D YOUNG & CO PATENT NEWSLETTER no.83

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Creating a world-leading IP environment

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Editorial

In this patent newsletter we open with a summary of the UK Intellectual Property Office's corporate plan for 2021- 2022 in which it is noted that applications for IP rights are predicted to significantly increase. We also provide an update on the referral before the Enlarged Board of Appeal dealing with the question of whether oral proceedings in the form of a videoconference are compatible with the European Patent Convention if parties to the proceedings have not given their consent. We consider the interesting issues of inventorship and ownership for inventions arising from AI in the second in a series of articles promoted by the UKIPO's consultation on AI and IP.

Finally, we encourage our readers to download our special report which shines a spotlight on the impact of Brexit on the pharmaceutical industry, focusing on both the challenges and opportunity ahead.

Simon O'Brien, Editor

Events

European Biotech Patent Case Law
Webinar, 21 September 2021
Partner Simon O'Brien and Senior Associate Antony Latham, both European Patent Attorneys, present our regular webinar round up of important and recent European biotech case law.

For further information and registration details, please see page 08 of this newsletter or our website events page.

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UKIPO practice & procedure

UKIPO corporate plan 2021-2022
Creating a world-leading IP environment

To be added

On Thursday 20 May 2021, the UK Intellectual Property Office announced its corporate plan for 2021-2022. The plan outlines how the UKIPO will provide IP services in a national and international framework to support world-leading innovation and creativity. It represents the fourth step in the IPO Strategy 2018-2021[1], and attempts to address the impact that the Covid-19 pandemic has had on the UKIPO and IP.

Here, we provide a brief overview and some comments on the plan.

Aims and priorities

The plan aims to "provide excellent IP services, create a world-leading IP environment, and make the IPO a brilliant place to work". Four key priorities form the backbone:

1. Transform services and provide a modern, efficient, customer experience;
2. Provide high quality IP services;
3. Increase external impact and futureproof the IP framework; and
4. Embed the "One IPO" culture.

These priorities are apparently dependent on the continuing Covid-19 situation, and may be revised as necessary.

The plan outlines an extensive set of activities under several subheadings, such as transformation, delivery of excellent services, increasing impact of IP, reducing IP crime, and the UKIPO as a "brilliant" workplace. We noted the following with particular interest.

Estimations of post-Covid-19 and post-Brexit growth

The plan acknowledges the economic shock caused by Covid-19 and suggests that IP will enable creative and technological industries to confidently deliver economic growth. Applications for IP rights are predicted to increase by around 25%, though the plan itself acknowledges such increases are difficult to accurately predict. It will be interesting to see whether this predicted growth is an accurate estimate over the coming year, and what impact Covid-19 and Brexit ultimately have on intellectual property in the UK.

Plans relating to the "One IPO" transformation

The One IPO programme launched earlier this year[2], and 2021-2022 will see the delivery phase of this programme being initiated. Plans include the design and build of new tools including the "User Account" and "Manage IP Services", which will allow online access and management of patent rights.

We are very much looking forward to these changes, as we believe it will offer greater flexibility and visibility for our clients.

Recommendations on AI

The UKIPO will consult on changes to IP law and develop a strategy designed to

Notes

1. https://www.gov.uk/government/publications/ipo-strategy-2018-to-2021
2. https://www.dyoung.com/en/knowledgebank/articles/ukipo-one-ipo

View the full report on the UKIPO website: http://dycip.com/ukipo-plan21-22

meet the challenges and opportunities presented by artificial intelligence (AI). This will take forward actions from the AI call for views (completed in 2020-2021), and recommendations will be presented to ministers by Quarter 4 (Q4) of 2021-2022.

We look forward to the future publication of these recommendations and being able to provide clarity to our clients, many of whom we know are working in this area.

The UKIPO also intends to implement AI into its own practices.

IP crime and enforcement

A five year "Enforcement Strategy" will be published, focusing on improving enforcement of rights and making IP crime socially unacceptable. Relevant data will be shared with partners such as the Police National Database to amplify impact on infringement.

Green targets/hybrid working

The UKIPO will work with the new "Greening Government Commitments" and develop an action plan to deliver the UK Government's "Net Zero Strategy" by Quarter 3.

We suspect that this action plan may feature the planned hybrid-working model of office and remote working of the UKIPO. Such hybrid working will likely reduce commuting and contribute to a reduction in commuting and office-related impacts on the environment.

Wellbeing

As part of the plan, the UKIPO highlights its commitment to improving mental and physical wellbeing of its people and indicates that it will continue to provide access to counselling and mental health resources. These are important issues, especially in light of the impact of the pandemic, and it is good to see such issues being incorporated into long-term plans by a key organisation in the industry.

