



President
Henry Hadad
Bristol-Myers Squibb Co.

Vice President
Daniel J. Staudt
Siemens

Treasurer
Karen Cochran
Shell International B.V.

Directors
Eric Aaronson
Pfizer Inc.
Brett Allen
Hewlett Packard Enterprise
Ronald A. Antush
Nokia USA Inc.
Estelle Bakun
Exxon Mobil Corp.
Scott Barker
Micron Technology, Inc.
Thomas Beall
Corning Inc.
Edward Blocker
Koninklijke Philips N.V.
Steven Caltrider
Eli Lilly and Co.
John Cheek
Tenneco Inc.
Cara Coburn
Roche, Inc.
Robert DeBerardine
Johnson & Johnson
Buckmaster de Wolf
General Electric Co.
Anthony DiBartolomeo
SAP AG
Daniel Enebo
Cargill, Incorporated
Louis Foreman
Enventys
Scott M. Frank
AT&T
Darryl P. Frickey
Dow Chemical Co.
Gary C. Ganzi
Evoqua Water
Technologies LLC
Tanuja Garde
Raytheon Co.
Krish Gupta
Dell Technologies
Bill Harmon
Uber
John Harris
Ford Global Technologies LLC
Heath Hoglund
Dolby Laboratories
Thomas R. Kingsbury
Bridgestone Americas
Holding Co.
William Krovatin
Merck & Co., Inc.
Michael C. Lee
Google Inc.
Kelsey Milman
Caterpillar Inc.
Micky Minhas
Microsoft Corp.
Jeffrey Myers
Apple Inc.
Ted Naccarella
InterDigital Corp.
Ken Patel
Procter & Gamble Co.
KaRan Reed
BP America, Inc.
Kevin Rhodes
3M Innovative Properties Co.
Paik Saber
Medtronic, Inc.
Matthew Sarbaroria
Oracle Corp.
Manny Schecter
IBM, Corp.
Jessica Sinnott
DuPont
Thomas Smith
GlaxoSmithKline
Todd N. Spalding
Alexion Pharmaceuticals
John Stewart
Intellectual Ventures
Management, LLC
Brian R. Suffredini
United Technologies, Corp.
Gillian Thackray
Thermo Fisher Scientific
Joerg Thomaier
Bayer Intellectual Property GmbH
Mark Wadzzyk
Qualcomm, Inc.
Stuart Watt
Amgen, Inc.
Ariana Woods
Capital One

General Counsel
Michael D. Nolan
Milbank Tweed

二零一九年十二月十七日

100088

北京市海淀区西土城路6号
国家知识产权局条法司审查政策处
宋建华司长

Email: tiaofasi@sipo.gov.cn

主题: 《专利审查指南第二部分第九章修改草案(征求意见稿)》反馈意见

尊敬的宋司长您好:

美国知识产权所有人协会(下称“IPO协会”)感谢国家知识产权局提供的对2019年11月12日发布的《专利审查指南第二部分第九章修改草案(征求意见稿)》(下称“《征求意见稿》”)提交意见的机会。

IPO协会是一家代表各行业、各技术领域内拥有知识产权或相关权益的公司和个人的国际性行业协会。它拥有近两百家会员以及超过一万两千多名个人会员。这些个人会员有些从属于公司会员或律所成员,有些是发明人、作者或律师会员。IPO协会的会员遍及三十多个国家。

IPO协会提倡有效和实惠的知识产权,为会员提供广泛的服务,包括支持会员在立法和国际事务中的利益、分析当前知识产权问题、提供教育和信息服务、以及向公众传播知识产权的重要性。

IPO协会感谢国家知识产权局在提高包含算法特征或商业规则和方法特征的发明专利质量和审查流程方面所做的努力。我们的反馈意见如下。

总体而言,《征求意见稿》向审查员提供了他们所需要的指引,以分辨按照专利法可以取得专利权的发明。《中华人民共和国专利法》(下称“《专利法》”)第二条规定了发明专利的保护客体,即“对产品、方法或者其改进所提出的新的技术方案”,而第二十五条则具体地将“科学发现”和“智力活动的规则和方法”排除在专利保护客体之外。区分符合与不符合专利权要求的发明并非易事。《征求意见稿》向审查员提供了分析问题的具体手段,以帮助他们区分。

首先，《征求意见稿》明确了不包含任何技术特征的“抽象的算法或者单纯的商业规则和方法”不属于专利保护客体。虽然未对这一方法本身作出评价，IPO 协会提供了一些如何改进《征求意见稿》的意见。

