Sylvain Akriche
CEIPI (University of Strasbourg) Student

ECTA Award

3D printing and trademark law in the EU: the scope of protection and its limits.

It is of common knowledge that new technologies and laws are often hard to accommodate. The ongoing (loosing) battle against piracy underlines the difficulties of setting up a system which preserves both intellectual property rights owners and the demand for quick and readily accessible informations. This article does not aim at tackling the issue of piracy on the internet, a lot has already been written about it, but to raise awareness on a technological invention which could potentially carry a greater impact than already existing copyright breaches: 3D printing.

The technology is not new. It was invented in the 1970's in order to cope with the technical difficulties encountered while manufacturing objects. Indeed, by using the traditional methods of cutting, adding materials or molding, engineers need to calculate the path of the tools used in order to achieve their goal[1]. If the product is complex, with inner details for instance, it has an incidence on the conception phase. Industries, thus, started to use a much simpler, albeit somewhat lengthier, process to shape objects. They would also use a printing device that injects melted material instead of ink in order to obtain, by addition of successive layers, the designed shape.

The way such devices work varies. One needs a printer but can operate it with what we will call “plans” in the form of computer files bearing the pattern of the intended object, either found on the internet or made thanks to specific software, or by scanning an object.

What draws the attention of media and average users of informatics tools is, in the first place, that the accessibility to those technologies has increased. It is nowadays possible to find a good quality “printer” for the price of a smartphone. For just around four hundred euro, anyone can own a 3D printer. This simple fact puts a strain on the economy as consumers may print for few a cents everyday tools they previously bought. One may think of objects like a toothbrush, or a comb, but the precision granted by the printers, sometime less than a quarter of millimeter, provides a vast array of possibilities. In the second place, an experiment led by Austrian police hit the headlines. A team managed, in thirty hours, to build a gun made of plastic firing lethal bullets[2]. On a lighter tone, if plastic is the main material used currently, food[3] of metal[4] printers exist. One of the main interest of this technology is the replication capacity. Some 3D printers are even capable of replicating most of their own parts[5]. According to Simon Bradshaw[6], it represents the failure of the market economy

1 Simon Bradshaw, Adrian Bowyer and Patrick Hauf, p. 6

2 http://reason.com/blog/2013/10/18/european-cops-join-global-freakout-over Last accessed January 30th 2014.

3 http://www.telegraph.co.uk/technology/ces/10560755/CES-First-3D-printer-to-make-food-revealed.html Last accesed january 26th 2014.

4 http://www.techspot.com/news/54771-liquid-metal-alloy-could-allow-hobbyists-to-print-electronics-at-home-on-any-surface.html Last accesed january 26th 2014.

5 http://www.reprap-france.com/20-kit-reprap Last accessed January the 28th 2014.

6 Simon Bradshaw, Adrian Bowyer and Patrick Hauf, p. 9

for “such a self-replicating machine is an object that people would value, but that it is in no one's interest to sell”. Furthermore, if the 3D printing trend grows without attention paid to it, one may foresee both a market but also legal failure, for none would suit the needs of protection of the title's owners. From that respect the comparison with the copyright industries struggle against the development of communication is relevant. Moreover, it could also have an effect on the liberties of end consumers. We noticed that with the rise of illegal downloading, legislative measures were taken in order to contain the phenomenon. In France, for instance, the so-called HADOPI system remains very controversial. Introduced in 2009, after a chaotic legislative development where it was partly censored by the Conseil constitutionnel[7], the institution proved to be ineffective[8], costly and there are ongoing debates about the alleged infringement of article 8 the European charter of fundamental rights related to the respect of personal data by the (mis)use of IP addresses.

From a legal perspective, it is possible to express concerns. Indeed, the shared feature of intellectual property right is the capacity, legal and concrete, to prevent any unauthorized use of a title. The 1883 Paris convention in its article 4 (A.2) grants a property right on regularly registered industrial property titles. The present innovation is likely to have an impact on every area of the intellectual property. Reproduced objects are mainly protected by patents, trademark, designs and copyrights. Because of the key role of trademark in the EU, our analysis will focus on this specific intellectual property title. A recent study from the WIPO and the OHIM[9] revealed that trademark right is a cornerstone for IP intensive intensive companies in the EU. Trademark related activities are responsible for 33,9% of the EU total GDP and employ more than fourty-five millions.

Disputes related to 3D printing remain rare yet. This is possibly due to the fact that cost of litigation would outweigh the benefit of taking an infringer to court. Indeed, on a home based usage, individual would not be likely to counterfeit an important quantity of trademark protected goods. Nevertheless, the practice of 3D printing is increasingly popular. It is fairly common to find dedicated shops in the streets.

