Symposium of the SIPO/US Bar Liaison Council
With China’s State Intellectual Property Office (SIPO)
and the
All China Patent Attorney Association (ACPAA)

Patent Law Developments in China Symposium

Monday, June 3, 2013

Benjamin N. Cardozo School of Law
55 5th Ave, New York, NY 10003
About The Program . . .

Join us for a discussion

A one-day symposium focusing on Patent Law Developments in China. CN IP topics addressed by senior officials of the State Intellectual Property Office of the People's Republic of China (SIPO) and speakers from the All China Patent Agent Association (ACPAA) and the SIPO/US Bar Liaison Council. The program will begin with a keynote address by SIPO Commissioner, Tian Lipu visiting from China. The program will then go on to cover various topics pertaining to Patent Law in China, The first portion of the program will focus on China patent issues and developments and the second portion will focus on US issues and developments within China patent law.
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Patent Law Developments in China Symposium

CN Prosecution Issues Regarding CN Article 26.3

Monday, June 3, 2013
Benjamin N. Cardozo School of Law
55 5th Ave, New York, NY 10003
Has the Invention Been Sufficiently Disclosed in a Chinese Patent Application?

中国专利申请是否充分公开了申请人的发明

Article 26(3) of Chinese Patent Law and SIPO Examination Guidelines

中国专利法第二十六条第三款及专利局申请指南

Wei Zhang
June 3, 2013
Art. 26.3 Of Chinese Patent Law
中国专利法第二十六条第三款

• “The description shall set forth the invention or utility model in a manner sufficiently clear and complete so as to enable a person skilled in the relevant field of technology to carry it out; where necessary, drawings are required. The abstract shall state briefly the main technical points of the invention or utility model.”
(similar to the enablement requirement of 35 USC 112)
“说明书应当对发明或者实用新型作出清楚、完整的说明，以所属技术领域的技术人员能够实现为准；必要的时候，应当有附图。摘要应当简要说明发明或者实用新型的技术要点。”
(类似于美国专利法第112条中的可实施性要求)

中国专利法于1992，2000及2008修改。

• Article 26.3 has not been changed.
中国专利法第二十六条第三款未被修改过。
Patent Examination Guidelines
专利审查指南

• A regulation published by the State Intellectual Property Office ("SIPO")
  是国家知识产权局 ("SIPO") 发布的法规

• Four Versions of Examination Guidelines
  专利审查指南共有四个版本
    1993版于1993年3月10日发布（对应1992年专利法）
  • October 18, 2001 (Patent Laws of 2000)
    2001版于2001年10月18日发布（对应2000年专利法）
  • May 24, 2006 (Patent Laws of 2006)
    2006版于2006年5月24日发布（对应2006年专利法）
    2010版于2010年1月21日发布（对应2008年专利法）
Requirement for the Specification under the 2006 Guidelines

1. Clarity (2.1.1)
   清楚

2. Completeness (2.1.2)
   完整
   A complete description shall include all the technical contents that are necessary for understanding and carrying out the invention or utility model.

3. Enablement (2.1.3)
   能够实现
   The description shall enable a person skilled in the art to carry out the invention or utility model. It means that the person skilled in the art can, in accordance with the contents of the description, carry out the technical solution of the invention or utility model, solve the technical problem, and achieve the expected technical effects.
## Evolution of SIPO Examination Guidelines on Disclosure of Chemical Invention

### 1993

1. Identification of the chemical product
   - 化学产品的确认
2. Preparation of the chemical product
   - 化学产品的制备
3. Use and its technical effect of the chemical product
   - 化学产品的用途和使用效果

### 2001

1. Identification of the chemical product
   - 化学产品的确认
2. Preparation of the chemical product
   - 化学产品的制备
3. Use and its technical effect of the chemical product
   - 化学产品的用途和使用效果

### 2006 & 2010

1. Identification of the chemical product
   - 化学产品的确认
2. Preparation of the chemical product
   - 化学产品的制备
3. Use and/or its technical effect of the chemical product
   - 化学产品的用途和/或使用效果
<table>
<thead>
<tr>
<th>Year</th>
<th>1993</th>
<th>2001</th>
<th>2006 &amp; 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The use and technical effect of the product shall be sufficiently disclosed.</td>
<td>The use and technical effect of the product shall be sufficiently disclosed.</td>
<td>The use and/or technical effect of the product shall be completely disclosed.</td>
</tr>
<tr>
<td></td>
<td>应当充分地公开该产品的用途和使用效果</td>
<td>应当充分地公开该产品的用途和使用效果</td>
<td>应当完整地公开该产品的用途和/或使用效果</td>
</tr>
<tr>
<td></td>
<td>Even if the structure of the compound if the first of its kind, at least one use of the compound shall be disclosed.</td>
<td>Even if the structure of the compound if the first of its kind, at least one use of the compound shall be disclosed.</td>
<td>Even if the structure of the compound if the first of its kind, at least one use of the compound shall be documented.</td>
</tr>
<tr>
<td></td>
<td>对结构首创的化合物，也应当至少记载一种用途</td>
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<td>对结构首创的化合物，也应当至少记载一种用途</td>
</tr>
</tbody>
</table>
Evolution of SIPO Examination Guidelines on Disclosure of Chemical Invention - Continued

SIPO专利审查指南中关于化学产品发明公开的演变过程

Use / technical effect of the chemical product (continued)
化学产品的用途及技术效果

<table>
<thead>
<tr>
<th>1993</th>
<th>2001</th>
<th>2006 &amp; 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any embodiment submitted after the filing date can only be used as a reference by the examiner for assessing patentability. §4.3(2)</td>
<td>Any embodiment submitted after the filing date can only be used as a reference by the examiner for assessing novelty, inventiveness and practical applicability. §4.3(2)</td>
<td>Embodiment and experimental data submitted after the filing date shall not be taken into consideration. §3.4(2)</td>
</tr>
</tbody>
</table>

申请日期后提交的实施例可被审查员作为参考以评估专利。

申请日期后提交的实施例可被审查员作为参考以评估新颖性，创造性和实用性。

申请日之后提交的实施例和实验数据不予考虑。
Example of a pharmaceutical patent application
一个药物专利申请的实例

- Specification describes
  说明书提供了
  - compound of formula X
    有结构式X的化合物
  - methods for synthesizing the compound of formula X
    有结构式X的化合物的合成方法
  - structures of several compounds synthesized by the described methods
    用所描述的方法合成的一些化合物的结构
  - diseases that can be treated by the compound of formula X
    有结构式X的化合物能治疗的疾病

- However, the specification does not contain data demonstrating the use and effect of the compound
  说明书没有提供表明化合物用途及技术效果的数据
- Claims are directed to specific chemical compounds that are encompassed by formula X
  权利要求保护具体的在结构式X范围内的化合物
- Post-filing data on use and effect becomes available during patent examination
  在专利申请递交后，申请人得到了的显示化合物用途及技术效果的数据
Satisfy the disclosure requirements under the 2006 Guidelines?
是否满足2006年版申请指南中的公开要求？

• Identification of product – Yes
化学产品的确认 – 是
• Preparation of product – Yes
化学产品的制备 – 是
• Use and/or effect of product – No
化学产品的用途和使用效果 – 否
Example – continued

• Tanabe Mitsubishi Patent Application No. CN 00812968.1
  田边三菱专利申请号CN 00812968.1
• Claims rejected by the Patent Reexamination Board
  权利要求被专利复审委拒绝
  • Claim 1: The below compounds or pharmaceutically acceptable salts thereof:
    (S)-2-(2-hydroxymethyl-1-pyrrolidinyl)-4-(3-chloro-4-methoxy benzylamino)-5-[N-(2-pyrimidinylmethyl) carbamoyl] pyrimidine;
    …
    权利要求1：以下的化合物或其药学上可接受的盐：
    (S) -2- (2-羟甲基-1-吡咯烷基) -4- (3-氯-4-甲氧基苄基氨基) -5- [N- (2-嘧啶基甲基) 氨基甲酰基]嘧啶
Example – continued

- PRB’s reasoning on failure to disclose qualitative or quantitative data to demonstrate the use and/or effect:
  复审委对于说明书没有公开定性或定量的显示用途或效果的数据的解释：
  - lack of a model to test the chemical
    缺乏一个测试化合物的模型
  - lack of in vivo and/or in vitro experimental data or clinical qualitative or quantitative data to show any specific medical effect of the chemical
    缺乏体内和/或体外的实验数据或临床的定性或定量的数据以显示特定的化合物的医疗效果
  - lack of pharmacological data to prove effect of chemical
    缺乏药理数据证明化合物的效果
  - effect of a new chemical is not predictable merely based on its structure
    新化合物的效果不能只是根据其结构预测
  - experimental data submitted during examination are not persuasive due to late submission and public unavailability
    在审查期间提交的实验数据是迟交的且公众无法得到，因此没有说服力。
Example – continued


相关的日本，美国，欧洲和韩国的专利申请中的马库什权利要求都获得了批准。

• EP 1219609B1

欧洲专利 EP 1219609B1

Claim 1: A compound of the formula (I)

权利要求1：有结构式 (I) 的化合物

\[
\begin{align*}
\text{A} & \text{N} \\
\text{N} & \text{NH-CH}_2\text{-R}^2 \\
\text{Y} & \text{Z} \\
\text{R}^1 \\
& \text{酸} \\
\end{align*}
\]

wherein...

其中。。
More on Tanabe Mitsubishi Application No. CN00812968.1
更多关于田边三菱专利申请号CN 00812968.1

• The underlying PCT application was filed in 2000 (the 1993 Guidelines were effective)
PCT申请于2000年提交（当时1993年版的指南有效）

• PRB rejected the application for failure to comply with the disclose requirement in the 2006 Guidelines, which require disclosure of use and/or effect with data support and prohibit consideration of post-filing data. PRB Decision No. FS23757, issued 6/12/10.
专利复审委以不符合2006年版的指南中的公开要求为由拒绝了该申请。2006年版指南要求公开的用途和/或使用效果要有实验数据的支持，同时对申请后提交的实验数据不与考虑。
专利复审委第FS23757号决定，2010年6月12日

• Beijing 1st Intermediate Court affirmed PRB’s decision to follow the 2006 Guidelines. Decision 3306, issued 9/20/11.
北京一中院维持了复审委作出的上述执行2006年版的指南的决定。第3306号判决书，2011年9月20日
Retroactive Application of SIPO Examination Guidelines? 申请指南的追溯适用？

- Article 84 of the Chinese Legislation Law establishes the principle of non-retroactivity.
  中国立法法第八十四条建立了“法不溯及既往”的基本原则：

  “Law, administrative regulations, local regulations, autonomous regulations, separate regulations and rules shall not be retroactive.”
  法律、行政法规、地方性法规、自治条例和单行条例，规章不溯及既往。

- The applicant relies on the Guidelines in existence when the application is filed.
  专利申请人依赖于申请专利时有效的指南。
Retroactive Application of SIPO Examination Guidelines?  申请指南的追溯适用？

• PRB Decision No. 15069 (7/1/10):  复审委第15069号决定（2010年7月1日）

From the amendment process of the above Guidelines for Examination, it can be seen that the requirements on the citation of documents in the provisions of the Guidelines for Examination of 2001 and 2006 editions are stricter. Therefore, as regards the citation of documents, it will be unfair to the patentee if the Guidelines for Examination of 93 edition with loose requirements is applied when filing, while the stricter Guidelines for Examination of 2001 or 2006 edition is applied in the invalidation procedure. 从上述审查指南的修订过程可以看出，审查指南对引证文件的要求在2001版和2006版审查指南中规定的更加严格。因此，就引证文件来说，如果在申请时适用较为宽松要求的1993版审查指南，而在无效阶段适用较为严格的2001版或2006版审查指南对专利权人来说是不公平的。

• Beijing 1st Intermediate Court affirmed the PRB Decision No. 15069, holding that the Guidelines that were effective at the time of filing of the application should be applied.  北京一中院维持了复审委作出的第15069号决定，认为应当适用专利申请人提出专利申请时生效的审查指南。第3548号判决书，2011年8月6日
Retroactive Application  
Status Quo and Consequence
追溯适用现状及其后果

• Currently, the 2006 Guidelines are retroactively applied to patent applications filed and granted pursuant to the 1993 and 2001 Guidelines. 目前06版指南被追溯适用于在93版和01版指南施行期间，依据该两版指南提出的专利申请和根据该申请授予的专利权。

• The 2006 Guidelines are more stringent than the 1993 Guidelines regarding submission of experimental data showing utility and effect after the filing date (this involves the disclosure requirement in Art. 26.3 and the inventive step requirement in Art. 22.3 of the Patent Law). 06版指南规定了比93版指南更加严格的审查标准。

• Applicants filed a patent application when the 1993 Guidelines were in effect and submitted post-filing experimental data. A patent was granted. Should the PRB invalidate this patent on the ground that the submission of the post-filing data does not comply with the disclosure requirements in the 2006 Guidelines? 专利申请人依据93版指南提出的专利申请，在申请日后补充了相关实验数据，并获得授权。在06版指南施行后，复审委可不可以以上述补充实验数据不符合06版指南中的公开要求为由，宣告此专利无效？
QUESTIONS?

THANK YOU!

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Patent Law Developments in China Symposium

Employment-Related Inventions--Rights/Remuneration SIPO Regulations

Monday, June 3, 2013
Benjamin N. Cardozo School of Law
55 5th Ave, New York, NY 10003
对于《职务发明条例草案（征求意见稿）》的思考

Employment-Related Inventions -- Rights/Remuneration SIPO Regulations ¹
SIPO USBLC 06-2013

Manny W. Schecter, Xiong Lanxi（熊岚曦）, Zhang Yan（张艳）²

2012 年 11 月 12 日，国家知识产权局发出《职务发明条例草案（以下简称草案）以公开发明的报告与申请知识产权、职务发明的奖励和报酬、促进职务发明及其知识产权的运用实施、监督检士的高度关注。

On November 12, 2012, the State Intellectual Property Office (SIPO) of China released the draft Service Invention Regulations (hereinafter referred as “Draft SIR”) ³ for public comment. The Draft SIR covers ownership of inventions, reporting inventions and applying for IP rights, reward and remuneration for service inventions, promoting the exploitation of service inventions and IP rights, supervision/inspection, legal liability and miscellaneous. The Draft SIR attracted great attention from all circles at home and abroad since its release.

目前在中国的法律体系中，对于职务发明的相关规定在专利法、成果转化法、劳动合同法、科技进步法等多部法律法规中。并且许多地方的专利法实施条例及天津市、江苏省专利促进条例的相关规定。这些规定对权利、义务、责任进行了规定。

The provisions on service invention in the current Chinese law system are scattered in many laws and regulations, such as Patent Law, Implementing Regulations of Patent Law, ¹ The comments are from the authors and no necessarily contributable to IBM.
² Manny W. Schecter, IBM Chief Patent Counsel, schecter@us.ibm.com; Xiong Lanxi, IBM China Patent Lawyer, xionglx@cn.ibm.com; Zhang Yan, IBM Asia Pacific GMU Senior Counsel, sdzhangy@cn.ibm.com.

Considerations on release of the Draft SIR can be tracked back to the June of 2010 when the National Medium and Long-Term Talent Development Program (2010-2020) were approved by the State Council. This Program is the first of the kind in China and serves as the guiding document for carrying out China’s national talent development work in the current period and for a certain period in the future. Executing policy for IP rights protection is outlined in this program as one of the key policies where specific requirements are mentioned like “enact regulations relating with service technology achievements, improve science and technology IP ownership and benefits sharing system, protect legal interests of the creators for technology achievements, define legal rights and interests for service inventors, increase the shares of benefits for major inventors”. Central Committee Talent Work Coordination Group (CCTWC) assigned SIPO to lead in enacting IP rights protection policy with an aim to implement the program said above.

在听取了业界各方的意见，并基于国内外企业的意见，对全国范围内200名发明人进行了问卷调查以及对20名发明人进行了深度访谈。基于调研结果，工作组对讨论稿进行了完善。2012年5月，国家知识产权局联合其他8个部级单位成立了起草工作组和专家咨询组，并召开了起草工作组和专家咨询组的会议，形成了工作计划。同年7月，专家咨询组就小范围的征求意见，IBM也参加了该次会议并提出了建议。基于这段时间的修改形成了草案初稿。与讨论稿相比，草案主要体……

In November of 2010, SIPO created a working group with members from other Ministries and associations to work on the draft of SIR. The working group listened to comments from various circles in the industry and accordingly made rounds of amendments and improvements on the draft. Service Invention Regulations (for Discussion) was formed in the October of 2011 and the working group began to sit with many foreign or domestic companies to discuss the draft. In March of 2012, IBM inventors and IP attorneys participated in the discussions with working group members via questionnaire survey and round-table meeting. The working group also hosted a series of discussions to hear from the small-and-medium scaled enterprises and inventors there. Questionnaire survey with 200 inventors across the country and in-depth interview with 20 selected inventors was carried out. Further refinements on the draft were made based on the comments collected. In the May of 2012, SIPO set up the leading group, working group, and think-tank group with members from 8 ministry level government agencies. In the first working group meeting hold in June, they reviewed the draft of the SIR and formulated working plan for next steps. In that July, the draft was circulated among a selected group of IP stakeholders in a meeting soliciting comments where IBM was invited for comments and revision proposal. Based on the results collected from research

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5 Including Ministry of Education, Ministry of Science and Technology, Ministry of Industry and Information Technology, Ministry of Human Resources and Social Security, Ministry of Agriculture, State-owned Assets Supervision and Administration, State Copyright Bureau, State Forestry Administration.
and survey, working group and think-tank group worked out a second draft. Comparing with the previous version, following changes were made in the second draft:

- **Article 15:** Define the “reasonable time duration” for an entity to make evaluation decision on the service invention from receiving such reporting to “six months” in the Article 15.

