

Memorandum to: Mark Schisler

From: Matthew Zischka

Cc:

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Subject: IPIC IT Committee: Comments on Draft Revised Chapters 12 and 16 of the MOPOP

FOREWORD:

Revisions to Chapters 12 and 16 of MOPOP are laudable in that they attempt to provide clear guidance as to CIPO's handling of computer related inventions. Many of the issues about earlier drafts have been addressed: for the most part issues of subject matter, novelty, and non-obviousness have been delineated.

Unfortunately, these chapters embody a significant departure from earlier draft versions of MOPOP and the current published version of MOPOP. They appear to endorse an approach similar to the European Patent Office (EPO) approach in assessing patentability of software related inventions: a technical effect must be present.

Given the dearth of recent case law dealing with the issue, one must question the basis for this proposed approach. It appears that absent judicial authority for the requirement of a technical effect, the authors of the revised chapter (CIPO) appear to liken the concept of technical effect to "an essentially economic result", and then provide their own interpretation of "essentially economic result".

This is problematic for several reasons: Firstly, existing case law can arguably be interpreted as supporting patentability of all reproducible methods that are not barred by the explicit language of s. 27(8) of the Patent Act [see S.J. Ferance, "Debunking Canada's Business Method Exclusion from Patentability" (2000), 17 C.I.P.R. 493]. Secondly, any invention resulting in a vendible product (such as software, or a computing device) arguably produces "an essentially economic result". Similarly, many services produce "an essentially economic result".

With this in mind, I offer the following specific comments about the proposed text of Chapters 12 and 16.

CHAPTER 12 COMMENTS**12.03.03**

There is no legal authority for the proposition that the invention must be *controllable*. What does this mean? This contention was rejected by the Federal Court of Appeal in *the Harvard Mouse* case.

The statement,

Subject matter that accomplishes a result by means of a person's reasoning, in which the quality or character of the result may vary depending on the individual skilled in the art performing the process or method, cannot form the basis of a patent

is also not supported in law. This statement is too general and should be restricted to the next sentence. That is, it should only apply where the claimed subject matter is so reliant on human factors as to be irreproducible.

12.04.02

The characterization of the decision in *Tennessee Eastman* is not particularly helpful. Arguably, the conclusion was reached to avoid circumvention of a then s.41 of the *Patent Act*.

12.05

Reliance on the decision in *Progressive Games* to make a blanket statement that rules/methods of playing games are not patentable subject matter is likely incorrect. In *Progressive Games*, the application was rejected based on obviousness and not any conclusion about the nature of the claimed subject matter. In fact, arguably, *Progressive Games* leaves open the possibility that games may be patentable.

CHAPTER 16 COMMENTS

16.02

Generally, this section suggests a patent application included in the computer arts, include detail that may go beyond what is required for other types of applications and what is required by the Patent Act, Rules and case law. The overriding principle for any application must be that the application must disclose the invention and provide sufficient detail to allow a person skilled in the art to make and use the invention. The requirements for disclosure may change over time, as persons skilled in the art become more sophisticated. Although many of the provided examples of hardware and software elements that are referred to may be important to include in some patent specifications, in many others such elements will not be necessary (e.g. software interfaces).

The statement, "It is not only important that these elements, features, and processing steps be described, but that they be described as being integrated into an inventive combination", is unclear and again appears to impose an additional burden on computer related applications. There is Canadian case-law to the effect that it is not necessary to describe *how* one's invention distinguishes itself from the prior art (i.e. "described as

being integrated into an inventive combination”), as long as one describes an invention that is in fact novel and non-obvious {cite authority}

The statement “In the absence of a full and correct description of the invention by means of hardware, software and data structure, the application may be considered as describing a mere scheme, for which no patent may issue” does not appear to reflect the requirements for patentability under Canadian law - the term “scheme” is not found in the Canadian Patent Act or Rules. By contrast, the European Patent Convention includes as Article 52(2) EPC a prohibition against the patentability of “schemes, rules and methods for performing mental acts, playing games or doing business ...”. The characterization of an invention as a “mere scheme” does not appear to have any nexus with whether or not an invention qualifies as a new and useful art, process, machine, manufacture or composition of matter, or improvement therein, as required by the Canadian Patent Act.