Throughout this article, we will try to assess the adequacy of the current scope of protection in the EU with the need to balance the interests of trademark owners and 3D printers end user rights. In the European framework, the directive 2008/95 EC (later mentioned as the Directive) and the regulation 207/2009 (later mentioned as the Regulation) shape the landscape of EU trademark law.

7 Conseil constitutionnel decision 2009/580 DC

8 Study led by Sylvain Dejean, Thierry Pénard and Raphaël Suire in the early stage of the application of the law.

9 Intellectual property rights intensive industries: contribution to economic performance and employment in the European Union, WIPO and OHIM report, September 2013. http://ec.europa.eu/internal_market/intellectual-property/docs/joint-report-epo-ohim-final-version_en.pdf Last accessed January the 29th 2014.

Despite the fact that the clarifications made by the CJEU apply across the EU, liberties are given to member states to implement the directive and practices of EU law can vary throughout the Union. In those circumstances, one would ideally tackle every national law when it proves to be relevant. An in depth study of the major legal systems in the EU is, however, too far reaching for a single article. Thus, the case of France will be considered to illustrate points of law in relation to the matter at hand.

An important first step to apprehend the issue can consist in understanding in which ways 3D printing falls under the scope of trade mark owners rights. It will be the main focus of our analysis. In order to assess the the risk of encroachment of trademark protected acts by mean of 3D printing, one needs to determine how it may fit within the scope of trademark protection. In doing so, three main points should be taken into consideration: the functions of the trademarks and the unclear notion of "course of trade" (1), the application of the doctrine of exhaustion of right in relation to this new technology (2), and the extension of protection of a trademark with a reputation (3). In this paper, we will not delve into into the details of possible forms of the counterfeiting activities protected by article 5(3) of the Directive, 9(2) of the Regulation or, for their French counterpart, articles L. 713-2 and L. 713-3 of the *Code de la propriété intellectuelle* (CPI) for our aim is to determine if the use of 3D printing falls under the scope of those rules, and not the potential act by which it is reached. Furthermore, as both the Directive and the Regulation propose a non exhaustive list of such scenario, it would require a exhaustive study to consider all the possible counterfeiting acts on a EU scale. The proposed analysis should help observing on which side the balance of interests lies; whether it favours the proprietors or the technology user, or if the *status quo* is preserved.

I. 3D printing threatening traditional requirements of trademark protection

Article 5(1)[10] of the Directive and 9(1) of the Regulation[11] set forth four main requirements to benefit from the protection granted by trademarks. Except in case of trademarks with reputation, the need to acquire the owner authorisation and the principle of exclusivity in the speciality[12] do not seem to raise any further difficulties with 3D printing. However, according to C. Le Stanc[13], one of the issue is to determine whether a 3D reproduced trademark is made in the course of trade or not. If it does, then it would likely fall under the scope of the protection. Cumulatively, it should also interfere with a function of the trademark to be considered as infringing.

Course of trade in the context of 3D (re)productions:

It is interesting to note that in the French CPI, the condition of use in the course of trade has been overlooked during the transposition of the trademark directive. It is, nevertheless, taken into consideration by courts. This notion is a powerful tool to contest an allegation of counterfeiting, especially considering the narrow definition provided by the CJEU. In the famous *Arsenal FC* case[14], the Court underlines that "the use of the sign identical to the mark is indeed use in the course of trade, since it takes place in the context of commercial activity with a view to economic advantage and not as a private matter". First of all, with regard to the functioning of home 3D printers, one may already point out that trademark owners will experience great difficulties trying to prove that the use was made in the course of trade if the public has no access to the goods or services. However, the decision also reveals that, when such a use extends out of the private sphere, disclaimers set to inform the consumers of the actual source of the goods or services do not prevent the use from stepping in the proprietor safeguard domain[15]. Secondly, the use must procure an

10 Directive 2008/95 on the harmonisation of trademarks in the EU.

11 Regulation 207-2009 on community trademarks.

12 We will raise the issue of the notion of exclusivity ion the speciality in relation to trademark with a reputation in the third part.

13 Christian Le Stanc,p. 3

14 ECJ, November the 12th 2002, *Arsenal FC*, case n° C-206/01 : JCP E 2003, 1468, §10, note Boepflug, Greffe and Barthélémy; D. 2003, act. jurisprudence p. 424 and note ; D. 2003, jurisprudence p. 775 note Candé ; Propriété Intellectuelle 2003, n°7, P. 197 note Bonet ; PIBD 2003, 764, III, 263.

