use their particular invention.

So this is a very important power, so when people say we need more intellectual property rights, if we think about these things in terms of monopoly privileges and the private power of taxation, we should really ask, well why do we need more monopoly, monopoly privileges in our economy? Why do we need more private power of taxation? How is the company who holds this private power of taxation accountable to society for this private taxing power? So these are very important questions, we should always be asking whenever we hear companies saying we need more and more intellectual property.

Part 3. Justifications for intellectual property

Let me now turn to the moral justifications for intellectual property. Issues of morality are things that we can all relate to. So what are the moral justifications for intellectual property rights? How might a philosopher, or how might any of us, answer this particular question? As we've seen intellectual property rights relate to things like knowledge, to intangible objects so we have to have powerful reasons for creating property rights in these things because it's not just a matter of economics. Property rights in intangible objects affect our liberty. Imagine if we all had to pay a licence fee every time we used some important algorithm like the algorithm for addition. The consequences for inequality would be very, very great. The consequences for the distribution of wealth would be very, very great. So we have to think hard about what the reasons might be for creating these kinds of rights.

If we go back into history, erm, we can see that philosophers have wrestled with the question of property rights. Oddly enough not much attention has been paid to intellectual property rights. There has been very little discussion in philosophy, erm, of intellectual property. Still, we might look at these historical arguments and ask if they have relevance for modern forms of property, such as intellectual property.

Natural rights?

Now one very standard justification for property, and one that harks back to the philosopher John Locke - one of the most influential philosophers - is the idea that we have a natural right of property. Now one can begin to see why this claim might be plausible, in relations, in relation to things like freedom. The idea of a natural right of freedom seems intuitively appealing, and, indeed, perhaps, a natural right of free speech, also incredibly important to us. But what might be the argument for a natural right of property. Well, John Locke suggested that when we worked for something, when we invested labour in the production of something, there was a link between our labour and the object. So when I go out, for example, and create an orchard you know I take a spade I, I, I spend time, I erm, plant trees I water them. Then John Locke would say that there's a link between my labour and my ownership of the orchard, and one can see the intuitive appeal of this. I mean all of us can see this but can we really apply this theory to abstract objects, to knowledge itself. Well, let's follow the argument through. John Locke said that there was some constraints on natural rights - that we could only essentially appropriate as much as we needed for our own particular purposes, and, in particular, he said we should leave enough and as good for others. So the idea was that you couldn't monopolise all the orchards and all the fruit, you essentially had to leave enough land for others to be able to make their own living. So in other words, when it comes to tangible objects there is a condition.

Now let's think about this condition enough and is good for others in relation to knowledge. What about, for example, if someone attempts to monopolise a particular gene relating to fruit. What would be the effect of that? Do we really want to give someone a property right in a gene that affects plants, trees - that allows that person not just to take fruit from a particular orchard but all the fruit in all the orchards.

We have to think hard about granting property rights in objects, whether they're algorithms or genetic sequences, molecules, because the consequences of that are huge. I would argue that there's no obvious natural rights argument for intellectual property rights. And in fact if we studied the philosophers of natural rights we would find that they would be rather sceptical about rights that potentially interfered in everybody's liberty, in everybody's right to and means of economic subsistence. Because once you control that means, you also control that persons end – and that's very important. This connection between controlling the means to other people's ends, means that we must be very, very careful in any moral analysis of intellectual property.

So I'm not saying that I've given you a knockdown argument. All I'm doing is raising issues for you to think about when you're thinking about the connections between natural rights and intellectual property.

Consequential rights?

Now another very influential moral tradition is the one that is most commonly linked to Jeremy Bentham, the famous utilitarian philosopher. Now Bentham's philosophy was to look to the consequences of particular moral actions. So he wasn't focused on natural rights, which he rejected, but rather consequences of moral actions. So, what do we make of intellectual property rights when we adopt this utilitarian or consequential way of thinking about these property rights. Well again, Bentham had a very, very important requirement for anybody thinking in consequential terms. He said that in his philosophy everybody had to count for one and nobody had to count for more than one. In other words, everyone had a voice when it came to moral preferences and the counting of those moral preferences.

So let's think about the patent system, for a moment, as an example of testing this particular utilitarian way of approaching intellectual property. How does the patent system work when it comes to counting people? Remember that's the requirement, everyone counts for one. Well in the area of patented medicines, for example, the effect of the patent system, obviously, is to raise the price of those medicines and that means that many, many poor people cannot afford the price of those medicines. And, in fact, we know when we count everybody in the world, there are billions of poor people, in fact, poor people, or even people that are not desperately poor, not starving to death, but are still struggling, outnumber the rich. The rich are a comparatively small proportion the world's population. So what this means is, that when the patent system does its counting, it counts on the basis of willingness to pay. That means it doesn't count many people's preferences for products. That means that the patent system is responsive to the needs of the rich. It produces medicines that the rich want. Because their moral preferences are picked up through their willingness to pay, their ability to pay. So from a utilitarian point of view, when we're looking at the consequences of the patent system, the patent system starts to look like a problematic institution.

So, now the moral defender of the patent system might say, well, first of all I'm not worried about poor countries, I live in a rich country and I only care about the people in this rich country. So this person might reject the idea of global justice, and then this person might say, and in rich countries the patent system works very well. Well, it's not clear to me that that's true either because even in rich countries there are many people that are not well off and that struggle to pay for medicines, so one has to last whether even in rich countries the patent system works. More importantly though, let's assume for a moment that it's true, that the patent system does work in rich countries, well surely one thing we should conclude from this, is that rich countries should not inflict the patent system on poor countries, and yet when we look at how the United States behaves, how the European Union behaves, these countries through trade laws, through threatening trade sanctions, have forced the patent system, have imposed the patent system, have drawn poor countries into the patent system.

So in other words, if we analyse the obligations of rich countries in consequentialist or utilitarian terms, they have obligations not to interfere in the property systems of poor countries and yet this is an obligation they have for decades ignored. And there was a vast literature that documents the unjustifiable way in which countries like the United States and the European Union have threatened the markets of poor countries using trade law.

If we think about it little property from a moral point of view and indeed from an economic point of view, I think you'd agree that perhaps we should have fewer of these things, and yet that's not the case. So what explains this extraordinary proliferation of intellectual property? And this really does take us deep into national politics and indeed, geopolitics, because some countries, rich countries benefit more from intellectual property, than poor countries, which are, which as I've hinted really don't benefit very much at all, in fact a losers from the system. So, the answer here, to the origins of intellectual property, really requires us to look at the activities of multinational companies, of trade associations, of business networks, and the way these business networks influence our political system.

If I were to put this very starkly, I would say that intellectual property rights represent a failure of our democracy. It's a failure because politicians have given much more weight, and paid much more attention, to the concentrated nature of producer and owner interests, rather than consumers. As consumers, we want competitive markets, we want medicines, which we can afford, we want to be able to buy books that we can afford, we want to be able to buy textbooks for our children. I mean all of you who are parents would understand the very costly nature of textbooks and in developing countries these textbooks really represent a week's salary or two-week's salary. They're utterly unaffordable and in developed countries many students don't buy textbooks because of the price.

So what explains the proliferation of intellectual property, erm, when we as consumers in theory should be voting for politicians or expressing preferences for much lower levels of protection. Well, I've said it has all to do with business lobbies and business networks influencing politicians in various ways through campaign contributions, by being rewarded, or through seats on the board of companies all sorts of other ways in which the life of politicians is made sugar sweet as it were by rich elites.

The example of copyright

So let me give you a concrete example, and here I'll take the case of copyright, and in particular the term of copyright. Copyright these days and it depends which country you're talking about but the term of copyright protection can vary from the life of the author +50 years, to the life of the author +70 years, to the life of the author to 90 years, and it depends on which country you're in. How did we get such a long term of copyright, particularly when such a long term is not really in the interests of authors. What I mean by that is that authors would be better off with cheaper books that they sold more of, rather than expensive books that they sold few of. Well the answer to this particular question lies in the power of publishers, both individually and as a cartel.

Cartels in publishing really dominated the 20th century and throughout that period of time the world was divided by publishing cartels into territories but more recently in the United States publishers have been very active in pushing for a longer period of copyright protection. Why so? Well publishers make an awful lot of money out of very lucrative copyright works. So think, for example, of a Gershwin melody. If you want to license, if you want to pay the owners of the Gershwin melody for the use of that melody, or just a few seconds for the purposes of commercial, say in the United States you will end up paying hundreds of thousands of dollars in licensing fees for a small snippet. Now when that Gershwin melody falls out of copyright obviously the publisher has lost a very lucrative income stream. Or think of a great work of literature, American literature, for example, fits, Fitzgerald's Great Gatsby. This has been turned into a film and it's a very widely read book, studied in many universities. When a book like that falls out of copyright, again, a publisher loses an income stream.

Well, in the United States works like Fitzgerald's Great Gatsby, the Gershwin's melodies were in danger of falling out of copyright. So the publishers got together and pressured the U.S. Congress, campaigned, for an extension of copyright term. Now this did provoke controversy and many economists argued there was no economic justification for the extension of this term, because once a book falls out of copyright, many publishers can produce it. And of course that makes the book much cheaper. Think, for example, how cheap it is to buy a copy of one of William Shakespeare's plays or any of the other great works of literature that have been produced and have now fallen into the public domain.

The public domain serves all of us as consumers and as creators, because we can take those works and we can adapt them. Well, what happened in the United States is that Congress ultimately gave the publishers what they wanted and many important works had the term of copyright extended – and of course that means the publishers continue to benefit but consumers do not both in price terms but also in cultural terms. We live, we would have a richer cultural situation, if more great works were in the public domain, where more people can make use of them, where I don't have to pay fees to a publisher. And that's a very important point. We want copyright to serve creative cultural processes and that's why the public domain is such an important idea.

If you have a look at the diagram before you, you will see that it has the shape of an inverted U and on the horizontal axis is the strength of intellectual property rights protection. So as you go along the horizontal axis. intellectual property becomes stronger. And on the vertical axis you have social welfare or social benefit. And that increases as you travel up the axis. Now at point a on the curve, that is the optimal point from a societal point of view of intellectual property. So you can imagine at that point we

have enough intellectual property, let's say it's copyright, to help promote the creation of new works and at the same time allow those works ultimately to enter the public domain.

Now I have a somewhat strong view about the length of copyright term protection. I actually think it should be very short. I certainly don't think we should have a term of copyright protection that goes past the life of the author and in fact I think we could get by with say a 10 year copyright term of protection. Obviously not many publishers will have me around for Christmas dinner, but nevertheless as a matter of economics, I think authors would be better off with shorter terms of copyright protection.

Now if you look at point b on the curve, you will see at that point society is losing. The term of intellectual property has been extended, but society is no longer benefiting. We can imagine for example that's the point at which the term of copyright protection has taken us - it's far too long. We really should be back at point a, so how do we get from point a to point b. Ultimately this is a story of business lobbying, of sophisticated networking, of consumers not being sufficiently organized.

PLEASE WATCH THE SECOND PART OF HIS TALK