16.03.01

The statement, “The outcome of the claimed method or system must be achievable from the teachings in the description without subjective judgment or interpretation by a person skilled in the art”, is likely incorrect. It is not the “outcome” that must be achievable without subjective judgment or interpretation. Rather, arguably, it is the claimed invention that must be reproducible without subjective judgment or interpretation. If the claimed apparatus or claimed process can be reproduced without subjective judgment or interpretation on the part of the person building the apparatus or carrying out the process, then it is not relevant whether the outcome of that process requires subjective judgment or interpretation to be useful. For example, an electronic tire pressure monitoring system would not cease to be patentable merely because the outcome, i.e. a low or high tire-pressure warning to the driver, requires subjective judgment or interpretation on the part of the driver. It is sufficient that the builder of the tire pressure monitoring system was able to build the system without subjective judgment or interpretation, based on the teachings of the specification.

16.03.02

The *Lawson* test for “art”, requiring acts performed by some physical agent upon some physical object, etc., may be inconsistent with the broader definition of “art” enunciated by the Supreme Court of Canada in *Shell Oil*. Likely, this test is sufficient, but not necessary in order for subject matter to qualify as patentable subject matter.

The analysis in the penultimate paragraph would be clearer with an example claim. Alternatively, the hypothetical could be clarified, i.e. “A claim to a method consisting of making certain calculations according to certain formula, without any further structural elements ...”.

Moreover, a conclusion in the abstract that something does or does not produce an essentially economic result relating to trade, industry or commerce is not particularly helpful. This inquiry will depend upon the facts of each case.

16.03.02a

The first paragraph, and in particular the statement “The Court did not once imply or suggest that reproducibility was an issue in the decision”, appears to ignore the judgment of the Supreme Court of Canada in *Shell Oil*, interpreting *Lawson*. According to *Shell Oil*, the subject-matter in *Lawson* did qualify as an “art”, but did not qualify as a “useful art”. This suggests that the “professional skills” inquiry is subsumed within the “useful” or utility requirement. Arguably, the professional skills exclusion is merely a reflection of the principle that the subject-matter of a claim must be *reproducible*, and professional skills may fail to satisfy the reproducibility aspect of the utility requirement if they require intuition or gut feelings in order to practice the invention.

Further, the assertion that “A professional skill or method is not a manual or productive art because it does not produce an essentially economic result in relation to trade, commerce or industry. Therefore, a professional skill or method does not constitute ‘art’ under section 2.” is not helpful, and is in fact a somewhat misleading conclusion.

What is this sentence trying to assert? Professional skills are not patentable; or methods that do not produce an essentially economic result in relation to trade, commerce or industry are not patentable.

If rejections of certain types of computer inventions are based on whether or not they may be characterized as “professional skills”, an analysis of when a method is properly characterized as a professional skill is required. For example, many clearly patentable methods (such as methods of mixing chemicals; methods of repair; etc.) could be classified as “a profession skill or method”. The mere fact that one might choose to characterize an invention as a professional skill or method is not helpful.

If the analysis is premised on *whether* the invention is useful and produces an essentially economic result, etc., its characterization does not seem relevant. That is, if the invention does not produce an essentially economic result, then one may properly conclude that the invention is not “useful” and is therefore not an invention, regardless of whether it is labeled as “professional skill”. Of course, any vendible software or computer product arguably produces an essentially economic result – namely the vendible product, making this basis of rejection for computer related inventions inherently tenuous.

As noted, arguably, if a claimed invention is useful, in the sense that it is reproducible and produces an essentially economic result, it should not be open to CIPO to exclude such subject-matter from patentability, as our Supreme Court has told us that the “professional skills” inquiry is subsumed within the “useful” requirement. If the invention is useful, then it cannot be considered to be directed to professional skills.

In the 4th paragraph, the parenthetical statement “(yet reproducible)” is incorrect. The example of a cross-examination method is the classic example given by Gordon F. Henderson, Q.C. (in the editorial note accompanying *Lawson* in the CPRs) of a non-reproducible method because it requires judgment, intuition, etc.

The example of a medical treatment or surgery refers to *Tennessee Eastman*, which is not a helpful decision to consider, in view of the fact that the primary reason for

excluding the subject-matter in *Tennessee Eastman* was to prevent a circumvention of the former s.41 of the *Patent Act*, which has since been repealed.