If you have any questions about the UKIPO corporate plan 2021-2022, please contact your usual D Young & Co representative.

Author:
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ViCo before the EPO
The end of ViCo without consent of all parties?

In the pending referral before the Enlarged Board of Appeal, G 1/21, an important question for all parties involved in oral proceedings before the EPO is posed. Namely: Is the conduct of oral proceedings in the form of a videoconference compatible with the right to oral proceedings as enshrined in Article 116(1) EPC if not all of the parties to the proceedings have given their consent to the conduct of oral proceedings in the form of a videoconference?

The referring question stems from T 1807/15 where, despite both parties objecting to the use of video conferencing (ViCo) for the appeal in question, the Board of Appeal held the oral proceedings by ViCo. At the oral proceedings on 08 February 2021, the appellant specifically requested that a question be referred to the Enlarged Board of Appeal on this matter and before dealing with the substantive issues of the case, the Board of Appeal considered it reasonable to seek clarification from the Enlarged Board of Appeal, noting that it was "to avoid any procedural violation".

In 2020, oral proceedings were held by video conference only with consent of all parties. This was the EPO's response to the coronavirus pandemic and is a change in practice that has generally been working well for those involved.

On 15 December 2020, however, there was a Communication uploaded to the EPO's website noting that from 01 January 2021, the Boards of Appeal may "conduct oral proceedings by VICO even without the agreement of the parties concerned". This was followed by the introduction of new Article 15a RPBA which came into effect on 01 April 2021 relating to oral proceedings by ViCo.

Similarly the EPO President announced on 10 November 2020 and 17 December 2020 that oral proceedings can be held before the opposition divisions and examining divisions respectively, without all parties' consent.

Following a significant number of *amicus curiae* briefs and a change in chairperson and one of the Enlarged Board of Appeal members after objections of suspected partiality, the hearing for G 1/21 was due to be heard (ironically by Zoom) on 28 May 2021.

> Unfortunately, however, the hearing has been postponed following the appellant's request for more time to consider the EPO President's submissions on the referral. The Enlarged Board of Appeal has rescheduled the oral proceedings for 02 July 201.

If there are any questions on G 1/21 or the use of ViCo in EPO hearings, please contact us at mail@dyoung.com.

To view the EPO overview of G1/21 (G 0001/21 (Exclusion and objection) of 17.5.2021) please visit the EPO website: http://dycip.com/g121-17May21.

Author:
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Guide to ViCo at the EPO

We have drawn from our experience of *ex parte* and *inter partes* oral proceedings before the EPO by video conference to prepare a guide for participants covering what to expect and how best to prepare.

The guide includes our handy client "Checklist for ViCo": **www.dyoung.com/vico-guide**

T 1952/18
Prior use and inventive step

T 1952/18 relates to an appeal against the decision to maintain European patent EP2512840 in its granted form. The appellant (opponent) requested that the patent be revoked while the respondent (patentee) requested that the patent be allowed in an amended form.

The invention in question relates to the bumper on a car. A bumper typically is made up from a bumper bar with a number of "crash boxes" that are designed to deform in the event of a crash. It is important that the crash boxes deform in a similar manner or their effectiveness can be inhibited. The invention is concerned with the inclusion of a towing eyelet. This can be achieved by the connection of a threaded sleeve into which the towing eyelet can be screwed. However, as a consequence of pulling the towing eyelet at an angle, the crash box can, if used, deform irregularly. The invention seeks to solve this problem by a particular arrangement of the sleeve in respect of the crash box.

The appellant provided evidence of prior use of a similar bumper prior to the priority date of the patent. This was demonstrated by technical drawings of the bumper, an affidavit from a manufacturer of the bumper, and a registration certificate and photographs of a vehicle containing the bumper.

The European Patent Office (EPO) noted that this evidence did not lie within the power and knowledge of the opponent because the patentee could have had similar access to the alleged prior art. The standard of proof required was therefore a "balance of probabilities" (as opposed to "up to the hilt") and this threshold was met.

In this case, the abundance of evidence was clearly persuasive and the Board of Appeal decided that the prior use was legitimate prior art. However, the Board of Appeal's view was that two features (s) and (t) were not known from this prior use:

s. "and the bumper bar has a protuberance (21) in which the hole (16) of the bumper bar is located"

t. "the cover (13) has an indentation (15) directed into the crash box in which the hole (16) of the cover is located"

The Board of Appeal argued that a technical effect to be solved over the prior use is to stabilise the towing eyelet or sleeve when it is pulled at an angle by providing the necessary axial distance between the coaxial holes in the bumper's front face and in the cover.