接着，《征求意见稿》重点描述了对权利要求所取得的技术方案的审查，提供了极有帮助的指导：“如果该项权利要求记载了对要解决的技术问题采用了利用自然规律的技术手段，并且由此获得符合自然规律的技术效果，则该权利要求的解决方案属于专利法第二条第二款所述的技术方案。”

在感谢其指导意义的基础上，IPO 协会诚挚希望《征求意见稿》在以下几方面得到阐明和改进。

6.1.2 根据专利法第二条第二款的审查

《征求意见稿》中提到：“例如，如果权利要求中涉及算法的各个步骤体现出与所要解决的技术问题密切相关，如算法处理的数据是技术领域中具有确切技术含义的数据，算法的执行能直接体现出利用自然规律解决某一技术问题的过程，并且获得了技术效果，则通常该权利要求的解决方案属于专利法第二条第二款所述的技术方案。”

我们认为技术含义应该相对于本领域普通技术人员而言。数据的技术含义是否确切，不同的人会有不同的判断。因此，我们建议对 6.1.2 作如下修改，以强调需要考虑的是在相关技术领域中的普通技术人员的认知。

6.1.2 根据专利法第二条第二款的审查

……例如，如果权利要求中涉及算法的各个步骤体现出与所要解决的技术问题密切相关，如算法处理的数据是**本技术领域普通技术人员**中具有**确切明白其**技术含义的数据，算法的执行能直接体现出利用自然规律解决某一技术问题的过程，并且获得了技术效果，则通常该权利要求的解决方案属于专利法第二条第二款所述的技术方案。

6.2 审查示例

【例 1】和【例 2】

6.2 中的例 1 和例 2 需要进一步阐明。例 1 的权力要求包含的是一种建立数学模型的方法，但不涉及任何技术问题、技术效果和技术方案，因而不属于专利保护客体。例 2 的权力要求包含了用数学模型神经网络训练算法处理图像数据的具体解决方案，因而属于专利保护客体。

需要阐明的是，对于不限于特定应用领域的数学模型的改进，如果其权利要求记载了解决技术问题采用的手段、获得技术效果、属于技术方案的话，也应当属于专利保护客体。举例而言，建造数学模型可以通过采用技术工具的方法，这种技术工具可以是一台用于训练模型的计算机。这种方法可以获得技术效果，例如减少了训练模型所需要的计算机处理和存储资源；它也可能解决技术问题，例如可用于训练模型的计算机资源不足。

IPO 协会建议加入另一个审查示例，其权利要求描述建立、使用数学模型的技术方案，用以表明此类权利要求属于专利保护客体。

【例 10】

例 10 权利要求的步骤 1) 已包含确定所采集的信息集合中信息的情感分类，步骤 2) 应是步骤 1) 中的情感分类的具体方式，而非单独的步骤。因此我们建议将步骤 2) 的内容并入为步骤 1) 的一部分：

一种动态观点演变的可视化方法，所述方法包括：

步骤 1) 由计算设备确定所采集的信息集合中信息的情感隶属度和情感分类，所述信息的情感隶属度表示该信息以多大概率属于某一情感分类；

其中，步骤 2) 所述情感分类为积极、中立或消极，具体分类方法为：如果点赞的数目 p 除以点踩的数目 q 的值 r 大于阈值 a ，那么认为该情感分类为积极，如果值 r 小于阈值 b ，那么认为该情感分类为消极，如果值 $b \leq r \leq a$ ，那么情感分类为中立，其中 $a > b$ ；

步骤 2)...

例 10 分析部分中“即使情感分类规则不同，对相应数据进行着色处理的技术手段也可以是相同的，不必作出改变，即上述情感分类规则与具体的可视化手段并非功能上彼此相互支持存在相互作用关系”的论述无法在 6.1.3 中找到依据。首先，6.1.3 中的“如果权利要求中的商业规则和方法特征的实施需要技术手段的调整或改进，那么可以认为该商业规则和方法特征与技术特征功能上彼此相互支持、存在相互作用关系”是用于确定商业规则和方法特征与技术特征功能上彼此相互支持、存在相互作用关系，而例 10 中的情感的具体分类方式涉及“点赞的数目 p 除以点踩的数目 q 的值 r ”以及根据值 r 与阈值的比较来确定情感分类，其应属于算法而非商业规则和方法特征。其次，即使将例 10 中的情感分类方式看作商业规则和方法特征，也不能基于 6.1.3 中的上述内容得出例 10 中的结论，这是因为 6.1.3 中仅给出了商业规则和方法特征与技术特征存在相互作用关系的一个充分条件而不是必要条件。在原命题（若 p 则 q ）成立的情况下，否命题（若非 p 则非 q ）未必成立。因此，基于 6.1.3 中的上述内容来否定情感分类方式与技术特征的相互作用关系是缺乏说服力的。

