



Dipartimento: Impresa e Management

Cattedra: Intellectual Property Rights and Technology Transfer

The Net Macroeconomic Cost of Patent Trolls

Relatore Prof. Massimiliano Granieri

Correlatore Prof. Andrea Renda

Candidato Valerio Poce

Matricola 636771

Anno Accademico 2011/2012

Summary

“Invisible hand”, this is how, at the end of the 18th century, Adam Smith, almost referring to the action of a “superior” entity, decided to name a phenomenon that was able to transform the motivations of individual decisions, which are by nature always driven by personal satisfaction, in a systemic force that creates a greater wellbeing for society as a whole.

Basically, the vision proposed by the Scottish economist, which in the subsequent era was then downgraded to a mere theoretical assumption, described how an individual’s selfishness, namely the legitimate pursuit of his/her own personal interests, could actually become an engine for the economic system, so what would move society towards growth and development.

In the following years the economic literature had much to meditate on Smith’s theory and came to realize how it was definitely not adequate to depict how things happened in reality. Despite having identified what could be seen as the essence of the market, Smith had in fact neglected a fundamental aspect of the issue, namely that the pursuit of individual interests brings specific consequences and that the selfish behaviour of people can have innumerable negative implications and generate several hidden costs and inefficiencies for the community. These inefficiencies can only

be fixed by the intervention of public institutions, which, by acting following a logic that favours the interests of society as a whole over those of single individuals, aim at rebalancing the system, also by simply setting some ground rules.

Despite being approximate, such scheme, outlined by Smith and his critics, might in some ways be used as a reference to properly interpret the issue analysed in this paper. When analysing Patent Trolls and the impact of their activities on the entire economic system, and more in general on society, it is as if the echoes of the debate between supporters and critics of the “invisible hand” have come all the way to our days and the reasons advanced by both sides supporting their positions have become the theoretical prerequisites at the basis of the dispute between economists and public sector with regards to the beneficial or damaging nature of trolling activities.

Like the concept developed by Adam Smith, in fact, Patent Trolls, which are a sort of indistinct and unidentified group of entities that holds patent without using them to produce goods or services, but with the only purposes of profiting from the exercise of intellectual property rights that come with them, have found themselves, in recent years, at the centre of a heated debate between one side of the literature and the other. Some authors compare Patent Trolls with “parasites” of the economic system, guilty of preventing development, of acting to the limits of the law, if not beyond them, and of

profiting through blackmailing activities, by playing on the fear of other companies of being involved in expensive patent infringement lawsuits. Also on the basis of empirical evidence, such opinion therefore holds that the trolling activities represent an obstacle for innovation and, just like the selfish pursuit of individual interests, they bring extensive costs for the community, which can only be limited with the regulatory intervention of public institutions and the implementation of legal frameworks.

The second vision, more oriented towards Smith's doctrine, considers Patent Trolls' actions not only perfectly legal and in line with the market's normative landscape, but also useful and beneficial at a systemic level, as they can be easily compared to the "invisible hand" that can transform the pursuit of the personal interest of the patent holder who wants to defend his property rights, into a collective benefit for a less rigid and more dynamic patent market, which would then be able to incentivise and value innovation, even when only created by small companies, to ensure compliance with patent regulations and, lastly, a better resource allocation within the economic system.

In order to investigate in detail on the robustness and validity of such conflicting opinions, and thus understand if there are elements that may favour one over the other, it was necessary to depict the entire landscape in which the

phenomenon of Patent Trolls and their not so flattering reputation have come to exist.

To this aim, after a short analysis of the environment in which Patent Trolls were first born, which was enough in itself to account for the many contradictions that have accompanied the existence of the Patent Trolls from the beginning, it was considered useful to investigate on the characteristics that define them and browse the many attempts of the literature to identify a discriminating factor that would allow to differentiate Patent Trolls from the rest of the players in the patent system. Patent Trolls were baptized in this way by Peter Detkin, a Vice President at Intel, who, after criticizing for long their *modus operandi*, took a leap and went on the other side of the fence to take on the lead in one of the most active Patent Trolls in the market.

What can thus be defined as a Patent Troll and how do their activities differ from any other patent holders, or PPE (*Patent practicing entities*), that want to defend their exclusive intellectual property right?

As it is well described in the literature, Patent Trolls are companies that fall within the broader category of *Non-practicing entities* (NPEs). They do not in fact develop new technologies, nor use any kind of technology to offer goods or services to the market: their business model basically consists of purchasing patents at a low price from independent inventors with the only aim of using them to make a profit

from all other companies that, within the development of their own activities, can run into some sort of infringement of such patents and have then to face the consequences in a patent infringement litigation.

To simplify, for a patent Troll the ownership of a patent is not functional to a productive use, as it would usually be. The use that Patent Trolls want to make of their patents is mostly, so to say, “legal”, so as a sort of weapon to push or force, through intimidating and blackmailing behaviours, other companies, whose products use parts or all of the protected technology or invention, to sign a licensing agreement, if not even negotiate a legal truce in exchange for “reasonable” compensation, often by threatening them with the idea of a long and expensive lawsuit.