The Board of Appeal made a particularly interesting comment in respect of inventive step and the formulation of the objective technical problem. In particular, the Board of Appeal noted that the prior art ("OV11") was a prior use representing a very specific concrete implementation of a bumper bar, where all components are parts were conceived, dimensions and tested in order to fit and cooperate together and mutually cooperate to obtain optimum results regarding crash and towing aspects, which included the sleeve. A technical problem of trying to adapt the axial distance between the coaxial holes was therefore unrealistic otherwise the overall design of the bumper bar would have been a different one.

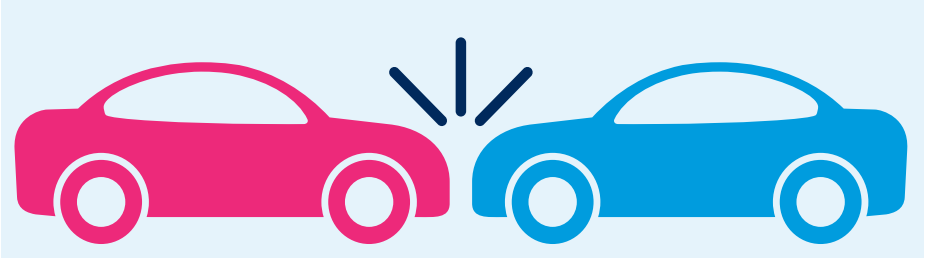
This suggests that the fact that the prior art in question was an actual prior use (a concrete implementation) actually helped the proprietor.

> That is to say that since the prior art was a prior use, it was clear that each of the different elements of the bumper bar had to be carefully selected and balanced against one another, and simply modifying one element of the bumper bar was not realistic.

The same argument could, of course, be raised against prior art in the form of a patent document. However, it is well established that a patent document, for instance, rarely contains every single last detail about the implementation of an embodiment of the invention and such a document therefore may leave open the possibility of certain parameters being changeable. In contrast, an actual prior use has been physically developed and therefore all existing parameters have been settled and finalised.

Precisely whether this was the message the Board of Appeal was trying to put across or not is unclear. However, such a decision potentially opens the door to the argument that prior uses are inherently less "changeable" than other forms of prior art due to having been more thoroughly (and concretely) designed. It will be interesting to see whether such an approach appears again in the future.

Appeal T 1952/18 relates to the bumper on a car



Author:
Alan Boyd

Patents and SPCs post-Brexit Pharma's big opportunity?

In this 32 page special report patent specialists Garreth Duncan and Jennifer O'Farrell shine a spotlight on the impact of Brexit on the pharmaceutical industry, focusing on the challenges ahead as well as areas of opportunity for the UK.

Implementing the trade agreement the UK has made with the EU, and working through the inevitable snags, is the next challenge facing the pharmaceutical industry. Coupled with the additional pressures of the Covid-19 pandemic, this represents a significant challenge, but one to which, we believe, the UK's pharmaceutical industry will rise.

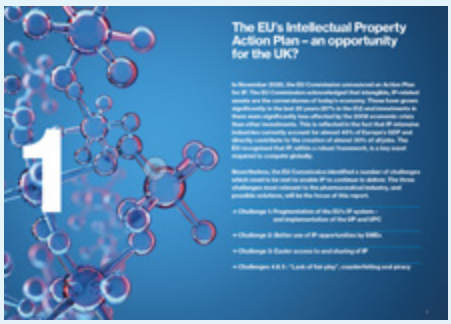
Intellectual property and the pharmaceutical sector are significant considerations for both the UK and the EU following Brexit. This is apparent from the publication of the EU's Intellectual Property Action Plan to support the EU's recovery and resilience, as well as its Pharmaceutical Strategy policy document, shortly before the trade agreement was signed.

In this special report we consider how the pharma industry should adapt its IP strategy.

We examine the following key topics:

- Brexit's impact on the supplementary protection certificate (SPC), unitary patent (UP) and Unified Patent Court systems.
- What's in and out of the EU Pharmaceutical Strategy – and will the UK follow?
- What can the UK gain from the EU IP action plan?
- Regulatory independence for the UK – what's the role for the MHRA post-Brexit?
- Implications of the rules of origin on the pharma industry.

Download your copy of this special report at www.dyoung.com/brexit-pharma



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To access your copy of this 32 page special report please visit our website:
www.dyoung.com/brexit-pharma

AI - part two
Inventorship and ownership

The UK Intellectual Property Office's recent consultation on artificial intelligence and intellectual property prompted 92 responses including one from D Young & Co. Following the recent publication of the consultation outcome[1], we consider some of the issues raised.