15 *Arsenal FC* para 57

economical advantage to meet the definition. The meaning of it is fairly unclear when the activity takes place in the "gray areas". Indeed, is the fact of benefiting from an equivalent good, produced by copying it for a tenth of it's price, an economical advantage? So far, it could be understood as seeking a, direct or indirect, sum of money. For instance, French national courts dealing with this issue found that the use of a trademark in an informative way, and despite the negative opinion on the trademark displayed, does not impede with trademark protection[16]. It aims at protecting the freedom of speech, but can arguably render the displayer popular or successful, thus involving other indirect incomes. The CJEU itself considered, in the *Google* v. *Vuitton*[17] case, that "offering for sale" *adwords* identical to trademarks is a use made in the course of trade. Hence, the attention of the courts seems to be focused on the intended profit. In the context of online sell via an exchange platform, the CJEU held in the *L'oéral* v. *eBay*[18], that attention should be paid to the volume, frequency and other characteristics which could be relevant to determine if the sale was made in the course of trade. In the scenario of offering a 3D printed good against a certain sum, the situation is straight forward, it is counterfeiting if one makes a living thanks to it. Nevertheless, sharing a reproducible good for free could arguably hurt the market, but not the trademark rights. Lets just to take a simple example: a company could print disposable goods they need, from plastic cup to chairs, for their own use without infringing trademark rights on the objects they reproduced. Thirdly, and in addition to this limitation of the trademark owner prerogatives, the *Google* v. *Vuitton* case states that the use in the course of trade has to be made by " the party offering the service itself"[19]. By consequence, a company or an individual offering for sale plans of goods reproducing trademark protected goods, could potentially escape liability for trademark infringement as long as they don't reproduce the good themselves, for they would not be making use of a sign themselves before the end consumer.

One realises from those observations that the (increasingly effective) capacities of 3D printers in association with the understanding of the notion of course of trade by the CJEU and the consequent application made in the EU member states, could harm trademark owners. Another limitation is to be found in the theory of the essential function.

16 Cour de cassation, chambre commerciale, May the 10th 2011, PIBD 2011, 943, III, 457, Propriété Industrielle 2011, commentaire 72 note Tréfigny-Goy.

17 CJEU, March the 23rd 2010, *Google* v. *Louis Vuitton*, joined cases n° C-236/08 to 238/08

18 CJEU, July the 12th 2011, *L'oréal* v. *eBay*, case n° C-324/09 : Comm. Com. Électr. 2011, comm. 99, note Caron ; Propriété Industrielle 2011 comm. 71, note Fauliard-Monguiral, Para. 55

19 Para 57.

Breach of a function of the trademark?

Due to the important consequences of the protection (such as potentially unlimited duration of the title), trademark are limited by their function. The notion of function in the context of trademarks should be understood in its traditional definition: fulfill a predetermined purpose. Two main functions can be identified in the CJEU jurisprudence. A protected sign has an exclusivity in its speciality, namely the goods and services under which it is registered in respect with article 5(1, a) of the Directive and 9(1, a) of the Regulation[20]. It must also guarantee a trade origin. Taking into account such elements to determine the scope of the protection hinders the control of the right holder over the use made of it's trademark. Indeed, an identical sign printed on different goods or for services could not be infringing without a risk of confusion from consumers. However, we will see that, through its decisions, of the CJEU strike a real balance of interest between the need for protection and the freedom of trade as protected in the EU Treaty and TFEU.

The first function is known as the exclusivity in speciality[21]. It is protected under articles 5(1, a) of the Directive and 9(1, a) of the Regulation. It implies, in essence, that the use of a sign registered for goods or services can solely be used by the trademark owner. Thus, if anyone uses, in the course of trade, the same sign on goods or for services for which a trademark has been registered, the identity alone suffices to demonstrate the infringement. To some extent, it seems that this function is now in the shade of the essential function of trademarks, the guarantee of trade origin. In the 2002 *Arsenal* decision[22], the CJEU stated that:

> " *It follows that the exclusive right under Article 5(1)(a) of the Directive was conferred in order to enable the trade mark proprietor to protect his specific interests as proprietor, that is, to ensure that the trade mark can fulfill its functions. The exercise of that right must therefore be reserved to cases in which a third party's use of the sign affects or is liable to affect the functions of the trade mark, in particular its essential function of guaranteeing to consumers the origin of the goods.*"

It is clear from this decision that the guarantee of origin plays an important role in shaping the scale of the trademarks owners rights. As an example, one can underline, in the 2010 *Google* v. *Vuitton* decision, the absence counterfeiting activities from the company Google, which was, nonetheless, using same signs in categories of goods and services for which it was registered. The Court insisted on the absence of risks of confusion from the consumers for, from Google, the sign