- **Article 17:** Article 17 used to provide that if an entity intends to stop prosecution or abandon the IP rights on service invention, the entity shall assign the rights to inventors without any compensation if the inventors request so. In this draft, this article is amended to allow negotiation between inventors and entity to get the rights with or without compensations and therefore make some room for freedom of contracting.

- **Draft Initial Draft:** There is a deletion on “an entity shall determine the remuneration amount referring to the market price of the concerned technology when assigning or licensing the service invention with a low price or no fee”.

- **Draft Initial Draft:** Article 31 used to provide that an entity shall pay reasonable compensation to inventors if the entity fails to implement or to be ready for implementation of the service invention after three years upon obtaining IP rights of the service invention. The inventors are only entitled to compensation if the entity refuses to pay.

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6 Part of above content in this paragraph is from explanation of draft SIR issued by SIPO, http://www.sipo.gov.cn/tz/gz/201211/t20121112_769843.html
entitled to make the implementation of service inventors on their own if the entity refuses to pay the compensation. The revision is to narrow the affected entity under this article down to state-owned enterprises.

Later, SIPO called on meetings in Beijing and Guangzhou soliciting comments from inventors, entities and scholars. IBM was invited to the meeting and contributed the comments and proposals. SIPO also asked the comments from local IP Offices. The current Draft SIR for public comments was formulated after revision based on the above said comment soliciting process. Major amendments compared with previous version are as below:

**Compared with the initial draft Article 4: Software Copyright**

Previous Article 4 says that achievement of mental-creation subject to software copyright protection is also deemed as invention, thus the rights and remuneration provisions of the Draft SIR shall apply to software. The current Article 4 deleted software from invention definitions while Article 45 provides that the Regulations are applicable as reference for the service works of computer software.

**Compared with the initial draft Article 14: IP Application Right**

The previous Article 14 provides that the IP application right is deemed to be transferred to inventors for free if an entity fails to inform inventors of the evaluation result in six months from receiving the service invention report. The Draft SIR is revised to where the
entity fails to inform the inventor within the time limit of six months, the inventor may send a written inquiry urging the entity to reply; if the entity fails to reply in 1 month of the inventor’s written inquiry, the invention shall be deemed to be protected as know-how by the entity, and the inventor has the right to have the compensation as provided in Article 25. If the entity afterwards applies and obtains domestic intellectual property right on this invention, the inventor is entitled to get reward and remuneration.

草案初稿中

及之后的

Previous draft requests putting notice to inventors two month in advance when an entity decides to abandon service invention. Considering the response due for the second or later office action(s) is two months, the current Draft SIR revised the time window to notify inventor to one-month in advance.

草案初稿第二十一条

让合同、许可合同生效之日起的两个月内，将实施、转让或者许可等有关情况告知发明人。目前的草案首先删除了两个月的期限，其次将通知的内容明确为所获得的经济效益的有关情况，而并非笼统的实施、转让或者许可的有关情况。

Article 21 in previous version provides that an entity shall inform inventors of the information on implementation, assignment or license since two months from the date of service invention implemented by the entity, or from the effective date of the assignment and license agreement executed. The Draft SIR eliminates the two-month due date and further defines the information as the economic benefits earned by the entity through implementing, assigning and licensing of service invention, instead of information relating to the implementation, assignment or license.

预计国家知识产权局将于 2013 年向国

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术发明条例列在

计划的优先项目列

职务发明条例的立

审议阶段，可能还有公开征求意见环节。

It is expected that SIPO will submit the Draft (for Review) to State Council Legislative Affairs Office (SCLAO) in 2013 and before that SIPO also needs to submit the draft to CCTWC for review first. The formally institution of the SIR as a law (including soliciting another round of public comments) by State Council would take place in 2014.
at the earliest as SCLAO is unlikely to include the SIR in their prioritized projects list of 2013 working plan.

虽然经过了两稿的修改完善，目前的草案中仍然存在值得商榷的内容，可能导致单位在日常运营中的不确定性重的负担，影响单位进...

其他国家的立法实践进行探讨。

With the improvements efforts after two revisions, there are still contents in the Draft SIR which may create unreasonable uncertainty in entity’s daily operation, expose entity into unpredictable litigation risks, impose undue burden to entity and adversely affect the entity’s morale for innovations and we believe it worth further thoughts and discussion. In the following paragraphs, this paper offers some specific comments on the Draft SIR, based on knowledge of the concerned legislative practices of other countries.

1、报酬的确定方式以及单位的通知义务

Means to determine remuneration and entity’s obligation to inform

草案第十八条第二款

将根据

额度应当考虑每个发明对整个产品或者工艺经济效益的贡献。最后，草案第二十条第二款

规定了单位的通

经济效益的有关情况通知发明人。这些规定表面看来可以确保发明人得到合理的

酬，但是在实践中却面临难以操作的困境。

Paragraph 2 of Article 18 provides that inventor is entitled to get reasonable remuneration determined based on the economic benefits yielded and (re Article 23) the level of contribution made by each invention to the overall product and process. The paragraph 2 of Article 20 sets out the entity’s obligation to inform inventors the economic benefits they obtained from exploiting the service invention. These provisions, on the face aiming to ensure the receipt of reasonable remunerations by inventor, are creating difficult-to-achieve barrier for entity in practice.
对于自行实施的情况，产品或者服务销售得到的利润显然不能直接作为经济效益的依据。在销售策略、品牌影响、发明所带来的经济效益？对于转让和许可而言，合同的金额显然也不能直接作为经济效益，还存在谈判技巧、双方市场地位等其他影响因素，并且对于交叉许可或者免费许可的情况，该金额是否真的可以认为是合同的总金额分割为每项专利带来经济效益呢？

对于报酬的确定方式，不但作为依据的经济效益难以确定，要求考虑的每个发明对整个产品或者工艺经济可，都可能会显是个难题，且难以达成一致，很容易产生纠纷。

Furthermore, the requirement to consider the level of contribution made by each invention is unworkable in practice. In practice, hundreds or even thousands of patents/patent applications are often involved no matter in self-implementation or assignment or license. It is therefore impractical for the entity to calculate the level of contribution to overall economic benefits by each and can easily lead to disagreements and disputes.
对于通知义务的履行而言，如何将单位的负担和商业风险控制在可承受的范围内呢？单位对于职务发明的利用可能是一个持续的过程，还可能会随时间有一定的变化，那么单位是否需要持续主动履行？单位是应当主动履行，还是可以应发明人的要求或者其他条件才履行呢？如果要求单位主动履行，那么员工，要如何主动告诉商业秘密，许可双方保密承诺，还可能导致商业秘密泄露。此外，对于离开公司的发明人，特别是供职于竞争对手公司的发明人，通知义务的履行会带来更大的商业风险。

In terms of the obligation to inform inventor, how can the administrative burden and business risks imposed on an entity thereof be contained in a bearable limit? Utilization of service invention by an entity is a continuous process and may vary along the way. Is it practical to request an entity to fulfill the obligation until the utilization is finally stopped? Is it an act an entity should initiate or perform per inventor’s request or when other conditions are present? If it is an entity initiated act, what is the timing and terms, especially when inventor has quitted? More importantly, patent license/assignment agreements are confidential in nature. Informing inventor regarding “economic benefits” of a particular agreement may lead to breaching the confidentiality agreement the entity entered with the assignees or licensees and may also lead to leaking of business secret. This is particularly worrisome if the entity has to notify the “economic benefits” related information to a former inventor who has joined a competitor of the entity.

在此不妨反思一下。

在手？若
利用脚投票的方式解决。但是一旦发明人的署名权被侵犯，其创新能力就无法得到认可和证明，才真正的陷入了弱势地位。可以看到，署名权对于发明人的影响远远大于合理报酬。那么是否可以考虑将侵犯署名权的行为加大处罚力度来有效的救济发明人的弱势地位。例如，是否可以采用与美国专利法类似的规定，若没有确切列写所有发明人，则专利将被视为无效且由于构成对专利商标局的不正当行为而导致不可执行。

A second thought on this point may bring us to a new path of thinking. Is it necessarily true we have to use remuneration as the remedy to inventor in weak position (assumingly
weak)? If inventor believes reward and remuneration unreasonable, the resolution could be leaving this company to join another one using his inventions to show his innovation ability to new employer. But if the inventor is not recognized as inventor, it is hard to show his innovation ability which will make him in real weak position. Therefore inventorship means more to inventors than reasonable remuneration. Is it worth to consider enhancing the protection on inventorship to help inventors who are suffering the falsifying inventorship in China? Is it possible to adapt US practice where the patents failed to name exact combination of true inventors were deemed invalid and unenforceable due to inequitable conduct?

2、制度规定的效力

Validity of company policy and agreement

Article 6 and Article 19 of Draft SIR provide that entity may establish company policy or enter into an agreement with inventor regarding rights, obligations, liabilities and rewards and remunerations. Further, Draft SIR states that agreement prevails in terms of amount of reward and remuneration, payment term, and IP ownership of invention relating with entity’s business. But Article 19 undercuts the above statement by demanding company policy and agreement in compliance with Article 20 and Article 23 and nullifies any
policy and agreement eliminating or limiting the rights entitled to inventor in accordance with the Regulations. Word “eliminating” has a clear meaning as it is about “have” or “have not”, but word “limiting” is ambiguous which leads to uncertainty for the validity of company policy or agreement. If an entity provides in its policy or agreement a fixed amount of remuneration, is that satisfying Article 23 requirements of determining the amount based on the contributions? Is that be argued as limiting inventor’s rights and therefore vulnerable to nullifying? Article 26 provides that an entity shall continue paying quitted inventor for reward and remuneration. Is that limiting if an entity provides lump sum remuneration to inventor during quitting process to avoid difficulty in contacting or locating those quitted inventors later? Is it detrimental to principle of contracting freedom which is intended to prevail in Draft SIR by keeping some ambiguous provisions which open the door for easily nullifying a company policy or agreement reached?

下面来讨论其他国家在上述两个方面的立法实践。

Following paragraphs will discuss legislation practices in Germany and Japan relating with the above mentioned two issues.

德国目前采用了独立的《雇员发明法》以及职务发明相关的权利、义务和责任。雇员发明法为雇员和雇主之间进行约定留存了一定空间，允许雇主与雇员协议规定以损害雇员的利益。在雇员发明法中指出了计算报酬应当考虑的因素，且职务发明补偿指南中提供了报酬计算的详细规则。近些年来，德国关于职务发明的立法受到了外界强烈指责，因为确杂的系统和专门的人员来实施。德国的企业不得不为专利管理负担超常的费用，平均一美元的发明人报酬就需要对利用民法中可撤销合同的类似规定，有着较为成熟、一致的判断标准。在德国的立法中，并没有看到与草案中单位的通知义务酬。

Germany uses “Law on Employees’ Inventions”7 and “Guidelines for Compensation of

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Employees’ Inventions in Private Service”⁸ to regulate the rights, obligations and liabilities regarding with service invention matters. “Law on Employees’ Inventions” reserves certain room for reaching an agreement between employer and employee regarding the amount and nature of compensation. The factors for consideration in compensation calculation are given in Law on Employees’ Inventions and the calculating rules are stated in Guidelines. In recent years, Germany received strong criticisms by public for regarding service invention compensation because the outrageous cost (US$1 overhead per US$1 compensation paid to inventor) incurred on Germany companies for running the extremely complicated calculation system by specialized staff. The Law also mentions that any agreement reached under this Law shall be nullified if it is obviously unfair. This means the judgment on validity of an agreement is referring to the similar provisions in this area in the Civil Law which adopt more matured and consistent rules. Additionally, it is worth mentioning that in Germany there is no similar provision on “entity’s obligation to inform” and nor distinction between reward and remuneration as the Draft SIR presents.

日本在专利法中对职务发明也给予了单位和发明人合理补偿的规则。同时，日本专利法要求合理补偿规则的设立需要程序合理。日本专利法在第三十五条中规定了单位与发明人之间的协商。注意的是，此处并没有限制合理补偿的数额，应当考虑哪些因素等，而是通过强制性的合理设立程序来保证发明人利益。这样单位按照合法程序制定的补偿规则的效力就是确定的。仅在没有协议或者设立程序不合法的情况下，法院才会参考各种因素来确定合理补偿。单位通过合法程序设定的补偿规则，保证了单位运营的稳定性。日本于2004年修改了专利发明，在旧法中规定应根据发明人通过该发明可获得的数额，在新法中规定应根据发明人通过该发明可获得的数额。
Japan Patent Law\(^9\) has provisions on rights, obligations and liabilities involving employee invention. The Law allows freedom of contracting between employer and inventors regarding ownership and reasonable compensation, for example, employer may, by an agreement in advance, secure the right to obtain a patent or an exclusive license, or set up rules to compensate inventors in a reasonable way. Meanwhile, Japan Patent Law requires reasonable procedure when setting up the compensation rules. Specific requirements are mentioned in Article 35 of Japan Patent Law including consultation between employer and employee, disclosure of rules, and opinion hearing from employees on the calculation of the amount. It is worth noting that there is no limitation on any specific content of the rules like grounds for determining a reasonable compensation and contributing factors to the determination, etc. Instead, it is through mandating a reasonable procedure to protect inventors’ interests. This brings predictability to employers when setting up the compensation rules in accordance with the procedural requirements under law. The court will only step in for reasonable compensation amount in the absence of an agreement or a reasonable procedure. Respecting the rules established by employer through reasonable procedures safeguards the stability of business operations of employer. This reasonable procedure concept was adopted after the Japan Patent Law revision in 2004 to replace the requirements of considering economic benefits gained by employer and contribution level of invention when determining the compensation for employee invention\(^10\). Japan Intellectual Property Association issued Exemplary Procedures Regarding Employee invention and Exemplary Agreement Regarding Employee invention for employers to take reference in their practice. In addition, Article 35 provides that any agreement in advance or policy granting employer the right to obtain patent, patent right or exclusive license for the invention made by employee is valid, unless the invention is an employee invention. It is seen that Japan Patent Law sets out clear three scenarios where an advance agreement or

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a company policy could be nullified. Similar with Germany, there is no provision on “entity’s obligation to inform” and nor distinction between reward and remuneration.

韩国在2006年修改了

Korea amended regulations on employee invention in 2006, moving out from its patent law and putting into Advance Invention Act. Those provisions are similar with Japan, namely, requiring reasonable procedure when setting up compensation policies or agreements instead of mandating any specific contribution based requirements in determining compensation amount, and nor any distinction between reward and remuneration.

3、“单位”、“职务发明的发明人”和“发明”的含义不够明确

Unclear definition of “Entity”, “Inventor” and “Invention”

草案中没有对单位进行明确的规定单位与发明人的关联公司。例如第九条规定单位与发明人进行约定该如何理解呢？是只有与直接雇主的业务相关才可以约定，还是只要与直接雇主或者其关联公司的业务相当给予奖励和报酬，奖励和报酬，还是应该由拥有发明的关联公司发放奖励和报酬呢？而且在这种情况下，发明由关联公司实际发放是否属于条例所称的发明呢？

There is no clear definition of “entity” in Draft SIR so it is not clear whether entity means employer of inventor or also includes the affiliates of employer. How to understand Article 9 that the entity may enter into an agreement with inventor regarding the invention relevant to the business of the entity? Is it allowable to merely agree on the invention relevant to the employer’s business or to the business of both employer and its affiliates? Article 18 and Article 19 says about the obligation on entity to grant reward and remuneration. If the rights and interests of invention go to affiliates before IP right being filed or issued, who should pay the reward and remuneration: employer or its affiliates owning IP right? Furthermore, in this situation, it is affiliates who implement the invention instead of the employer and therefore does it mean employer is free from the obligations to grant remuneration? Similarly, the definition of “inventor of service invention” is not clear, for example: is contractor employee or intern counted in? Article 4 indicates that the invention should be made in China. Then how about invention made by employee of a Chinese entity outside China but submitted in China? How about invention made by foreign assignee in a foreign invested company in China?

4、同族 专利相关问题

Issues relating to counterpart patent applications/patents

草案的第十六条中，

在全球范围内包括了国外

获权的草案的第十四明确规定了是针对国内申请，那么是否就意味着没有特殊指明国内申请的就包括全球范围内的同族

Is Article 16 (notifying inventors for negotiation when entity stops prosecution or abandons IP rights on service invention) applied merely to Chinese patents/applications or also to counterpart patents/applications worldwide. Are the provisions on reward and remuneration in Chapter 4 applied to IP rights granted in China or also covering IP rights obtained abroad? Article 14 specifically refers to Chinese application. Is this an indication that an absence of such an explicit reference to Chinese application means coverage of all counterpart patents/applications worldwide?