由于例 10 中的情感分类方式实际上是所采取的技术手段的组成部分，在进行创造性审查时应当考虑其对解决方案作出的贡献。


因此，IPO 建议将例 10 分析的最后一段作如下修改：

“发明专利申请的解决方案与对比文件 1 的区别在于步骤 21) 中设定的情感的具体分类方式规则。该情感分类方式基于所收集的信息确定情感分类，情感隶属度的确定、情感可视化图形的几何布局的建立以及几何布局的着色都基于该情感分类。因此，上述情感分类方式与技术特征在功能上相互支持、存在相互作用。上述情感分类方式及其应用于动态观点演变的可视化均未被其它对比文件公开，也不属于本领域公知常识，现有技术整体上并不存在使本领域技术人员改进对比文件 1 以获得要求保护发明的启示，要求保护的发明相对于最接近的现有技术是非显而易见的，具备创造性从申请内容中可以看出，即使情感分类规则不同，对相应数据进行着色处理的技术手段也可以是相同的，不必作出改变，即上述情感分类规则与具体的可视化手段并非功能上彼此相互支持存在相互作用关系。与对比文件 1 相比，发明专利申请只是提出了一种新的情感分类的规则，没有实际解决任何技术问题，也没有针对现有技术作出技术贡献。因此，要求保护的发明相对于对比文件 1 不具备创造性。”

建议修改过后的例 10 与例 7 和例 9 类似。如果需要在例子中保留算法特征或商业规则和方法不能与技术特征作为一个整体考虑并且不具备创造性的案例，建议替换例 10 中的权利要求，使得其中的区别技术特征例如为商业规则和方法特征，且该商业规则和方法特征与技术特征功能上不彼此相互支持，不存在相互作用关系。

随信附上本信的翻译版本。IPO 协会再次感谢国家知识产权局给予此次机会提出反馈意见。我们也非常愿意进一步交流或能有机会提供更多的信息。

此致
美国知识产权所有人协会谨启



Henry Hadad
主席

附件：IPO 协会对《专利审查指南第二部分第九章修改草案（征求意见稿）》的反馈意见（英文版）



President
Henry Hadad
Bristol-Myers Squibb Co.

Vice President
Daniel J. Staudt
Siemens

Treasurer
Karen Cochran
Shell International B.V.

Directors
Eric Aaronson
Pfizer Inc.
Brett Allen
Hewlett Packard Enterprise
Ronald A. Antush
Nokia USA Inc.
Estelle Bakun
Exxon Mobil Corp.
Scott Barker
Micron Technology, Inc.
Thomas Beall
Corning Inc.
Edward Blocker
Koninklijke Philips N.V.
Steven Caltrider
Eli Lilly and Co.
John Cheek
Tenneco Inc.
Cara Coburn
Roche, Inc.
Robert DeBerardine
Johnson & Johnson
Buckmaster de Wolf
General Electric Co.
Anthony DiBartolomeo
SAP AG
Daniel Enebo
Cargill, Incorporated
Louis Foreman
Enventys
Scott M. Frank
AT&T
Darryl P. Frickey
Dow Chemical Co.
Gary C. Ganzi
Evoqua Water
Technologies LLC
Tanuja Garde
Raytheon Co.
Krish Gupta
Dell Technologies
Bill Harmon
Uber
John Harris
Ford Global Technologies LLC
Heath Hoglund
Dolby Laboratories
Thomas R. Kingsbury
Bridgestone Americas
Holding Co.
William Krovatin
Merck & Co., Inc.
Michael C. Lee
Google Inc.
Kelsey Milman
Caterpillar Inc.
Micky Minhas
Microsoft Corp.
Jeffrey Myers
Apple Inc.
Ted Naccarella
InterDigital Corp.
Ken Patel
Procter & Gamble Co.
KaRan Reed
BP America, Inc.
Kevin Rhodes
3M Innovative Properties Co.
Paik Saber
Medtronic, Inc.
Matthew Sarboraria
Oracle Corp.
Manny Schecter
IBM, Corp.
Jessica Sinnott
DuPont
Thomas Smith
GlaxoSmithKline
Todd N. Spalding
Alexion Pharmaceuticals
John Stewart
Intellectual Ventures
Management, LLC
Brian R. Suffredini
United Technologies, Corp.
Gillian Thackray
Thermo Fisher Scientific
Joerg Thomaier
Bayer Intellectual Property GmbH
Mark Wadzzyk
Qualcomm, Inc.
Stuart Watt
Amgen, Inc.
Ariana Woods
Capital One

