Managing Design IP in the UK — does the end justify the means?

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This paper discusses the value of design rights using the example of UK’s most high-profile case of design right litigation: Trunki, a ride-on travel case for children. Rob Law MBE invented Trunki in 1996. He registered it as a design in 2002 in the UK, and in 2003 with the Office for Harmonization in the Internal Market (OHIM), now EUIPO. The design has since been emulated by competitors in countries across the globe. Law's company Magmatic Ltd successfully challenged most imitators, until one succeeded in defending their rights on a product that was ‘inspired by Trunki’: PMS International and their so-called Kiddee case in 2012. This paper discusses lessons that can be learned from the case. Magmatic Ltd successfully defended their unregistered design right, but not their registered design right - Why? How do different forms of IP compare? How does a lengthy court process affect the running of a small design firm? How can IP legislation be enhanced to foster innovation more effectively?

keywords: Intellectual Property; strategy; infringement; innovation

Introduction

In a paper presented at the Design Management Institute (DMI) conference in London in 2014, and in the light of UK’s new design right legislation, the author has raised the question whether or not a ‘design-driven’ business development strategy that focuses on designs and design rights rather than technology and patents, could save costs and speed up the route to market for micro-businesses and SMEs in the design sector (Hillner et al., 2014). This question could not be resolved because there was not sufficient data to support an answer to the question. In 2015 / 2016, the author led a survey into design right infringement that was commissioned by the UK IPO. This survey was paralleled by
one rather extra-ordinary case of design right litigation, the Trunki case. The following paper seeks to complement the UK IPO survey in pursuit of an evaluation of the legislation surrounding designs. The paper is subdivided into six parts: an outline of the business development surrounding Trunki, an analysis of the case in the eyes of the law, an interview with the inventor of Trunki, Rob Law MBE, a contextualization of the findings through a review of existing studies into design rights, a comprehensive analysis of the findings, and a set of summative conclusions.

‘Design’s contribution to the UK economy cannot be underestimated.’ Baroness Neville-Rolfe, Minister for Intellectual Property (Acid website, 5 Sept., 2016)

What exactly constitutes design and what does not, has been debate for quite some time. Sir George Cox, for example, argues that ‘Design may be described as creativity deployed to a specific end’ (Cox, 2005, p.2). This would suggest a rather wide-ranging definition. In the eyes of the law, the concept of design is rather limited. In the UK the so-called design right protects ‘the shape and configuration (how different parts of a design are arranged together) of objects’, and it does so ‘for 10 years after it was first sold or 15 years after it was created - whichever is earliest’ (https://www.gov.uk/design-right). This description points towards the fact that the unregistered design right in the UK applies to three-dimensional designs only. It is somewhat comparable to the 3D copyright that exists in other countries such as Malaysia, Singapore, China. Concepts, processes, or functional aspects of a design object are not covered by the UK design right protection. Design registration can strengthen the IP protection for eligible designs, e.g. designs that are new and not owned by others. The protection of registered designs last for a maximum of 25 years in the UK, provided that the registration is renewed every five years. The registered design right bears some resemblance to the US Design Patent as well as the China Design Patent, although some regulations including the maximum life span differ here. This paper examines the strengths and weaknesses of the UK registered design right, and discusses how the legislation surrounding design IP can be improved.

The aim of this paper:

Using a case study of UK’s most high-profile cases of design right infringement, this paper discusses to what degree the existing regulations in the UK meet the needs of designers and the design industry, and it discusses weaknesses in the legal system which in turn lead to weaknesses in the UK registered design right. It concludes with a range of ideas which could help enhance the legal framework to better support design innovation in the UK and in comparable countries.

The paper examines the Trunki-versus-Kiddee case from three angles:

- Section 2: From a legal point of view — What were the outcomes and how did the courts arrive at their verdicts?
- Section 3: From an inventor’s point of view — How did Rob Law experience the litigation process?
- Section 4: From a visual point of view — Where and how did imitations appear on the international market? To what extent could imitations be challenged?
Section 1, 3, 4 and 5 are particularly interesting for design practitioners, inventors and design right owners, investors, and those who capitalize on design in general (retailers, licensees etc.), because these passages provide insights on how and to what extent design IP can be secured and enforced. Section 2, 4, 5 as well as the conclusion in section 6 are of particular interest to IP legislation makers and design industry associations who strive towards a more effective legal frame work that enhances the strategic management and marketing of design, a system that encourages innovation and increases UK’s economic output.

The method of inquiry:
This study draws from a literature review that comprises not only academic papers and investigations that were commissioned by the UK IPO, but also online news feeds, newspaper articles, published court hearings and court judgments. A series of interviews were conducted in parallel to the literature review including two interviews with the inventor of Trunki, Rob Law MBE, himself. Interviews were conducted both over the phone and in person. Transcripts were analysed qualitatively in relation to the literature review findings. The visual materials discussed in section four were made available and explained by Magmatic Ltd during one of the interviews. Various correspondences with UK IPO, the UK IPO’s Research Expert Advisory Group (READ) as well as key industry stakeholders, such as Dids MacDonald OBE from ACID (Anticopying in Design) and Sebastian Conran have also contributed to a balanced view on the subject matter.

The objectives are to clarify:
- How and why the courts arrived at their verdicts in the Trunki versus Kiddee case (legal perspective)
- What IP strategic insights can be drawn from an inventor’s point of view
- How effective the legal framework is surrounding registered designs in the UK
- What value can be attributed to, and extracted from design IP for the perspective of an individual inventor / inventing firm as well as from a macro-economic angle
- How the UK Registered Design right compares to the EU Registered Design right (Community Registered Design)
- How design IP-related value can be enhanced through a revision of the legal framework in the UK
- Emerging challenges surrounding design IP (future perspective)

The paper concludes with a set of five recommendations which could help simplify and enhance the legal framework surrounding design IP in the UK, and lead to more effective and widespread use of the relevant protection methods.