5、停止申请 请或放弃权利的问题

Stop prosecution or abandon IP rights

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草案第十六条中

每个具体发明与发明人进行协商，为了减轻单位的负担，是否可以通过事前协议约定

对于停止申请或者

利，若要行使

的义务

其中要求提前一个月通知

前一个月通知呢？一年一度的专利维持评估会导致大量专利被放弃，通知每个发明

人尤其是离职的发明人这些被放弃的专利并转让这些权利，对于单位的专利管理而言

是一个极其耗时费力的工作。

Article 16 requires a case by case discussion between entity and inventor where entity
decides to stop prosecution or abandon IP rights. Is it allowable to use pre-agreement or
company policy to exempt the notification obligations from entity? For example, an
entity informs inventor such right when making a filing and asks inventor to make a
registration before the IP department if he requires such notification otherwise entity is
exempted from such notification obligation. Is this limiting inventor’s right and therefore
is vulnerable to nullifying? Additionally, the due for file a re-examination request is one
month and how is it workable for an entity to do one-month prior notice to inventor
which is so required in the Draft SIR. The annual maintainance review will result in
many patents being abandoned. It will be a big burden to notify each and every inventor
in particularly those left.

6、技术秘密的补偿

Compensation for technical secrets

草案第二十五条

规定进行合理补偿。在该条款中，是否仅有单位明确认定作为技术秘密管理的才被
认为是条例所称的技术秘密，而并不是所有与技术有关的保密信息？相比确定专利
所带来的经济效益和贡献而言，确定技术秘密所带来的经济效益以及技术秘密做出
的贡献更加令人困惑。如何切分技术秘密？如何衡量技术秘密的价值呢？在价值不
确定的情况下，如何判断补偿是否合理呢？ 可以认为从事技术工作的员工每天都
Article 25 provides that where entity decides to protect the service invention as technical secret, it shall pay a reasonable compensation to the inventor by reference the provisions in the Draft SIR. How could a company handle to pay compensation for all the technical confidential information that not eligible for patent protection? How to identify each technical secret to determine whether compensation is needed? How to determine the “economic benefit” yielded from each and every technical secret and level of contributions? How to estimate the value of technical secret? If the value is uncertain, how to determine whether the compensation is reasonable or not? As technical employees are hired and paid for creating technical secrets for the company, is it fair and justifiable to require the company to pay additional compensation?

7、监督检查
Supervision and inspection

Article 34 says the supervision and management department may conduct supervision and inspection in accordance with laws but no mentioning of the pre-conditions for triggering the above. Does it mean concerned department may initiate supervision and inspection without any reasonable causes? Though there is Article 35 stating the concerned department shall keep confidential for the business secretes disclosed during the supervision and inspection process, how can we ensure the compliance of such procedurally when the authorized departments for supervision and inspection include country level government organizations. Is there any procedures to ensure those business secretes being well protected?

8、知识产权转让的优先受让权
Right of first refusal during IP rights assignment

Article 29 states, unit转让职务发明, for the打包转让的专利,其中一个专利的同等条件是什么呢?对于作为复杂交易中一
Article 29 of Draft SIR says that where an entity intends to assign intellectual property rights of a service invention, the inventor is entitled to the right of first refusal under the same conditions. In practice patents are often assigned in a package deal, how to determine the “same conditions” of each invention in the package? And how to determine the “same conditions” for each patent which is assigned as part of a comprehensive and complicated deal? Should inventors who quitted the company and joined a competitor be also given such rights?

In the current era of innovation, an idea goes a far way before its implementation along various points like entity’s R&D investment, pre-existing technology built-up, invention evaluation and refinement based thereafter, application for IP rights, continuous maintenance efforts and finally commercialization of the IP rights. It is company that is the leading force along the way. In another word, it is company that is the leading factor in innovation, utilization and implementation of IP rights. Combined the issues identified in the above analysis and the legislative practice drawn from other countries, it is reasonable to say that fostering innovation requires freedom of contracting relating with IP ownership, reward and remuneration and respect of the free will achieved by prior agreement and company policy instead of mandating on entities with undoable regulations, imposing undue administrative burdens and legal risks on companies. Furthermore, the relationship between companies and inventors is co-existing, not hostile.
There is little need from legislative perspective to impose unreasonable obligations and liabilities on companies to protect inventor’s rights and interests. We hope our thoughts could raise enough attention from concerned legislative authority to further consider and discuss the SIR. Giving more freedom to companies, protecting the legal rights and interests of companies, fostering the innovation enthusiasm and enhancing innovation capabilities of companies would help to achieve the true legislative intention of working out the SIR in the first place.
Employment-Related Inventions
-- Rights/Remuneration SIPO Regulations
for
SIPO and US Bar Liaison Council
SIPO职务发明条例草案

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Perspectives – 不同视角

- **Inventors 发明人**
  - Interests of inventors are neglected 发明人的权益被忽视
  - Inventors are in a weak position when negotiating with employers 发明人处于弱势和被动地位
  - Balance between inventor and employer needed 需要平衡发明人和单位的权利和义务

- **Employers (both local and foreign companies) 单位/雇主 (中国单位和外国公司立场高度一致)**
  - SIR is unnecessary and should be guidance rather than requirement 没必要制定条例，或者条例应该是指导性的，而非强制要求
  - SIR is too restrictive and creates uncertainty 条例中的一些条款太严格，会造成许多不确定性
  - Concerned about administrative burden and employee conflict 担心管理负担过重以及和员工的纠纷加剧
Background 背景

- China Patent Law Art. 6 covers service invention definition and Art. 16 covers inventor award and remuneration.
- 中国专利法第6条对职务发明作出了定义，第16条规定了对发明人的奖励和报酬
- Service Invention Regulations (SIR) under consideration by Chinese government for more than ten years
- 据悉，SIPO对职务发明是否应该制定专门的法规已经讨论了十多年
- Current draft SIR released for public comment on Nov. 12, 2012
- 条例草案于2012年11月12号公布，提请公众评议
- Next: submit to SCLAO for review, amendments, public comments, further amendments, then State Council Standing Committee review and approval
- 下一步提交国务院审议，修改，提请公众评议，再修改，审议，批准
General Content of the Draft 草案主要框架

- Chapter 1  General Principles
  第一章 总则
- Chapter 2  Ownership of Invention
  第二章 发明的权利归属
- Chapter 3  Invention Reporting and Applying for IP Rights
  第三章 发明的报告与申请知识产权
- Chapter 4  Award and Remuneration for Service Invention
  第四章 职务发明的奖励和报酬
- Chapter 5  Promoting the Exploitation of Service Invention IP Rights
  第五章 促进职务发明的知识产权的运用实施
- Chapter 6  Supervision/Inspection and Legal Liability
  第六章 监督检查与法律责任
- Chapter 7  Miscellaneous
  第七章 副则
Entity and Inventor 单位和发明人

- Article 1 The Regulations are formulated for the purpose of protecting the legal rights and interests of the inventor of service invention and the entity, ….

-第一条 为了保护职务发明人和单位的合法权益，充分调动职务发明人与单位的创新积极性，提高创新能力，推动职务发明及其知识产权的运用实施，促进经济社会发展，建设创新型国家和人才强国，制定本条例。

- Article 9 The entity may enter into an agreement with the inventor regarding the invention which is relevant to the business of the entity, on the rights of application for intellectual property right, or protecting as technical secret, or publish. ….

-第九条 单位与发明人可以就与单位业务有关的发明申请知识产权、作为技术秘密保护或者公开的权利归属进行约定；未约定的，适用本章的规定。
Service Invention Definition 职务发明的定义

- Article 7 The following inventions belong to service invention:
  - 1 …made in execution of the duties assigned by the entity…
  - 2 …made in execution of any task…assigned…by the entity…
  - 3 …made within one year from…retirement, resignation or…termination of…employment…with the entity…
  - 4 …made…using the money, equipment…or…materials…of the entity…

- 第七条 下列发明属于职务发明：
  - (一) 在本职工作中完成的发明；
  - (二) 履行单位在本职工作之外分配的任务所完成的发明；
  - (三) 退休、调离原单位后或者劳动、人事关系终止后一年内作出的，与其在原单位承担的本职工作或者原单位分配的任务有关的发明，…;
  - (四) 主要利用本单位的资金、设备、零部件、原材料或者不对外公开的技术资料等物质技术条件完成的发明，但约定返还资金或者支付使用费，或者仅在完成后利用单位的物质技术条件验证或者测试的除外。
Definition of Invention 发明的定义

- Article 4 …“invention” refers to the achievement of mental-creation, which is made **within the territory of People’s Republic of China** and is eligible subject matter of patent right…or technical secret.

  - Article 25: Where the entity decides to protect the service invention as technical secret, it shall pay…reasonable compensation to the inventor…

  - Article 45: The Regulations are applicable for reference for the service works of computer software.

- 第四条 本条例所称发明，是指在中华人民共和国境内完成的，属于专利权、植物新品种权、集成电路布图设计专有权或者**技术秘密**保护客体的智力创造成果。

- 第二十五条 单位决定对职务发明作为技术秘密予以保护的，应当参照本章的规定向发明人**支付合理的补偿**。

- 第四十五条 计算机软件职务作品参照适用本条例的规定。
Awards and Remuneration 奖励和报酬

- Article 18 Where the entity is granted the intellectual property right of a service invention, it shall reward the inventor timely.

- Where the entity assigns, licenses others to exploit, or exploits on its own the service invention which is granted the intellectual property right, it shall pay the inventor reasonable remuneration based on the economic benefits yielded and the level of the contribution made by the inventor.

第十八条 单位就职务发明获得知识产权的，应当及时给予发明人奖励。

单位转让、许可他人实施或者自行实施获得知识产权的职务发明的，应当根据该发明取得的经济效益、发明人的贡献程度等及时给予发明人合理的报酬。
Contract Freedom vs. Validity Uncertainty
合同自由 vs. 合同有效性的不确定性

- Article 19 The entity may enter into an agreement with the inventor, or provide it in its policy formulated in accordance with the laws, on the procedure, manner and amount of the award and remuneration. The agreement or policy shall inform the inventor the right he is entitled to, the way to seek relief, and shall be in accordance with Articles 20 and 23 of the Regulations.

- Any agreement or policy eliminating or limiting the rights to which the inventor is entitled in accordance with the Regulations is invalid.

- 第十九条 单位可以在其依法制定的规章制度中规定或者与发明人约定给予奖励、报酬的程序、方式和数额。该规章制度或者约定应当告知发明人享有的权利、请求救济的途径，并符合本条例第二十条和第二十三条的规定。

- 任何取消或者限制发明人根据本条例享有的权利的约定和规定无效。
Information Disclosure Obligation and Calculation Factors
经济效益信息通告和发明人贡献计算

- Article 20: …The entity shall, inform the inventor of the information on the economic benefit earned by the entity by exploiting, assigning, licensing of service invention.

- Article 23: When deciding the amount of the remuneration, factors shall be considered such as the economic contribution to the entire product or process made by each service invention, and the contribution into each service invention made by every inventor, etc.

- 第二十条 …… 单位自行实施、转让或者许可他人实施职务发明获得经济效益的，应当将所获得经济效益的有关情况通知给发明人。

- 第二十三条 单位在确定报酬数额时，应当考虑每项职务发明对整个产品或者工艺经济效益的贡献，以及每位职务发明人对每项职务发明的贡献等因素。
Award and Remuneration Default Requirements if No Agreement or Policy
奖励和保酬的法定缺省规定

- **Article 21 Default award after grant:**
  - for invention patents, … not less than 2 * average monthly salary of all the employees in the entity (per invention (not per inventor))

- 第二十一（单位未与发明人约定也未在其规章中规定职务发明的奖励的，对获得发明专利权的职务发明，给予全体发明人的奖金总额最低不少于该单位在岗职工月平均工资的两倍；…。

- **Article 22 Default remuneration after start of exploitation**
  - from practicing the inventions: for invention patents, not less than 5% of profit OR 0.5% of revenue (for all inventions and all inventors)
  - from assignment/licensing the invention, not less than 20% of income

- 第二十二条（单位未与发明人约定也未规定职务发明的报酬的，单位实施后，应当向涉及的所有知识产权的全体发明人以下列方式之一支付报酬：
  - (一)每年从实施发明专利权的营业利润中提取不低于5%；……(二)每年从实施发明专利权的销售收入中提取不低于0.5% ……
  - 单位转让或者许可他人实施其知识产权后，应当从转让或者许可所得的净收入中提取不低于20%，作为报酬给予发明人。
Consult Inventor before Abandonment
停止或放弃权利时对发明人的通知和协商义务

- Article 16 Where the entity intends to stop the process of applying for intellectual property right or abandon the intellectual property right of a service invention, it shall inform the inventor one month in advance. The inventor may negotiate with the entity to get the application right to intellectual property right or intellectual property right for a fee or free of charge. The entity shall assist the inventor actively to complete the assignment formalities...

- 第十六条 单位拟停止职务发明的知识产权申请程序或者放弃职务发明的知识产权的，应当提前一个月通知发明人。发明人可以通过与单位协商，有偿或者无偿获得该职务发明的知识产权申请或者知识产权。单位应当积极协助办理权利转移手续。协商不成的，可以按照本条例第四十二条的规定解决争议。

- ......
First Refusal Right when Assigning IPR
发明人的优先受让权

- Article 29 Where an entity intends to assign intellectual property rights of a service invention, the inventor is entitled to the right of first refusal under the same conditions.

- 第二十九条 单位拟转让职务发明的知识产权的，发明人享有在同等条件下优先受让的权利。
Supervision and Inspection on Discretion
行政机关的自主监督检查权

- Article 34 The supervisory management supervises and inspects the implementation of the service invention system made by the entity in accordance with the laws.

- During the supervision and inspection, the supervisory management has the authority to examine the work contracts, entity policy, etc. relevant to the service invention, and inquire the parties involved. Both the entity and the inventor shall provide the relevant materials and explanations faithfully.

- 第三十四条 监督管理部门依法对单位落实职务发明制度的情况进行监督检查。

- 监督管理部门进行监督检查时，有权查阅与职务发明有关的劳动合同、规章制度等材料，有权对相关当事人进行询问。单位和发明人都应当如实提供有关材料和说明有关情况。
《职务发明条例草案》介绍

introduction to the Draft Regulation on service inventions

3 Jun, 2013  N.Y.
• 条例制定的背景

Background of drafting the Regulation

– 要激励创新，必须充分调动和发挥发明人及其所在单位从事创新的积极性。

Enthusiasm for innovation both of inventor’s and the entities’ should be encouraged.

– 职务发明制度用于规范发明的权利归属和利益分配，直接影响了发明人及其所在单位从事创新的积极性。

Service invention legal system deal with the ownership and interests of service inventions, and has direct effect on the enthusiasm for innovation of inventors’ and the entities’.
• **条例制定的背景**
  
  **Background of drafting the Regulation**

  – 现有制度实施中存在的问题

  – Problems existing in current system

  • 立法和制度还很原则，缺乏可操作性

  Legislation is simply outlined, for lack of feasibility

  • 单位忽视和侵害发明人权益的现象时有发生，挫伤了发明人的积极性

  • It’s not unusual for entities to neglect or infringe the rights and interests of inventors, which hurt enthusiasm of inventors
• 条例制定的背景

**Background of drafting the Regulation**

– 《国家中长期人才发展规划纲要（2010—2020年）》明确提出，要制定职务技术成果条例，完善科技成果知识产权归属和利益分享机制，保护科技成果创造者的合法权益。

– It is explicitly stipulated in the *National Medium and Long-Term Talent Development Program (2010-2020)* that, Regulation on service technology achievements should be formulated so as to improve IP ownership and interests sharing system for the technology achievements, and protect the rights of the creators for technology achievements.
条例制定的背景

Background of drafting the Regulation

– 2010年11月，知识产权局联合相关部门和行业协会开展了前期调研。In November, 2010, SIPO conduct preliminary research in cooperation with related departments and IP-related associations

– 2012年5月，知识产权局联合相关主管部门成立职务发明条例起草工作小组，开展条例起草工作。
In May, 2012, SIPO, together with related competent authorities, sets up a workshop for drafting regulations on service invention to proceed with drafting work

– 目前已经形成上报中央人才工作协调小组审议的条例草案。
At present, draft regulations has been submitted to Talents Working Coordinative Group for appraisal
• 条例制定的背景

Background of drafting the Regulation

- 职务发明制度涉及较为复杂的劳资关系，单位与职务发明人的利益在一定程度上冲突，意见对立。

  Service invention system concerns complicated labor-salary relation, to some degree, entities stand on opposite position against service inventors.

- 企业的反对声音较为强烈，发明人不能有效参与立法过程并提出自己的意见。

  Voice of opposition from enterprises is stronger, therefore, inventors could not effectively take part in the legislative process and put up with their own opinions.
• 立法遵循的基本原则
Principles followed during drafting the Regulation

– 鼓励职务发明的原则
  the principle of encouraging service invention

– 约定优先原则和最低保障原则
  the principle of contract is priority and the principle of minimum inssurance
Contents of the draft Regulation

– 总则 General Provisions
– 发明的权利归属 Ownership of Invention
– 发明的报告 Report of the invention
– 奖酬 Award and Remuneration for Service Invention
– 实施和运用 Exploitation of Service Invention
– 监督检查和法律责任 Supervision and Legal Liability
American Bar Association
Section of Intellectual Property Law

Symposium of the SIPO/US Bar Liaison Council with China’s State Intellectual Property Office (SIPO) and the All China Patent Attorney Association (ACPAA)

Chinese Patent Law, Article 33:
Perspectives and Related Issues

Andrew Schwaab
San Francisco Intellectual Property Law Association
DLA Piper LLP (US)

Monday, June 3, 2013
New York, NY
I. China

Article 33: An applicant may amend his or its application for a patent, but the amendment to the application for a patent for an invention or utility model may not go beyond the scope of the disclosure contained in the initial description and the claims, and the amendment to the application for a patent for design may not go beyond the scope of the disclosure as shown in the initial drawings or photographs.