General Counsel
Michael D. Nolan
Milbank Tweed

17 December 2019

Ms. Jianhua Song
Chairman, Department of Legal Affairs
China National Intellectual Property Administration
No. 6, Tucheng Street W
Haidian District
Beijing 100088
People's Republic of China

Email: tiaofasi@sipo.gov.cn

***Re: Comments on Draft of the Amendment of the Examination Guidelines
Regarding Chapter 9, Part II (12 November 2019)***

Dear Chairman Song:

Intellectual Property Owners Association (IPO) appreciates the opportunity to respond to the request for comments on the Draft of the Amendment of the Examination Guidelines Regarding Chapter 9, Part II (Draft for Comments) (“Draft”) dated 12 November 2019.

IPO is an international trade association representing companies and individuals in all industries and fields of technology who own, or are interested in, intellectual property (“IP”) rights. IPO’s membership includes about 175 companies and close to 12,000 individuals who are involved in the association either through their companies or as inventor, author, law firm, or attorney members. IPO membership spans over 30 countries.

IPO advocates for effective and affordable IP ownership rights and offers a wide array of services, including supporting member interests relating to legislative and international issues; analyzing current IP issues; providing information and educational services; and disseminating information to the public on the importance of IP rights.

IPO commends the China Intellectual Property Administration (CNIPA) for its efforts in improving patent quality and examination process of invention patent applications containing algorithm or business rule and method features. Our comments are as follows.

In general these guidelines provide needed direction to examiners on how to distinguish between applications that meet the requirements of China’s patent laws on the subject matter eligible for a patent, and those that do not.

The Patent Law of the People’s Republic of China (“China Patent Law”) defines the subject matter eligible for an invention patent in Article 2, which says in part: “Inventions

mean new **technical solutions** proposed for a product, a process or the improvement thereof.” Article 25 more specifically excludes subject matter such as “scientific discoveries” and “**rules and methods for intellectual activities**” from patenting.

Distinguishing creations that meet these requirements from those that do not can be a difficult exercise. The guidelines aid examiners in that effort by providing specific ways to analyze this problem.

First, the guidelines helpfully clarify that “abstract algorithm or merely business rules and methods” are not patentable. While IPO offers no opinion here on the appropriateness of this approach, it does offer opinions on how the guidelines as drafted might be improved.

Second, the guidelines focus the analysis on “technical solutions” achieved by the claims, helpfully stating “[i]f such claim states technical means in conformity with the laws of nature taken to solve a technical problem and thus the technical effects in conformity with the laws of nature are obtained, the solution provided by such claim is a technical solution” and therefore is patentable.

Helpful as the guidelines are in general, IPO respectfully submits that the guidelines would benefit from clarification in several areas, as follows.

6.1.2 Examination according to Article 2, Paragraph 2 of the Chinese Patent Law

The proposed guidelines state (emphasis added): “if respective steps of an algorithm involved in the claim are closely related with the technical problems to be solved (for example, if the data processed by the algorithm is **data having exact technical meaning in a technical field**, and the execution of the algorithm can directly reflect the process of solving the technical problems by utilizing the laws of nature and thus the technical effects are obtained), then the solution of the claim usually belongs to the technical solutions stipulated in Article 2, Paragraph 2 of the Chinese Patent Law.”

IPO respectfully submits that technical meaning should be dealt with from the angle of those of ordinary skill in the art. Different people having different levels of expertise may have different judgments regarding the exact technical meaning of data. Accordingly, IPO suggests that the phrase “data having exact technical meaning in a technical field” be replaced with “**data with technical meaning understood by those of ordinary skill in the art in the technical area**” to emphasize that it is the knowledge of the ordinary skilled artisan in the relevant technical area that should be considered.

6.2 Examination examples

Examples 1 and 2

Examples 1 and 2 in section 6.2 need clarification. Example 1 claims a mathematical model without any technical problem, technical effect, or technical solution, and is not patentable. Example 2 claims a specific technical solution for image processing using a mathematical model in a neural network training algorithm, and is patentable.

What needs clarification is that **improvements to mathematical models** that are not limited to a specific application field may nevertheless be claimed in terms that include a technical problem, a technical effect, and a technical solution and therefore should be patentable. For example, a method of making a mathematical model may use technical means to do so. Such technical means could be, for instance, a computer used for training the model. The method may achieve a technical effect, such as reduced processing.