Trunki — A case study
In 1997 whilst a design student at Northumbria University in the UK, Rob Law incepted a design of a ride-on suitcase called ‘Rodeo’ that was aimed at children. An updated version of the design was registered with UK IPO in 2002, and with the Office for Harmonization in the Internal Market (OHIM) in 2003. Six grey scale CAD renderings were used for the latter design registration.
Law licensed the design initially to a Chinese firm, and, in 2006, started taking Trunki to market himself after having obtained ownership over the production tools through trading in his royalties. Law transferred the production between four or five different factories in China until he transferred it to the UK in 2012 in pursuit of better quality control.

Mr. Law, who started his company Magmatic Ltd with just a £4,000 loan from the Prince’s Trust, explains that he did ‘a lot of the work by roping in family members and friends, paying them as little as possible, to help me do the work’ (Law, 2015). Although he ‘borrowed as much money as possible’ he refrained from equity investment after his famous BBC Dragons’ Den pitch had failed in 2003. During the TV program Law had pitched for £100K in exchange for a 10% equity share (BBC, 2009). In addition to a production flaw, investor Peter Jones pointed out that ‘This product is not patentable.’ (BBC, 2009) Rob Law confessed that it was not, and on those grounds Peter Jones subsequently declared the company as ‘worthless’. However, in 2009 Law raised £200,000 in exchange for 10%, and, during a second investment round in 2013, when Magmatic Ltd was valued at £12m, Law raised a further £4m worth of equity investment. In 2015 Magmatic employed 35 people in their head office in Bristol and 44 people in their factory in Plymouth (Law, 2015). The business was of value after all.

Profits reportedly diminished following the appearance of a competing design that bore close similarities with Trunki: The Kiddee case, which was introduced to the UK by PMS International in November 2012. Since some of the figures circulated in the popular press are thought to be wrong, one may want to be careful with quantifying the damage that Magmatic Ltd encountered. But there is little doubt that the company dropped from a six-digit profit in 2012 to a heavy loss in 2013. Magmatic Ltd issued proceedings against PMC International in February 2013, and successfully challenged the competitor in the UK High Court. However, Magmatic Ltd subsequently lost against PMS International in the Court of Appeal. Magmatic subsequently took the case to the UK Supreme Court. Whilst awaiting the hearing, Mr. Law revealed in an interview in 2015: ‘... if we lose, then it raises questions about everyone’s registered designs being valuable’ (Law, 2015). They lost. So how valuable are registered designs really?

**The case in the eyes of the law**

UK High Court found that the PMS International’s Kiddee Case infringed Rob Law’s / Magmatic’s Community Registered Design (CRD — also referred to as ‘European Registered Designs’ in the text below). PMS International appealed, which was allowed by The Court of Appeal. Magmatic subsequently filed an appeal with the Supreme Court. However, the Supreme Court unanimously dismissed Magmatic’s appeal.

**The reasons**

The judgment states that ‘a design shall be protected to the extent that it is new and has individual character [7]. What matters is the overall impression created by it, and that potential customers will appreciate it on the basis of its distinctiveness ...’ (uksc-2014-0147-press-summary).
The Trunki design registered with OHIM in 2003 (on the left) versus Kiddee (on the right) (Source: courtesy of Magmatic Ltd.)

The following arguments were brought forward in support of Kiddee:

- Ears / Antennae instead of horns
- Leopard design
- Animal-like appearance
- Rounded ‘more cuddly’ body shape
- Wheel caps

In March 2016 the Supreme Court confirms the judgment of the Appeal Court, who claimed that High Court judge, Arnold J, ‘failed to give proper weight to the overall impression of the CRD [...]’. Whilst expressing ‘sympathy for Magmatic and Mr. Law, as the idea of the Trunki case was a clever one, but Design Right is intended to protect designs not ideas’, the Supreme Court listed three key reasons for confirming the Appeal Court’s rejection of the initial verdict:

The first criticism was that the judge failed to give proper weight to the overall impression of the CRD as an animal with horns, which was significantly different from the impression made by the Kiddee Case, which were either an insect with antennae or an animal with ears [21]. The overall impression given by the CRD is indeed that of a horned animal; and the judge did not specifically refer to this when comparing the CRD with the Kiddee Case [37]. A trial judge cannot be expected in every case to refer to all the points which influenced his decision, but when a judge has given a full and careful judgment, conscientiously identifying a significant number of points which weigh with him, an appellate court can properly conclude that his failure to mention an important point means that he has overlooked it. This was the case here [39].

The second criticism was that the judge failed to take into account the effect of the lack of ornamentation to the surface of the CRD [21], i.e. that the absence of decoration reinforced the horned animal impression [40].
This has limited force; unless it simply consisted of items such as eyes and a mouth, any decoration could well detract from the animal impression and even such items could be said to distract attention from the horns [41]. The Court of Appeal's second criticism was correct, although it is only a relatively minor point which mildly reinforces the first criticism [49].

The third criticism was that the judge ignored the colour contrast in the CRD between the body of the suitcase and its wheels [21]. He described the CRD as constituting a claim “evidently for the shape of the suitcase” and decorations on the Kiddee Case were therefore to be ignored [51]. The CRD consisted of CADs of an item whose main body appears as a uniform grey but which had black strips, a black strap and black wheels. The natural inference to be drawn is that the components shown in black are intended to be in a contrasting colour to that of the main body. Accordingly, the Court of Appeal was correct: the CRD claimed not merely a shape, but a shape in two contrasting colours [53] and the judge was wrong in holding that the CRD was simply a claim for shape [53].


Summary: The Supreme Court confirms the judgment of the Court of Appeal for the following reasons:

1. The difference in the overall impression which either of the two designs have on ‘the informed user’ (At para 55, [Arnold Judge] identified “the informed user” primarily as the parent, carer or relative of a three to six-year-old child)
2. The absence of surface decoration in the registered design
3. The colour difference between individual product components of the registered design

Inspiration versus imitation
The Squeeze argument: The squeeze argument means that if ‘the CRD covered the Kiddee Case then it also must extend to the Rodeo, and therefore it [the CRD] was invalid as it did not have “individual character” because it did not produce a “different overall impression” from the existing “design corpus” [i.e. the Rodeo]’ (Supreme Court, 2016, p.6). What this means is that in principle a UK unregistered design, if in the public domain for longer than the grace period, which is twelve months in the UK, can potentially invalidate a registered design that looks too similar.