2010 Supreme Court (SPC) Decision = Comparative/Hypothetical Example

Yali Zheng et al. vs. Seiko – Epson Ltd. et al. (Zhixingzi 53/2010)

The question before the SPC (Supreme Court) in this case was whether the amended term “storage device” went beyond the original disclosure of “semiconductor storage device” under Article 33. The Board held that the amendment was beyond the original disclosure, but this decision was overturned by the Beijing High People’s Court.

In its decision, the SPC supported the Beijing High People’s Court’s decision and held that:

One legislative purpose of Article 33 is to ensure that applicants have an opportunity to improve the quality of their patent applications by making amendments in light of newly identified prior art or evolving technology (though such amendments must not go beyond the original disclosure); and

If the derived content is obvious to an ordinarily skilled person in the art, such content shall be regarded as within the scope of the original disclosure.

The SPC also clarified that Rule 51 allows an applicant to broaden the scope of patent protection through voluntary amendments to the claims. Some said this appeared to abolish the examiner’s rigid views towards such expansions, which are widely accepted in many other jurisdictions.

II. Patent Cooperation Treaty (PCT)

Article 19: Amendment of the Claims Before the International Bureau

(1) The applicant shall, after having received the international search report, be entitled to one opportunity to amend the claims of the international application by filing amendments with the International Bureau within the prescribed time limit. He may, at the same time, file a brief statement, as provided in the Regulations, explaining the amendments and indicating any impact that such amendments might have on the description and the drawings.

(2) The amendments shall not go beyond the disclosure in the international application as filed.

(3) If the national law of any designated State permits amendments to go beyond the said disclosure, failure to comply with paragraph (2) shall have no consequence in that State
III. European Patent Convention

Article 123 Amendments

(1) The European patent application or European patent may be amended in proceedings before the European Patent Office, in accordance with the Implementing Regulations. In any event, the applicant shall be given at least one opportunity to amend the application of his own volition.

(2) The European patent application or European patent may not be amended in such a way that it contains subject-matter which extends beyond the content of the application as filed.

(3) The European patent may not be amended in such a way as to extend the protection it confers.

Article 123(2) EPC

According to Art. 123(2) EPC the European patent application or the European patent may not be amended in such a way that it contains subject-matter which extends beyond the content of the application as filed. The revision of the EPC has introduced a purely editorial change to the wording of Art. 123(2) EPC to bring it into line with Art. 123(1) EPC. However, Art. 123(2) EPC 1973 and Art. 123(2) EPC are substantively the same.

1. General issues

2. Intermediate generalisation - non-disclosed combinations

3. Technical contribution - addition or deletion of a feature

4. Disclaimers

5. Disclosure in drawings

6. The application as originally filed: formal aspects

7. "Tests" for assessing the allowability of an amendment

IV. Japan

Japanese Patent Law § 17: Amendments and corrections

Under the current provisions, amendments of the description, claims or drawings may be made at any time until expiration of the term fixed for responding to the first official action in the substantive examination, and furthermore within the term fixed for responding to the second or a subsequent official action, and at the same time of filing an appeal notice.

Voluntary amendment and amendment in response to a non-final official action:
1. Any amendment can be made as long as the amendment does not introduce any new matters into the description, claims and drawings; that is, it is not permitted to add any new matters which have not been described in the description, claims or drawings as originally filed (which includes matters which are obvious for a person skilled in the art from the specification as originally filed).

2. Any amendment introducing a new matter into the description, claims and drawings shall constitute grounds for rejection and for invalidation (nullification).

3. In order to strictly comply with the provision of ‘Unity of invention’, for applications filed on or after 1 April 2007, an amendment of claims needs to follow the provision of ‘Unity of invention’, that is, amended claims need to have a certain technical relationship with the invention that has been examined on its patentability. The incompliance with the requirement shall constitute grounds for rejection, but not for invalidation (nullification). In order to avoid such a rejection, an applicant(s) can file a divisional application for an invention that has no certain technical relationship with the examined invention.

Adding new matters to the originally filed description, claims and drawings is of course prohibited. An amendment of the scope of claims is only permitted, as long as it aims at any one of the following objects:

1. cancellation of a claim or claims;

2. specific restriction of a claim or claims (only to further limit at least a part of the matter set forth in a claim in such a manner that the amended invention becomes an invention having the same ‘Field of Industrial Utility’ and the same ‘Problem to be Solved by the Invention’ as the invention claimed before the amendment) (it should be noted that, in such cases, the claimed invention after the amendment must be independently patentable);

3. correction of errors;

4. clarification of unclear description (it is permitted to clarify the unclear description only relating to the matters as indicated as a ground for the rejection in the notice of the ground for rejection in a final official action or final rejection).

Comparative/Hypothetical Example

Claims potentially amendable to “storage device” from “semiconductor storage device” if “semiconductor” is not the key subject (or distinguishable feature) of the invention and does not introduce a new technical matter. Likelihood of success higher at appeal stage than examination stage.

V. South Korea / KIPO / Patent Act

Article 47 (2) and Article 62 (v) of the Korean Patent Act deal with amendments outside the scope of the original disclosure, as follows:

Article 47 (Amendment to Patent Application)
(2) An amendment to the specification or drawings under paragraph (1) shall be made within the scope of the features disclosed in the specification or drawings initially attached to the patent application.

Article 62 (Decision to Reject Patent Application)

Any Examiner shall make a decision to reject a patent application where the invention falls under any of the following subparagraphs:

... (v) Where the application is amended beyond the scope under Article 47 (2).

Effective from 1 July 2001, a new amendment procedure of patent application was introduced.

An amendment to a description including claim(s) or drawing(s) must be within the scope of the features disclosed in the original description or drawing(s) of the application. Specifically, in the case of an amendment made in response to the further office action (under the above provision 2) and an amendment made within thirty days from the date of filing a trial against a decision of final rejection, an amendment to the claim(s) must be limited to the scope prescribed in any of the following:

1. to narrow the scope of a claim by limiting or cancelling the claim, or by adding element(s) into the claim;
2. to correct a clerical error;
3. to clarify an ambiguous description; or
4. to revert a claim before the amendment being beyond the scope of the disclosures of the original specification, or while reverting, also to narrow a claim, to correct a clerical error or to clarify an ambiguous description (effective from 1 July 2009).

If an amendment to a description including claim(s) or drawing(s) is not made within the scope of the features disclosed in the description or drawing(s) originally attached to the application, the examiner shall notify the applicant of the reasons for refusal and give the applicant an opportunity to submit a written statement of arguments within a designated period. However, if an amendment made in response to the further office action or an amendment made when requesting a re-examination within thirty days from the day when a decision of final rejection was issued (effective from 1 July 2009), or an amendment made within thirty days from the date of filing a trial against a decision of final rejection (just applicable to applications filed before 1 July 2009) violates the limitation described above or raises a new reason for rejection (effective from 1 July 2009), the examiner shall reject the amendment by a decision. An appeal may not be made against the decision to reject the amendment. The examiner has an authority to ex officio correct any obvious and minor errors contained in claims, specification or drawing (effective from 1 July 2009).

VI. United States

35 U.S.C. 112: Amendments and corrections

The application, including the description, figures, and claims, may be amended during
prosecution, except that no amendment shall introduce new matter.


{vs. 35 USC 132 - proscription against the introduction of new matter into a patent application}

35 U.S.C. 112 Specification.[Applicable to any patent application filed on or after September 16, 2012.]

(a) IN GENERAL.—The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

(b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

(c) FORM.—A claim may be written in independent or, if the nature of the case admits, in dependent or multiple dependent form.

(d) REFERENCE IN DEPENDENT FORMS.—Subject to subsection (e), a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.

(e) REFERENCE IN MULTIPLE DEPENDENT FORM.—A claim in multiple dependent form shall contain a reference, in the alternative only, to more than one claim previously set forth and then specify a further limitation of the subject matter claimed. A multiple dependent claim shall not serve as a basis for any other multiple dependent claim. A multiple dependent claim shall be construed to incorporate by reference all the limitations of the particular claim in relation to which it is being considered.

(f) ELEMENT IN CLAIM FOR A COMBINATION.—An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

35 U.S.C. 112 (pre-AIA) Specification. [Not applicable to any patent application filed on or after September 16, 2012.]

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 6 -
A claim may be written in independent or, if the nature of the case admits, in dependent or multiple dependent form.

Subject to the following paragraph, a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.

A claim in multiple dependent form shall contain a reference, in the alternative only, to more than one claim previously set forth and then specify a further limitation of the subject matter claimed. A multiple dependent claim shall not serve as a basis for any other multiple dependent claim. A multiple dependent claim shall be construed to incorporate by reference all the limitations of the particular claim in relation to which it is being considered.

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

See MPEP §2163.06 through §2163.07 for a detailed discussion of the written description requirement and its relationship to new matter. The claims as filed in the original specification are part of the disclosure and, therefore, the applicant may amend the specification to include the claimed subject matter. In re Benno, 768 F.2d 1340, 226 USPQ 683 (Fed. Cir. 1985). Thus, the written description requirement prevents an applicant from claiming subject matter that was not adequately described in the specification as filed. New or amended claims which introduce elements or limitations which are not supported by the as-filed disclosure violate the written description requirement. See, e.g., In re Lukach, 442 F.2d 967, 169 USPQ 795 (CCPA 1971) (subgenus range was not supported by generic disclosure and specific example within the subgenus range); In re Smith, 458 F.2d 1389, 1395, 173 USPQ 679, 683 (CCPA 1972) (a subgenus is not necessarily described by a genus encompassing it and a species upon which it reads).

While there is no in haec verba requirement, newly added claim limitations must be supported in the specification through express, implicit, or inherent disclosure. An amendment to correct an obvious error does not constitute new matter where one skilled in the art would not only recognize the existence of the error in the specification, but also recognize the appropriate correction. In re Oda, 443 F.2d 1200, 170 USPQ 268 (CCPA 1971).

Comparative/Hypothetical Example

Claims likely amendable to “storage device” from “semiconductor storage device” so long as claim is not being broadened to encompass something that was not disclosed/enabled in the original disclosure.
Chinese Patent Law, Article 33: Perspectives and Related Issues

Andrew Schwaab
San Francisco Intellectual Property Law Association
Article 33

An applicant may amend his or its application for a patent, but the amendment to the application for a patent for an invention or utility model may not go beyond the scope of the disclosure contained in the initial description and the claims, and the amendment to the application for a patent for design may not go beyond the scope of the disclosure as shown in the initial drawings or photographs.
Yali Zheng et al. vs. Seiko – Epson Ltd. et al. (Zhixingzi 53/2010)

The question before the SPC (Supreme Court) in this case was whether the amended term “storage device” went beyond the original disclosure of “semiconductor storage device” under Article 33. The Board held that the amendment was beyond the original disclosure, but this decision was overturned by the Beijing High People’s Court.

In its decision, the SPC supported the Beijing High People’s Court’s decision and held that:

- One legislative purpose of Article 33 is to ensure that applicants have an opportunity to improve the quality of their patent applications by making amendments in light of newly identified prior art or evolving technology (though such amendments must not go beyond the original disclosure); and

- If the derived content is obvious to an ordinarily skilled person in the art, such content shall be regarded as within the scope of the original disclosure.
Article 19: Amendment of the Claims Before the International Bureau

(1) The applicant shall, after having received the international search report, be entitled to one opportunity to amend the claims of the international application by filing amendments with the International Bureau within the prescribed time limit. He may, at the same time, file a brief statement, as provided in the Regulations, explaining the amendments and indicating any impact that such amendments might have on the description and the drawings.

(2) The amendments shall not go beyond the disclosure in the international application as filed.

(3) If the national law of any designated State permits amendments to go beyond the said disclosure, failure to comply with paragraph (2) shall have no consequence in that State.
Article 123 Amendments

(1) The European patent application or European patent may be amended in proceedings before the European Patent Office, in accordance with the Implementing Regulations. In any event, the applicant shall be given at least one opportunity to amend the application of his own volition.

(2) The European patent application or European patent may not be amended in such a way that it contains subject matter which extends beyond the content of the application as filed.

(3) The European patent may not be amended in such a way as to extend the protection it confers.
Article 123(2) EPC

According to Art. 123(2) EPC the European patent application or the European patent may not be amended in such a way that it contains subject-matter which extends beyond the content of the application as filed. The revision of the EPC has introduced a purely editorial change to the wording of Art. 123(2) EPC to bring it into line with Art. 123(1) EPC. However, Art. 123(2) EPC 1973 and Art. 123(2) EPC are substantively the same.

- 1. General issues
- 2. Intermediate generalisation - non-disclosed combinations
- 3. Technical contribution - addition or deletion of a feature
- 4. Disclaimers
- 5. Disclosure in drawings
- 6. The application as originally filed: formal aspects
- 7. "Tests" for assessing the allowability of an amendment
Japanese Patent Law § 17: Amendments and corrections

Under the current provisions, amendments of the description, claims or drawings may be made at any time until expiration of the term fixed for responding to the first official action in the substantive examination, and furthermore within the term fixed for responding to the second or a subsequent official action, and at the same time of filing an appeal notice.

Voluntary amendment and amendment in response to a non-final official action:

1. Any amendment can be made as long as the amendment does not introduce any new matters into the description, claims and drawings; that is, it is not permitted to add any new matters which have not been described in the description, claims or drawings as originally filed (which includes matters which are obvious for a person skilled in the art from the specification as originally filed).
2. Any amendment introducing a new matter into the description, claims and drawings shall constitute grounds for rejection and for invalidation (nullification).

3. In order to strictly comply with the provision of ‘Unity of invention’, for applications filed on or after 1 April 2007, an amendment of claims needs to follow the provision of ‘Unity of invention’, that is, amended claims need to have a certain technical relationship with the invention that has been examined on its patentability. The incompliance with the requirement shall constitute grounds for rejection, but not for invalidation (nullification). In order to avoid such a rejection, an applicant(s) can file a divisional application for an invention that has no certain technical relationship with the examined invention.
Adding new matters to the originally filed description, claims and drawings is of course prohibited. An amendment of the scope of claims is only permitted, as long as it aims at any one of the following objects:

1. Cancellation of a claim or claims;

2. Specific restriction of a claim or claims (only to further limit at least a part of the matter set forth in a claim in such a manner that the amended invention becomes an invention having the same ‘Field of Industrial Utility’ and the same ‘Problem to be Solved by the Invention’ as the invention claimed before the amendment) (it should be noted that, in such cases, the claimed invention after the amendment must be independently patentable);

3. Correction of errors;

4. Clarification of unclear description (it is permitted to clarify the unclear description only relating to the matters as indicated as a ground for the rejection in the notice of the ground for rejection in a final official action or final rejection).
Japan – Comparative/Hypothetical

Claims potentially amendable to “storage device” from “semiconductor storage device” if “semiconductor” is not the key subject (or distinguishable feature) of the invention and does not introduce a new technical matter. Likelihood of success higher at appeal stage than examination stage.
Article 47 (2) and Article 62 (v) of the Korean Patent Act deal with amendments outside the scope of the original disclosure, as follows:

Article 47 (Amendment to Patent Application)

- …
- (2) An amendment to the specification or drawings under paragraph (1) shall be made within the scope of the features disclosed in the specification or drawings initially attached to the patent application.

Article 62 (Decision to Reject Patent Application)

- Any Examiner shall make a decision to reject a patent application where the invention falls under any of the following subparagraphs:
  - …
  - (v) Where the application is amended beyond the scope under Article 47 (2).
Effective from 1 July 2001, a new amendment procedure of patent application has been introduced.

An amendment to a description including claim(s) or drawing(s) must be within the scope of the features disclosed in the original description or drawing(s) of the application. Specifically, in the case of an amendment made in response to the further office action (under the above provision 2) and an amendment made within thirty days from the date of filing a trial against a decision of final rejection, an amendment to the claim(s) must be limited to the scope prescribed in any of the following:

1. to narrow the scope of a claim by limiting or cancelling the claim, or by adding element(s) into the claim;
2. to correct a clerical error;
3. to clarify an ambiguous description; or
4. to revert a claim before the amendment being beyond the scope of the disclosures of the original specification, or while reverting, also to narrow a claim, to correct a clerical error or to clarify an ambiguous description (effective from 1 July 2009).
Claims potentially amendable to “storage device” from “semiconductor storage device” if “semiconductor” is not the key subject (or distinguishable feature) of the invention and does not introduce a new technical matter.
The application, including the description, figures, and claims, may be amended during prosecution, except that no amendment shall introduce new matter.

(a) IN GENERAL.—The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

(b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

(c) FORM.—A claim may be written in independent or, if the nature of the case admits, in dependent or multiple dependent form.
(d) REFERENCE IN DEPENDENT FORMS.—Subject to subsection (e), a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.

(e) REFERENCE IN MULTIPLE DEPENDENT FORM.—A claim in multiple dependent form shall contain a reference, in the alternative only, to more than one claim previously set forth and then specify a further limitation of the subject matter claimed. A multiple dependent claim shall not serve as a basis for any other multiple dependent claim. A multiple dependent claim shall be construed to incorporate by reference all the limitations of the particular claim in relation to which it is being considered.