20 This function is notably studied by French scholars, such as Adrien Bouvel or Yann Basire, based on the interppretation of the *Centrafarm* decision. ECJ, October the 31th 1974, *Centrafarm* v. *Winthrop*, case n° 15/74

21 Yann Basire, p. 265

22 *Ibid*. Para. 51

was not used as a trademark. Thus, the competition suffered no distortion. Shortly after, in the 2011 *interflora* decision[23] the CJEU confirmed:

> "*Although the European Union legislature described as 'absolute' the protection against the unauthorised use of signs identical with a trade mark in relation to goods or services identical with those for which the mark is registered, the Court has put that description into perspective by stating that, as extensive as it may be, the protection conferred by Article 5(1)(a) of Directive 89/104 is intended solely to enable the trade mark proprietor to protect its specific interests as proprietor of the mark, that is to say, to ensure that the trade mark can fulfill its functions. The Court has concluded that the exercise of the exclusive right conferred by the trade mark must be reserved to cases in which a third party's use of the sign adversely affects, or is liable adversely to affect, the functions of the trade mark, in particular its essential function of guaranteeing to consumers the origin of the goods.*"

Consequently, in order to determine potential trademark counterfeiting from 3D printing, one also needs to analyse the extent of protection granted by the essential functions, even in case of identity of signs for identical goods or services. Overall, the main distinction between articles 5(1, a) and 5(1, b), as well as 9(1, a) and 9(1, b) boils down to, in case of mere similarities, the requirement to prove the risk of confusion. The scenario for legal actions are comparable. In this context, one wonders why the distinction between the function of exclusivity in the speciality and the "essential function" are sometime treated separately.

Hence, what proves to be relevant is the study of the "essential function" and the recently discovered ones. The jurisprudence of the court identified five overall. Traditionally, the function of a trademark was to guarantee the origin of a product or service. However, in *L'oréal* v. *Bellure* the CJEU underlined the fact that in the recitals of the trademark directive, the "the function of which [the registered trademark] is in particular to guarantee the trade mark as an indication of origin"[24]. It leaves the door open for new functions. In fact, in this decision, the Court claimed that four new functions should be taken into account: the function of guaranteeing the quality of the goods or services, of communication, investment and advertising.

First and foremost, the CJEU emphasises on the fact that the core function of a trademark is to

23 CJEU, September the 22nd 2011, I*nterflora*, case n° C-323/09

24 CJEU, June the 18th 2009, *L'oréal* v. *Bellure*, case n° C-487/07, para. 4. The directive 89/104 was enforced in the proceeding as the fact took place before the 2008 directive. Thus, it aims at recital 10 in the directive. Today, it refers to recital 11.

guarantee that the product comes from a specific undertaker. The decision *Koninklijke Philips Electronic*[25] provides with a clear definition of this function:

> "*the essential function of a trade mark is to guarantee the identity of the origin of the marked product to the consumer or end-user by enabling him, without any possibility of confusion, to distinguish the product or service from others which have another origin, and for the trade mark to be able to fulfill its essential role in the system of undistorted competition which the Treaty seeks to establish, it must offer a guarantee that all the goods or services bearing it have originated under the control of a single undertaking which is responsible for their quality*"

In this perspective, the function of guarantee of origin also aims at preventing unauthorised distribution of trademark protected goods online. Consequently, it appears logical that, in the course of trade, selling goods under a trademark of which the undertaker is not the owner, leads to a counterfeiting activity. In the same fashion, unsurprisingly, the same limits apply to users of 3D users. Moreover, any interference with a trademarked products after it was put in the market, may have a consequence regarding to this function. It is typically the case in situation of repackaging. The position of the Court is clear on this matter: if it leads to a confusion in the mind of the consumers regarding the identity of the real trademark owner, who first put this product on the market, then, the essential function is not respected. With the 3D printing technology, this precision is welcomed, for it would ensure that goods which were already put in the market cannot be transformed without the proprietor's consent, despite the fact that it could be extremely easy to do so. On this topic, a dedicated development will be made in relation to the issue of the exhaustion of rights.

Under this function, nevertheless, there is no guarantee of quality entailed when a product is first put in the market. Until recently, it was held that the function only implies that the trademarked good or service originates from a unitary control[26]. It has changed with the new functions of the trademark.

Secondly, it appeared necessary to expand the scope of trademark protection with regard to the newly protected functions. On the four new functions, only two are currently defined. Primarily, the function of advertising is defined in the 2010 *Google* v. *Vuitton* decision. The CJEU stated that a trademark is also a tool to promote and persuade the consumers. Hence, if "that use adversely affects the proprietor's use of its mark as a factor in sales promotion or as an instrument of

25 ECJ, June the 18th 2002, Koninklikje Philips Electronics v. Remington, case n°299/99. Para. 30

26 ECJ, May the 23rd 1978, *Hoffman La-Roche*, case n° C-102/77

commercial strategy"[27] it constitutes a breach of the trademark owners prerogatives. For instance, in the *L'Oréal* v. *Bellure* case, a comparative chart between different perfumes falls under the scope of article 5(1, a) of the directive as it could have an adverse effect, in other words exceed impedes on the sale of well-known perfumes. In the case of 3D printing, it is very interesting for it allows trademark owners to take action against individuals or companies who could use the attraction power of a protected trademark to offer competing goods or services but for which the breach of the essential function is difficult to prove. For instance, an undertaker who design hot chocolate cups could offer "plans" to print them in the same purple shade as the Milka chocolate. The specific purple is in fact protected by trademark to designate dairy products, but not cups.

Then, the CJEU shed some light on the function of investment. The proprietor of a trademark can use it to "acquire or preserve a reputation capable of attracting consumers and retaining their loyalty"[28]. The Court admits that it "may overlap" with the advertising function. Although the two other functions remain ill-defined, it is argued that the function of communication also overlaps with the advertising one, and the guarantee of quality is perceived as odd in a field of law directed at protecting right holders, not end consumers.

To conclude on the generalities on the scope of the trademark rights, it is possible to state that the notion of course of trade appears to be the most critical delimiting factor. For instance, the use of a trademark for informative or artistic purposes are not counterfeiting, but can have an important impact. Additionally, the essential function of guarantee of origin also suffers limitation for it is not absolute. Nevertheless, new functions recently widened the scope of trademarks. Moreover, the 3D technology could allow trademark owners to distribute models of goods covered by the trademark protection to be printed, and prevent, in the course of trade, other from exploiting this technology with a sign similar to theirs. Indeed, if a trademark proprietor is known as being involved in such activities, consumer may confuse third party 3D printed related good with the legitimate owner. With time, trademark proprietors may take advantage of this tool on a regular basis. The scope of protection granted by the functions would naturally encompass communication to 3D printing devices. On top of that, disclaimers from third parties, as found in the *Arsenal FC* case for instance, are not considered as dissipating a potential confusion in the essential function. Overall, thanks to the new functions, and despite the critics which arose shortly after the *L'Oréal* decision, the balance of interest which could have been in favour of the 3D technology users due to a restricted protected trademark domain, seems to be revised in a more equitable way. The scope of protection, as

27 *Ibid*, para. 92

28 Decision *Interflora* para. 62

understood through the functions, has the capacity to adapt to unforeseen development of this technology. The only regret one may express, is the lack of legal certainty resulting from the absence of definition of the newly discovered functions.

Two other elements influencing the domain of protection should not be overlooked, the doctrine exhaustion of right and trademarks with reputation.

II. Unclear consequences on the principle of exhaustion

The need was felt to find a compromise between the exclusivity offered to trademark proprietors and the freedom of trade recognised in the, then, Treaty of Rome by the articles 30-36[29]. The rights granted by trademarks are considered through their specific object[30]. It is defined as the opportunity to first put in the market any goods or services under one's trademark. The principle of exhaustion is now enshrined in articles 7 of the Directive and 13 of the Regulation. It is found in article L. 713-4 in the CPI. All those articles are similarly drawn, expressing the will of the European institutions to harmonise a principle bearing such a strong influence on the single market. Indeed, it implies that parallel imports are allowed, and that fractioning of the internal market is prohibited.

Several underpinning questions may be raised in connexion with the issue of 3D printing. First of all, one may wonder if the fact that a company provides with a plan to print at home is an authorisation to produce an undetermined amount of goods. The answer is not straightforward. There is no indication that the subsequent sale of a trademarked good, used without a legitimate reasons, can be opposed. Thus, it could be argued that if a plan to print a good is sold without further contractual indications, it allows one to produce as many goods as he wishes, and the created goods would be placed on the market with the involuntary blessing of the trademark proprietor. Nevertheless, another understanding could be put forward. Article 7 of the Directive considers the exhaustion relatively to products put in the market by the trademark proprietor, or with his consent. Determining the notion of "good", as considered by the Directive appears necessary. In the French version, the Directive and the Regulation favour the word "product". Even the English version seem to use both interchangeably[31]. From a non legal perspective, a product is "an article or substance that is manufactured or refined for sale"[32]. Despite the fact that immaterial goods exist in the law, it is not for them that the directive considered the trademark protection. For instance, article 5(3,a)

29 The dispositions covered by the articles can now be found in articles 34-36 TFEU.

30 Guy Tritton p. 260

31 See article 6(1,c)

32 Oxford dictionary online. Last accessed February the 9th 2014

specifies that the protection is given against "affixing the sign to the goods or to the packaging" for trademark with a reputation is a protected act under the directive. It underlines a material view on the notion of good or product. In the light of the decisions from the CJEU[33], which also mention both goods or products without distinction, the scope extends to physical goods put in the market. Hence, a product created by a 3D printer from a plan would not be considered exhausted. The trademark proprietor would have failed to offer the good himself or give his express consent to allow it. Both views can be argued, a definite answer remains to be found. Secondly, the faith of the supplied 3D printing plans is also uncertain. We first took the view that a plan is covered by trademark protection. Does it mean it cannot be sold? The debate is similar to the issue arising from the second hand market for software regarding licenses of use as understood in the software industry. According to the *Usedsoft*[34] decision, provided that the first who acquires the license is not using it anymore and the right is transmitted as a whole, one is entitled to resell the right to use the software; without prejudices to benefits extracted from the previous use. By analogy, the same conclusion could be drawn for 3D printers files. Ultimately, it refers to a much wider debate found in copyright about the issue of considering whether the intellectual property rights protects the good itself, the digital medium (here the plans) or the expression of the values developed by the right owner[35]. The answer to this question cannot be given in a simple article[36]. It is, nevertheless, interesting to observe that copyright struggles born with development of communication technologies, thus, dealing mainly with immaterial goods, overflows on rights which, traditionally, cope with material ones.

Now that we considered the limitation of the scope thank to the notion of exhaustion, it is important to keep in mind that the exhaustion is not absolute but only protects from segmentation of the common market. Article 7(2) of the Directive and 13(2) of the Regulation both provide that : "paragraph 1 [the principle of exhaustion of rights] shall not apply where there exist legitimate reasons for the proprietor to oppose further commercialisation of the goods, especially where the condition of the goods is changed or impaired after they have been put on the market". Two observations can be drawn. First of all, the events of non exhaustion presented in the article are only examples. Other situations may restrict the rule of exhaustion. In this perspective, the ECJ stated in

33 For example, ECJ, November the 20th 2001, *Zino Davidoff* and *Levi Strauss*, case n° C-414/99 to C-46/99

34 CJEU, July the 3rd 2012, *Usedsoft* v. *Oracle*, case n° C-128/11

35 Jean-Noel Kapferer, chapter 2. It is clear from his analysis that what is valued for both consumers and trademark owner is mainly the "spirit", or the "identity" it conveys.

36 See the article of M. Vivant to understand how the actual value of a trademark is mainly assessed by the values consumers identify.

Terrapin[37] that if the essential function, in other words the guarantee of origin, is threatened, the right owner retains full control over the goods in the market. With 3D printing, in the absence of modification of the model copied or photocopied, the essential function of trademark seems respected. The unitary control over the goods is preserved as the object created is similar to the one put on the market by the proprietor. The aforementioned case only refers to the essential function, one wonders if it will extend to the new functions. The second observation is based on the example listed justifying a legitimate reason of non-exhaustion. It could, indeed, be argued that some printers or material used to print are of insufficient quality to guarantee a condition meeting the standards required by the trademark owner. The best way to avoid conflicts may be to impose by contract minimum requirements in the material or the process used to print the good. If hey are not respected there would, naturally, be no exhaustion.

Thirdly, it seems important to remind that, following the 1998 *Silhouette* decision[38], the Court rejects the international exhaustion of rights. Thus, at any rate, a trademark right on a good produced thanks to a 3D printers or a plan provided outside the EEA is considered non-exhausted when it enters in the economic union. The authorisation of the proprietor will be necessary.

III. A marginally changed situation vis-a-vis trademarks with a reputation

Since the 1883 Paris convention, attention was paid to trademark with a reputation extending beyond the goods or services under which they are registered. Article 6 *bis* grants an extended scope of protection to trademarks "*notoirement connues*", which is translated in English as trademark with a reputation. Within the European Union, article 5(2) of the Directive and 9(1, c) of the Regulation are also similarly drawn. The Directive provides that:

> "*Any Member State may also provide that the proprietor shall be entitled to prevent all third parties not having his consent from using in the course of trade any sign which is identical with, or similar to, the trade mark in relation to goods or services which are not similar to those for which the trademark is registered, where the latter has a reputation in the Member State and where use of that sign without due cause takes unfair advantage of, or is detrimental to, the distinctive character or the repute of the trade mark*."