Despite the matter’s complexity that prevented it from being understood completely yet, in a first instance some authors believed they could identify within the non-productive nature of Patent Trolls and in their speculative and unscrupulous approach to patent litigations the distinctive factors that would have enabled them to better define the phenomenon and, on the basis of this, to set up the necessary regulatory interventions to manage it and to limit its diffusion.

From the beginning, however, one side of the literature raised some concerns on this point, highlighting how such a sketchy interpretation could have helped in identifying not only Patent Trolls, but also other NPEs like universities,

research centres and independent inventors who, by nature, invest time and resources in the development of new solutions and technologies, without having, from the start, any intention or opportunity to dedicate themselves to their productive exploitation. To this we must also add how the behaviours that are typical of Patent Trolls and the means they use to achieve their objectives are not sufficient per se to identify and distinguish them from other players who believe their patent was infringed and is simply trying to use all the tools at their disposal to assert their rights and get compensated for the damage suffered.

To support the thesis that believes that Patent Trolls and NPEs are different and that considers patent litigations a complex phenomenon of which trolling activities only represent a negligible part, there is a lot of numerical evidence, from the analysis of which it clearly emerges that most patent litigations, which have started to increase significantly from the 90s, are not so much initiated by NPEs, but by companies or big public or private conglomerates, usually engaged in production activities and therefore similar to PPEs.

Thus, even if the dominant opinion in recent years has brought us to look at NPEs as entities that are always ready to start a patent litigation as a result of simply owning a patent, such diffused perception does not seem to be supported by any hard data, and neither does the belief that the big patent portfolios held by large high-tech conglomerates only

represent a tool used to protect their production and not, as numbers suggest, with the aim of holding the competition back or simply giving rise to new patent litigations.

Subsequent investigations undertaken in more recent years (2007-2011), which take as a reference a different category within the subjects who usually initiate patent litigations, namely Universities, operating companies and the Patent Monetization Entities, which all benefit from patent litigation as a primary source of income, could not find anything more than the mere confirmation of the increasing activities of “monetizers” and the gradual decrease in companies with productive aims.

Given the failure to come up with a proper definition and, as seen before, the unconvincing evidence gathered on the numerical side, in order to complete the search for a distinctive element that would allow a more precise definition of the Patent Trolls phenomenon, the attention turned to their structural features and to their business model.

In this sense, in fact, Patent Trolls have several interesting peculiarities. At a structural level, for example, they can take on different forms, like:

- companies that do not undertake any production or R&D activities, but simply purchase patents with the only aim of contesting improper use in court. This category also includes all of those entities who operate by offering their

support to inventors or small companies in asserting their rights;

- companies that were originally engaged in productive activities and have then progressively shifted their core business towards the sale of licensing agreements or patent litigations in general;

- agents that work on behalf of companies that owns patents whose protection has been outsourced to a third party, or as companies specialised in the management and protection of licenses and patents or also as legal practices that want to defend the rights of their clients.

With regards to their business model instead, the most evident peculiarity that distinguishes the Patent Trolls' approach to patent litigations from that of other NPEs or PPEs, lies essentially in the unavailability to sign any cross-licensing agreement and in having as only objective, not so much the need of ensuring their intellectual property rights are respected, but rather that of having their target companies face a tough choice between two equally burdensome options, namely between accepting and signing a licensing agreement and the subsequent deposit of royalties, without even having any legal certainty that a patent infringement actually occurred, or else retaliate and go on with the lawsuit bearing all its consequences.

After a short analysis, for the sake of completeness, of the different defensive strategies against Patent Trolls' attacks

implemented by their victims and an outline of some legal controversies believed to be exemplary of the issue, the paper went on with its delineated course trying, always without a specific definition of Patent Trolls, to offer an exhaustive report of the reasons at the basis of the two conflicting opinions that emerged in the literature with regards to these particular players of the patent system.

In this view, it is important first of all to highlight how the considerations of who believes Patent Trolls to be a negative influence for the market and the community focus mostly on their dangerousness in terms of hindering innovation and distorting the aims of normative systems. The most critical observers, in fact, claim that trolling activities are by nature founded on a falsified use of intellectual property norms and thus, given the size of the phenomenon, can worsen the legal system and generate costs for institutions, companies and the community, both directly and indirectly.

In their opinion, however, this would only represent a part of the problem. Much more significant would in fact be the effect exercised by trolling activities on innovation registered at a social level. To this end, in fact, we must bear in mind that for a company, and also for a small inventor, who needs to protect its patents because engaged in the development or use of new technologies, the presence of Patent Trolls does not only represent a constant threat, which could even be sufficient to exercise a certain caution when

investing in innovation, but also a factor that can significantly affect transaction costs for technological development processes and for intellectual protection practices, and consequently bring a decrease in innovative initiatives and consequently in the probability that the entire system continues to favour the development of new technologies and solutions.