(f) ELEMENT IN CLAIM FOR A COMBINATION.—An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.
Claims likely amendable to “storage device” from “semiconductor storage device” so long as claim is not being broadened to encompass something that was not disclosed/enabled in the original disclosure.
Article 33 Rejections

Percentage of Applications Receiving Article 33 Rejections

[insert final numbers/statistics]
Patent Examination Guidelines
专利审查指南

- A regulation published by the State Intellectual Property Office ("SIPO")
  是国家知识产权局（“SIPO”）发布的法规

- Four Versions of Examination Guidelines
  专利审查指南共有四个版本
  
    1993版于1993年3月10日发布（对应1992年专利法）
  
  - October 18, 2001 (Patent Laws of 2000)
    2001版于2001年10月18日发布（对应2000年专利法）
  
    2006版于2006年5月24日发布（对应2006年专利法）
  
    2010版于2010年1月21日发布（对应2008年专利法）
Comparison between various Chinese and Foreign Applicants:
[insert final numbers/statistics]
Symposium of the SIPO/US Bar Liaison Council with China’s State Intellectual Property Office (SIPO) and the All China Patent Attorney Association (ACPAA)

TiVo v. EchoStar
and Other Impertinent Things

Patrick J. Coyne
Finnegan, Henderson, Farabow, Garrett & Dunner, LLP

Monday, June 3, 2013
New York, NY
“There is nothing that people bear more impatiently, 
or forgive less, than contempt: 
and an injury is much sooner forgotten than an insult.”

Lord Chesterfield

Whatever it was, it just changed. Well, not just. April 20, 2011, to be exact. This is when the 
United States Court of Appeals for the Federal Circuit issued its en banc decision in TiVo v. 
EchoStar, ii altering the standard for civil contempt, at least in a patent infringement case. The 
en banc TiVo decision is far from unanimous, and far from clear. It alters the standard for civil 
contempt, making it a little harder for a district court to hold an infringement defendant in 
contempt. It also affirms the district court’s broad remedial order, vesting additional authority in 
the district courts.

There are effective ways to deal with these issues. Although Echostar failed to avail itself 
of some of them, you can. This paper offers several practical tips on how to deal with contempt 
issues in a patent infringement case following the TiVo decision.
I. The *TiVo v. EchoStar* Infringement Case

TiVo Inc. ("TiVo") makes cable set-top boxes. So does EchoStar. EchoStar owns, among other operations, Hughes and Dish Network. TiVo and EchoStar compete in the home entertainment market for cable television services and, in particular, set-top boxes with record and playback capabilities.

TiVo owns U.S. Patent No. 6,233,389 ("the ’389 patent") for a “Multimedia Time Warping System.” The ’389 patent allows a television user to simultaneously record and play back television broadcasts. This functionality is typically known as a digital video recorder or DVR. A DVR allows users to fast forward, rewind, pause, and replay a “live” television program while it is playing on the television set. TiVo’s ’389 patent covers certain features of the workings of a DVR. DVR functionality is extremely popular in cable television systems. Both TiVo and EchoStar distribute set-top boxes that include DVR functionality.

In 2004, TiVo sued EchoStar in the United States District Court for the Eastern District of Texas, alleging that EchoStar’s Dish Network satellite receivers infringed multiple claims of TiVo’s ’389 patent. Some of the ’389 claims are to hardware and others to software. The principal claims of the ’389 patent involve a series of ten steps performed on a decoder and a number of “objects” to accomplish storage and playback of data. These objects include a “source object,” a “transform object,” a “sink object,” and a “control object.” Both hardware and software claims were asserted against the accused EchoStar Dish Network satellite receivers.

Two categories of EchoStar satellite television receivers were accused of infringing: the “50X” series and the “Broadcom” series. These varied by the type of chip included in the satellite receiver. The district court held a trial in 2006 and submitted the questions of infringement and invalidity to a jury.
The jury rendered its verdict against EchoStar on all issues. The jury was asked whether eight different models of EchoStar satellite receivers literally infringed the hardware or software claims of TiVo’s ’389 patent. Three of the receivers were the 50X series and five of the receivers were the Broadcom series. The jury answered “yes” for each of the asserted claims for each of the eight accused EchoStar satellite receivers. The jury also found that EchoStar’s infringement was willful and awarded approximately $74 million in lost profits and reasonable royalties. District Judge David Folsom entered judgment on the verdict and issued a permanent injunction.

II. The Permanent Injunction

The district court’s Final Judgment and Permanent Injunction bears close scrutiny. First, it enjoins EchoStar from continuing to infringe (“infringement injunction”). Second, it affirmatively enjoins EchoStar to disable the DVR functionality in all but about 200,000 of its accused infringing products that had been placed with customers (“disablement injunction”) and precludes EchoStar from enabling this functionality in new units. The provisions follow:

**IT IS FURTHER ORDERED THAT**

Each Defendant, its officers, agents, servants, employees and attorneys, and those persons in active concert or participation with them who receive actual notice hereof, are hereby restrained and enjoined, pursuant to 35 U.S.C. § 283 and Fed.R.Civ.P. 65(d), from making, using, offering to sell or selling in the United States, the Infringing Products, either alone or in combination with any other product and all other products that are only colorably different therefrom in the context of the Infringed Claims, whether individually or in combination with other products or as a part of another product, and from otherwise infringing or inducing others to infringe the Infringed Claims of the ’389 patent.

Defendants are hereby **FURTHER ORDERED** to, within thirty(30) days of the issuance of this order, disable the DVR functionality (i.e., disable all storage to and playback from a hard disk drive of television data) in all but 192,708 units of the Infringing Products that have been placed with an end user or subscriber. The DVR functionality, i.e., disable all storage to and playback from a hard disk drive of television
The infringement provision appears to be fairly typical. The disablement provision, however, is not.

What is remarkable about the disablement provision is that it requires EchoStar not to disable the infringing DVR functionality but, rather, to disable “the DVR functionality.” TiVo did not invent all DVR functionality. The asserted claims of the ’389 patent are limited to a series of ten steps applied to a decoder and a series of specific “objects.” Nonetheless, the district court entered a broad remedial injunction order requiring EchoStar to disable “the DVR functionality” from most of its satellite receivers and not to install it on others.

III. EchoStar’s First Appeal

EchoStar appealed the district court’s final judgment but did not appeal the district court’s permanent injunction order. In this first appeal, a panel of the Federal Circuit affirmed in part and reversed in part and remanded the case to the district court. The panel held that the district court had incorrectly construed at least one limitation of the hardware claims and reversed this infringement finding. The panel, however, found no error in the district court’s construction of the software claims and affirmed the jury’s infringement verdict of the software claims.

The district court’s injunction was stayed during the appeal. It took effect following the panel’s decision. The panel remanded the case to the district court to make additional findings as to any damages that TiVo may have sustained while the stay of the permanent injunction had been in effect. The panel’s mandate issued on April 18, 2008, and the injunction became effective the same date.
On remand, TiVo moved the district court to find EchoStar in contempt of the permanent injunction. EchoStar had redesigned the infringing software on both the 50X and the Broadcom common receivers in an attempt to avoid two of the limitations of TiVo’s ’389 patent. One of the limitations—parsing—was no longer practiced. EchoStar downloaded to all of the infringing units a software module that replaced the parsing feature with different functionality. A second software download modified the infringing software on the Broadcom receivers so that they no longer performed the “automatically float controlled” limitation. This second modification eliminated a “record buffer” and allowed for some data loss whenever there was an overflow of data.

EchoStar introduced evidence that it had taken fifteen engineers 8,000 hours to complete the software design, which ultimately took a year to accomplish. In addition, EchoStar had obtained an opinion of noninfringement from a respected patent law firm. Further, EchoStar introduced evidence that its redesign allows for data loss relative to the infringing configuration and compromises performance in order to avoid infringement, making EchoStar’s product inferior to its infringing version.

TiVo argued that neither modification was sufficient to avoid infringement.

IV. The Contempt Citation

“Hatred is an affair of the heart; contempt that of the head.”
Arthur Schopenhauer

Under the Federal Circuit’s KSM test, the district court is required to engage in a two-step inquiry in deciding whether or not to hold a defendant in contempt of an injunction in a patent infringement case. First, the court must determine whether there is “more than a colorable difference” between the redesigned product and the adjudged infringing product. The key here
is whether “substantial open issues with respect to infringement” exist. Where the court finds that there is more than a colorable difference, a new trial is necessary to determine infringement and the court may not proceed with a contempt finding. Only in cases in which the court is satisfied that there is not “more than a colorable difference” can a court then inquire whether the redesign continues to infringe the claims as they were originally construed. Only if the court is satisfied both that there is not “more than a colorable difference” and that the redesigned product continues to infringe may the court hold the defendant in contempt.

Judge Folsom held a contempt hearing and determined that EchoStar was in contempt of both provisions of his permanent injunction. Although EchoStar had replaced portions of the software that were found to infringe by the jury, the court found that other components of the original software satisfy the limitations of the claim. In spite of the fact that the original software that contained the original infringing functionality had been removed from the devices, the court found that the redesigned software was no more than colorably different and that it continued to infringe the claims of the ’389 patent.

As to the disablement provision, rather than disabling the DVR functionality as ordered, EchoStar had downloaded replacement software to the units that were subject to the disablement provision. EchoStar did not disable the DVR functionality of any units. Rather, it replaced certain software modules with others and continued to provide DVR functionality based on its redesigned software.

The district court held that even if EchoStar had succeeded in designing around the limitations of the ’389 patent, it would still be in contempt because it had failed to comply with the disablement provision. The district court had required EchoStar to disable all DVR functionality from the specifically named receiver models that were found to infringe. EchoStar
argued that it was only required to render the infringing units noninfringing. The district court disagreed and found that EchoStar should have requested that the district court modify its order or should have challenged the scope of the injunction on appeal. In what may be an alarming holding for many defendants and their counsel, the district court concluded that, having failed to either request a modification of the order or appeal the scope of the injunction, EchoStar had waived any argument that the injunction was overbroad.

The district court imposed sanctions against EchoStar in the amount of nearly $90 million. The court also awarded damages to TiVo for the continued infringement by EchoStar’s redesigned software. The court amended its earlier injunction to further require that EchoStar seek the court’s approval before implementing any future redesign to its DVR software. EchoStar appealed to the Federal Circuit a second time.

V. EchoStar’s Second Appeal

“An appeal is when you ask one court to show it’s contempt for another court.”

Finley Peter Dunne

On EchoStar’s second appeal, a panel of the Federal Circuit affirmed the district court’s contempt citation. EchoStar then requested en banc review, and the full court granted the suggestion for en banc review.

The en banc rehearing engendered widespread amicus participation. Twenty-two amicus briefs were filed, representing interests ranging from bar and professional associations to trade associations, corporations, and former federal judges. The court, however, was almost evenly split on certain critical issues. The majority patent opinion, written by circuit Judge Lourie, was joined in full by Judges Newman, Mayor, Bryson, Moore, O’Malley, and Reyna, and in part by Chief Judge Rader and Circuit Judges Gajarsa, Linn, Dyk, and Prost. Circuit Judge Dyk
dissented in part and was joined by Chief Judge Rader and Circuit Judges Gajarsa, Linn, and Prost.

The court is unanimous on certain holdings. Specifically, the court clarifies the standard for contempt for violation of an infringement injunction. A unanimous court also holds that good faith is not a defense to civil contempt. A unanimous court also holds that KSM’s two-step inquiry has been unworkable and should be overruled. Finally, a unanimous court clarified the continued vitality of the “more than a colorable difference” test.

The majority and dissent, however, diverge in their respective application of this test to the facts of this case. The majority holds that the revised software—although it eliminated the modules that were found to infringe—was nonetheless, “no more than colorably different” from the original infringing software.

The dissent also diverges from the majority with respect to the disablement provision. Although the unanimous court agrees that its en banc holding modifies the prior KSM standard, the dissent opines that the majority diverges radically from controlling Supreme Court authority regarding the vagueness of an injunctive order.

VI. Good Faith Is No Defense to Contempt

EchoStar argued that it was improper for the district court to have determined contempt in a summary proceeding. Rather, EchoStar would have required the district court to hold a new trial on the merits. Second, EchoStar contended that it undertook a “Herculean” effort to redesign the DVR software, obtained opinions of counsel, and that this good-faith effort was sufficient to avoid a citation for contempt.

A unanimous court dispatched the good-faith argument quickly. Although the record establishes that EchoStar had made a substantial redesign effort, had obtained exculpatory
opinions of counsel, and that the redesign compromises the performance of EchoStar’s product, good faith is not a defense to contempt. Citing Supreme Court precedent, a unanimous court held that a lack of intent to violate an injunction cannot save an infringer from a finding of contempt. The court held that, although a defendant’s diligence and good faith are not a defense to contempt, these factors may be considered in assessing penalties.

**VII. The Mere Colorable Differences Test**

The court then turned to the two-part test set forth in *KSM*. A unanimous court concluded that *KSM*’s two-step inquiry is unworkable and, therefore, should be overruled. The *KSM* inquiry confuses the merits of contempt with the propriety of initiating contempt proceedings. Nonetheless, a unanimous court held that “courts should continue to employ a ‘more than colorable differences’ standard.” “[T]he party seeking to enforce the injunction must prove both that the newly accused product is not more than colorably different from the product found to infringe and that the newly accused product actually infringes.”

The court rejected an infringement-based understanding of the colorably different test. Instead, “the contempt analysis must focus initially on the differences between the features relied upon to establish infringement and the modified features of the newly accused products.” The court noted:

> The primary question on contempt should be whether the newly accused product is so different from the product previously found to infringe that it raises “a fair ground of doubt as to the wrongfulness of the defendant’s conduct.”

A unanimous court emphasized that the focus should not be on features found to infringe in an earlier infringement action but, rather, on those aspects of an accused product that were the basis for the prior finding of infringement and the modified features of the redesigned product. Specifically, the court directed the inquiry into whether one or more of those elements previously
found to infringe have been modified or removed. If so, the district court must determine whether the modification is significant and, further, if it is significant, whether it is more than colorably different from the original infringing product. Only then is contempt appropriate. The majority and dissent, however, diverge sharply in their respective application of this test. There are two critical points on which the majority and minority diverge.

**VIII. More Than Colorable Differences?**

First, the majority notes that EchoStar replaced the “start code detection feature” that had been found by the jury to infringe the “parsing” limitation of the ’389 patent claims with a “statistical estimation feature.” The infringing EchoStar product also included a so-called “PID filter.” Yet, TiVo had never alleged—prior to the contempt proceedings—that the PID filter infringes. Specifically, TiVo had not previously argued that the PID filter had met the “parsing” limitation. This was an entirely new allegation made for the first time during the contempt proceeding.

During summary contempt proceedings, Judge Folsom did not analyze whether or not the redesigned “statistical estimation feature” was significantly different than the “start code detection feature.” Essentially, he did not compare the original and redesigned products. Instead, he found that the PID filter of the original software meets the “parsing” limitation. In effect, he accepted that a different portion of the original software satisfied the claim limitation that is missing from the redesigned software. The *en banc* majority holds that this is not the correct focus of the inquiry.

The majority vacated and remanded the case to Judge Folsom to determine whether the redesigned, “statistical estimation feature” is more than colorably different than the “start code detection feature” that had been found to infringe. Essentially, the majority opinion requires that
the district court analyze the differences between the original and the redesigned products.\textsuperscript{xvii}

The majority also vacated the damages awards totaling about $110 million and required the district court to assess sanctions based only on the continued use after the injunction became effective of the original infringing software.

The balance of the judges dissented from this portion of the majority opinion. Essentially, the dissent accepted that the evidence of record established that the redesigned product did not infringe. Thus, the modified software is necessarily more than colorably different than the original software, and contempt would not have been appropriate.

\textbf{IX. The Disablement Provision}

Second, perhaps the greatest gulf between the majority and dissent is the disablement provision. EchoStar argued that the injunction cannot be enforced because is overly broad and vague. Specifically, by enjoining EchoStar from redesigning its product and requiring disablement of all DVR functionality, whether or not infringing, EchoStar contended that the injunction violated controlling Supreme Court precedent.\textsuperscript{xviii}

The majority holds that EchoStar’s vagueness and overbreadth arguments are unpersuasive. Interestingly, the court does not hold that the injunction was appropriate in its breath, nor does it hold that it was sufficiently specific and definite. Rather, the majority holds that by failing timely to appeal the injunction in the first appeal and by proceeding to implement the redesign without leave of court, EchoStar assumed the risk that the district court would hold it in contempt.

EchoStar had attempted to rely upon the “Infringing Products” language in the injunction over the potentially broader “the DVR functionality” language. Although noting that Supreme Court precedent, as well as the Federal Rules of Civil Procedure, require that injunction orders
be “sufficiently specific and definite,” the majority held that EchoStar cannot avail itself of a defense based on ambiguity. The majority held that, in so doing, EchoStar acted at its own peril.

EchoStar had not sought clarification from the district court. EchoStar had not appealed the scope of the district court’s injunction. Instead, EchoStar relied on its own engineering judgment, as well as opinions of outside counsel, to defend against the contempt citation. The majority held:

In a case such as this, however, where a party has bypassed opportunities to present its asserted vagueness claim on appeal or through a motion to clarify or modify the injunction, the party cannot disregard the injunction and then object to being held in contempt when the courts conclude that the injunction covered the party’s conduct.

Essentially, “the burden was clearly on EchoStar to seek clarification or modification from the district court.” EchoStar did neither. It never disabled any DVR functionality in any of the infringing receivers. Instead, it decided to download modified software and relied upon its own judgment that this was sufficient to avoid infringement and comply with the court’s injunction.