In the first article of this series, we looked at the definition of AI and how this interacts with excluded subject matter provisions in UK (and European) patent law: http://dycip.com/ai-part1

In this second article, we consider the issues of inventorship and ownership for inventions arising from AI, and in particular whether patent law should allow an AI to be identified as a sole or joint inventor.

Looking to UK statute for guidance, Section 3 of the UK Patents Act defines an invention on its own merits and without regard to the status of the inventor. Hence in principle a new and non-obvious concept can be an invention even if it was solely or partially contributed to by an AI.

However, section 7(2) of the act then lists who can be granted a patent, which includes the inventor (or their employer or an assignee, etc), and "no other person". This makes plain that an inventor must be a person, and so appears to exclude AIs as inventors.

The recent DABUS case relating to an application which named an AI as the sole inventor (Thaler v Comptroller [2020] EWHC 2412 (Pat))[2] and the corresponding EPO decision[3], reached a similar conclusion that the DABUS AI system could not be an inventor by definition because it was not a person.

Whilst this may appear reasonable, it is also problematic – with no inventor, there can be no corresponding right to a patent. So if a new and non-obvious concept is generated by an AI, what can be done to obtain a patent?

We suggest that the problem stems from the assumption that an AI can invent.

Following on from section 7(2), section 7(3) of the UK Patents Act defines the inventor as the 'actual deviser' of the invention. By contrast, section 43(3) excludes anyone who merely advises or assists the inventor. Hence the law implies inventorship requires some form of forethought, insight, and/or appreciation of the problem to be solved, whilst distinguishing these from inputs to the invention that does not require such things.

If this is the bar set for inventorship, then current AIs do not meet the criteria.

So what are AIs doing, if not inventing?

We suggest that such AIs should be treated as a means to discover new and non-obvious properties that are latent within a space occupied by their training set and inputs. In this sense, an AI may discover, but not invent, a new thing.

This property appears innate to how AIs work; an AI creates an internal representation of features of its training set, and so the information available to the trained AI is thus typically a partial and transformed representation of the training set, as determined by the type of AI. Sometimes an input may also be used by the AI as a baseline or scaffold for using its internal information, and act as a stimulus for the AI's output or functionality.

Hence all the AI's possible outputs are a function of its internal information derived from the training set and optionally the current input. These have been provided, arranged, or caused by the curator of the training set, the AI architect, and/or the user, and are latent within the trained system and any input. The outputs or functions of the AI are thus explorations of (and limited by) this latent space and can be better thought of as discoveries within it.

In this case, in a manner analogous to existing case law relating to drug discovery or gene discovery, an industrial application of a new and non-obvious discovery made with the AI may then be inventive. The bar for this industrial application can be very low since by definition, being based upon a new and non-obvious discovery, it will also be new and non-obvious.

Hence a claim making such use of a new and non-obvious output or functionality of an AI system should be an invention (leaving patentability as a separate issue). Typically it will just be a matter of placing the discovery within the context of the general use that motivated its creation in the first place.

Thus by considering an AI a tool for discovery - albeit a seemingly creative one - the industrial application of its discovery (for example, by a person) is inventive, and can attract patent rights in the normal manner.

This approach avoids most of the pitfalls relating to issues of inventiveness by AIs.

Firstly, it is independent of the type of AI being used. This avoids any issues relating to how an AI invented or identified an invention. Notably it also avoids the need for an 'explainable' or 'transparent' AI that reveals a specific path of determination for producing the result, since the history behind a discovery is not essential to its industrial application.

Secondly, the approach is consistent with existing precedent for automated discoveries and industrial exploitation in genetics and chemistry. It should also be appreciated that the principle should apply to any AI that discovers a new and non-obvious thing, whether that thing is a one-shot output, a complex behaviour, or an ongoing relationship between inputs and outputs.

Notes

1. http://dycip.com/mar21-ai-response
2. http://dycip.com/2020-ewhc-2412
3. http://dycip.com/epo-news-28jan20

Part two of a series of AI-related articles: AI inventorship and ownership

Thirdly it avoids the need for any new legislation or rules relating to AI inventorship or co-inventorship, and sidesteps any parallel issues such as who the corresponding skilled person in the art may be.

We therefore conclude that existing AIs are capable of discovering new and non-obvious things latent within the domain of their training set and inputs, and the industrial application of these discoveries by legal persons are in principle inventive. We believe that this is the best approach to the determination of what has been invented and hence also who is the inventor.