37 ECJ, June the 12th 1976, *Terrapin*, case n° 119/75

38 ECJ, July the 16th 1998, *Silhouette International Schmied GmbH and Co. KG I* v. *Hartlauer Handelsgesellschaft mbH*, case n° C-355/96

Focusing only on the relevant elements with regards to 3D printing applications, one notices that the main impact entailed is the expansion of the scope of protection of the trademark with a reputation. It was explained earlier that the principle of exclusivity in the speciality hinders the capacity to take actions. Here, due to the reputation of the trademark, the lack of protection, despite being in the course of trade but nevertheless outside its speciality (for instance, supplying printed Coca Cola toilet brush), is considered as unfair. The scope, thus, can be extremely wide. Moreover, the protection is further enhanced by the CJEU. In the *General Motors* decision, the Court defined the relevant public to take into consideration to determine the level of reputation of a trademark. According to this case, "the degree of knowledge required must be considered to be reached when the earlier mark is known by a significant part of the public concerned by the products or services covered by that trade mark"[39]. By narrowing the relevant public to take into consideration, the Court favours trademark proprietor for the requirement to prove the reputation is rendered easier to meet.

If the risk of confusion is not requested to act[40], the CJEU, interpreting the Directive and the Regulation, emphasises on the fact that the use under which a party can be considered as having an adverse effect on a trademark with reputation must be done without a "due cause". In the *Interflora*[41] decision the Court states that:

> "*By contrast, where the advertisement displayed on the internet on the basis of a keyword corresponding to a trade mark with a reputation puts forward – without offering a mere imitation of the goods or services of the proprietor of that trade mark, without causing dilution or tarnishment and without, moreover, adversely affecting the functions of the trade mark concerned – an alternative to the goods or services of the proprietor of the trade mark with a reputation, it must be concluded that such use falls, as a rule, within the ambit of fair competition in the sector for the goods or services concerned and is thus not without 'due cause' for the purposes of Article 5(2) of Directive 89/104 and Article 9(1)(c) of Regulation No 40/94*."

From this paragraph, it can be argued that the freedom of 3D printer users enjoys a relative certainty. The objective of fair competition overwhelms the protection granted by the reputation of the trademark in absence of mere imitation, risk of dilution or tarnishment and adverse effect on the functions of the trademark. In a very broad way, it could be assessed that the use a of 3D printers

39 ECJ, September the 14th 1999, *General Motors* v. *Yplon SA*, case n° C-375/99. Para. 26

40 Indeed, depending on the national rule, it can be done thanks to a counterfeiting claim or by invoking a more general rule on civil responsibility. In France, the action is based on article 1382 of the civil code, relative to the general extra contractual responsibility.

41 *Ibid*, para. 91

involving a trademark with a reputation, without the consent of the proprietor and in the course of trade, benefits from a "due cause" as long as the four underlined elements listed by the Court are not met. With this new technology, the occurrence of potential counterfeiting scenario increases. Such guidelines are welcomed from both the proprietor and the 3D printers user point of view for it offers legal certainty.

Due to the large scope of protection granted, the notion of reputation provides with a solution to fill the gap left by the application of the principle of the function of the trademark. In fact, with the increased capacity of creation and production (even at home!), such principle would otherwise put a heavy burden on the trademark proprietor shoulders relatively to goods or services which would not be strictly identical or similar to the one the trademark is registered for.

Conclusion:

The rise of a new branch of technology such as 3D printing is always beneficial for the society. It fosters creativity as well as development by encouraging businesses, and nowadays individuals, to produce inventive and efficient goods or services. However, it also reshapes the technical landscape and concerns may be heard. For instance, this technology is responsible for safety and security issues: home production of weapons, absence of control of norms and regulations on the productions goods whereas they are imposed on the industry etc... More importantly, a new technical environment often push the applicable law to its limits. The aim of the article was to assess the compatibility between the scope of protection granted to trademark and the expected interferences of 3D printing. What can be concluded is that the main limitation to the scope of protection of the trademark in relation to home printed objects is the condition of use in the course of trade. Altogether, the use of such a technology applied to trademarked goods can amount to significant loss for proprietors. Yet, as long as the condition listed in the *L'oréal* v. *eBay* decision are not met, the failure to demonstrate the use in the course of trade prevent any counterfeiting action. With regard to the sharing of files containing information to print, the development of interconnected networks brings an even greater risk on trademark owners for, unless the CJEU loosen its standpoint, they would be no legal ground to prosecute a counterfeiting act done at a small scale or for free. Consequently, from this observation only, it is safe to consider that home users of 3D printers are in a more favourable position regarding the Directive and the Regulation. It is worth keeping in mind that this study did not address the issue of criminal proceedings nor custom authorities measures which can be pursue on other legal grounds than the sole scope of protection granted on the basis of trademark proprietor's rights as defined by the Directive and the

Regulation.