Similarly, the court rejected EchoStar’s overbreadth argument. The en banc majority held that a broad reading of the disablement provision to include all DVR functionality is not unnatural. The time to appeal the scope of the injunction was when it was handed down, not after the party had been cited for contempt. Accordingly, the majority affirmed the district court’s finding of contempt as well as its $90 million sanction award against EchoStar. The district court had expressly stated that this award was made on alternative grounds, for violation of either of the injunction provision or the disablement provision.

X. A Vigorous Dissent

The balance of the court dissented from the majority’s decision to uphold the contempt citation on the disablement provision, as well as the majority’s decision to remand the case on
the infringement provision. The dissent focusses on the need for clarity\textsuperscript{xxiv} and for fair and precisely drawn notice of what is prohibited.\textsuperscript{xxv}

The dissent highlights that the majority’s decision enables the injunction to reach software that does not infringe. The district court expressly characterized the injunction in this way: “not limited to infringing software.”\textsuperscript{xxvi} Yet, the dissenters note that an injunction is available only to prevent violation of the right secured by the patent.\textsuperscript{xxvii} “[A]n injunction cannot impose unnecessary restraints on lawful activity.”\textsuperscript{xxviii} As the infringement provisions precluded EchoStar from using noninfringing software, in the dissenters’ view, it exceeded the permissible scope of an injunction.

Similarly, the dissent notes that a reasonable infringer could reasonably interpret the injunction as not covering its challenged activity.\textsuperscript{xxix} In the dissent’s view, the injunction is at best ambiguous. Although it could have been read to require disabling all DVR functionality, it could also have been read as requiring disabling only the infringing functionality. After recounting a series of prior Supreme Court and Circuit decisions establishing that a defendant cannot be held in contempt of an ambiguous injunction, the dissent concludes that contempt would not have been available.

\textbf{XII. Conclusion}

Outrageous? “Wait until the Supreme Court gets ahold of this one?” They will set it right! Not this time. Armed with the affirmance of its contempt citation, TiVo settled with EchoStar for $500 million, much more than the district court awarded.

What can we learn from EchoStar’s experience? Several things.

First, although it appears to have done EchoStar little good, carefully consider your redesign options. Particularly with respect to the type of technology involved in the \textit{TiVo} case,
redesign is often a viable option. TiVo did not invent digital video recording. It patented one way of accomplishing this function. Particularly with respect to technologies that present similar opportunities, redesign should always be a consideration. In spite of the en banc majority’s view of the injunction provision, the redesign was successful in at least securing a remand on the issue of colorable differences.

Second, although the district court and the en banc majority gave little weight to EchoStar’s opinions of counsel, this step is nonetheless expedient. Although good faith will not immunize you from a contempt citation, the en banc court unanimously held that it is relevant evidence on a number of the issues that will arise on a contempt citation.

Third, the district court in this case issued an injunction that EchoStar contended was ambiguous. If an injunction—in any way—is not clear, the defendant should ask for clarification or modification of the injunction so that it clearly identifies the prohibited conduct. Failing to do so places the party enjoined at its own peril.

Fourth, timely appeal the scope of the injunction. In this case, TiVo failed to appeal the injunction in its first appeal and, instead, attempted to raise issues regarding the scope of the injunction in its appeal from the contempt citation. The en banc majority held that this was too late. Having failed to timely appeal the scope of the injunction in its first appeal, TiVo waived this issue. The en banc majority did not sanction the scope of the district court’s injunction, nor did it hold that it was unambiguous. Rather, EchoStar’s waiver precluded it from advancing both of these issues successfully with the en banc majority.

The TiVo v. EchoStar case changes the standard for contempt in a patent infringement case in a manner that is at least arguably more favorable to the infringement defendant than prior law. Under the prior KSM test, the court engaged in a two-step inquiry, whether: (1) the
differences between the redesigned and original products are colorably different; and (2) whether
the redesigned product infringes. Although the unanimous court retains the colorably different
standard for whether or not a contempt proceeding is appropriate, it narrows the focus of this
inquiry. It seeks to guard against confusing the merits of the contempt with the propriety of a
contempt proceeding in the first instance. Rather, the focus must be on the significance of the
differences between the original infringing design and the redesign. If they are more than
colorably different, contempt is inappropriate regardless whether or not the redesign infringes.

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\[ii\] \textit{TiVo Inc. v. EchoStar Corp.}, 646 F.3d 869 (Fed. Cir. 2011).

\[iii\] \textit{Id.} at 903.

\[iv\] \textit{TiVo, Inc. v. EchoStar Commc’ns Corp.}, 516 F.3d 1290, 1304-05 (Fed. Cir. 2008).

\[v\] \textit{KSM Fastening Sys., Inc. v. H.A. Jones Co.}, 776 F.2d 1522 (Fed. Cir. 1985).

\[vi\] \textit{Id.} at 1535 (quoting \textit{Sure Plus Mfg. Co. v. Kobrin}, 719 F.2d 1114 (11th Cir. 1983)).

\[vii\] \textit{Id.} at 1532.


\[ix\] \textit{Id.} at 874.

\[x\] \textit{TiVo Inc. v. Dish Network Corp.}, 655 F. Supp. 2d 661, 666 (E.D. Tex. 2009).

\[xi\] \textit{TiVo}, 646 F.3d at 880 (citing \textit{Additive Controls & Measurement Sys., Inc. v. Flowdata, Inc.},
154 F.3d 1345, 1353 (Fed. Cir. 1998); \textit{McComb v. Jacksonville Paper Co.}, 336 U.S. 187,
191 (1949)).

\[xii\] \textit{Id.} at 881-83.

\[xiii\] \textit{Id.} at 882.

\[xiv\] \textit{Id.} at 884.

\[xv\] \textit{Id.} (quoting \textit{Cal. Artificial Stone Paving Co. v. Molitor}, 113 U.S. 609, 618 (1885)).

\[xvi\] \textit{Id.} at 884.

\[xvii\] \textit{Id.} (citing \textit{Granny Goose Foods, Inc. v. Bhd. of Teamsters & Auto Truck Drivers Local
No. 70 of Alameda Cnty.}, 415 U.S. 423, 445 (1974)).

\[xviii\] \textit{Id.} (citing \textit{Granny Goose}, 415 U.S. at 445).

\[xix\] \textit{Id.} at 886.

\[xx\] \textit{Id.}
Id. at 889.
Id. at 890.
Id. at 891 (Dyk, J., dissenting in part).
Id.
Id. at 892 (citing TiVo Inc. v. Dish Network Corp., 640 F. Supp. 2d 853, 874 (E.D. Tex. 2009)).
Id. at 893-94.
TiVo, 646 F.3d at 898 (Dyk, J., dissenting in part).
Patent Law Developments in China Symposium

Patentability of DNA-Myriad

Monday, June 3, 2013
Benjamin N. Cardozo School of Law
55 5th Ave, New York, NY 10003
The “Myriad” patent litigation
Patentability of DNA molecules

Presentation to the SIPO Delegation

SIPO/US Bar Liaison Council with ACPAA
Joint Symposium at Cardozo Law School
New York City, June 3, 2013

Hans Sauer
Biotechnology Industry Organization
Overview

- A lawsuit by the American Civil Liberties Union, a well-known New York-based non-governmental civil rights organization
  - on behalf of several doctors who specialize in laboratory medicine, several breast cancer patients, genetic counselors, laboratory medicine organizations, and breast cancer patient advocacy groups.

- Against Myriad Genetics Inc., a company in Salt Lake City, Utah, that provides genetic testing services for determining the risk of hereditary breast and ovarian cancer in patients.*

- To invalidate claims in Myriad’s patents to DNA molecules that relate to the BRCA1 and BRCA2 breast cancer genes.

- There are several laboratories in the U.S. that offer limited testing of these genes, but only Myriad provides full, comprehensive testing.

- The plaintiffs have said they want to break Myriad’s monopoly for BRCA1 and BRCA2 testing.

* Myriad Genetics is not a member of BIO
Examples of challenged claims

- U.S. 5,747,282:
  1. An isolated DNA coding for a BRCA1 polypeptide, said polypeptide having the amino acid sequence set forth in SEQ ID NO:2.
  2. The isolated DNA of claim 1, wherein said DNA has the nucleotide sequence set forth in SEQ ID NO:1.

- The challenged claims follow a 20 year-old standard format. This kind of claim is common in U.S. patents.
- An estimated 8,700 unexpired U.S. patents contain at least 1 claim of this type.
  - 40% relate to use in human medicine
  - 60% relate to other fields, such as veterinary medicine, agriculture, food and beverage manufacturing, industrial enzymes or bioenergy

What kind of lawsuit is this?

- Declaratory Judgment suit – a special kind of patent lawsuit where the patent owner is the defendant.
  - An “attack first” lawsuit by someone who has not been sued for patent infringement, but who feels harmed by the patent because, for example, they would likely be sued.
  - Requires an actual, underlying legal dispute between the parties. Not like nullity or revocation lawsuits in some countries.
- Summary Judgment – the case was first decided under an abbreviated procedure requiring no examination of witnesses and limited facts.
- Such lawsuits are sometimes difficult for the courts because they can be somewhat abstract and hypothetical. There may be no actual infringing activity to which the claims can be compared. The courts have less information than in an infringement lawsuit.
Procedural history

- August 16, 2012: U.S. Court of Appeals for the Federal Circuit again reverses the lower court’s decision. Again 3 judges write 3 opinions.
- November 30, 2012: U.S. Supreme Court grants review.

* The lower court had also struck down certain Myriad patent claims to broad and generalized methods of comparing BRCA DNA sequences. The invalidation of these method claims was affirmed by the appellate court and is not discussed in this presentation.
Legal theories (1)

- The question is NOT novelty; unobviousness/inventive step; sufficiency of technical disclosure; or utility/industrial applicability.

- Patent-eligible subject matter: “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof… subject to the conditions and requirements of [the Patent Act]” 35 USC 101.

- Suggests that courts should ask: “is the patent claim directed to something that was ‘composed’ or ‘manufactured’ or ‘improved’ by man?”

- For example:
  - “a new mineral found in the earth” was not ‘composed’ by man; or “a new plant found in the wild” was not ‘manufactured’ by man – neither would be patentable. *Diamond v. Chakrabarty* 447 U.S. 303 (1980)
  - “A signal with embedded supplemental data” is not patentable because a “signal” is not a process; a machine; a manufactured article; or a composition of matter. *In re Nuijten* 500 F.3d 1346 (Fed. Cir, 2007).
Legal theories (2)

- But: historically, the U.S. Supreme Court has sometimes applied rules from its own earlier cases, even if they’re not part of the “conditions and requirements” of the Patent Act.
- Under U.S. Supreme Court law, “laws of nature, physical phenomena, or abstract ideas” are excluded from patentable subject matter.
- The Supreme Court has applied and developed this exception for “manifestations of nature” in at least 5 cases between 1972 and 2012. These cases dealt with processes involving mathematical or logical operations.
- Two of these cases were decided after the Myriad litigation started.
- The Supreme Court’s exceptions have generated a large amount of legal commentary, and many different opinions on how they should be practically applied. (e.g. *CLS Bank v. Alice*, (Fed. Cir. May 10, 2013) (Seven different opinions by 10 judges).
Arguments against patent-eligibility

- The challengers say that isolated DNA molecules should fall under the exception for natural phenomena because genes exist in nature.
- Isolated DNA molecules having natural sequences are not sufficiently different from natural genes.
- They have only been removed from their natural environment, but they’re still the same.
- The patentee hasn’t made them more useful.
- The patentee has only discovered them, not invented them.
- The “isolated DNA claims” interfere with scientific progress, because they prevent anyone from studying or using the natural gene.
Arguments for patent-eligibility

- The defenders say that isolated DNA molecules are not a natural phenomenon because:
  - The patents don’t claim anything in anyone’s body.
  - Isolated DNA molecules are obtained in the laboratory and do not exist in nature.
  - They are chemically quite different from natural genes.
  - They are useful for new technical applications that are not possible with natural genes.
  - They required great technical and intellectual effort by scientists in order to become known and available for human use.
Remarks

The questions that need to be answered depend on many technical facts. They cannot be answered by just arguing about the law. For example:

- “How different is the claimed isolated DNA molecule from a natural gene?”
- “Would the patent claims always be infringed if someone did research on the natural gene?”
- “Does the claimed isolated DNA actually exist in nature?”

In the U.S., the technical facts in a lawsuit are established in the lower court (district court). No new facts can be added in the higher courts.

After the district court decided the Myriad case, the U.S. Supreme Court decided 2 other cases in this area of the law [Bilski v. Kappos (2010) and Mayo v. Prometheus (2012)].

These cases influenced the legal questions about the Myriad case in the higher courts, but no new technical facts could be added to answer them, thereby increasing confusion and disagreement during the appeals.
The *Myriad* case involves a very broad legal question: Should an isolated DNA molecule be excluded from patentability, even if it was not known before, has been isolated from nature for the first time, and its structure and form is clearly characterized, and has practical value in industry?

Because of this broad legal question, the U.S. Supreme Court may find it very hard to limit its decision to only Myriad’s patents. Its decision could affect many other patents:

- If claims to isolated BRCA DNA are not patentable, claims to other isolated human DNA would also not be patentable;
- If claims to isolated human DNAs are not patentable, claims to isolated animal, plant, or microbial DNA would also not be patentable.
- If claims to isolated DNA are not patentable, why would claims to other isolated molecules be patentable? For example medicinal substances that are isolated from plants?
What about the public interest?

“Patients don’t have access”
“Patents increase prices”
“Patents interfere with research and medical care”
“Myriad is a bad company”
“What the other side is saying is not true”

“Patents are needed for business investment”
“Patents create new and better products”
“Patents create new businesses and jobs”
“Myriad is a good company.”
“What the other side is saying is not true”
What about the public interest? (2)

- Policy questions affect everyone. They cannot be decided in a lawsuit between only two parties.
- That’s why judges rely on the law, not on policy, to decide whether a patent is valid or not.
- For example:
  - If a patent owner is a “bad actor,” that doesn’t mean his patent is invalid.
  - If a consumer cannot get access to the patented product, that doesn’t mean the patent is invalid.
- But: The public interest is important. There is a tendency in U.S. patent law to preserve the public interest without destroying the patent right altogether. In fact, patent rights are also in the public interest, and must be balanced against other public interests.
What about the public interest? (3)

- For example: In 1995, Congress determined that it would be against the public interest if medical doctors could be sued for patent infringement for practicing surgery.

- It was first proposed to forbid all patents for doing surgical procedures and administering medical therapies. But Congress decided to not ban such patents. Instead, medical doctors were given immunity for certain patent-infringing medical activities. 35 USC 287(c) (1996). This balanced the public interests without destroying patents altogether.

- For example: In the 1930s the City of Milwaukee operated a sewage treatment facility that used a patented process for treating waste water. Even though there was an extraordinary public interest, the court found that the patent was both valid and infringed. The court decided that the patent owner should be compensated financially, but that the plant should not be shut down. *Milwaukee v. Activated Sludge* 69 F.2d 577
Public interest example: Amgen v. Roche

- Example: In *Amgen v. Roche* 581 F. Supp. 2d 160 (D. Mass 2008), after patents were found valid and infringed, the patent owner sought an injunction to block a competing drug from entering the market.

- Under U.S. patent law, a patent owner seeking such an order must prove
  - (1) that it would suffer an irreparable injury;
  - (2) that money payments would not be sufficient to compensate for the injury;
  - (3) that the balance of fairness and harm to both parties favors the patentee; and
  - (4) that the public interest would not be disserved by a permanent injunction.

- The judge considered factors 1-3 in favor of the patent owner - but the main focus was on the public interest. The judge appointed a special master and a technical expert and held 4 days of hearings to balance the public interest factors of: (i) patient health; (ii) medical cost savings and (iii) patent-based incentives for innovation.
Patient health: do existing treatments meet the medical needs of patients? The judge found that patients and doctors would probably benefit from additional choice. But it was not clear that the infringing drug would provide significant clinical advantages over existing treatments.

Medical cost savings: The judge found that market entry of the infringing drug would not necessarily result in overall lower cost to public payors. Also, just because an infringing product is cheaper is not a good reason: A copied product can always be sold cheaper than the original.

Innovation: The judge stated that the breakthrough innovation was made by the patent owner, and that the infringing drug was “just” an improvement of the patent owner’s existing drug. The public interest in breakthrough innovations is stronger than the public interest in small improvements. Drug innovation is very time-consuming, risky, and expensive, and strong patent rights are a very important incentive.
The *Amgen* case teaches us that public interest considerations get very complicated very quickly, and that a lot of facts must be considered in order to make a reliable, evidence-based decision.

The judge in the *Amgen* case wrote that he at first wanted to allow the infringing drug on the market. But after he had considered all the facts, he reached a different conclusion.

In the *Amgen* case, the judge appointed a neutral expert to explain the technical questions. He also appointed a special master (an officer of the court to manage especially complicated and difficult issues), and heard evidence during four full days of testimony.

In comparison, the judge in the *Myriad* case held a single two hour hearing on summary judgment motions.
Do patents interfere with basic research?

- The popular press is saying that patented things cannot be further researched by others.
- This theory is presented to support section 101 ineligibility even by some departments of the U.S. Government: important discoveries should be excluded from patenting, because scientists and researchers must be free to work on them.
- “Myriad and other gene patent holders have gained the right to exclude the rest of the scientific community from examining the naturally occurring genes of every person in the United States” [1]
- “Any scientist who wants to conduct research on such a gene - even on a small sequence of its DNA - has to pay license fees.” [2]
- Such statements are often repeated in U.S. newspapers. However, they are not true.

The question whether patents interfere with basic research has been studied repeatedly. The National Academies, the American Association for the Advancement of Science, the Federal Trade Commission, and academic scholars have concluded that there is little evidence that patents prevent scientists from doing research on patented inventions.

For example, the BRCA genes are among the most heavily studied human genes. More than 5,000 scientific papers have been published since 1998 by thousands of researchers without patent licenses.

The U.S. Patent Act does not have an explicit exception for basic experimentation. But it is a very old principle that someone “who constructed a [patented] machine merely for [scientific] experiments or for the purpose of ascertaining the sufficiency of the machine to produce its described effects” would not be held liable. *Whittemore v. Cutter* 29 F. Cas. 1120, 1121 (C.C.D. Mass. 1813).
It is clear that there is an exception for scientific experimentation in U.S. patent law, but it is unclear how broad it is. Because there are no lawsuits about this question, judges have had almost no opportunity to make the law clearer.

Judge Newman of the U.S. Court of Appeals for the Federal Circuit provided an analysis according to which the following would not be patent infringement under the “experimental use” exception*:

- Experiments to understand how a patented invention works, and to verify whether it does what the patentee says it does;
- Experiments to improve a patented invention;
- Experiments to determine whether a patented invention can be used in new ways;
- Experiments to compare a patented invention with alternatives.

Who should decide this question?

- There are three sources of patent policy in the U.S.: The USPTO, the courts, and Congress. Which one is best equipped to decide whether isolated DNA molecules should be excluded from the patent system?

- **The USPTO:** Has strong technical expertise. It receives input on regulations and guidelines through public notice-and-comment procedures. The USPTO must consider public comments and explain its conclusions and decisions. It can make limited policy, but is restricted by the patent statute and higher court decisions. The USPTO is best equipped to answer complicated technical questions that can be decided within existing law.

  - For example, between 1999 and 2000 the USPTO went through a public comment process for DNA patents. In its final guidelines, the USPTO determined that patents on isolated DNA molecules do not claim a natural phenomenon, and can be permissible under patent law. However, the USPTO raised the standard by requiring such patents to disclose a “specific, substantial, and credible utility.” Thousands of patent applications were subsequently rejected under this standard.
Who should decide this question? (2)

- **The courts**: The courts have non-specialist judges. Almost none have a scientific or technical education. The courts decide particular disputes between two or more parties.
- They are limited by the way the parties to a lawsuit define their dispute, and by the information and legal theories the parties put in the case.
- The courts can receive public comments through “amicus briefs” but don’t have to consider them.
- The courts are equipped to decide particular disputes as defined by the parties, not to create “the best solution for everyone.”
- Decisions can sometimes affect many other patent owners who are not part of the lawsuit, and result in “policy.”
Who should decide this question (3)

- **The Congress**: Non-specialist legislators from a range of professional backgrounds. Congress receives wide input from other parts of the Federal Government, state governments, and many public stakeholders. Any member of the public can petition and be heard. Congress can collect large amounts of facts to make decisions. It can change the law to craft “the best solution for everybody.”

  - For example: In 1984, Bolar Pharmaceutical Co. argued to the U.S. Court of Appeals for the Federal Circuit that an exception to patent infringement should be created to resolve a conflict between the patent laws and the food and drug laws. But the court replied that only Congress, not the court, has the ability to “maximize public welfare through legislation.” 733 F.2d 858 (1984).

  - Later that year, Congress passed the Hatch-Waxman Act, which created a special infringement exception, but it also compensated patent holders with additional patent term restoration. The USPTO or the courts could not have created such a solution.
What could this case mean?

- It is too soon to tell. The Supreme Court may be looking for a way to decide this case on narrow grounds. But it could be difficult to decide this case without affecting many other patents.

- The *Myriad* case is not just about Myriad’s patents. It’s about a whole category of patents. If patents on isolated BRCA DNA molecules are invalid because human BRCA genes exist naturally, then:
  - How can patents on *other* isolated DNA molecules with human sequences be valid?
  - How can patents on isolated DNA with *animal, plant, or bacterial sequences* be valid?
  - How can patents on other isolated substances from natural sources be valid, e.g. *pharmaceutical substances from plants, antibiotics from fungi, enzymes from bacteria*?

- The majority of companies that own such patents work on medicines, agriculture, bioenergy, or industrial biotechnology. Very few provide diagnostic testing services.

- This case focuses only on the behavior of a single company, but many other companies would be affected.
What could this case mean? (2)

- It is difficult to predict what this case could mean for patients or medical care. Myriad has hundreds of other patent claims that are not in this case. Even if the Supreme Court decides in favor of the ACLU, there will not be complete freedom-to-operate.

- It is unlikely that the prices for diagnostic testing will generally decrease. Researchers have found that the price of genetic tests depends not on patents, but on how complicated the test is, and on the reimbursement rates set by insurance companies.

- The cost of BRCA testing is around $3,800 – approximately the cost of an MRI scan. Health insurance companies already widely pay for BRCA testing.

- But insurance companies will only pay if the test is medically necessary according to their medical guidelines. This is normally the reason why a patient cannot have the test.
Thank you!

Hans Sauer
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PRIORITIZED EXAMINATION
and
PRIOR ART under THE AMERICA INVENTS ACT

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SIPO/US INTELLECTUAL PROPERTY LAW COUNCIL

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NEW YORK CONFERENCE
OUTLINE

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I. Expediting Patent Examination at the USPTO

The USPTO began to consider implementation of a multi-track examination program as the number of patent application filings and the technical complexity of applications increased, creating a burden on the Office and an ever-rising backlog of unexamined applications. In the USPTO’s 2003 Strategic Plan, a patent examination program having five potential examination tracks available to patent applicants was described. The optional tracks included those utilizing work sharing to improve efficiency and quality, for example, taking advantage of prior examination by other national Patent Offices under bilateral agreements. The current Patent Prosecution Highway process derives from this early thinking.

After a period of public comment and discussion, the USPTO proposed a three-track prosecution program that included Prioritized Examination (Track One), Traditional Examination (Track Two), and Delayed Examination (Track 3). As explained in the USPTO Press Release of June 3, 2012, the three tracks were designed to permit an Applicant to choose an examination model best suited to its individual business objectives, with Track One providing greater control over when utility and plant applications are examined as well as promoting “greater efficiency” in the patent examination process.

Under the proposed multi-track program, an Applicant can choose the starting time and pace of examination. Track One provides a fast pace, with a short time to first office action on the merits (less than four months) and a faster time to final disposition (less than 12 months). Track Two follows a traditional examination pathway: with no acceleration or delay of examination. Track Three permits delay of up to 30 months before the Applicant must request docketing of the application for examination.

The America Invents Act was signed into law on September 16, 2011, creating numerous changes to United States patent law. Among the changes was a provision to implement a Prioritized Examination program that contains all the requirements of the first track (Track One) of the Three-Track program proposed by the USPTO, with an effective date of September 26, 2011. Track Three was not written into the AIA, and has not otherwise been implemented by the USPTO. Track Two is currently available through traditional examination processes, needing no change in the current law.

Track One Prioritized Examination is one of several alternative programs implemented by the USPTO to address a large backlog of unexamined applications and increasing complexity of applications. Programs such as Accelerated Examination (AE), Petition to Make Special, and the Patent Prosecution Highway offer a variety of options to expedite examination and improve patent office efficiency. Each program has

1 21st Century Strategic Plan, 2003 (http://www.uspto.gov/web/offices/com/strat21/index.htm)
3 Track One Final Rules, Federal Register 59050, Vol. 76, No. 185, September 23, 2011, Changes to Implement the Prioritized Examination Track (Track I) of the Enhanced Examination Timing Control Procedures Under the Leahy-Smith America Invents Act.
4 Leahy-Smith America Invents Act, Section 11(h), Prioritized Examination, September 16, 2011.
particular benefits and requirements that are discussed below in comparison to Track One Prioritized Examination.

A. Track One Prioritized Examination

1. Applicants Choose Pace of Examination

As its name implies, Track One Prioritized Examination seeks to speed the examination process at multiple levels, improving efficiencies in the intake, processing, examination, and processing allowance. The program aims to complete prosecution of the application to a final disposition within twelve months of the application’s filing date. To be eligible for Prioritized Examination, the Applicant must file a particular Request with the filing of the application to be examined, comply with all special requirements of the program, and pay a special Request fee.

The Track One Prioritized Examination program seeks to reduce several time periods of the filing and examination process, including time from date of filing the Request to the date the Request is granted or dismissed, time from the date the Request is granted to the date the Examiner mails the first office action on the merits, and time from the date of filing the Request to the date of final disposition of the application. Final disposition can be one of the following: Notice of Allowance mailed, Notice of Appeal filed, Final Office Action mailed, RCE filed, abandoning the application.

The USPTO’s stated goal is to examine achieve final disposition of examination of the application on the merits within twelve months, measured from the filing date of the application requesting Track One Prioritized Examination. This includes providing the Applicant with a timely decision of the Request for Track One examination and with a first office action on the merits in less than four months from grant of the Request.

The Applicant is expected to help and not hinder accelerated examination by responding to the first office action on the merits with an Examiner interview and written response within one month of receipt of the action. No extensions of time are permitted, except for sufficient cause and for a reasonable period of time, as described in MPEP Section 710.02(b), and requested on or before the due date.

The number of Requests for Prioritized Examination the USPTO may accept in a fiscal year is capped at 10,000 in order not to overburden the resources of the Office in the initial implementation of the program. The USPTO intends to monitor the program and reevaluate the annual cap as needed. Other limitations will also be reevaluated to determine if changes to the system are needed.

2. Procedures and Requirements

The success of Track One Prioritized Examination is due its demonstrated speed and to the simplicity of the process and filing requirements, particularly when compared
to the Accelerated Examination program. To apply, the Applicant is required to complete and electronically file a single page Request form, a complete application, Declaration of the Inventor(s), and to pay all fees at the time of filing. A good knowledge of applicable prior art and scope of the written and enabled disclosure is helpful to craft sustainable claims in Track One or in any application.

The specific requirements for an acceptable Request are few. The application must be a new U.S. application, and may be a new continuation, divisional, or continuation-in-part filed under 35 U.S.C. Section 111(a), or a first Request for Continuing Examination (RCE). Applications with a history of two or more RCEs filed in the patent family history are not eligible for Track One Prioritized Examination.

The program is limited to original U.S. utility and plant applications. Design applications and U.S. National Stage PCT applications filed under 35 U.S.C. Section 371 are not eligible, however U.S. continuation applications claiming priority to a PCT application, “bypass PCT continuations,” are eligible. Each application for Prioritized Examination must be presented as a distinct Request and new application filing, regardless of the patent family relationships and prosecution history.

The application to be examined must be complete on filing and “in condition for examination”, and include a declaration of the inventor, the Track One Prioritized Examination Request fee (small entity and micro-entity fee reductions can be applied) and all applicable filing fees, including processing and publication fees as well as excess claim fees. Utility applications must be filed electronically using the USPTO’s electronic filing system (EFS). The USPTO certification and request form PTO/SB/424 is available through EFS-Web and is recommended for efficient filing of the Request. Plant patents may be filed on paper.

The number of claims to be examined is limited to no more than four independent claims and no more than 30 total claims, in view of the need for speed in the examination process. Multiple dependent claims are not permitted.

Prioritized Examination accords special status to the application for its entire docket, except during appeal or interference. Special status is terminated during the examination process if an action results in one or more of the requirements not being met. For example, if the claims are amended to include more than the maximum allowed number, if an extension of time or request to suspend examination is filed, if the application is abandoned, or a notice of appeal is filed. Termination of Prioritized Examination does not terminate the pendency of the patent application at the USPTO, but removes the application from the Examiner’s Special docket and the application continues examination under the same Examiner’s Normal docket under traditional

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6 Id., The Final Rule states this phrase to have the same meaning as that provided for Accelerated Examination discussed in MPEP Section 708.02(a), Subsection VIII.C.
7 Id.
(Track Two) examination.

3. Statistical Data to Date

Statistics available from the USPTO Dashboard, the TRACK ONE website, and patent law practitioners demonstrate rapid adoption of the Track One program by patent applicants as well as large reductions in patent application examination and processing time. Since implementation of the program on September 26, 2011 through the first week of February, 2013, at least 8,555 Requests for Prioritized Examination were filed. The majority of submitted Requests were granted (94%), and many have been examined to final disposition (3667). Of those, the average time from grant of Request to the Examiner’s mailing of a first office action on the merits was only 55 days, and the average time from grant of Request to final disposition averaged only 168 days.

This rapid pace of examination contrasts sharply with applications under traditional examination where the 2012 yearly production of 312,472 cases by less than 7,808 examiners resulted in an average time from filing to first office action of 18.7 months and 30.6 months from filing to final disposition.

Approximately 50% (1820) of the Prioritized Examination Track One applications reaching final disposition received a Notice of Allowance. The 50% allowance rate is relatively the same as the average allowance rate for traditional, non-accelerated patent examination (Track Two). What differs greatly between examination under Prioritized Examination Track One and traditional Track Two examination is time to allowance. The Track One applications received Notice of Allowance (or other final disposition) within less than 6 months on average versus an average of about 34 months for applications examined under non-expedited traditional examination procedures. The difference represents a very significant reduction in time, particularly for patent Applicants with a business need for a speedy patent grant.

In practice, the time from grant of Request to final disposition has been much less than 12 months, averaging 5.9 months. Such quick allowance of Track One applications raises the possibility that an earlier filed application might publish after allowance of the Track One patent and may have the potential to impact the validity of the allowed claims as prior art. Keeping an open continuation application available to circumvent later published prior art may permit mitigation of this risk.

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8 Id.
9 USPTO TRACK ONE http://www.uspto.gov/patents/init_events/Track_One.jsp
11 USPTO Dashboard, supra
12 Id.
13 Id.
14 Max Colice et al., PatentlyO, supra.
15 USPTO Dashboard www.uspto.gov/dashboards/patents/main_dashxml
B. Other Acceleration Programs Compared with Prioritized Examination

1. Accelerated Examination (AE)

The Accelerated Examination program was initiated by the USPTO in 2006 as a mechanism to decrease the backlog of unexamined applications. In this program, Applicants have the opportunity to accelerate examination in exchange for participating more actively in the examination process. Like Prioritized Examination Track One, the goal of Accelerated Examination is to reach a final disposition within twelve months of filing the application. Unlike Track One, the requirements for filing a Petition for Accelerated Examination are much more complex and labor intensive.

There is no required fee for Accelerated Examination, only a minimal fee for filing a Petition to make the Application Special. Instead, the Applicant is required to perform a robust pre-examination Search of the prior art and provide at filing an Examination Support Document (ESD) containing detailed reports about the prior art and applying that art to the elements of each claim. Many applicants are unwilling to prepare the ESD because of the time and expense involved and potential estoppel.

Requirements\textsuperscript{16} for a successful Petition include:

(1) The application must be filed via EFS-Web with a petition to make special along with the required petition fee;

(2) The application must be complete and in condition for examination;

(3) No more than three independent claims and twenty total claims, and no multiple dependent claims are permitted in the application;

(4) A single claimed invention;

(5) A statement agreeing to participate in Examiner interviews;

(6) A statement that a pre-examination search was conducted and meets requirements; and

(7) An accelerated examination support document (ESD)\textsuperscript{17} that must:

a. Provide an Information Disclosure Statement (IDS) citing each reference “closely related” to each claim;

\textsuperscript{16} See MPEP § 708.02(a) and the USPTO AE Website: \url{http://www.uspto.gov/patents/process/file/accelerated/index.jsp}

\textsuperscript{17} MPEP § 708.02(a); USPTO Accelerated Examination: \url{http://www.uspto.gov/patents/process/file/accelerated/index.jsp}
b. Identify where each limitation disclosed in the reference is found in each claim;

c. Detail how each claim is patentable over the reference;

d. Show support in the specification and any parent application for each claim limitation;

e. Include a concise statement of the invention’s utility

f. Identify any cited references disqualified as prior art under the CREATE Act, 35 U.S. C. Section 103(c).

Once the Petition for Accelerated Examination is granted, the Examiner reviews the Search and ESD, may perform additional searches, and may request a telephone conference with the Applicant prior to issuing a first office action on the merits. Communications between the Examiner and Applicant are encouraged to quickly determine if an agreement on allowable subject matter can be reached.

Statistics available from the USPTO Website indicate a total number of Petitions for Accelerated Examination filed from inception to March 2012 of 4992. Petitions were granted for 3175 (61.2%), and many were denied for failing to comply with the filing requirements (16.9%). Of the applications examined to a first office action on the merits, 55.2% received a rejection and 42.6% were allowed. For those successful Petitions that resulted in a final disposition, 66% received a Notice of Allowance.

Accelerated Examination provides an alternative to Prioritized Examination Track One for those Applicants seeking to advance prosecution but do not wish to incur the Track One Request Fee. Due to the more rigorous Petition requirements, and particularly the required Examination Support Document, Applicants considering this route of examination must carefully prepare the Petition, Search, and Examination Support Document to avoid rejection of the Petition due to lack of compliance, and carefully prepare the arguments in the ESD to avoid unwanted estoppel effects.

2. Patent Prosecution Highway (PPH)

The Patent Prosecution Highway (PPH) accelerates examination by sharing work product between National Patent Offices where corresponding claims have been filed within a global patent family. From the first PPH pilot program between the USPTO and JPO initiated in 2006 to the present date, the number of International Searching Authorities participating in the PPH has steadily increased to more than 25 organizations, as well as a pilot PCT-PPH program.

The PPH achieves the USPTO goals of reducing the backlog of unexamined applications, reducing pendency from filing to final disposition, increases patent office
efficiencies, and saves costs for both Applicant and the Office. This is accomplished by leveraging the search and examination performed by a first participating Patent Office to allowable claims to increase the efficiency of examination of corresponding claims in a second participating Patent Office.

In practice, where claims are indicated to be allowable in one participating PPH Office, the Applicant can request examination in a second participating PPH Office of corresponding claims, providing the second Office with the favorable search, examination report, and indication of allowable subject matter. Statistics cumulated to date\(^\text{18}\) show the PPH is achieving its goals of increased efficiency and speed to final disposition, but also show a higher rate of allowance (about 87%) than claims examined under traditional examination (<52%). Participants in the PCT-PPH show a higher rate of allowance, ranging up to 100%. Note that the PPH does not accord full faith and credit to the first examination and will likely supplement the original search, however examination is accelerated by the work of the first Office, both speeding time to final disposition and saving costs of the second examination.

A Request for examination using the PPH must be submitted before substantive examination, e.g., before the Examiner mails an receipt of a first office action on the merits. Receipt of a USPTO Notice of Missing Parts or Restriction does not preclude filing the PPH Request. The Petition fee associated with the PPH was eliminated in 2010 to encourage greater participation in the program. The requirements of the PPH are few: a Petition, application with corresponding claims to the claims allowed in the allowed national application, and copies of the search, examination report, and notice of allowable claims are submitted with the application or post-filing but pre-first office action on the merits.

Given the high rate of allowance and reduced time to final disposition, the PPH is growing in use worldwide. In the U.S., the PPH can be used to great advantage once acceptable claim scope is attained in an Office of First Filing. One potential problem is the meaning of “corresponding claims”. Since the type of claims permitted in the U.S. may differ from the type of claims permitted in the Office of Second Filing, the term “corresponding” may not apply to all of the claims sought in the U.S. application.

### 3. Petition to Make Special

The USPTO Patent Rules state that patent applications are to be examined in order of the earliest filing date, and that applications are not to be advanced out of turn.\(^\text{19}\) However, certain exceptions are recognized in matters of particular importance justified by public need or to expedite the business of the Office.\(^\text{20}\) Particular exceptions are noted for advanced age (65+ years) or failing health of an inventor, and for particular technology areas where innovation is needed, including applications related to enhancing

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\(^\text{19}\) 37 C.F.R. Section 1.102(a).
\(^\text{20}\) 37 C.F.R. Section 1.102(b).
the environment, conserving energy, or countering terrorism.²¹

Accelerated Examination and the PPH programs are also considered exceptions to the prohibition of advancing examination of specific applications out of turn, as these programs seek to enhance the efficiency of the Office by reducing the backlog of unexamined applications, thereby saving time and costs to both the Applicant and the Office.

Grant of a Petition to Make Special places the patent application on the Examiner’s Special Docket and advances examination ahead of other applications in the Examiner’s Regular Docket, speeding time to first office action and final disposition for these cases.

Table 1. Comparison of Accelerated Examination Efficiency

<table>
<thead>
<tr>
<th></th>
<th>PE-Track1</th>
<th>AE</th>
<th>PPH</th>
<th>Traditional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request/Petition Fee</td>
<td>$4000</td>
<td>$130</td>
<td>-0-</td>
<td>-0-</td>
</tr>
<tr>
<td>Examiner Workload</td>
<td>Moderate</td>
<td>Extensive</td>
<td>Minimal</td>
<td>Moderate</td>
</tr>
<tr>
<td>Time to FAOM</td>
<td>&lt; 3 months</td>
<td>&lt; 4 months</td>
<td>&lt; 12 months</td>
<td>&lt;10 months</td>
</tr>
<tr>
<td>Time to Final Disposition</td>
<td>&lt; 6 months</td>
<td>&lt; 13 months</td>
<td>&lt; 6 months</td>
<td>&lt; 32 months</td>
</tr>
<tr>
<td>% Allowance</td>
<td>50%</td>
<td>60%</td>
<td>87%</td>
<td>50%</td>
</tr>
</tbody>
</table>

C. Summary

Although the USPTO generally examines patent applications on a first-in, first-out basis, exceptions allow some applications to be advanced out of turn, accelerating examination to solve a particular need. Prioritized Examination, Accelerated Examination, and Petitions for Special Examination are programs provided to solve problems of delayed examination for applicants and to aid the efficiencies of the USPTO.

²¹ 37 C.F.R. Section 1.102(c)
II. Prior Art Defined by the America Invents Act\textsuperscript{22}

Passage of the America Invents Act on March 16, 2011 introduced fundamental changes into the U.S. Patent system, converting the U.S. “first-to-invent” patent system into a new “first-inventor-to-file” system. The new law introduces many changes to accommodate the first-inventor-to-file patent system, including those that redefine, expand, and limit the scope of prior art. In general the “new” prior art includes patents and patent applications, publications, and on-sale and public use, and the like showing that the invention was “otherwise available to the public” prior to the “effective date” of the claimed invention.

Under the AIA, prior art is measured against an application’s “effective filing date”, defined as the earliest priority date for which the claimed invention is entitled to priority. A one year grace period is provided as an exception, but only for an inventor’s own prior disclosure. As the new law details, the inventor’s prior disclosure is ineffective as prior art against the inventor’s later filed application, if it is filed within the inventor’s grace period. In addition, the inventor’s prior disclosure can also shield the inventor’s later-filed application from an intervening disclosure of the invention by a non-inventor.

Title 35 of the United States Code, Section 102, entitled Conditions for Patentability; Novelty, is rewritten under the AIA to redefine prior art and its exceptions. Section 102 (a) provides the scope of prior art, while Section 102 (b) provides exceptions to prior art for the “first inventor” who discloses before filing within a one year grace period. The text of Section 102 (a) is reproduced and discussed more fully below.

A. Redefining Prior Art:

New Section 102 redefines the boundaries of prior art. In general, the new prior art is expanded to include patents, publications, use, and sale, as well as other documents or actions that cause the claimed invention to be “available to the public”. Geographic limitations are removed from the new definition, including the effective filing date that now includes non-US priority documents.

35 U.S.C. Section 102: Novelty
(a) Novelty: Prior Art – A person shall be entitled to a patent, unless:
(1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention; or
(2) the claimed invention was described in a patent issued under section 151, or in an application for patent published or deemed published under section 122(b), in which the patent or application, as the case may be, names another inventor and was effectively filed before the effective filing date of the claimed invention.

Subsection 102 (a) measures prior art against the “effective filing date” of the claimed invention. “Effective filing date” is defined as the earliest of (1) the actual filing date of the application; or (2) the filing date of the earliest priority application for which the claimed invention is entitled to priority. The priority application can be a U.S. provisional or non-provisional application, a PCT application designating the U.S., or a foreign priority application, and need not be in English. Section 102(d) provides specific guidance for determining when a patent or published application is considered to be prior art under Section 102(b):

(b) PATENTS AND PUBLISHED APPLICATIONS EFFECTIVE AS PRIOR ART.—
For purposes of determining whether a patent or application for patent is prior art to a claimed invention under subsection (a)(2), such patent or application shall be considered to have been effectively filed, with respect to any subject matter described in the patent or application—
(1) if paragraph (2) does not apply, as of the actual filing date of the patent or the application for patent; or
(2) if the patent or application for patent is entitled to claim a right of priority under section 119, 365(a), or 365(b), or to claim the benefit of an earlier filing date under section 120, 121, or 365(c), based upon 1 or more prior filed applications for patent, as of the filing date of the earliest such application that describes the subject matter.

Section 102 replaces the description of prior art documents and actions that preclude patentability with a similar but streamlined and more global description of prior art. Prior art under the AIA includes patents and printed publications, public use, sale, and items or actions within the phrase “or otherwise available to the public”. The broad nature of the phrase “or otherwise available to the public” leaves room for undefined prior art, and establishes a broad definition of prior art under the new statute as anything that makes the claimed invention “available to the public”.

Availability to the public is a legal concept that has been traditionally applied to prior art as requiring reasonable access sufficient to permit those skilled in the art and interested in the subject matter to access the information. See for example, the discussion of prior art posted on the internet as discussed in the Manual of Patent Examination and Policy (MPEP) shown below:

2128  “Printed Publications” as Prior Art [R-5]
A REFERENCE IS A “PRINTED PUBLICATION” IF IT IS ACCESSIBLE TO THE PUBLIC
A reference is proven to be a “printed publication” “upon a satisfactory showing that such document has been disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art, exercising reasonable diligence, can locate it.” In re Wyer, 655 F.2d 221, 210 USPQ 790 (CCPA 1981) (quoting I.C.E. Corp. v. Armco Steel Corp., 250 F. Supp. 738, 743, 148 USPQ 537, 540 (SDNY 1966)) (“We agree that ‘printed publication’ should be approached as a unitary concept. The traditional dichotomy between ‘printed’ and ‘publication’ is no longer valid. Given the state of technology in document duplication, data storage, and data retrieval systems, the ‘probability of dissemination’ of an item very often has little to do with whether or not it is ‘printed’ in the sense of that word when it was
introduced into the patent statutes in 1836. In any event, interpretation of the words ‘printed’ and ‘publication’ to mean ‘probability of dissemination’ and ‘public accessibility’ respectively, now seems to render their use in the phrase ‘printed publication’ somewhat redundant.”) In re Wyer, 655 F.2d at 226, 210 USPQ at 794. See also Carella v. Starlight Archery, 804 F.2d 135, 231 USPQ 644 (Fed. Cir. 1986) (Starlight Archery argued that Carella’s patent claims to an archery sight were anticipated under 35 U.S.C. 102(a) by an advertisement in a Wisconsin Bow Hunter Association (WBHA) magazine and a WBHA mailer prepared prior to Carella’s filing date. However, there was no evidence as to when the mailer was received by any of the addressees. Plus, the magazine had not been mailed until 10 days after Carella’s filing date. The court held that since there was no proof that either the advertisement or mailer was accessible to any member of the public before the filing date there could be no rejection under 35 U.S.C. 102(a)).

While it is expected that a similar standard will be applied to the phrase “or otherwise available to the public”, the Courts will ultimately determine the meaning and scope of this phrase.

B. Inventor’s Grace Period – Exceptions to Prior Art:

The new patent system established by the AIA is not a true “first-to-file” system as found in other countries, yet is not the first-to-invent system previously available to U.S. inventors. The hybrid first-inventor-to-invent system establishes a limited grace period for prior disclosures by inventors and also seeks to preclude non-inventors from improperly reaping the benefits of an inventor’s innovations.

Exceptions to the prior art of Section 102(a) are defined in Section 102(b) to provide a grace period exclusively for the benefit of the inventor. These exceptions prevent the application of prior disclosures against the inventor’s later filed application, if made within one year of the effective filing date.

(c) EXCEPTIONS.—

(1) DISCLOSURES MADE 1 YEAR OR LESS BEFORE THE EFFECTIVE FILING DATE OF THE CLAIMED INVENTION.— A disclosure made 1 year or less before the effective filing date of a claimed invention shall not be prior art to the claimed invention under subsection (a)(1) if—

(A) the disclosure was made by the inventor or joint inventor or by another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor; or

(B) the subject matter disclosed had, before such disclosure, been publicly disclosed by the inventor or a joint inventor or another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor.

(2) DISCLOSURES APPEARING IN APPLICATIONS AND PATENTS.—A disclosure shall not be prior art to a claimed invention under subsection (a)(2) if—

(A) the subject matter disclosed was obtained directly or indirectly from the inventor or a joint inventor;

(B) the subject matter disclosed had, before such subject matter was effectively filed under subsection (a)(2), been publicly disclosed by the inventor or a joint inventor or another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor; or
(C) the subject matter disclosed and the claimed invention, not later than the effective filing date of the claimed invention, were owned by the same person or subject to an obligation of assignment to the same person.

The exceptions not only provide an inventor with a grace period for the inventor’s prior disclosure of the invention claimed in a later filed patent application, but also permit the inventor’s prior disclosure to shield the later filed patent application from an intervening publication by another. These exceptions apply to the collective “inventor” as defined in the statute to be: "the individual, or if a joint invention, the individuals collectively who invented or discovered the subject matter of the invention."23

Other definitions provided by the AIA include the "effective filing date". Under the AIA, the “effective filing date” of a claimed invention is defined to be either (1) the actual filing date or (2) "the filing date of the earliest application for which the patent or application is entitled" to priority under §§ 119, 365(a), 365(b), 120, 121 or 365(c).24 The statute also defines "the claimed invention" as "the subject matter defined by a claim in a patent or application”25.

While limiting the exceptions and grace period to prior disclosures of the inventor, the definition of “inventor” and “joint inventor” provided by the statute enlarge the scope of the inventor’s grace period to include prior publications of a joint inventor. Further assistance to a “first inventor” is found in section 102(b) which excludes prior disclosures made during the grace period by “one who obtained” the invention, directly or indirectly, from the collective “inventor”.

During prosecution of the application at the U.S. Patent Office, the prior art disclosure of “another who obtained” can be countered by an affidavit or declaration by the inventor showing evidence that another had “obtained” the invention from the inventor or evidence that the other’s disclosure was the inventor’s own work. After the patent issues, a Derivation procedure is available under the new 35 U.S.C. Section 135 to permit a showing that a patented invention was derived not from the owner/inventor listed on the patent, but from another who invented first.

As discussed above, these exceptions to prior art provide a grace period extending one year prior to the inventor’s effective filing date. Pre-filing disclosure of the claimed invention by the collective “inventor” or by another who obtained the invention from the inventor, are not prior art against the inventor if the disclosure date is within the inventor’s grace period. In addition, a disclosure of the invention by another that intervenes between the inventor’s own disclosure of the invention and post-disclosure filing of a patent application during the inventor’s grace period can also be excluded as prior art against the inventor’s claimed invention.

24 AIA, supra, codified as 35 U.S.C. Section 100(i).
25 Id., codified as Section 100(j).
C. Common Ownership under Joint Research Agreements

Recognizing the prior art problems associated with collaborative research and joint ownership, the AIA includes an exception to “prior art of another” where “another” is one of a group of collaborative researchers. In the AIA and codified in 35 U.S.C. Section 102(c), the new law deems subject matter to be “owned by the same person” or “subject to an obligation of assignment to the same person” if the parties were working together under a joint research agreement on or before the effective filing date of the application.

Additional requirements to qualify for common ownership include that the activities of the joint research agreement resulted in the claimed invention, and that the patent or application be amended to disclose the name of the parties to the joint research agreement.

This amendment to 102 provides a clear path for collaboration among researchers by recognizing the prior art of each contributor to the joint research project as commonly owned. Specific requirements include that the claimed invention was made by one or more of the collaborators; that the claimed invention is the result of the collaborative research under a joint research agreement; and that the patent application disclose (or be amended to disclose) the names of the parties to the joint research agreement. The text of Section 102 (c) is shown below:

(d) COMMON OWNERSHIP UNDER JOINT RESEARCH AGREEMENTS.—
Subject matter disclosed and a claimed invention shall be deemed to have been owned by the same person or subject to an obligation of assignment to the same person in applying the provisions of subsection (b)(2)(C) if—
(1) the subject matter disclosed was developed and the claimed invention was made by, or on behalf of, 1 or more parties to a joint research agreement that was in effect on or before the effective filing date of the claimed invention;
(2) the claimed invention was made as a result of activities undertaken within the scope of the joint research agreement; and
(3) the application for patent for the claimed invention discloses or is amended to disclose the names of the parties to the joint research agreement.

Section 102(c) is noted in the AIA to be intended to promote joint research activities in the same manner as the Cooperative Research and Technology Enhancement Act of 2004 (The CREATE Act)26 that is replaced by the new Section 102(c).

D. AIA Prior Art Summary

The new AIA first-inventor-to-file U.S. Patent System expands the definition of prior art to include documents and activities “available to the public”, and includes prior patents, patent applications, prior use, and sale. The new definition is global, and measured against the effective filing date of a patent or application, which may be domestic or outside the United States. New Section 102(a) aims to streamline the distinction between what is considered prior art and what is not, however, the use of terms such as “on sale” and “public use” which have had judicial interpretation under the prior Section 102 may cause some issues as the new law is shaped by the Courts.

26 Public Law 108–453; the “CREATE Act”
The new patent system under the AIA has not forgotten the promise to provide inventors with a reward for innovation. Exceptions for prior art disclosures of the inventor pre-filing reinstate a grace period of one year from the application’s filing date that is exclusive to the inventor as that term is collectively defined in the law. These exceptions provide not only protection against the inventor’s own pre-filing disclosures, but against the disclosures of the invention by another who obtained the invention from a member of the collective inventor. The inventor is further protected during the grace period from third party disclosures that intervene between the inventor’s own disclosure and the filing of a patent application.

The AIA definition of prior art includes both simplicity and complexity, and achieves a first-inventor-to-file balance for inventors to maintain the important stimulation of innovation that is a hallmark of the U.S. patent system.