This in large part also resolves the problem of ownership, as this will follow conventional paths flowing from the industrial exploitation of the discovery.

Whilst the above discussion relates to inventions, it will be appreciated that the outputs of many AIs do not fall under this category, but might be relevant to other forms of IP – in particular copyright and design rights. Fortunately, UK legislation in these fields already accommodates AIs, based on the following general provision:
"In the case of a work which is computer-generated, the author shall be taken to be the person by whom the arrangements necessary for the creation of the work are undertaken." Variants on this provision can be found for copyright in section 9(3) CDPA; for unregistered design right in section 214(2) CDPA; and for registered design right in section 2(4) RDA. Meanwhile for registered trade marks, authorship is not a determining factor.

Clearly this also provides a model for a potential legislative solution for patents if AIs are still considered ineligible inventors, with a corresponding section or rule conferring inventorship on the person(s) who arranged for the AI to invent. Notably in the UK Government's response to the consultation, they propose a new consultation later this year on a range of policy options including legislative change, for protecting AI generated inventions that would otherwise not meet current inventorship criteria. This is a positive step, and we will engage with the consultation when it is announced.

In particular, within such a legislative solution it should be recognised that the person who undertook the arrangements necessary for the production of the invention may not necessarily be the person who built or trained the AI. The specific contributors to a given invention will be a question of fact.

For closed domain systems, the necessary arrangements may indeed be providing the training set and any process used to create the AI, which will have been selected to determine what the AI does. Clearly, an AI trained to distinguish cats from dogs will never generate a new protein model or circuit layout; the creator(s) of the AI have determination over the domain of application by the AI. Hence a person will have made the arrangements necessary for the production of the invention, even if they could not anticipate the exact embodiment that the AI produced.

By contrast for an open-domain AI such as GPT-3 (a system that has been trained on any and all content within large public databases to act, in effect, as a generalised predictor), the inventor is likely to be the person who - in appreciation of a problem that needs solving - constructs a task for the open domain AI to solve in a desired manner.

Meanwhile even for self-training systems such as AlphaGo Zero, the ability to experiment and observe for the purpose of self-training, the domain in which that experimentation occurs, and the ultimate goal, are provided and enabled by the developers of the system.

Hence we believe that even if an AI was considered a sole or joint inventor, a new rule similar to the provision in s9(3) CDPA could address the issue of entitlement to own a resulting patent – but it should be flexible in recognising who the corresponding inventor is.

In conclusion, whether AIs are ultimately treated as a means of discovery, or a means to invent, there appear to be legal mechanisms either in place or easily modelled that enable ownership and hence patentability to proceed, and the UK Government are being proactive in ensuring that this happens.

Author:
Doug Ealey

D YOUNG & CO INTELLECTUAL PROPERTY

And finally...

Webinar invitation

European biotech patent case law
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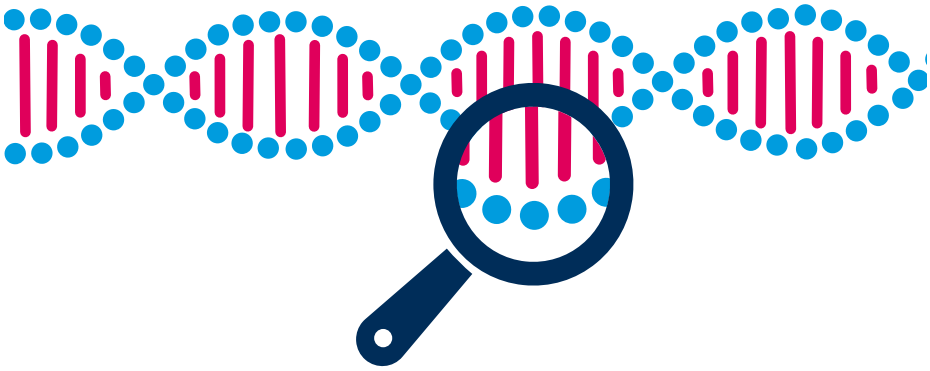

Readers who were unable to join us earlier in the year to attend our most recent European biotech patent case law webinar can now access the presentation online, on demand, via our website: http://dycip.com/bio-webinar-apr21.

Save the date
Our next biotech webinar will take place at 9am, noon and 5pm (UK time) on 21 September 2021. To reserve your seat please register at: http://dycip.com/web-bio-sep21.

D Young & Co recognised in the Financial Times Leading European Patent Law Firms 2021 survey. We are highlighted for our work in four sectors: biotechnology and food, chemistry and pharmaceuticals, electrical engineering, and IT & software.
Read more at http://dycip.com/news-ft-2021

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