‘Having compared the CRD with the Rodeo, Arnold J said that “PMS was right not to challenge the validity of the CRD except as part of its squeeze argument” (para 64).’ (uksc-2014-0147-judgment) Arnold J. further stated that ‘the Rodeo was a prior disclosure but that the relative obscurity of the Rodeo ensured that it did not form part of the design corpus of which the informed user would be aware’ (www.hogarthchambers.com). He also argued that since ‘Trunki was the first product of its type, the CRD is entitled to a broad scope of protection compared to a design in a more crowded design field.’ (www.hogarthchambers.com)

The Court of Appeal as well as The Supreme Court did not uphold the last point made by Arnold J, and ruled that PMS International had not infringed Magmatic’s CRD.
The unre
gistered design rights involved

Arnold J. ruled that ‘the Kiddee Case also infringed four UK Unregistered Design Rights (UDR) which dealt with specific parts of the Trunki, namely the lock, tow strap and inside retaining straps.’ PMS International did not appeal against the infringement of UDRs involved. Rob Law claimed to have received around £3,000. According to Rob Law the legal case has cost the company nearly a million (Law, 2016).

The case in the eyes of the inventor
The author interviewed Rob Law on two occasions. Below are some of the responses received:

On marketing and working moral
Rob Law claims to ‘have had a lot of copies of ride-on suitcase concepts, many working very similarly to [his] product.’ He explains: ‘selling a product in the area what we call children’s travel is really difficult, because the category does not really exist. So all these copies seem to be failing at the first hurdle. They [...] cannot get the buyers. There is not the marketing behind it that would grow the awareness for the product.’ (Law, 2016) It follows that the defense mechanism here is not the IP, but the value chain control, the established route to market, and brand recognition may be more important than design IP. So is it worth litigating despite market dominance?

Litigation can be straining for both the claimant and the defendant. Rob Law states that it ‘sucks away a lot of time and energy and resources that would have otherwise been spent invested in marketing.’ The Trunki case ‘has been a 3, close to a 4-year process.’ (Law, 2016).
On the other hand, Rob Law also explains that Trunki ‘got a lot PR out of it.’ ‘The morale of the business was hugely lifted by the press coverage on the day of the announcement [of the Supreme Court judgment], where we have never been in every single national newspaper with colour photos before on the same day. And they all went with our story and not with PMS’ story. Everyone was reading about Trunki. …’ (Law, 2016) Legal battles can improve brand recognition.

According to Rob Law ‘The Branding is the most important for us and for most markets, except for pharmaceuticals and high tech where brands cannot carry quite the same power. But in the business to consumer industry the brand is more powerful than patents and intellectual property.’ (Law, 2015).

**On overseas policing and IP strategies**

The UK design rights infringement study makes it clear that the majority of innovators rely on customers and suppliers for spotting possible infringement. Magmatic Ltd employ an online brand protection agency for monitoring overseas markets. ‘The frontline is the web [...] and second to that are the trade shows [...] After that you probably have to go directly to retailers and after that to factories themselves. But we have not yet gone after a factory, as this requires a huge amount of time and resource.’ (Law, 2016).

According to Rob Law ‘China is the biggest market and the biggest market for copying.’ Magmatic’s design patent in China protects the Trunki shape. ‘The bigger challenge in China — a bit like the registered community design — is that there is no check beforehand.’ Rob Law claims to have ‘had copycat factories register design patents identical to [the Trunki] shape, which clearly will be invalidated.’ However, the litigation process takes around 18 months. ‘So for 18 months they have got a piece of paper they can wave around, and it stops us from taking them off exhibitions, and it prevents us from removing their products from Alibaba. It is frustrating.’ (Law, 2015).

Registered design rights can be used as a basis for copyrighting in other countries. It can set a precedence which specifies the time of the inventive step. Magmatic’s copyright in China is rooted in their registered design in the UK and in the EU.

**On innovating IP**

When asked if he could envisage a different IP legislation that would protect designers better, Rob Law stated: ‘We need something very similar to what we have got in Europe which is an “Unfair Competition” rule. [...] We have ‘passing off’ [in the UK], which is notoriously difficult to pursue, and we were actually advised by the High Court Judge in the first case to drop our passing off claim, because it is so difficult to prove.’ (Law, 2016).

**On surface decoration**

Part of the legal argument surrounding the Trunki-vs-Kiddee case dealt with the question whether or not added decoration would alter the impression a product has on the user. According to Rob Law ‘It was the Apple-Samsung case that kicked off the whole surface decoration issue. Because that was about the “positive absence” of surface decoration, to which the appeal court, ruled on.’ (Law, 2016). According to the inventor ‘… a line drawing constitutes the absence of surface decoration.’ He had registered first a photographic representation of Trunki within the UK, and subsequently 3D renderings when filing within the EU. A line drawing would provide the most objective representation of a design object.
The question that remains is whether or not competitors should be allowed to adopt the design of the shape and alter the design through the addition of surface patterns. The three court judgements related to Trunki do not provide any clarity, since similarities and differences are judged holistically based on the overall impression. What is clear is that in the UK adding or changing surface decoration of an existing design can enhance an imitator’s chances to successfully defend a case in court. Whether or not this is desirable from the point of view of the individual designer, the design community, or from a macro-economic point of view is questionable. One could argue that a liberal legal framework encourages incremental innovation, in that it encourages the adoption of existing designs for re-design purposes. On the other hand, it is highly likely that inventors in pursuit of radical innovation are discouraged by weak IP legislation. So, the question could be reframed: Which is better for a nation’s economic output: radical or incremental innovation?

On the value of design registration
Rob Law’s view on registered design rights is twofold: ‘The Registered Design we have has been hugely powerful bar in the UK, and it has been successful in the UK when we sent it to UK retailers. It just has not been successful in court.’ (Law, 2016) He explains that ‘The Registered Design that was overturned in the Supreme Court was the same piece of paper that had 4 times listings removed from various global trade websites, and from around 150 odd retailers around the world. […] Only in or own country it seems to have no value.’ (Law, 2016).

What can be learned:
- Branding is a more effective IP protection method than design rights
- Prior art created through Unregistered Design Right can potentially impair the strength of Registered Design Rights in the UK, if the latter is registered after the twelve-month grace period has lapsed.
- The EU (or Community) Registered Design Right (CRD) is likely to be stronger a means of protection than the UK Registered Design Right. The former costs more to register €350 for online filing than the latter which costs £50 for online filing.
- The EU (or Community) Registered Design Right (CRD) can set a precedent to which innovators can refer back to when enforcing their informal IP overseas.
- Searching online trading platforms seems to be the most effective way to monitor infringement.
- It is not clear how to best represent a design (photo, rendering, outline drawing) when registering a design.

A visual journey — How different is different enough?
‘Copycat’ Designs: Rob Law uses the term ‘copycat’ in reference to designs that are similar or very similar with some more or less noticeable differences. So-called ‘fakes’ are identical copies that pretend to be the original. This usually involves adopting the branding elements such as the trademark. The vast majority of Trunki imitations are copycat products. The UK Design Right Infringement Survey 2016 revealed that only 16.2% of imitations are perceived as identical copies.
All of the products in Figure 3 are thought to have individual production tools somewhere in China. None of them have used the Trunki brand name. Trademark infringement is thought to be significantly easier to litigate than design right infringement. All designs shown above were successfully challenged through infringement letters, with the exception of the product on the top right, which is protected by a Chinese Design Patent that Magmatic failed to get invalidated. The courts decided it was dissimilar enough. Due to Trunki’s registered design, the Alibaba listing now has to say that the product is not available for sale in Europe.

In Figure 4, the design on the left, the so-called Vrum, is thought to be sufficiently different compared to the Trunki design. All the others fall within Trunki’s scope of protection, except the Kiddee case in the middle. After three court hearings the level of
difference has been judged as sufficient. Certainty about infringement can only be established in court. However, infringement letters can be very effective.

Figure 5  Copyright and unregistered design rights (Source: courtesy of Magmatic Ltd.)

Magmatic’s 3D copyright is based on a grey scale photo which they filed with their 2010 registration of the Trunki case. The 3D copyright has been successfully enforced in all countries where look-alike-products appeared (China, Hong Kong, Canada, Australia, New Zealand, Russia, South Korea, Malaysia, Singapore, United Arab Emirates, Turkey). The question we need to ask ourselves is: How reliable would the 3D copyright be without the registered design right that provides documentary proof of the date of invention?

Figure 6  3D copyright enforcement (Source: courtesy of Magmatic Ltd.)
Rob Law explains: ‘With our Registered Design we have had this particular ride-on-suitcase de-listed in all these countries, and with all these retailers.’ For Magmatic, the registered design sets a precedent, provides documentary evidence which one can refer back to when enforcing copyright. When asked whether the enforcement of rights was achieved through warning letters or court proceedings, Rob Law answered: ‘All through warning letters, yes. […] Well, none of them was through legal action. But letters would go back and forth quite a lot. They would fence. But when they did roll over, then what happens to the product? Is it going to get destroyed? Often they said that they would donate it somewhere. But you do not know about the safety of the product. And it is confusing. It is really hard to get them destroyed. Very very rarely do we recover our legal costs.’ (Law, 2016)

Figure 7  China Registered Design (Source: courtesy of Magmatic Ltd.)

Figure 7 shows an example for the visual representation through line drawings. The Trunki case has caused a lot of debate surrounding the visual representation required for UK registered designs. No official guidelines exist. If we imagine 3 perspectives in addition to those shown in figure 7 — top view, front and rear view — the product would be perfectly illustrated from all sides. Seven views suffice the perfect visual representation of a product, but only if one mode of representation suffices the need to defend the design in court. If photographic representation and / or 3D renderings are required in addition, then the number of visual representations needs to be multiplied accordingly.
Figure 8  Scope of protection (Source: courtesy of Magmatic Ltd.)

Figure 8 shows how Magmatic Ltd ‘decided to do some work with a design consultancy to try to widen [their] scope of protection. So, if someone was going to copy Trunki using some of the themes surrounding Trunki, then […] a further 10 designs in line drawings […] protect against anyone who would try to come up with one that looks visually different. …and someone did, and we had it removed.’ (Law, 2016):

Figure 9  Copycat product: The similarity of this product and the registered design is so close, one would imagine that imitators scout registered designs in pursuit of developing competing products. (Source: courtesy of Magmatic Ltd.)

**Design right in the eyes of subject experts**

The above presents one case only, and may not be representative of the design IP landscape in the UK, and certainly not of that in other countries. However, UK uses case law, which means that courts refer to precedent cases in their judgment, and Trunki constitutes a landmark case, which, no doubt, will impact future judgments. It also needs to be acknowledged that although IP disputes are rather common, the majority of them do not end up in court. To contextualize and critically evaluate the above findings, the
following review of secondary data discusses a number of key insights in relation to design rights.

**How ‘strong’ are design rights?**
The above interview touches upon IP strategies. How design right stakeholders make use of design right depends on how strong the latter is, or on its perceived robustness, both locally and internationally. It is difficult to establish how strong a design right really is, since design rights are probabilistic rights. This means that validity can only be established through a court judgment. As shown in the Trunki case, it may even require a series of judgments at different courts to establish absolute certainty. Design rights in the UK can be perceived as even more ‘probabilistic’ than patents, because the former are not examined for novelty upon filing (Hillner et al., 2014, p.8). Only during the process of litigation is the novelty aspect put to the test. In relation to SMEs and micro firms ‘The vast majority of IPR litigation [in the UK] takes place before the civil courts, where the IPR owner initiates the action.’ (Greenhalgh et al., 2010, p.2). This means that evaluating the effectiveness of design IP based on statistical data is challenging. The difficulties involved in the statistical examination of design IP also root in the large diversity of design firms, most of which are small in size. Greenhalgh et al. claim that ‘There are hundreds of thousands of SMEs with 10-250 employees in the UK economy and millions of micro firms with fewer than ten employees. All are different, and many have relatively short life spans.’ (Greenhalgh et al, 2010, p.4). Due to the short live spans of firms, it is difficult to reach a sufficient range of design right stakeholders in order to obtain a statistically representative amount of data in relation to design right infringement.

In ‘Intellectual Property Enforcement in Smaller UK Firms’, Greenhalgh et al examine the attitudes and practices of small and medium-sized enterprises (SMEs) and micro firms. The paper comprises three surveys including one that covers design right. Regrettably this part of the report examines design right in combination with copyright, which dilutes the research findings. According to the authors ‘the value of an IP right to a firm depends on its ability to enforce it’ (Greenhalgh et al. 2010, p.3). This leads to a contrasting scenario: firms, smaller firms in particular, who ‘protect their rights simply and at low cost’ and others who are ‘faced with a whirlpool of litigation costs when enforcing their rights’ (Greenhalgh et al. 2010, p.2). Greenhalgh et al differentiate between ‘IP-active and IP-inactive firms’ (Greenhalgh et al., 2010, p.5) and conclude that IP enforcement is ‘either a small scale, easily resolved dispute, or an expensive, time-consuming minefield’ (Greenhalgh et al. 2010, p.2). Magmatic is an IP-active firm and the Trunki case became a minefield. Magmatic needed to raise funds in exchange for equity in order to survive it. Greenhalgh et al refer to IP litigation as ‘a minority sport’, but also as a ‘large firms’ game’ (Greenhalgh et al., 2010, p.3). The authors refer to the very small number of Patents Court case listings per year and the fact that ‘SMEs and micro firms are rarely litigants’. (Greenhalgh et al., 2010, p.3) This should not surprise given the costs required to litigate perceived IP infringement against aggressive defendants. Given the fact that international infringement can be far more damaging than infringement in the UK, Greenhalgh et al. speculate that ‘UK infringement could be just the tip of the iceberg’ (Greenhalgh et al., 2010, p.2). For Magmatic this is not the case. Magmatic successfully prevents imports into the EU, and manages to mitigate overseas infringement, sometimes through employing
agents. Whilst Magmatic claim to police their IP outside the UK with relative ease, their IP is less strong in their home country.

Theoretically IP insurance policies could strengthen IP because they would increase the affordability of IP litigation. However, according to Greenhalgh et al. there is limited awareness of IP insurance in general. Only 25% of firms have an insurance policy that helps cover the costs involved. Little less than one third of respondents of the remaining 75% were unaware of the fact that IP insurance existed, and another third of those 75% considered insurances as too expensive. (Greenhalgh et al., 2010, p.1) Respondents also expressed concerns about restrictive clauses. One could argue that there is an educational need to raise awareness for IP insurances in the UK. However, information obtained during a conversation with Dids Macdonald from ACID suggests that IP insurances in the UK are not effective, since there is no sufficient funding model that attract underwriters in the long term (Macdonald, 2016).

The value of design
The Hargreaves report, which was commissioned in 2011 by the British Prime Minister David Cameron to investigate the relationship between the UK’s IP framework, innovation and economic growth, is presumably the most comprehensive study into IP in the UK. Professor Hargreaves underlines the economic importance of UK designs pointing out that ‘In 2008 investment in design alone amounted to 1.6 per cent of the Gross Domestic Product (GDP)’ (Hargreaves, 2011, p.64). Haskel and Pesole reiterate Hargreaves’ claim and further explain that in the UK £23 billion are spent on design per annum (Haskel & Pesole, 2011). They argue that the figures would be significantly higher if all design activity was included in the calculation. The problem is a lack of a shared understanding of what sorts of activities the term design comprises. In pursuit of a definition of design, Haskel and Pesole explain a design as ‘a legal right which protects the overall visual appearance of a product or a part of a product in the country or countries where they were registered’, and proceed with the legal explanation of design as ‘the appearance of the whole or part of a product resulting from the features of, in particular, the lines, contours, colours, shape, texture or materials of the product or ornamentation’ (Haskel & Pesole, 2011, p.18). This provides us with a legal perspective of the matter. However, this legal definition does not tally with notions of design that are propagated in design theory and practice.

How do we evaluate the value of design IP if the definition of design remains undefined? The Big Innovation Centre report, which was published in 2012, states for example that ‘there is no such thing as the “design industry” in official datasets’ (Big Innovation Centre, 2012, p.12). The authors confirm that ‘The exact meaning and boundaries of the field of design are ambiguous’, and refer to evolving concepts of design thinking as propagated by Buchanan in the context of ‘strategic design’ (Big Innovation Centre, 2012, p.16f). This makes it clear that there is no widely shared understanding of what exactly constitutes design.

Given the pace at which design and design-related practices are changing at present, it is likely that the protective legal framework does not change in line with emerging concepts of design and design industry practices. Where the legal framework does correspond to the changes in the design industry, it may do so at too slow a pace. Reducing potential lag
could be useful for IP policy development, as this could increase the competitive advantage of individual nations, and consequently accelerate economic growth. Considering the shift in design away from products and artifacts to processes, services and customer experiences, one might speculate that the future stronghold of design is where knowledge is best managed. Processes and services do not rely on resources or on manufacturing to the same degree as physical products. They rely on insights, new knowledge and management decisions. Formal IP is only one form of knowledge management. This means that the problem which Trunki has brought to surface is much greater than the sum of issues that are discussed above, e.g. surface decoration, filing fees. The bigger question that emerges is: How can the IP framework refined, if not to say re-invented, to support the sorts of designs that are produced today, and in future?

Perhaps the design practitioners have already found a way: The Big Innovation Centre report highlights that some businesses prefer to rely on ‘the pace of their innovation’ rather than on IP. It confirms that ‘Small businesses often have limited resources to enforce their legal rights’ (Big Innovation Centre, 2012, p.3) The significance of ‘speed to market’ is likely to increase in the future, because crowd sourcing of suppliers, and crowd-funding as well as e-commerce add to the range of business strategies available to innovators, SMEs in particular. Even Magmatic, an established small firm, launched Jurni, a travel case for teenagers and adults through crowd funding whilst engulfed in the legal dispute surrounding Trunki.

**Community Registered Design Right versus UK registered design right**

The Big Innovation Centre report states that ‘the EU-wide OHIM design registration system offers benefits over the UK-based system’ and that ‘There is little evidence that strengthening the UK design rights system would provide significant benefits to international design businesses’ (p.5). What The Big Innovation Centre failed to identify is the low awareness for EU design rights amongst UK-based design stakeholders. Since almost 37% of UK owners of registered design right have not heard of EU Registered Design Rights (Hillner, 2017). This is presumably why the majority of UK-based designers rely on UK registered design rights rather than on EU registered design rights. It is also surprising considering Rob Law’s view that the UK registered design provides limited benefits for international protection by comparison to the EU registered design right. The Big Innovation Centre report claims that ‘the UK’s design industry is relatively export-facing. The design-intensive industries [...] export a higher proportion of their output than the economy as a whole …’ (Big Innovation Centre report, 2012, p.48).

How much credibility individual forms of IP have within the international markets affects the distribution of market powers. If the UK completes their EU exit, UK-based designers may be disadvantaged, unless adjustments are made to the IP framework in the UK. Whether the glass is half full or half empty here is a matter of perspective. A newsletter distributed through ACID claims that ‘Brexit provides a unique opportunity not only to ensure the best possible IP design rights' negotiations but also create strengthened protection enabling UK designers to be on a par with their EU counterparts who can rely on Unfair Competition when UK IP law fails them as demonstrated by the high profile Trunki case.’ (ACID, 2016) At the same time British designers are at risk of being disadvantaged: Dids Macdonald confirms in the said newsletter that ‘EU unregistered
design is a much stronger design right and loss of access, potentially, could influence UK designers to launch new designs in alternative European locations to secure stronger design protection.’ What ACID is promoting here, is the UK’s opportunity to construct a new legislation in support of design rights, i.e. an Unfair Competition Law which currently does not exist in the UK.

**Value distribution**

The Big Innovation Centre report claims that just under one third (£198 billion) of the demand for design comes from consumer spending. The internationalization of design and production processes as well as the internationalization of distribution channels led to increasingly complex value chains and networks, which make it difficult to understand the ‘flows of goods and value’ (Big Innovation Centre, 2012, p.27). According to the Big Innovation Centre report ‘there is no data set that provides a comprehensive picture of design’s international supply chain’ (Big Innovation Centre, 2012, p.28). One of the key findings of the study is that ‘the balance between the costs and benefits of design rights do not encourage registration’. The study claims that benefits are limited because design rights are difficult to defend (Big Innovation Centre, 2012, p.66). Trunki case suggests that the latter is true. However, Trunki also highlights that the signaling effect of registered design rights, at least of the Community Registered Design Right, does justify the costs, since the majority of competing products could be removed from the market through liaising with distributors abroad. Magmatic also proves beyond doubt that commercially viable businesses can be built around design-driven strategies.

**Number of design registrations**

Hargreaves comments on the low number of design registrations pointing out that ‘Around 8,000-9,000 UK designs are registered annually, split roughly 50/50 between IPO and OHIM registrations’ (Hargreaves, 2011, p.65) This figure stands in contrast to the Design Right Infringement Survey 2016 which revealed that there are more than twice as many UK Registered Design Right holders (88.66%) than EU (OHIM) Registered Design Right Holders (39.7%) (Hillner, 2017). The overall figure stands also in contrast to some 30,000 designs that are added to the database of IP interest group ACID (Anti Copying in Design). The difference beckons the question why an independent register is more popular than an official one. One explanation might be the scope of eligible designs. A UK Registered Design Right as well as the EU Registered Design Right requires very specific criteria as pointed out in the introduction. Although not examined, novelty is a necessary prerequisite here. ACID on the other hand allows for a much wider range of design solution to be added to the database, including such that can be only protected through copyright or trade mark. Another reason for the considerable popularity of ACID may be the fact that ACID proactively engages with the stakeholders through educational activities, and advisory services. UK IPO have follow suit with the introduction of ‘opinion services’ and mediation services. However, ACID has become a brand and the attract their audience due to a 20-year track record of engaging in IP. Interestingly ACID membership fees are proportionate to the member’s annual turnover. What if design right filing fees, renewal fees and litigation costs were charged in proportion to a company’s revenues? A company like Magmatic Ltd might be much more inclined to litigate the perceived infringement through a large firm if costs were reduced. Conversely, a large firm may be
more hesitant to emulate existing designs if their legal costs were proportionate to their revenues. The market power equilibrium in the field of design and innovation would shift towards the ‘Small and young innovative firms [who] are of crucial importance in terms of growth and jobs’ (Hargreaves, 2011, p.3).

Under the present circumstances ‘It can often be hard for smaller businesses to use the intellectual property system effectively’ (Big Innovation Centre, 2012/14, p.83). Hargreaves claims that ‘the current intellectual property framework might not be sufficiently well designed to promote innovation and growth in the UK economy’ (Hargreaves, 2011, p.1) Part of the problem is that the definition of design in the legal context is too limiting. The results of design activities that focus on user experiences or on innovating services, user interfaces and platforms cannot be protected through formal IP. This might be a problem, because those design practices are gaining significance. If there is a direct relationship between IP and economic growth, then the latter will be increasingly compromised due to the fact that the designs of the future cannot be protected through formal IP.

**Redesigning design rights — towards a better system**

So how would one best ‘redesign’ the design right framework? Could there be an alternative system to UK’s current IP legislation, perhaps a fundamentally different system?

Weatherall and Webster, who investigated patent infringement in Australia in 2009, point out that ‘if the patent system did not exist, it is possible that another, perhaps cheaper system of third-party endorsement may arise’ (Weatherall & Webster, 2009, p.4). Might the same be applicable to design rights? Could it be that the separating designs (the visual aspect) from patents (the functional aspect) is counterproductive to innovation. Modernists have argued for decades in favour of a close relationship between form and function in design. The existing IP frameworks do not support this proximity.

Hargreaves refers to the current variety of forms of design rights as ‘a Patchwork of Protection’. He perceives ‘multiple alternative design rights and registers’ as an unnecessarily complex system. In the UK there are currently no less than four different design rights available, the Community Registered Design, the UK Registered Design, and the unregistered equivalents. Hargreaves claims that ‘It is improbable that a design rights framework optimised to support innovation and growth would feature a multiplicity of overlapping rights’ (Hargreaves, 2011, p.65). The confusion surrounding design rights and IP in general is wide spread. Even Rob Law seemed to be unaware that there is a EU (Community) Unregistered Design right. ‘The range of intellectual property protection used by design firms may make it hard for SMEs to assess which approach to managing their designs is most appropriate.’ (Big Innovation Centre, 2012, p.5) Simplifying IP frameworks is critical to improve their usability. ‘Less is more’ was once a guiding thought in design. Perhaps it should become a guiding thought for innovating IP legislation?

There are considerable overlaps between the EU and UK unregistered design right and copyright. This beckons the question why those forms of IP are not merged. Would it not be much better to convert unregistered design rights into a 3D copyright in order to connect it to existing copyright regulations? In search for an explanation why ‘The propensity for UK businesses to register designs rights both domestically and through
Office for Harmonization of Internal Markets (OHIM) seems to be significantly lower than its EU counterparts’, Haskel and Pesole speculate that UK design firms might be ‘consciously protecting their designs using an unregistered intellectual property right’ (Haskel & Pesole, 2011). But the authors are mistaken here: The awareness of unregistered design rights — less than 55% for UK unregistered design rights, and less than 46% for EU unregistered design rights amongst UK-based owners of registered design rights (Hillner, 2017) — within the design sector is low by comparison to registered design rights and copyright, and confidence in unregistered design is very low, too — 1.94 on a scale from 1 to 5 (Hillner, 2017). It is much more likely that the investment in registered design rights in the UK is lower than in other surrounding countries, because the legal system in which design rights are embedded, is less strong, as pointed out by Macdonald / ACID.

If unregistered design rights are converted into 3D copyright, the awareness amongst designers would automatically increase since they are much more aware of copyright than of unregistered design rights. The confidence in copyright is also higher than that in unregistered design rights, which suggests that there would be more uptake of 3D copyright than there is currently of unregistered design rights. Converting unregistered design rights into 3D copyrights would not only increase awareness for, and supposedly usage of this form of IP, it would also simplify the IP system which is currently too complicated. There are many overlaps between copyright and unregistered design rights, and these rights are often enforced simultaneously during litigation, in particular if cases are taken the UK High Court of Justice. A conversion of the unregistered design right into a 3D copyright would eliminate the confusion that arises from this overlap.

*Form versus function*

The rule that visual characteristics related to the functionality of a product cannot be protected through registered design rights seems surprising (competitors can easily get such registered design rights invalidated in the UK if they can prove that the form is connected to the product function). Modernist designers have spent decades promoting the idea that in design form and function should be connected. We see the registered design right to be severely limited in its scope. What if a visual feature was to be allowed to be supportive of design function? In the first instance, it would increase the scope of design right protection, and it would allow for some conceptual design attributes to be covered through formal IP. Those who seek to keep design rights distinct from patents may perceive this as a problem. On the other hand, one could argue that there is currently a large gap between the design right and the patent, whilst design right and copyright sit rather close to each other within the family of UK-based IP options. It is common for IP-active firms to use a variety of protection methods, such as design rights, patents and trademarks in combination — and when it comes to IP litigation in the UK, High Court litigations usually deal with a range of forms of IP. This means that IP litigation at High Court is often complex, and outcomes are very difficult to predict. Reducing the complexities involved in IP legislation, and thoroughly rethinking what is and is not covered by individual forms of IP and how these forms of IP correlate, will help
stakeholders better understand and utilize the IP framework, and consequently increase the economic output of the countries within which these stakeholders operate.

**A diagrammatic journey through possible IP frameworks:**

*Figure 10* The current ‘IP patchwork’ — some forms of IP are overlapping, others are far apart with respect to coverage. (Source: the author)

*Figure 11* IP sandwich — An Unfair Competition Law, which can be articulated through new IP legislation, and a Fair Collaboration Rule, which can be supported through either legislation or through a charter, which innovators can opt in to, provide supportive layers that enhance the effectiveness of existing forms of IP. Unregistered Design Rights are converted into 3D Copyrights. The inclusion of functional aspects extends the coverage of 3D Copyrights and Registered Design Rights. Depending on their definition the Unfair Competition Law and the Fair Collaboration Rule could connect closely with existing forms of IP or their replacements. (Source: the author)

*Figure 12* Ultimately the combination of Unfair Competition Law and Fair Collaboration Rule could make certain forms of IP unnecessary. A simplified tightly knit IP environment emerges. (Source: the author)

**Conclusions**

One big question which the analysis above does not resolve, is whether design right infringement enhances innovation or whether it limits innovation. With reference to the Annual Innovation Report 2010 by BIS and NESTA, Hargreaves states that ‘some argue that copying in the fashion industry may actually promote innovation in that once a design is copied this spurs the fashion houses that created the original to move on and design something new.’ (Hargreaves, 2011, p.65) We may here need to differentiate between
incremental and radical innovation. David Teece states that once an invention is established in the market, innovation shifts from radical innovation to incremental innovation, and from product innovation to process innovation (Teece, 1986, p. 288). This paper has examined the Trunki case which confirms Teece’s hypothesis. The invention of a ride-on suitcase was a radical step. No competitor emulated the design until the product was established on the market. Once competing products appeared on the market, none of them enhanced the design significantly. Instead the competition focused on price, keen on producing a product that is cheaper than the original. So innovation here may be related to a reduction in costs / price, perhaps at the expense of quality. One might also be inclined to argue that the competition surrounding Trunki may have motivated Magmatic Ltd. to re-innovate through either re-inventing Trunki or through developing another product (Jurni) in order to sustain their leadership position in the market. This also does not appear to be the case. When Kiddee came on the market, Magmatic were already in pursuit of Jurni in order to extend their product range. Instead of accelerating the route to market for Jurni, the legal battle surrounding Trunki slowed it down. This means that it is highly likely that the impact of competition on innovation is design-sector specific.

The Trunki case further reveals that registered designs and design patents can set a precedence to which designers can refer back to when enforcing their informal IP such as copyright or unregistered design rights on a specific design in the global markets. Registering in a great variety of countries may therefore not be necessary. However, the UK Registered Design Right is thought to be less effective than the EU (Community) Registered Design Right.

One does not need to be resident in the UK / EU to file in the respective territories. ‘Any natural person or legal entity from any country in the world may file an application’ (Through its definition the US Design Patent may be more robust than the European counterparts. But it takes longer to process an application and the costs are higher.) Given the pace at which design-led innovations, i.e. innovations that focus on the visual aspect of a product, are taken to market nowadays, the regulations surrounding the US Design Patent may not be preferable to the EU Registered Design Right. UK’s Brexit campaign may encourage more UK-based design right stakeholders to consider filing for EU (i.e. Community) Registered Design Rights. This would be to the benefit of the UK economy.

Design right today is not very clearly defined. The Trunki case led to a convoluted argument comprising the so-called ‘overall impression’, surface patterns, and visual representations. This argument has to some extent been dissected here in pursuit of insights into the weaknesses of current IP legislations. These weaknesses surrounding the UK IP legislation leads to my first set of recommendations:

1. **Surface treatment:** If imitators are permitted to establish visual differentiation through surface decoration, design IP will remain a weak method of protection, since it is very easily circumvented. Therefore separating surface decoration and color aspects from the shape and form of design artifacts would be highly desirable.

2. **Overall impression:** A visual impression is always subjective, or inter-subjective, if various assessors are employed. Judgments surrounding the UK Registered
Design Right are based on the impression which a design has on the ‘informed user’. In the Trunki case this impression is fundamentally different if the informed user is a parent or a child. As rightly pointed out by Rob Law during the interview conducted in 2016, the impression changes over time. The longer a design has been on the market, the more differentiated becomes the user’s visual perception because he or she will become more informed over time. The US design patent refers to the ‘ordinary observer’ to judge whether or not a design has been infringed. This is not necessarily the better solution, since it increases the range of possible perspectives. However, the decision on who is to be considered an ‘informed user’ leads to difficult questions. A better definition is needed in order to frame the concept of the ‘informed user’ more clearly.

3. **Visual representation:** How designs are to be represented visually in the UK remains unclear. Lessons can be learned from design patents in the way in which they are managed in the US and in China. Outline drawings lead to an increase in the objectivity. If multiple forms of visual representations are allowed, then the number of permissible visuals ought to increase accordingly. Systemising visual representations in terms of viewing angles, level of detail and mode of representation (outline drawing, grey scale rendering, photographs) is critical for the comparability of designs, and to narrow the number of different possible ‘impressions’ a design may have on the informed user. Currently the number of permissible visual representations in the UK is 7. This allows for all viewing angles needed to depict a three-dimensional object: top, bottom, front, rear, left side, right side, diagonal. But it does not suffice to show an object from all angles using three different modes of representation (photography, rendering, outline drawing). This would require 21 representations. It is also important to specify the diagonal angle(s) from which a design is to be depicted, as changing the viewing angle or the viewing distance may affect the impression which a design has on the informed user.

Problems that exist but are not resolved through the three recommendations listed above are:

- How do we manage IP ownership in relation to co-creative efforts?
- How do we manage IP ownership in relation to design activities that do not result in an object, such as service design solutions, and user experience design?

The IP framework itself needs innovating. Whilst the UK economy can be enhanced through strengthening the IP framework, incremental changes will make little difference to the overall situation. Introducing a law to prevent Unfair Competition, or replacing ‘passing off’ with such a law, would be the most important step in order to future-proof IP legislation in the UK and in comparable countries. If formulated in the right way, it is not inconceivable that a law against ‘Unfair Competition’ could absorb the current IP system, which is perceived as outdated by many, in the long run.

Given the growing significance of collaborative design, co-creative design, and open innovation, a law against Unfair Competition ought to be complemented with a regulation or a rule to promote ‘Fair Collaboration’. How exactly those two regulations are best formulated needs to be thoroughly examined. It may well be that nations, who do not
currently have a law against Unfair Competition, such as the UK, are at an advantage, since they have the opportunity to define such a law from scratch. ‘Fair Collaboration’ is a concept that currently does not exist outside the scope of Creative Commons. Whilst an Unfair Competition Law may regulate the dissociation of ownership, a ‘Fair Collaboration’ rule could be defined to make sure that ownership (or co-ownership) of IP is managed fairly amongst collaborators. Contracts can be extremely complicated and potentially disadvantageous for individual participants. Concise and coherent standards based on which collaborators agree to collaborate, as well as protocols for dispute resolution, would help to facilitate and encourage collaborative efforts.

The most important improvements to the UK design right system would be the following five:

1. Convert the unregistered design right into 3D copyright
2. Allow for visual characteristics that enhance a product function to be covered by 3D copyright (registered design rights).
3. Eliminate the concept of ‘positive absence’ of surface decoration from design right / 3D copyright law, and focus the latter on the form alone
4. Introduce a law against Unfair Competition
5. Introduce a charter to promote Fair Collaboration

An Unfair Competition Law next to a Fair Collaboration rule would embed the variety of IP options, Patent, Registered Design Right, 3D Copyright and Copyright, and it would enhance their effectiveness. Depending on how a law against Unfair Competition is drafted, it may also allow for new forms of designs such as service design solutions and user experience design concepts to be protected. A set of Fair Collaboration rules can provide an incentive for innovators to commit to collaboration in design and to embrace principles of open innovation. The above five suggestions could simplify the IP system and enhance its effectiveness in the UK and in comparable countries. The question we are left with is how an Unfair Competition Law and a Fair Collaboration Rule are best formulated to address the currently existing imbalance in the distribution of market power in the creative sector.

**Acknowledgments**

I would like to thank Rob Law MBE, Laura Breen from Magmatic, Dids Macdonald OBE and Sebastian Conran for their contribution to the insights that led to this paper.

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