With regards to this point, some empirical research works have been taken into consideration in order to understand whether Patent Trolls also have, as explained by some less critical observers, a redistributive function, within which, the value taken away from realities involved in a patent litigation corresponds to a benefit for more vulnerable players of the patent system, i.e. small inventors, or, more in general, for the community.

From the results obtained, some clear trends emerge: in reality only a small part of the wealth lost by companies accused of patent infringement goes into the pockets of the victims of the alleged violation, and that, moreover, only a minimum amount of what was obtained by the alleged victim is then transferred to independent investors. Although patent litigations can clearly generate great wealth losses for the companies accused of exploiting someone else's patents, they turn out to be completely ineffective at conveying funds from the world of big players to that of small innovators, and this not because of the selfishness of NPEs, often accused of keeping for them an excessive amount of the total

compensation sum, but because of other unclear factors that are probably linked with the numerous steps and players that take part in an intellectual property controversy.

All of this enable us to state, even if with some approximation, that it is not so much NPEs that negatively affect the propensity to innovate and, thus, society's welfare, but rather patent litigations per se, regardless of who initiates them, and this simply because they are configured as "negative sum" processes where the majority of participants incurs in substantial losses, while only few others get scarce benefits.

As highlighted by a subsequent research, it is mainly small companies and start-ups that are heavily affected by their involvement in an infringement litigation. The analysis, developed by relying mostly on the concept of PAEs (Patent-assertion entities) instead of the more traditional NPEs, demonstrates in fact that for companies that are less structured the initiation of a patent dispute from a PAE represents a significant financial burden and also a big obstacle to the normal course of their operational activities, if not even a possible cause for suspension or final interruption of their activities, with consequences on the overall company value and on the ability to attract investors.

It is also important to consider that, despite the lack of clear empirical evidence, it can be reasonable to think that since patent litigations tend to raise the overall cost of innovative processes and, in more general terms, to trigger

losses for other players involved, they also affect price, which is the main variable that governs the relationship between the world of production and that of consumption.

On the opposite side, the assumption of the more favourable side claims that Patent Trolls, always within the full legitimacy of their own intellectual property rights, take on an almost restoring function and bring back order where in the past ruled the “survival of the fittest” approach and prevent big companies from taking advantage of smaller players and using their discoveries unjustly for productive activities, generating profits through the infringement of third parties’ patents. With these assumptions, therefore, trolling activities would not only be able to rebalance all competitive dynamics, but also to promote compliance to regulations, to give room back to the spirit of initiative that is typical of independent inventors and, consequently, to encourage innovation at a systemic level.

Essentially, while literature against Patent Trolls claims their activities are predatory and parasitic actions that hinder technological progress and social development, the one in their favour overturns such accusations to big corporations, holding them responsible for operating and building profits on others’ intellectual property, and considers trolling activities as a potential way to limit such unjust appropriations, to give confidence back to independent inventors and to favour in this way the free circulation of ideas, technological transfers and, more in general, innovation.

To the support of such thesis some authors also highlight how the figure of Patent Trolls is essentially comparable to that of venture capitalists who acts as market makers and «facilitate the public disclosure of invention, which is one of the patent system's primary functions». In this respect, moreover, Patent Trolls could also be seen as a new evolutive step of the patent system towards specialization, already widely experimented in other sectors, and extreme outsourcing for companies who lack the resources or who want to focus on their core businesses of their activities to a third party that therefore «assumes for itself the risks and potential additional rewards of monetizing the intellectual property in the market».

Also with regards to the most controversial aspect of Patent Trolling activities, i.e. the non-productive use of the owned intellectual properties, the favourable literature claims that this does not imply any particular systemic risk, for the simple reason that, whenever intellectual property rights depend from the use that the owner decides to make of it, this would inevitably affect specific entities, like universities for example, which hold patents without undertaking any production activities.

Some authors believe, moreover, that it is useful to highlight how, in a certain perspective, the beneficial action undertaken by Patent Trolls for the community could also get as far as creating a secondary market for patents that, on top of

offering to small companies the chance to grow, develop and get funding, would favour the intersection between supply and demand for innovation, would increase the liquidity of intellectual property rights and, lastly, would allow society as a whole to enjoy the arising benefits in terms of technological progress.

In conclusion, in light of the lack of a proper definition that still today prevents a clear and univocal identification of Patent Trolls and of the lack of the necessary empirical evidence that would allow to take a specific side in the debate on the negative or positive value of trolling activities, it is quite clear how whichever financial provision aimed at opposing, favouring or also simply at managing their diffusion, will have to be implemented with extreme caution and supported by strong analysis, not only of its possible “anti-trolling” effect, but also of the impact that this could have on all the other players of the patent system.