The reference to describing and laying out parcels of land is *Lawson* itself, which again, must be interpreted in accordance with the Supreme Court's explanation of that decision in *Shell Oil*, excluded, arguably, for lacking reproducibility.

The paragraph beginning with "The Office considers each of the following methods to produce an essentially economic result in relation to trade, industry or commerce" is also troubling. First, the repeated use of the term "inventive" in the examples that follow, e.g. "a) a method of operation for an inventive machine", improperly infuses considerations of obviousness into the subject-matter inquiry. Moreover, the examples appear to improperly focus on inventiveness of the machine (or manufacture in the second example), rather than focusing on inventiveness of the method. A method of operation for an obvious or uninventive machine should equally qualify as statutory subject-matter, and it may or may not qualify as non-obvious under s.28.3, depending on whether the method itself is inventive.

Also, this section appears to be attempting to produce an exhaustive list. Again, arguably, without judicial or legislative authority setting forth an exhaustive list of statutory subject matter, such limitation on statutory subject-matter should not exist.

The statement, "a) a service ... for which someone (e.g. a professional) would be hired to perform (or which the method's executor would perform for themselves); such methods do *not* produce an essentially economic result in relation to trade, etc." is incorrect. One cannot assess in the abstract whether a claimed invention does or does not produce an essentially economic result in relation to trade, etc., as this will depend on the facts of the particular case. Again, for example, patentable chemical processes will be implemented by chemists; patentable repairs to machinery will be made by mechanics, etc. So, asking whether the claimed method relates to a service that someone would be hired to perform does not appear to assist in determining whether the invention is a new and useful art, process, etc. in the meaning of s.2.

16.03.03

The most radical departure from Canadian law in this chapter is arguably the second paragraph,

"Where a claim consists of subject matter that in its totality is statutory subject matter but includes within its scope subject matter that by itself would be non-statutory ..., the requirements of section 28.3 ... will not be satisfied if the only part of the claimed subject matter that is unobvious lies in an aspect of the non-statutory subject matter. In other words, the unobvious part of the invention cannot be found only in an aspect of the subject matter of a claim that constitutes non-statutory subject-matter."

There is no basis in Canadian law that would authorize CIPO to dissect a claim into its statutory and non-statutory components, and then say that inventiveness or non-obviousness can only flow from the parts deemed to be statutory. In fact, many decisions reached by the Patent Appeal Board in the 1980s and 1990s involved

inventions in which the advances were purely in the way calculations were performed. [see for example *Re: Motorola 2,047,731*, *Re: Motorola 2,085,228*, etc.]

Although a loosely analogous approach may have been taken in the EPO, this is because they have a completely different statute in the EPC and regulations thereunder, which arguably authorize such a process, whereas the law in Canada does not.

As a general rule, it is submitted, obviousness must not be determined on an element-by-element basis; rather, the question to be answered is whether the claimed invention as a whole would have been obvious: {cite Canadian authority if time permits; *Windsurfing* (F.C.A.) may be relevant}.

The principle that obviousness must be assessed with reference to the claim as a whole is consistent with s.28.3 of the *Patent Act*, which states that the subject-matter of a claim shall not be obvious. Section 28.3 does not authorize CIPO to focus on obviousness of the subject-matter of some elements but not others.

The proposed approach is also inconsistent with established case-law to the effect that inventiveness can lie in the conception or discovery or underlying idea of an invention, even if its reduction to practice is obvious once the conception has been made: *Shell Oil Co. v. Commissioner of Patents* (1982), 67 C.P.R. (2d) 1 at 11-12 (S.C.C.).

In the last paragraph beginning on page 7, the apparent distinction between “unexpected functional (as opposed to intellectual or aesthetic) results, combined with reference to “in a known manner” is unclear. Is this a statement about subject matter, or obviousness? Moreover, care should be taken not to generalize about doing things in a “known manner”. The onus should be on CIPO to show that the “known manner” is clearly described in the prior art.

16.04

“Art” and “process” need not be treated as a single category.

THE EXAMPLES

16.05.01

Claim 9:

The conclusion that the claim does not produce an essentially economic result in relation to trade, industry or commerce is improper because it is made in the abstract, without reference to the facts of the particular case. The hypothetical applicant might well be able to demonstrate, and may have already demonstrated in its specification, a “useful” result of such a claim.

