THE AUSTRALIAN ASSOCIATION OF THE FEDERATION OF INTELLECTUAL PROPERTY ATTORNEYS
FICPI AUSTRALIA

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By email consultation@ipaustralia.gov.au

To: Sean Applegate
IP AUSTRALIA

RE: Patenting of Computer-Implemented Inventions in Australia

FICPI Australia welcomes the opportunity to provide a submission relating to patenting of computer-implemented inventions in Australia.

About FICPI Australia

FICPI Australia is the Australian National Association of the International Federation of Intellectual Property Attorneys (FICPI).

FICPI is unique. It is the only international NGO whose membership consists exclusively of IP attorneys in private practice. FICPI**,** therefore, represents a key constituency of the international IP system.

Founded more than 100 years ago in 1906, FICPI now has more than 5,000 members in over 86 countries, including the US and Japan, Australia and New Zealand, a strong European membership and newly established national sections in India and PR China. Further details regarding FICPI can be found at www.ficpi.org.

Before being admitted, an applicant for membership of FICPI must satisfy prescribed criteria as to their character, experience and international reputation.

FICPI's members represent their clients in patent, trade mark and design matters, and related forms of IP, at the national, regional and international levels. Clients of FICPI members range from individuals and SMEs to multi-national industries, as well as universities, governmental and non-governmental organisations and other institutions, who are applicants and non-applicants alike. FICPI members have assisted in the drafting of IP laws and treaties. FICPI is, therefore, able to offer well-balanced opinions about newly proposed international, regional or national legislation or practise guidelines based on a wide range of different levels of client knowledge, experience and business needs of the IP system.

FICPI aims to enhance international cooperation within the profession of IP attorneys in private practice and to promote the training and continuing education of its members and others interested in IP protection.

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The members of FICPI Australia are all registered Patent Attorneys or registered Patent and Trade Marks Attorneys who have important roles in Patent Attorney firms conducting business in Australia.

Opening Remarks

FICPI Australia has in the past made a number of representations to IP Australia that the interpretation of section 18(1)(a), the manner of manufacture (MoM) criteria for a patentable invention in relation to computer-implemented inventions, is a problem area of patent practice in Australia that requires clarification. FICPI is very happy to participate in this consultation process with a view to assisting IP Australia to provide greater clarity and fairness to all patent applicants, especially those affected by the complex legal landscape currently impacting patentability of computer-implemented inventions in particular. With the greatest of respect, we do not agree with the approach the Commissioner of Patents (and delegates thereof) has taken over the course of the last decade. It is our observation that IP Australia has a different approach to the determination of patentability claims for of computer-implemented inventions compared to inventions in other technology areas. In our view, IP Australia has in part used an incorrect approach when applying the law and to decision-making at examiner and hearing officer level regarding these types of inventions. Further, IP Australia has relevantly advocated to the courts with the same bias.

FICPI Australia does not accept the position advanced by IP Australia that the Commissioner is merely following the law. That position is disingenuous and ignores the reality that the Commissioner (and delegates) have and are shaping the law (through hearing decisions and what is advocated to the courts). The result is confusing and unhelpful, with no clear definitive guidance as best exemplified by the High Court being 3-3 split and in the differing approaches by various Federal Court judges.

What seems to have been forgotten is that the reference in paragraph 18(1)(a) that an invention, in order to be patentable, must be a “manner of manufacture”, is a positive statement that invokes a long line of UK and Australian court decisions as to its application. *It means little more than an invention must belong to the useful arts rather than the fine arts.*’ (para. 31 Explanatory Memorandum of the Patents Bill 1990, emphasis added). It is intended to be a ‘flexible threshold test of patentability’ in light of the unpredictable emerging technologies that challenge traditional notions of manners of manufacture. However, in the past, only once the flexible threshold test was passed was the invention tested for novelty and the (then in 1990) new separate tests for inventive step and utility. However, more recently, the manner of manufacture test has been applied in distorted manner resulting in the refusal of patents for inventions that the test was not intended to exclude unless they clearly fell within the legislated and court-determined exclusions.

The test for manner of manufacture has been used more recently to exclude inventions of subject matter that is novel, inventive, useful *and in the useful arts* where the invention clearly lay in a manner of implementation, and not merely lay in abstract ideas. In our respectful view, the various judges seem to have differing approaches, adding to the confusion. In the split decision, the High Court in Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents [2022] HCA 29) (*Aristocrat*) took diametrically opposite approaches in identifying ‘the substance of the invention’ for the same invention. The Commissioner was a party in this case, appealing

the initial decision by the FCA (Burley J) that the subject matter claimed was clearly a manner of manufacture.

It seems that IP Australia has in the past decade been developing examination practices that apply the MoM test with undue rigidity, based on the Commissioner's different treatment of computer implemented inventions and incorrect approach, rather than with the flexibility intended, and, as a consequence, is failing to promote the Australian patent system. This practice also seems at odds with the recently added Object Clause in Section 2A of the Patents Act 1990. The current approach clearly causes harm to the Australian economy, imposes unnecessary costs on business and denies innovative companies protection over their research and development, the very opposite of what the patent system is intended to do. The documented fall in patent applications in Australia in the sector of computer-implemented inventions evidences this.

Given all these difficulties, we applaud IP Australia for recognising that the current 'tests' applied are leading to unintended consequences) and is seeking input through a consultation process, to resolve some of these problems.

We note the High Court in *Aristocrat* and in D'Arcy v Myriad Genetics Inc [2015] HCA 35 (7 October 2015) (*Myriad)* refers to *characterisation*, which is preferred over the misunderstood so-called 'substance of the invention'. The High Court in [88] of *Myriad* uses substance as a caution against elevating form over substance. IP Australia practice and the Federal Court have picked up use of 'substance of the invention'. However, in our view the terminology of 'substance of the invention' has been elevated meaning to be more then what the High Court intended by use of the term characterisation and by the caution of elevating form over substance.

One problem arises from the manner in which IP Australia determines the characterisation of the invention. It is FICPI Australia's position that only once a proper construction and characterisation of the whole of the claimed invention has been undertaken, can the question of whether there is patent-eligible subject matter be determined. It is also clear that IP Australia is applying the balance of probabilities test to their analysis of the subject matter consideration, noting the courts consistently state that the consideration of manner of manufacture is a 'matter of law' (see Case Study 2 for an example of that). Once the subject matter is (correctly) identified, the patent-eligible subject matter consideration seems relatively straightforward and not particularly controversial.

The Patents Act would seem clear –section 18 sets out the criteria for patentable inventions, and as specified in that section, "an invention is a patentable invention for the purposes of a standard patent if the invention, so far as claimed in any claim:" This directs the decision maker to test the invention "as claimed".

Case law indicates that there are two steps of analysis that IP Australia does not currently apply, by either omitting one step, or conflating those two steps, and this has created confusion and inconsistency, which contributes to the issues highlighted by the questions posed in this review.

The first of those steps requires the claims to be construed. Essentially, a claim (and as we propose, "the whole of the subject" claimed) is to be construed by the notional person skilled in the art *in light of* the common general knowledge that the notional person of skill would possess. However, the common general knowledge is being incorrectly *supplemented* by prior art in

determining the construction of the claim and impermissibly taken account of when considering whether the subject matter is a manner of manufacture.

The second step is characterising the invention, which has not been helpfully considered by the courts (as contented in this submission and supported in the Appendix) and is often the first step used by IP Australia in the examination of applications, absent a proper construction of the whole of the subject claimed.

Myriad at [145] confirmed (and clarified) the concept of "the invention is to be understood as a matter of substance and not merely as a matter of form". FICPI Australia believes that guidance is intended to indicate that it does not matter whether the claim is drafted as a product claim or a process claim; the characterisation of the claim would be the same because the substance is the same, if that is the only difference. This phrase does not authorise abstraction or consideration of only parts of the claim in characterising the invention. However, as applied by IP Australia, a claim is being abstracted and reduced to only the 'new aspect' of the claim, with only those remaining "new" aspects that are not present in the common general knowledge being considered as to whether they are patentable subject matter. In our view, this is an incorrect interpretation of the law.

FICPI Australia firmly believes that short and long-term reform is needed. In the short term, the interpretation of the law by IP Australia needs urgent attention, and in the long term, the law may need to be changed to address the highlighted issues.

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Response to question 1 – "any challenges current laws have for Australian industries."

Australian Patent Attorneys who deal with inventions in the computer-implemented field are well aware of court decisions handed down over the past years that have affected the interpretation of a Manner of Manufacture (MoM) criteria for patentability of Australian patents. Australian industries rely on the Australian attorney profession to advise on current law as it applies to the patent applications they have made, they are about to make, and those they plan to make in the future. Australian industry knows, and IP Australia statistics confirm that holding one or more IP rights enhances the company's value and investment, improves employee wages and productivity, and enhances the company's competitive advantage.

Australian patent attorneys, when providing comments and opinions to Australian industries about MoM and patentability of inventions in the computer-implemented field, are often unable to provide any degree of comfort or certainty about whether or not their investments in research and innovation can be protected in Australia by a patent. The answer will often include the phrase "it depends". That uncertainty is a real challenge for Australian industries and is exacerbated by the fact that the process will also be expensive. The reality is that recently considerably more time, and therefore money, is spent by applicants dealing with MoM issues, which is making the patent system less accessible to small companies.

The courts' developing interpretation of the law should be the primary guide. The courts correctly construe the invention as is their duty but provide little explicit guidance about how to characterise the invention, which is a fundamental step in determining whether there is a MoM.

The most recent High Court (HC) decision regarding MoM is Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents [2022] HCA 29. The six Justices issued an evenly split decision as to the patentability of a computer-implemented invention. In that light, Australian attorneys rightly have great uncertainty about how a court will decide MoM, hence our "it depends" stance.

To further complicate the attorney's provision of a view on patent eligibility of an alleged invention, the application by IP Australia of the various court decisions can be inconsistent. This is understandably so, since our highest court also struggled to find reach a consensus. However, the attorney has to factor that into their comment or opinion on the patentability of the proposed invention. IP Australia applies its interpretation to all applications, even those that IP Australia accepts as having novelty and non-obvious inventions, but still rejects those applications at the application stage using the grounds of a lack of MoM. The attorney may disagree with IP Australia's interpretation, hence the attorney's "it depends" stance.

Patent attorneys on whom the Australian industry depends for comment and opinion cannot provide a definitive comment or opinion, which challenges the Australian industry, creates uncertainty, risk and lack of confidence.

In addition, the attorney must provide the client with a quotation for drafting a computer-implemented invention. Invariably, the task is difficult as the depth of technical disclosure needed to support the invention's invocation at the conceptual and technically specific levels. The cost to Australian industries is more significant than it needs to be.

FICPI Australia understands that IP Australia needs to apply the current law, and in doing so, it interprets the law. IP Australia's task is onerous, but without definitive guidance regarding the courts' characterisation step, IP Australia appears to FICPI Australia to be applying an overly rigid approach to determining what is patentable subject matter, resulting in applicants failing to gain acceptance of applications for otherwise legitimate inventions. Applicants cannot recover from this. While a flexible approach which applies a coarse filter to the threshold test of patent eligibility may result in acceptance, or even grant, of claims for some inventions that may not truly satisfy the principles of MoM, these cases can be opposed, re-examined or revoked. There is no such mechanism to correct a rigid approach which does not permit applications to pass the first hurdle of patent eligibility and progress to acceptance.

FICPI Australia believes that IP Australia's instructions to Examiners regarding how to construe and characterise the invention cannot be definitive, but in the current circumstance, Examiners' statements as to the characterisation of the invention are often not clear. FICPI is of the view that Examiners should support their view as to the proper construction of the claim and their characterisation of the as claimed invention. Hence, in exercising an Examiner's duty to consider the application regarding MoM and raise an objection if they have a view that there is no patentable subject matter after supporting their construction and characterisation of the claim, IP Australia should allow examiners to exhibit discretion to err on the side of patentability and only reject those applications that clearly fall within the legislated and court determined exceptions.

Australian attorneys must also consider patentability criteria known to them for corresponding overseas patents. FICPI Australia's understanding from our experiences and from our international colleagues, including those within the International FICPI organisation, is that the Australian criteria for patent eligible subject matter is different to other countries and is of a

higher threshold, including all 5 major jurisdictions (the US, Europe, China, Japan and South Korea).

Therefore, it is not unusual for an attorney to advise that the patentability of an Australian patent application will likely be questioned during the Australian Examination (applying existing IP Australia guidelines of interpretation of MoM) while advising that the patentability for the same invention will be unlikely to be challenged (or that any objection is likely to be overcome) during examination in particular overseas jurisdictions.

Thus, one uncertainty for the Australian industry is caused by a material difference between an attorney's considered opinion of the court's determination of the law of MoM as applied to the invention in question and the considered opinion of the Examination group in IP Australia of that same invention. Australian industry reacts to that uncertainty by being forced to make decisions that are typically not required if the invention is not computer-implemented, even though computer-implemented products and services are increasingly being developed here. Indeed, many new products and services can't be provided without computer implementation.

Thus, Australian industry will be uncertain whether they should file a patent in Australia for a computer-implemented invention, the one jurisdiction where they are most likely to have the resources to enforce their rights should there be an infringement in the market.

In some cases, an Australian applicant will decide that the filing of the Australian application should not proceed to avoid the potential waste of funds: drafting a more complicated specification, filing, requesting an examination in Australia and the unusually large costs associated with arguing patentability before IP Australia. At the same time, overseas application/s will be filed where the legal landscape for patentability of computer implemented inventions is more favourable and consistently applied.

Further consideration by a client accommodates the possibility that Australian law may change between the provisional filing date and the examination date. The Australian examination may occur more than four years after filing the provisional patent application. That period typically comprises 30 months if the PCT route is taken and up to 18 months until examination (according to the latest pendency statistics). That period is extendable by up to 12 months devoted to the examination and the potential use of divisional patent filings to extend the pendency of the patent. This period is long enough for the law in Australia to change.

When the patent application is examined, while the client typically expects their invention to satisfy the MoM requirement, they hope the examination find that the claimed invention will satisfy the MoM requirement. That expectation is often not met by the Australian examination. The client will also consider that there is a risk that if the application were not applied for, a law change might favour the application. Thus, there is a lost opportunity cost for not taking the risk associated with filing in Australia.

A trade secret is an alternative to a patent or patents to protect a computer-implemented idea. However, the quid pro quo of patent monopoly in exchange for disclosure of the idea to the public does not occur. It could be said that the public good is not thus being exercised in respect to computer-implemented inventions relying on trade secrets to maintain a competitive advantage.

Moreover, a trade secret approach is often not a viable alternative, as SMEs are realistic in recognising that once the idea of their computer-implemented invention is offered to the market,

larger entities will copy or adapt the invention or reverse engineer the offering and may enhance the offering all the while using the core invention as it is not protected in Australia and may also use the invention elsewhere. The inability to obtain patent protection adversely affects SMEs' ability to maintain market advantage, license, and seek investment.

The uncertainty for Australian industry is real and multifaceted.

The elucidated risks apply to every computer-implemented alleged invention and can exist for a long time.

How IP Australia and the courts treat this question can shape economic policy as it potentially prevents innovators active in selected technology areas from obtaining patent protection no matter how inventive a development may be.

Response to question 2 "case studies where the law in Australia or overseas has changed the investments or IP strategies regarding computer-implemented inventions."

FICPI Australia has encountered some resistance from entities to disclose their IP strategies in this public forum. In any event, we are seeking comments from FICPI members and will provide a supplementary submission if we can elicit helpful comments. It is clear however that FICPI attorneys are aware of the complications of obtaining computer-implemented inventions in Australia and when they provide advice to their clients to expect those complications it does adversely influence the number and type of applications made into Australia. It is impossible to quantify the number of patent applications not filed, which is disappointing not just because there has been less applications but from the fact that it becomes easier for overseas entities to omit Australian filing as a matter of course. This change of attitude of overseas entities may take many years or decades to reverse.

Response to question 3 "examples of where the patentability of specific inventions has differed between Australia and other jurisdictions."

Case Study 1

IP Australia promoted the patent strategy of an Australian SME as an example of how computer-implemented patents assist the applicant in protecting their endeavours.

Longtail UX: Patented Digital Products. The IP Australia webpage at the link provided was previously available as of its publication date of 29 September 2022 but is now displaying a 404 error.

Longtail UX Pty Ltd (Longtail) applied for two patents in Australia and overseas. The Australian patent application for one invention was accepted, and the Australian patent application for the other invention was objected to on the manner of manufacture ground and eventually lapsed. In contrast, a corresponding overseas application was accepted for the first and second inventions.

The story begins with Longtail filing a provisional patent entitled "Improvements in website traffic optimization" on 19 Sept 2013.
A complete patent application in the form of a PCT application was filed and was published as WO2015039165 with the same title.

The abstract reads: A system for generating web pages for improving organic search rankings, associated with a website, the system comprising: a keyword generating module adapted to: retrieve one or more candidate keyword sets associated with website content, analyse the candidate keyword sets, and generate one or more target keyword sets based on the analysis of the candidate keyword sets; a web page generating module adapted to: retrieve website content data associated with the website content, and generate web pages based on the generated target keyword sets and the retrieved website content data; wherein the web page generating module is further adapted to communicate with a publicly visible web page server to enable the publicly visible web page server to store and serve the generated web pages; and a link logic module adapted to: define one or more of i) a number of links and ii) a type of link relationship between the target keyword sets, keywords in the target keyword sets, the web pages generated and pages on the website, and communicate with a link module adapted to retrieve and display the links defined by the link logic module on the website to make the links visible to search engines.

The PCT proceeded to the National Phase in Australia, the USA, the European Patent Office (EPO), Japan and China. Notably, the IPRP was clear and indicated novelty, inventive step and industrial applicability of all 34 claims. IP Australia issued the IPRP.

The Australian application AU2014299245 was accepted with no objection on the grounds of lack of patentable subject matter. The first claim is as follows:

1. A system for generating web pages for improving organic search rankings, associated with a website, the system comprising:

    a keyword generating module adapted to:
        retrieve one or more candidate keyword sets associated with website content, analyse the candidate keyword sets, and generate one or more target keyword sets based on the analysis of the candidate keyword sets;

    a web page generating module adapted to:
        retrieve website content data associated with the website content, and generate web pages based on the generated target keyword sets and the retrieved website content data;
        wherein the web page generating module is further adapted to communicate with a publicly visible web page server to enable the publicly visible web page server to store and serve the generated web pages; and

    a link logic module adapted to:
        define one or more of i) a number of links and ii) a type of link relationship between the target keyword sets, keywords in the target keyword sets, the web pages generated and pages on the website, and
        communicate with a link module adapted to retrieve and display the links defined by the link logic module on the website to make the links visible to search engines.

The corresponding US claim received a §101 objection, which was overcome and issued as US10534781; the EP application eventually failed for lack of inventive step; the Japanese application was granted on the basis of the clear IPRP; the Chinese application was granted, and there is no indication of the prosecution including any objection on the ground of lack of patentable subject matter.

The US claim 1 is as follows:

1. A system for generating web pages for improving organic search rankings, associated with a website, the system comprising:

a keyword generating module adapted to:

retrieve one or more candidate keyword sets associated with website content, analyse the candidate keyword sets, and

generate one or more target keyword sets based on the analysis of the candidate keyword sets;

a web page generating module adapted to:

retrieve website content data associated with the website content, and

generate web pages based on the generated target keyword sets and the retrieved website content data;

wherein the web page generating module is further adapted to communicate with a publicly visible web page server to enable the publicly visible web page server to store and serve the generated web pages; and

a link logic module adapted to:

define i) one or more links and between the generated new web pages, ii) one or more links from the generated web pages to the pages on the website and, iii) one or more links from the pages on the original website to the generated new web pages, and

communicate with a link module adapted to retrieve and display the links defined by the link logic module on the website to make the links visible to search engines.

The second of the Longtail patent applications begins with the filing of a provisional patent entitled “Improvements in landing page generation” on 18 May 2016.

A complete patent application in the form of a PCT application was filed and was published as WO2017197430 with the same title.

The abstract reads: A system for generating keyword-level landing pages for paid search campaigns associated with website content on a website, the system comprising: a keyword list management module adapted to: receive a set of campaign defined terms, wherein the set of campaign defined terms comprises a plurality of phrases that are actively targeted as SEM keywords in an SEM campaign; a website content gathering module adapted to: receive website content data associated with the website content; a landing page generating module adapted to: retrieve the website content data from the website content gathering module, generate a plurality of landing pages based on the received campaign defined terms and the retrieved website content data; and communicate with a publicly visible web page server to enable the publicly visible web page server to store and serve the generated landing pages.

The Australian Examination Report 16 August 2022
Application number: 2017268024
Applicant name: Longtail UX Pty Ltd

Claim 1 reads as follows:

1. A system for generating keyword-level landing pages for paid search campaigns associated with website content on a website, the system comprising:

a keyword list management module adapted to:

receive a set of campaign defined terms, wherein the set of campaign defined terms comprises a plurality of phrases that are actively targeted as SEM keywords in an SEM campaign;

a website content gathering module adapted to:
receive website content data associated with the website content;
a landing page generating module adapted to:
retrieve the website content data from the website content gathering module, generate a plurality of landing pages based on the received campaign defined terms and the retrieved website content data; and communicate with a publicly visible web page server to enable the publicly visible web page server to store and serve the generated landing pages.

Patentable Subject Matter objection
Item 1
Claims 1-47 do not define a manner of manufacture within the meaning of Section 18(1)(a) of the Patents Act 1990 according to the principles set out in D'Arcy v Myriad Genetics Inc [2015] HCA 35 (Myriad), Encompass Corporation Pty Ltd v InfoTrack Pty Ltd [2019] FCAFC 161 (Encompass), Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd [2021] FCAFC 202 (Aristocrat), Commissioner of Patents v Rokt Pte Ltd [2020] FCAFC 86 (Rokt), Commissioner of Patents v RPL Central Pty Ltd [2015] FCAFC 177 (RPL) and other cases. The claimed invention, as a matter of substance rather than form, is not suitable subject matter for a patent. The substance of the claimed invention is to be determined by considering the state of the art and the true nature of the invention.

The claimed subject matter is broadly related to a Search Engine Marketing (SEM) scheme.

In RPL [099], the Full Federal Court indicated several factors relevant to consider when determining whether a claimed invention as a matter of substance relates to patentable subject matter. These included:

- Is the contribution to the claimed invention technical in nature?
- Does the claimed invention solve a “technical” problem within the computer or outside the computer?
- Does the claimed invention result in an improvement in the functioning of the computer,
  irrespective of the data being processed?
- Does the claimed invention merely require generic computer implementation?
- Is the computer merely the intermediary, configured to carry out the method, but adding nothing to the substance of the idea?

In weighing up the variety of factors which indicate what the substance of the claimed invention is and whether or not the claimed invention as a matter of substance relates to patentable subject matter, I have concluded the claimed invention, as a matter of substance, does not relate to patentable subject The technical features of the alleged invention (e.g. website and system), at the priority date were considered to be generic in the art. The claimed invention does not result in an improvement in the functioning of the general purpose computer system, irrespective of the data processed. The contribution to the art and substance of the invention thus appears to lie in a Search Engine Marketing scheme. Therefore, the claimed invention, as a matter of substance, does not define subject matter suitable for a patent.

The Australian application has been abandoned because of non-payment of the renewal fee. The amendment filed in the corresponding US application would not have overcome the Australian Examiner’s objection if the Examiner’s Manual had been followed.

The US application was granted as US 11436297 after overcoming a §101 objection by amendment as follows:

The Office Action rejected each of claims 1-2, 4-5, 7-10, 13-14, 16, and 47 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. In particular, the Office Action asserted

that independent claim 1 and claim 47 recite computer software per se. Applicant has amended claim 1 to recite “a processor” and “a memory device having stored therein a plurality of instructions that, when executed by the processor, cause the system to execute” the keyword list management model, the website content gathering module, and the landing page generating module. Therefore, Applicant submits that amended claim 1 recites hardware elements and thus is directed to statutory subject matter. Inventive step objections were overcome during prosecution.

Claim 1 of the granted US patent is as follows and the underlined elements were added to overcome the 35 U.S.C. § 101 objection:

1. A system for generating keyword-level landing pages for paid search campaigns associated with website content on a website, the system comprising:

a processor; and

a memory device having stored therein a plurality of instructions that, when executed by the processor, cause the system to execute:

a keyword list management module adapted to:

receive a set of campaign defined terms, wherein the set of campaign defined terms comprises a plurality of phrases that are actively targeted as SEM keywords in an SEM campaign;

a website content gathering module adapted to:

receive website content data associated with the website content;

a landing page generating module adapted to:

retrieve the web site content data from the web site content gathering module and store the retrieved website content data in a website content database of the system;

generate a search index based on the retrieved website content data in the website content database of the system;

generate a plurality of landing pages based on the received campaign defined terms and the retrieved website content data that is stored in the website content database, wherein to generate the plurality of landing pages comprises to, for each campaign defined term, (i) search the retrieved website content data for the campaign defined term with the search index to determine internal search results, (ii) generate a landing page for the campaign defined term that includes the internal search results, and (iii) store the landing page for the campaign defined term at a predetermined web address associated with the landing page; and communicate with a publicly visible web page server that is external to the website and has access to the website content database of the system to enable the publicly visible web page server to store and serve the generated landing pages stored in the website content database, wherein the web page server publishes the generated landing pages onto a client sub domain URL pointing to an IP address of the web page server, or onto a client subdirectory URL via a reverse proxy URL rewrite.

The European application has been abandoned.

Case Study 2

Resource Connect Holdings Pty Ltd applied for an Innovation patent 18 July 2017 and which was automatically Granted. The innovation patent was sought to be Certified on 31 January 2022, and the five claims corresponding to US11182704 were filed as an amendment.

Claim 1 is as follows:

1. A web based booking platform for deployment of a mobile workforce, said deployment having a plurality of deployment steps that form a personnel supply chain that allows for the live booking of personnel, services and assets on a database through a continuous supply chain wherein the continuous supply chain includes the functions of onboarding, including recruitment, medicals, induction and/or training, the process of mobilization, including regular passenger

transport, flights, air charter, bus charter, light vehicle and/or the worksite including plant and equipment, accommodation and work packages, the web based booking platform comprising:

a web server hosting a portal website, the portal providing access to other service and asset provider websites or email addresses of personnel members; the portal contactable through a universal resource locator by the personnel members, and the service and asset providers, via a member user system; the web server interfacing with:

a directory component adapted to enable location of one or more of

a particular personnel member's information stored in the database, web address, or website;

a service and asset provider's information stored in the database, web address or website,

a particular personnel member's geographical location; and

a type of service or asset provided or booked;

a database adapted to store personnel member, service and asset provider data and information;

a database management component adapted to allow input and retrieval of the data and information;

a web browser adapted to interrogate and provide access to the information and data;

a member identification component adapted to qualify a personnel member's or service or asset provider's access to the information and data, including a unique identifier comprising a code or biometric;

a client application programming interface connecting the web server to a client's management system, wherein information can automatically flow between the web based booking platform and the client's management system;

provider application programming interfaces:

configured so that each service and asset provider automatically uploads booking data via the application programming interfaces to the database in a services orientated architecture (SOA) environment thereby creating live manifests of all personnel, service and asset bookings, and

configured to send the live manifests to a subsequent provider,

wherein a client can create rosters for personnel members working on a project which then automatically book them into services or assets at each point within the personnel supply chain in accordance with the rosters; whereby continuously updating the booking platform for multiple personnel updates the live manifests for each deployment step in the supply chain on an individual, multiple, group or collective basis which facilitates the co-ordination of the personnel supply chain to be continuous and connected at each point; and

the web based booking platform further comprising a planning module for estimating the services and assets required for the number of personnel rostered for a project, the planning module utilizing the updated live manifests.

The Australian Examiner issued the first examination report on 7 February 2022. A MoM objection was the only issue raised.

Patentable subject matter

Claims 1-5 do not define a manner of manufacture within the meaning of Section 18(1A)(a) of the Patents Act 1990. In general, the principles set out in D'Arcy v Myriad Genetics Inc [2015] HCA 35 (Myriad), Commissioner of Patents v RPL Central Pty Ltd [2015] FCAFC 177 (RPL) and other cases require analysing whether the claimed invention, as a matter of substance rather than form, is suitable subject matter for a patent. Further, key factors to consider include (RPL at [99]) whether the contribution of the invention "solves a technical problem within the computer or outside the computer or whether it results in an improvement in the functioning of the computer, irrespective of the data being processed", and (RPL at [111]) "the solution to that problem, to be patentable, must involve more than the utilisation of the well-known search and processing functions of a computer", noting also (RPL at [104]) "A computer-implemented business method can be patentable where the invention lies in the way in

which the method is carried out in the computer. This necessitates some ingenuity in the way in which the computer is utilized".

The substance of the invention is a business scheme for the booking of personnel, services and assets, for a supply chain, incorporating manifests and planning, to be incorporated into and take advantage of existing computer functionality such as a web server, database, web browser, application program interfaces (APIs), a service oriented architecture (SOA), and real-time processing. The said existing computer functionality are 'technical' but are well-known, well-known to be used in combination, and there is no ingenuity in the way in which the computer is utilized. While business problems may be solved, and there may be business innovation involved (e.g., treating various business entities in a holistic manner, or providing more up-to-date manifests), there is no technical innovation and there is no technical problem being solved. To the extent any of the well-known functions of a computer (used to implement the business scheme) have been adapted, such adaptations are very specific to the data being processed.

In view of the above, I am not satisfied on the balance of probabilities that the contribution to the claimed invention is technical in nature such that it produces an improvement in the functioning of the computer.

Therefore the claimed invention, as a matter of substance, does not define subject matter suitable for a patent.

Despite a cogent response to this objection lodged on 3 March 2022, a second Examination report was issued on 10 March 2022.

Claims 1-5 do not define a manner of manufacture within the meaning of Section 18(1A)(a) of the Patents Act 1990.

The manner of manufacture arguments in the applicant's response have been fully considered and found to not be persuasive.

In general, the principles set out in D'Arcy v Myriad Genetics Inc [2015] HCA 35 (Myriad), Commissioner of Patents v RPL Central Pty Ltd [2015] FCAFC 177 (RPL) and other cases require analysing whether the claimed invention, as a matter of substance rather than form, is suitable subject matter for a patent. Further, key factors to consider include (RPL at [99]) whether the contribution of the invention "solves a technical problem within the computer or outside the computer or whether it results in an improvement in the functioning of the computer, irrespective of the data being processed", and (RPL at [111]) "the solution to that problem, to be patentable, must involve more than the utilisation of the well-known search and processing functions of a computer", noting also (RPL at [104]) "A computer-implemented business method can be patentable where the invention lies in the way in which the method is carried out in the computer. This necessitates some ingenuity in the way in which the computer is utilized".

The response argues on pages 2-3 that "The contribution to the prior art is a booking platform wherein each API performs a live manifest handover when an associated deployment step workflow ends so that mobile workforce deployment can be continuous and connected from one deployment step to a subsequent deployment step. … The technical problem that manifests when trying to determine how to manage a vast workforce with multiple separate service providers is how to efficiently hand over from one step in the deployment process to the next step without human intervention. This is a problem because, as outlined above, each step in the work flow is performed by a different, unrelated third party. With unrelated service providers (some being electronic and others not), how would you get them to speak to one another in order to provide useful data? If this problem cannot be solved (and it has not been solved by the prior art) then there is a significant detriment to business as outlined above. The inventor has proposed approaching the "logistical problem of managing a vast workforce" as if it were

a supply chain. ... The technical solution provided by the claimed method is a web-based booking platform that has a database linked by API's and includes business logic so that handovers from one workflow to the next in a TPSC is automatic and autonomous. Referring to Fig. 1, each preceding workflow hands over to the subsequent workflow using a live manifest. The platform itself is responsible for the manifest handover between the "supply chain" steps."

The examiner does not agree that a technical problem is being solved. Other than potentially having different business rules or data-specific modifications that do not require ingenuity, the above-described and claimed usage of computer technology is well-known as evidenced by at least D4. For example, D4 discloses at [0032] managing a vast workforce with multiple separate service providers (different entities (e.g. different hospitals, different health insurers, clinics, state or federal agencies and so forth)); at FIG.'s 11 & 17-18 and [0110] a supply chain analogous view of the problem (a sequenced chain of events between separate service providers to supply the patient with medical care); at FIG.'s 5A-5C and [0053] a workflow across different computer architectures; at FIG.'s 1, 5A-5C and [0032]-[0033], [0077] & [0228] a web-based booking platform that has a database linked by API's (where ordering and scheduling medical services are a form of bookings); at [0056] the use of business logic (Service Oriented Architecture (SOA), Web Services, and Business Process Execution Language (BPEL) orchestration); [0046]-[0053], [0069], [0090] & [0114] handovers from one workflow to the next that are automatic and autonomous (processing is automatically pushed, sent, or handed off to another entity); and [0040], [0053] & [0222] a live manifest (other Headwaters that touched the information item or that have been tasked with being "interested" in the information item can receive the broadcast message and update their copies of the history/trace record for the information item; repository contains the full breadth of information about what happened for this specific patient; a schedule is used as an intermediary response to an order, when an order is placed a schedule is generated to describe when and where the order can be filled, once the order is filled the encounter/result is generated).

The substance of the invention is a business scheme for the booking of personnel, services and assets, for a supply chain, incorporating manifests and planning, to be incorporated into and take advantage of existing computer functionality such as a web server, database, web browser, application program interfaces (APIs), a service oriented architecture (SOA), and real-time processing. The said existing computer functionality are 'technical' but are well-known, well-known to be used in combination, and there is no ingenuity in the way in which the computer is utilized.
While business problems may be solved, and there may be business innovation involved (e.g., treating various business entities in a holistic manner, or providing more up-to-date manifests), there is no technical innovation and there is no technical problem being solved. To the extent any of the well-known functions of a computer (used to implement the business scheme) have been adapted, such adaptations are very specific to the data being processed.

In view of the above, I am not satisfied on the balance of probabilities that the contribution to the claimed invention is technical in nature such that it produces an improvement in the functioning of the computer.

Therefore the claimed invention, as a matter of substance, does not define subject matter suitable for a patent.

Despite a further cogent response to this objection lodged on 9 May 2022, a third Examination report was issued on 10 March 2022.

Claims 1-5 do not define a manner of manufacture within the meaning of Section 18(1A)(a) of the Patents Act 1990.

The manner of manufacture arguments in the applicant's response have been fully considered and found to not be persuasive. Although the examiner does not concede that D4 is not relevant, the following discussion uses as a reference (for what was well-known) the new citation D6.

D6 (see [0002]-[0003]) is in the field of cross-enterprise collaborations among existing legacy systems as well as integration with new external systems, such as business-to-business applications, and involves heterogeneous technologies, business applications and business data management (noting that the claimed manifest is a form of business data). FIG. 1 and [0019] disclose a service-oriented architecture ("SOA") as well as a web-oriented architecture (which according to [0026], [0029] & [0043]-[0045] may include employee contact information [which includes email addresses within its scope], web portals, login credentials [which includes biometrics within its scope], the IIS web server [Microsoft's Internet Information Services], and use the Business Process Execution Language (BPEL)) that provides multiple API services, and that SOA is used to encapsulate functionality of disparate, external, internal, custom, and/or proprietary business software applications, technology or systems, including components that perform business tasks and provide or access business data (which according to [0026] & [0028] may include business data [e.g., a list of information] for customer orders, product inventory, as well as work flow requirements). [0052]-[0053] discloses a centralized mechanism for controlling and mediating API service invocations and messages. [0018] discloses that multiple API services are provided whose usage integrates different business application functionalities and business data, and that the API services may be combined or orchestrated into complex business capabilities. [0025] discloses a service-enabled-asset is a technology resource of the application platform that has been engineered to provide access to the business capabilities of the application through a proprietary API service that is specific to an asset (such as web services for Oracle Siebel 8.1 [which is a customer relationship management (CRM) application, including workflow planning, asset to employee(s) assignment/roster, workload distribution, mobile workforces, etc.]), and further discloses non-service-enabled assets that are accessed using adapters to effectively serve as API services. [0038] discloses various data may be used for capacity planning for an SLA. Finally, and most relevantly, [0038], [0045] & [0062] disclose different API services for different systems being called in sequence (i.e., consecutive steps where processing is automatically handed over or daisy chained to unrelated third party systems with disparate technology systems and without human intervention, noting that each of the called systems are independently called by the orchestrator/OBPSA and so have no direct coordination or communication between the called third parties involved).

The response states (at page 1) that "The problem being addressed is therefore how to get these unrelated third party systems to speak to one another so that efficient handover from one step to the next occurs in a process that has consecutive steps." As discussed above, this problem has already been solved.

The response then argues (at page 2) that "the claimed invention does not relate to business rules.The claims define a software platform that includes a specific architecture that enables specific functionality allowing an automatic and autonomous step-wise and consecutive handover from one third-party to the next unrelated and independent third-party." However, the examiner notes that there are several business rules evident within claim 1 such as, for example, that the personnel supply chain must provide for booking personnel, services and assets, and to provide onboarding, including recruitment, medicals, induction and/or training, the process of mobilization, including regular passenger transport, flights, air charter, bus charter, light vehicle and/or the worksite including plant and equipment, accommodation and work packages, and that the services and assets booked or planned must suit the number of personnel rostered for a project. Further, the examiner notes that claim 1 does not specify that the asset or service provider is an "unrelated and independent third-party". Even if the claim were amended to qualify that the provider is an "unrelated and independent third-party"

(noting also how vague these terms are), such a distinction is a business or abstract distinction.

The response (at page 2) further points to the fact that the claimed invention is "both novel and innovative compared to the prior art". Nonetheless, being innovative or inventive does not directly cause the claimed invention to be considered patentable subject matter.

The response (at pages 2-3) additionally argues that the claimed invention does not include "a database linked by API's", that D4 provides "a common API from which applications can do scheduling". The examiner notes that claim 1 does not restrict or qualify that the API's used cannot be common or uniform. