

Global Economy Podcast - Episode 117 The Big Steal:

How Weak IP Rights Undermine Innovation and Markets

Full Transcript

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Fredrik Erixon: Hello everyone, and welcome to ECIPE's Global Economy Podcast. My name is Fredrik Erixon, and in this episode, we are going to talk about modern economies. Economies that run on investments in research and development, and of course, in innovation. Those who have followed some of the stuff I have written in papers and books like The Innovation Illusion know that I've been wrestling with what seems like a paradox.

Many countries in the world spend an increasing amount of money on research, development, knowledge, and human capital, generating new intellectual assets. However, it is not always obvious that all these resources lead to so much more innovation and value generation in the economy.

Yes, of course, we talk a lot about one sector with innovation-driven growth, but for a few decades, the scale and pace of innovation have almost exclusively been concentrated in this one sector, namely, computer software and data technology.

In many other sectors, if I'm allowed to generalise, I hear a lot of talk about innovation and that we are on the verge of path-breaking developments, but I actually struggle to see them. For instance, in sectors like life sciences and transport. So, how can we explain this paradox?

Is it about the intellectual property system and growing problems over decades for investors in new intellectual property to actually benefit financially from these investments?

To help me better understand this, I am very glad to be joined by Professor Jonathan Barnett, a law professor at the University of Southern California, who is also the author of a fascinating book called The Big Steal - Ideology, Interest, and the Undoing of Intellectual Property. The book was released by Oxford University Press last year, but I think the European release was earlier this year, because that's when I picked up the book, and I would strongly recommend this book to everyone because it's important and very thought-provoking.

Jonathan, welcome to the podcast.

Jonathan Barnett: Thank you, glad to be here.

Fredrik Erixon: So, the book is provocatively titled The Big Steal.

So, can you summarise for us what is The Big Steal? Sure.

Jonathan Barnett: The Big Steal is about a largely unnoticed transformation of the US intellectual property system, roughly since the mid-2000s, running right up to the present. And what's been unnoticed is that whether you look at the content markets, where we're mostly talking about copyright, or we look at the tech markets, where patents are often the key intellectual property right, and whether you look at the executive branch in the US, Congress or the courts, pretty much any opportunity a policymaker has had to weaken those protections, they have taken it. And so, we have an across-the-



board weakening of intellectual property rights across every part of our innovation and creative economy in the United States, obviously with implications around the world.

And the book documents this, and it also explains how it happened and why it happened. And the answer to those questions requires combining law, economics, and politics. And in a nutshell, the book shows that advocacy and lobbying activity by many of the largest tech platforms, combined without coordination, thought leadership, and academic writing coming out of law departments and portions of the economics community, advocated for these changes.

And the last question, why? Why would the largest tech platforms, some of which invest significantly in R&D, advocate for weakening intellectual property? And the answer is that when you look at the value chain, whether it's in content or tech, the largest tech platforms or the largest content platforms, they're often one in the same.

They are aggregators. They sit in the middle of the value chain for the most part and not at the top. And if you're an aggregator, just like any other business, you want to obtain whatever you need, materials, supplies, economists will call them inputs, at the lowest price possible.

Normally, in business, the way we do this is we negotiate for that price. But another way to do it, if you're large enough, is to change the rules of the game that determine those prices. And what this book documents is that the largest tech platforms, together with thought leadership coming from parts of the academy, again, an accidental confluence of forces, persuaded policymakers that weakening IP rights was in the public interest.

This book argues that, over the long term, weak intellectual property rights are not a good solution for a sustainable innovation economy for all stakeholders.

Fredrik Erixon: And you mentioned that, Jonathan, that it's predominantly US-focused, and you talked here, sort of a lot about platforms and copyrighted material. But what do you say, I mean, is it generally applicable? Is this a story that also is going to speak to perhaps a European experience and an Asian experience?

Is it applicable outside that particular sector of, say, a big platform? Which is aggregating content, say, music, video, articles generated by others?

Jonathan Barnett: Absolutely. The laws of economics are going to apply the same all around the world. And part of the message of the book is that developed economies that want to sustain innovation over the long term and want to sustain private sector incentives to invest, not just in innovation that can be accomplished within a few years, but in life sciences, deep tech innovation that can take over a decade.

For that, evidence shows the history of tech markets tends to suggest that strong intellectual property rights are necessary to sustain those investments. And that would seem to be in the interest of any country or any jurisdiction that wants to have an innovation economy that, again, can sustain all sorts of innovation and not just innovation that thrives under an aggregator business model.

Fredrik Erixon: Yeah, very good. So, one thing I found interesting in the book, and this comes out already in the beginning of the book, where you lay out what I would call a political economy model. As you said yourself initially, you're combining law with economics, political science in order to present analysis about how things evolved.



But you're also using that model in order to understand the broader, say, business model development, how different companies have positioned themselves in the value chain, whether they're going to be upstream generators of, say, intellectual property, or if they're going to be downstream, perhaps positioning themselves closer to the end customer and trying to perhaps control, to the extent they can, the supply and value chain through there.

That seems to me to be a good way of thinking about largely any sector, which is that it is constructed by a value chain where you have lots of different actors that participate in many different ways. Some generate content, intellectual property, and others license or use it for purposes to develop their own products in order to sell to customers. But depending on the strength of the intellectual property system, you are, of course, going to see different, not just benefits, perhaps disadvantages coming as well, depending on where you sit in that value chain.

So, can you talk a little bit about that? What happens in an economy and in the value chain if you have this development that you are talking about, where there is a gradual weakening of intellectual property protection? What does that mean for how you benefit from positioning in that value chain?

Where do you want to be? Where do you earn your money? Where do you get good revenues if you're confronted with that policy development?

Jonathan Barnett: Yeah. So let me answer your question with an example that's actually not addressed at length in the book because it predated it a bit, but it's something that we discuss a lot right now, which is the whole issue of content protections in the artificial intelligence, the AI ecosystem. And let's first look at the entities that are at the LLM, the model developer, the app developers in that AI tech stack.

And what is their economic interest, their private interest? If they were dictators of the world, copyright would be eliminated because then they could acquire, again, those inputs, the material they need is that content, it would have no legal liability, and everything would be free. And in the short term, that's great for users because users are going to get access to that content for free as well.

And the prices that the LLM developers charge, at least for their services that are priced, are all going to be lower. But what happens to that ecosystem in the long term? In the long term, in my hypothetical, where we've eliminated copyright, is content going to disappear?

No. But content is going to gravitate towards lower cost content, lower production content, derivative content, repetitive content. And so over time, it's not good for anyone in the ecosystem.

Yeah, all the content will be free, but the content that goes into that pipeline is going to tend to be of lower quality. And so, when the rules of the game are set by only the aggregators in the value chain, that's very popular in the short term, right? When we suddenly get lots of content for free, everyone's really happy.

But over the long term, it disturbs not only the interest in my example of the content developers, it will disturb the interest of users, and it will disturb the interest of the platforms as well, because the content running through their pipeline will be of lower quality. This same story can be extrapolated, can be applied across every single value chain in our current innovation economy. I could tell you the exact same story with more technical and maybe somewhat less interesting hypotheticals about the technology that supports the smartphone.



There again, we have innovators who sit at the top of the supply chain, some of whom are the leading innovators in Europe, and they rely on IP rights to support their business model. And weakening IP protections in the smartphone value chain will have the same effect as I just described in the content value chain, and with even greater economic and geopolitical implications.

Fredrik Erixon: I think this, Jonathan, also leads to the question, so how did it happen? I mean, how did we get into the undoing of intellectual property? I mean, if we just go back a couple of decades, and you go into this in the book, which is that it was a long period in the 20th century when the concept of intellectual property wasn't central to the broad economic policy debate.

But then we got into at least, say, the 1980s, 1990s, where at least my recollection is that there was an understanding, I think, among policymakers that intellectual property is important. It's important for generating investments in innovation in the first place. It's important to have a system that allows for the diffusion of new innovations that come.

So how did we go from there into thinking, which is, no, this is not very important. It's actually disadvantageous to the whole notion of modern economic growth and modern technological-driven economic growth. How did that happen?

Jonathan Barnett: Yeah, as I discuss in the book, there was sort of a perfect storm of economic, political, and cultural factors right around the mid-2000s. So, it's a little bit hard to, some viewers may not recall, but at that time, what are today the largest tech platforms were still sort of thought of as scrappy startups who were upending the world, creative disruption. The best example would be Napster, right?

Napster came out in 1999, and it was a complete hit with US college students and lots of other consumers who suddenly, instead of paying \$15.99 for an album and only two of the songs are the ones you wanted, now you can go on Napster, get exactly what you want, and pay exactly nothing for it. So that's very popular in the political equation, which influences policymakers. The second part of the perfect storm was, as I mentioned, the business model of Napster, the business model of YouTube, it's an ad-based business model.

It's cross-subsidisation. So, you start to have business books coming out arguing that intellectual property is defunct because you can support the distribution of intellectual property by giving it away for free and sourcing revenue from another side of the equation. And of course, that's in the interest of the platforms and the aggregators for the reasons that I mentioned earlier.

And the third element of the perfect storm comes from portions of academia, where what I call the information wants to be free school of thought starts to secure widespread adoption in much of the academy, which makes a similar argument that content production, tech development, these can happen in IP-lite or IP-free environments. And putting these all together, policymakers are confronted with a popular consensus, what appears to be an academic consensus and industry advocacy all converging on the same point, which is that weakening IP protections will be good for consumers and innovators can sustain innovation without it.

What I show in the book is that that is unlikely to be true for certain biopharmaceuticals. It is also unlikely to be true for important tech sectors that are important for the long term, such as hardware and deep tech, which require intellectual property protections to monetise their technology in many circumstances. And I also show for certain portions of the content industry, in particular, the news industry, which plays a function beyond economic functions in democratic societies, that it is difficult for them to sustain a business model without secure IP rights. And the very last thing I show, which I think is the best evidence for this argument, is that if you look at the content industries that have been

able to recover from the economic shock of peer-to-peer file sharing and mass piracy, you will see that in every single case, whether you look at music, whether you look at video, whether you look at eBooks, in every single case, what happened is that the industry reverted to some technological form of property rights that allows them to reassert control over access, allows them to set a price on access, and that in turn generates the revenues to get that content pipeline going again. So I think if we just look at markets and digital markets, we don't even need to go back deep into history as I've done in earlier work, but we can just look back over the 20 years, we see that innovation markets, content markets work best when there is some reasonable form of property rights protection made available.

Fredrik Erixon: Can we say then that, given these weaknesses, we have probably too little investment in innovation, at least in certain sectors and certain segments of the value chain, which are highly dependent on strong intellectual property protection?

Jonathan Barnett: Well, I agree with you about 80%. What I would say is that we have very high investment in innovation, and someone could reasonably object to everything I'm saying, to say, well, if we look at the R&D money that's going into the economy in absolute numbers, this percentage of GDP is very high, and therefore, perhaps we should be sceptical that strong IP rights are necessary to sustain innovation. But what I argue in the book is two things.

One, in the biopharmaceutical economy, which again has importance beyond economics, the economic case for secure IP rights in that industry is well-established. But even beyond that industry, the adverse impact of weak intellectual property rights is not necessarily that the total amount of investment in innovation will be reduced, but it will be distorted. It will be distorted in a very predictable and systematic way, which is that investment will flow into the types of innovation that can be monetised very quickly, or where the production costs are very low, and it will move away from technologies that take longer to develop but are easy to imitate.

In fact, we have evidence, at least in the US market, that VC capital over roughly the past decade has tended to invest heavily in things like software and consumer apps and away from technologies like biopharmaceuticals and hardware and deep tech that takes longer to develop. And so, while it could be the case that total innovation investment is strong, it's being distorted in a way that is both inefficient in just pure economic terms, but for other important non-economic values, in particular public health and national security, it's being distorted in ways that can have adverse implications for the economy as a whole.

Fredrik Erixon: Yeah, and a good example of that, you were pointing to Jonathan, is perhaps the biopharmaceutical sector, where you've seen over a long period of time that R&D spending is going much more into me-too type of innovation, that you focus much more on incremental innovation on the back of existing products, rather than that you're trying to go for something new, something which is more complex, which requires discovery in a way which takes time, and you're going to expose yourself to pretty fundamental financial risks when you make these investments where you can't make the assumption that you're going to get revenue back in the next 20 years perhaps, you need perhaps even longer time to manage.

Jonathan Barnett: Yes, and we have evidence of that in countries, in particular in Japan, where patent protections were effectively weakened through pricing on drugs, through pricing controls. And you saw there's evidence there that the investment in innovation got distorted so that it went to incremental, lower-risk innovation. And that's a social cost because innovators are being discouraged from investing in the highest risk, highest return types of innovation.

There's one other distorting effect that's important to appreciate that you get under weaker IP regimes, right? So again, taking the biotech example, if you have a biotech startup, for a biotech startup, an intellectual property is important not only when the product is released into the market where it's exposed to imitation, but what's often not appreciated, it's also important for that startup at every single step of the supply chain, when they have to speak to investors, when they have to speak to large pharmaceutical companies who they may partner with on testing and production. When you have secure IP rights, all of those transactions can take place. Now, when you pull IP rights out of the equation, what happens is that you have an adverse impact, in particular, on smaller innovator entrepreneurs.

And the reason for that is that is because they often don't have the capital or the capacity to execute production and distribution. They're very good at innovation. We have lots of evidence that smaller firms are better at innovation than larger firms.

That's another important distorting effect that you get with weaker IP. Again, if you're looking at the total aggregate innovation number, it may not shift when you weaken IP, at least outside biopharma. But there are distorting effects.

There are distorting effects in the type of innovation. It's going to be lower risk, lower cost innovation. And there are distorting effects in who is doing the innovation.

It's going to favour larger firms, incumbents. And that's a counterintuitive effect of strong IP rights as often underappreciated. IP rights often can lower entry barriers into technology markets because they enable a startup to come into the market only with its technology and without having to build out all the infrastructure itself.

Fredrik Erixon: Yeah. And I suppose this is also something you can see in sectors, in some value chains or in some perhaps countries where there has been a weakened effect in intellectual property, which is that companies need to protect their assets in different ways. So, if you have something of value, but you cannot really have efficient protection of your intellectual property, well, you protect them in different ways.

You package your product in different ways, or you add services, you add other things, you add branding, you add a retail structure, which is going to make it very difficult for any new player to come in and compete with you. So, you get a reallocation of resources in the economy, also downstream, where you're probably going to get less competition at the end of the day because companies are incentivised to use other means in order to protect what they have. So, but coming to one question I had for you, Jonathan, and this was something which I learned in your book, which is, and this is sort of partly my own ignorance of the issue, but I think a lot of people, especially economists like myself, we live with this linear perspective on history where we look back and say, oh, well, we had the agricultural economy, we went into the industrial economy, and ever since then there must have been a linear growth in R&D intensity going into the economy. Every year or every decade, we're going to increase that R&D intensity simply because that's the nature of the modern economy.

But what I learned from your book is that no, it's actually not that simple. And you can actually find cycles of R&D intensity, which to an extent can perhaps be explained by the degree you have effective protection of intellectual property. And I wonder, we've been talking about, and I alluded to this in my introduction, we've been talking about whether we've been living in an innovation slowdown over a couple of decades.



We talk about now about AI, ever since the launch of the iPhone, we have seen this magnificent drive in new apps and new technologies that allow at least your life to become a bit easier than it used to be. But there are also many sectors where we, at least in my view, I don't think we're seeing much innovation at all. I pointed to life sciences, to transport, but we can go to many sectors where I think on balance, we can say that we've probably been in a structural slowdown in innovation for a while.

And perhaps this is due a bit as well to intellectual property and the degree to which you actually can protect some of this new knowledge that you're generating by intellectual property. And then perhaps you don't have an effective system to protect it. So I think that was a long introduction to what I think is a very specific question, which is, do you think this is sort of a cycle of R&D intensity, a cycle of innovation in our economy that is at least to an extent explained by the degree to which intellectual property system help investors and generators of intellectual property to protect what they generate?

Jonathan Barnett: Yeah, so I think I'm going to respond to your question with some historical evidence based on research that I've done, part of which is referenced in this book. And the full version is in a book called Innovators, Firms and Markets, which I published in 2021, which is an over a hundred-year-old economic history of the US patent system. And the big finding in that book was that in periods when US courts and other agencies provided strong levels of IP protection, you had a much more diverse innovation ecosystem where you had both large firms and you had small firm entrepreneurs entering the market with new technologies.

Those two periods were in the early 20th century and the late 20th and early 21st centuries. And what you see in both of those periods is intensive use of the patent system, but not only that, you see in both periods, smaller firms playing disproportionate roles, both in terms of the amount of investment flowing to those small firms and qualitatively in the types of technologies that they produce. And so, there's consistent evidence, at least in US technology history, that disruptive innovations, which economists sometimes call radical innovations, innovations that challenge an existing paradigm rather than just improving or refining it, tend to come from the smaller innovator and not within the big firm.

In periods in the United States, when there was weak patent protection, which extended throughout the post-World War II decades, did innovation cease? No. But it tended to happen almost entirely inside large firm silos in aerospace, computing, firms like IBM, DuPont, GE, and so forth.

And what happens is that you get something like what I believe you're describing. You get an innovation slowdown, not necessarily in the total quantity of innovation, but innovation becomes more conservative, it becomes more dynamic, so that at the end of that post-war period in the 70s, there are lots of reports in the US talking about an innovation malaise, very similar to what you're describing today. When the patent system in the US was strengthened in the early 1980s, at that time, small firms represented about 5% of all private R&D investment in the US.

Two decades later, they represented about 20%. And I think that's very strong evidence for the fact that strong IP rights not only do they incentivise certain types of innovation that have long-term value, but they also support entrepreneurial innovation. And that's a good thing, again, not just for having a disruptive innovation economy, it's also good for competition.

And it challenges our standard assumption that antitrust and intellectual property are always in tension. In fact, strong IP rights are sometimes good not just for innovation, but they're good for competition as well.

Fredrik Erixon: Indeed. So, finally, Jonathan, how can we improve on the system we have now? What should be done?



Jonathan Barnett: Well, I think both in the US and in Europe, I think it would be great if policymakers could appreciate the unique role that strong IP rights play in long-term, high social value innovation, and the unique role that they play in enabling entry into concentrated markets by disruptive entrepreneurs. And there's lots of ways to strengthen IP rights. I think one of the most important policy issues right now to get that done, which is discussed in the US and Europe, actually, in my view, outperforms the US on this point, is to treat intellectual property rights as a form of property.

And what that means is that when intellectual property rights are infringed, and the owner of the right demonstrates infringement, the remedy, or at least the presumptive remedy, should be an injunction. And why is that important? Because just like in any other asset market, an injunction, property rights enable markets to form, and they enable markets to price out those rights.

And at the end of the day, that's really what IP rights do. They incentivise innovation, but that's actually a byproduct of a more fundamental thing that they do, which is create a market in technology, a market in content, and then we get all of the efficiencies that are generally recognised to arise in any other type of competition.

Fredrik Erixon: Very good. Thank you so much, Jonathan. And let me again say that the book is fantastically good.

I can strongly recommend it. And it's called <u>The Big Steal, Ideology, Interest, and the Undoing of Intellectual Property</u>. And you can find it wherever you're used to buy your books, if that's online or if it's offline.

Jonathan, it's been a great pleasure talking to you. Thanks so much for taking the time. This was great.

Jonathan Barnett: Thank you. Thank you very much.