The statement “Furthermore, it is an obvious physical embodiment of a non-statutory method or algorithm” is irrelevant to statutory subject-matter. If the claim is obvious,

then the claim should be rejected for obviousness under s.28.3, with appropriate prior art references cited in support of the conclusion that it is in fact "obvious".

The statement "The subject matter of claim 8 cannot be made patentable by arbitrarily narrowing the field of use of the equation, or by adding input steps and post solution steps to the algorithm, as has been done in claim 9", is incorrect. Although a mathematical algorithm *per se* is not patentable, a practical application of that algorithm will normally qualify as statutory subject-matter.

Even in Europe, where Art. 52(2) EPC excludes computer programs as such from statutory subject-matter, the fact that the input variables are "physical data", i.e. data representing something in the physical world, provides the necessary technical effect to cause the claim to fall within the boundaries of statutory subject-matter.

This claim should qualify as statutory subject-matter (although admittedly, it would likely be rendered obvious by art dating back to Newton).

Claim 12:

This example is quite unclear. Should this claim be rejected as non-statutory? If so, why? If, as the example alleges, it is a "known method", then it should be rejected for anticipation or obviousness based on cited prior art references. Statutory subject-matter should not be used by Examiners to circumvent the requirement of citing prior art references to support any allegation of anticipation or non-obviousness.

16.05.02

Example a): The statement, "The Office considers the extraction to have depended on subjective judgment and interpretation" is likely unsupported by the wording of the *Schlumberger* decision. As noted above, this statement inappropriately focuses on whether the end result requires subjective judgment and interpretation, whereas the proper question to be raised is whether the claimed invention can be reproduced without such subjective judgment, intuition, etc.

Example b): The analysis has the same problems outlined above, namely, that it should not be relevant whether the end result requires subjective interpretation or judgmental considerations.

16.05.03

Example b) includes assertions to the effect that "It is part of the skill of a professional matchmaker to ...". Any such assertion must be qualified by requiring the Examiner to cite prior art references supporting the assertion. Again, statutory subject-matter must not be used as a covert means to allow Examiners to reject inventions as being old or obvious without citing prior art references to prove such assertions.

The statement that the method “does not constitute a method of operating an inventive machine nor produce a vendible product” should not be relevant to an assessment of statutory subject-matter. To impose such restrictions would be directly contrary to the pronouncements of the Supreme Court of Canada in *Shell Oil*, that “‘art’ was a word of very wide connotation and was not to be confined to new processes or products or manufacturing techniques” (*Shell Oil, supra* at 15)

The statement, “By analogy, if the computer programmed to carry out the method was claimed, it would be considered an obvious mechanical embodiment in conventional computing equipment of a non-statutory method”, should be irrelevant to statutory subject-matter. A programmed computer may be claimed as a new and useful machine under section 2. If it is in fact an obvious mechanical embodiment of a non-statutory method, then it is open to the Examiner to cite prior art references to show that it is obvious contrary to s.28.3, but this cannot cause the new and useful machine to cease to qualify as statutory subject-matter.

16.05.04

Claim 13:

The statement, “Although claim 13 describes a statutory ‘machine’ under section 2 of the *Patent Act*, would not conform with section 28.3 of the *Patent Act* if the description and drawings merely stated that the method would lend itself to implementation through commonplace computer technology”, appears to be in directly conflict with judgments of the Supreme Court of Canada to the effect that inventiveness may lie in the underlying idea, even if, once the idea has been conceived, the reduction to practice is obvious. See e.g. *Shell Oil, supra* at 11-12, quoting with approval from UK authorities: “When once the idea of applying some well-known thing for a special and new purpose is stated, it may be very obvious how to give effect to that idea, and yet none the less is that a good subject-matter for a patent”.

Likewise, the conclusion “Merely using known computing technology to automate a method in an obvious manner cannot secure a patent for an otherwise non-statutory method”, is also troubling. As noted above, obviousness should be determined with reference to the claim as a whole, and if there has been inventiveness in the conception (irrespective of whether such inventiveness lies in an element deemed to be statutory or non-statutory), then the claim is non-obvious despite the fact that the reduction to practice may have been obvious once the idea was conceived (*Shell Oil, supra* at 11-12).

As an additional aside, this example begs the question: would a fence having the claimed shape be patentable? Surely the answer must be yes. If so, why should an instrument that allows the construction of such a fence be unpatentable?