If the use does take place in the course of trade, the necessity to demonstrate the adverse effect on a function of the trademark is not overwhelmingly difficult to achieve. In fact, since the 2008 *L'oreal* v. *Bellure* case, the extension of the notion of the functions of the trademark appears to cover a large variety of use of a trademark. Provided that the course of trade threshold is reached, the balance of interest is, for the least, even, if not in favour of the trademark owners.

Another point of importance lays within the notion of exhaustion. Indeed, if it works relatively smoothly with material goods, the issue remains regarding the production of plans to print. Does it exhaust the trademark owner right or is it only taking place when the physical good is place on the market? If so, would it be with the implicit consent of the owner? All those questions are still to be answered, but one is well advised to pay attention when drafting the contractual terms of use for 3D printer plans to print.

Finally, trademarks with a reputation suffer the same limit of the necessary use in the course of trade in their scope than other trademark. Nonetheless, EU rules and the CJEU jurisprudence grant them an extended protection. The only limit being the fair competition goal through the concept of "due cause" which is, arguably, understood in favour of the proprietors.

Ideally, and in order to be exhaustive, an other step would consist in taking into consideration the legitimate use displayed in the Directive in its article 6 and in the article 12 of the Regulation[42]. Moreover, national legislation can have an impact on the protection granted to trademark. For instance, the existence of technical measures of protection can be protected under national law. It would thus be a strong tool in favour of trademark proprietors to prevent the sharing of printing plans. This next step can be the subject of an other article.

42 Those articles provide with legitimate reasons to use a trademark in the course of trade " in accordance with honest practices in industrial or commercial matters". It, thus, appears necessary to analyse the concept of honest practices in this regard.

Bibliography:

Internet resources:

- Observations on the *Usedsoft* decision: http://www.immateria.fr/fr/blog/view/162/les-licences-dyoccasion-dyun-logiciel-sont-licites-meme-sans-accord-du-titulaire-des-droits-cjue-3-juillet-2012/?of=4

Articles:

- Simon Bradshaw, Adrian Bowyer and Patrick Hauf, The intellectual property implications of low-cost 3D printing, SCRIPTed Volume 7 Issue 1 April 2010
- Adrien Bouvel, La protéction des marques renommées, J.-CI Marques – Dessins et Modèles Fasc. 7320, 2009 (updated 2013)
- Julien Canlorbe, Contrefaçon de marque, usage illicite de marque, J.-CI Marques – Dessins et Modèles Fasc. 7513, 2010 (updated 2013)
- Sylvain Dejean, Thierry Pénard et Raphaël Suire, Une première évaluation des effets de la loi Hadopi sur les pratiques des Internautes français, March 2010, http://www.marsouin.org
- Arnaud Faulliard-Monguiral, La marque communautaire, J.-CI Marques – Dessins et Modèles Fasc. 7610, 2009
- Christian Le Stanc, Impression 3D et propriété intellectuelle, La semaine juridique entreprise et affaire n°35, August 29th 2013, 1466
- Michel Vivant, Marque et fonction sociale de la marque où Quand la réalité dépasse le rève in Christophe Geiger, Joanna Schmidt-Szalewski, Les défis du droit des marques au XXIe siècle, Collection du CEIPI, LGDJ, 2011
- WIPO and OHIM report, Intellectual property rights intensive industries: contribution to economic performance and employment in the European Union, September 2013 http://ec.europa.eu/internal_market/intellectual-property/docs/joint-report-epo-ohim-final-version_en.pd

Manuals and academic publications:

- Jacques Azema and Jean-Christophe Galloux, Droit de la propriété industrielle, précis

Dalloz, 2012

- Yann Basire, Les fonctions de la marque, essai su rla cohérence du régime juridique d'un signe disctinctif, Phd Thesis, Université de Strasbourg, 2011
- Adrien Bouvel, Principe de spécialité et signes distinctifs, Litec, Collection IRPI, Le droit des affaires, Propriété intellectuelle, t. 24, 2004
- Jean-Noel Kapferer, Les marques, capital de l'entreprise, créer et développer des marques fortes, Editions d'Organisation, Paris, 1991, 2007
- Jérôme Passa, Traité de la propriété intellectuelle, t. 1, Marques et autres signes dinstinctifs, Dessins et modèles, LGDJ, 2ème éd., 2009
- Guy Tritton, Intellectual property in Europe, Sweet & Maxwell, 3rd revised edition, 2007