IPO proposes that a third example directed to technical solutions for methods of making and using mathematical models be provided to clarify that such claims are patentable.

Example 10

The step 1) of the claim in example 10 already includes the determination of emotion classification of the information in the collected information set, so the step 2) should be the specific manner for determining the category of emotions in step 1), rather than a separate step. Therefore, it is suggested to incorporate the content of step 2) as a part of step 1), as follows:

A method for visualizing the dynamic evolution of views, comprising:

Step 1) determining the membership degree and category of emotions of the information in the ensemble of communication collected by a computing device, wherein, the membership degree of emotions of the information represents how much is the probability that the information falls into a certain emotion category, wherein the category of emotions is

positive, neutral or negative ones, specifically: if the value r , which is the result of p (the number of likes) divided by q (the number of dislikes), is larger than the threshold a , the emotion is classified as positive; if the value r is smaller than the threshold b , the emotion is classified as negative; if $b \leq r \leq a$ ($a > b$), the emotion is classified as neutral;

In the analysis section of Example 10, the proposed guidelines state: “even if the emotion classification rules are different, the technical means used to color the corresponding data can still be the same and does not require any change. That is, the aforementioned emotion classification rule and the specific visualization means are not functionally supportive and interactive with each other.”

IPO respectfully submits this statement cannot be supported by section 6.1.3 of the proposed guidelines.

First, in section 6.1.3, the rule “if the execution of the features of business rules and methods in a claim requires adjustment or improvement of technical means, then the features of business rules and methods and the technical features can be considered functionally supportive of and interactive with each other” is used to determine that business rules and method features and technical features are functionally supportive of and interactive with each other. The specific emotion classification method in Example 10 involves “the value r , which is the result of p (the number of likes) divided by q (the number of dislikes)” and determining the emotion

classification based on a comparison of the value r with a threshold value, which should pertain to an algorithm rather than a business rule and method feature.

Second, even if the emotion classification method in Example 10 is regarded as a business rule and method feature, the conclusion in Example 10 still cannot be derived based on the above content in 6.1.3, because only a sufficient condition, rather than a necessary condition, for determining the interaction between business rules and method features and technical features is given in 6.1.3. In the case where the original proposition (if p , then q) is true, the negative proposition (if not p , then not q) is not necessarily true. Therefore, it is not convincing to negate the interaction between emotional classification and technical features based on the above contents in 6.1.3.

Since the emotion classification method in Example 10 is in fact a part of the adopted technical means, its contribution to the solution shall be considered in the examination of inventive step.

IPO respectfully suggests that the following language:

“As can be seen from the application content, even if the emotion classification rules are different, the technical means used to color the corresponding data can still be the same and does not require any change. That is, the aforementioned emotion classification rule and the specific visualization means are not functionally supportive and interactive with each other. As compared with reference document 1, the invention application only proposes a new emotion classification rule but does not actually solve any technical problem or make any technical contribution to the prior art. Therefore, the claimed invention does not involve an inventive step as compared with reference document 1.”

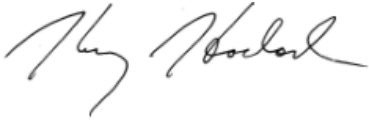
be replaced with the following:

“The solution of the invention application is distinct from reference document 1 in the specific emotion classification rule method in Step 1). The emotion classification method determines an emotion classification based on the collected information. The determination of the membership degree of emotions, the establishment of the geometric layout of the visual diagram of emotions and the coloring of the geometric layout are all based on the emotion classification. Therefore, the emotion classification method and the technical features are functionally supportive of and interactive with each other. Neither the emotion classification method nor its application in visualizing the dynamic evolution of views has been disclosed by other reference documents or belongs to common knowledge in the art. There is no inspiration from the prior art on the whole that guides those skilled in the art to improve reference document 1 to reach the claimed invention. The claimed invention is non obvious as compared with the closest prior art, and it involves an inventive step.”

Example 10 modified as suggested is similar to Example 7 and Example 9. If it is desired to keep an example in which algorithmic features or business rules and methods cannot be considered as a whole with technical features and the solution is not inventive, it is proposed to replace the claim in Example 10 such that the distinguishing technical features are business rule and method features, for example, where the business rule and method features and the technical features are not functionally supportive of and interactive with each other.

Attached please find this letter as translated. We again thank you for permitting IPO to provide comments and would welcome any further dialogue or opportunity to provide additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Henry Hadad". The signature is fluid and cursive, with the first name "Henry" and last name "Hadad" clearly distinguishable.

Henry Hadad
President

Attachment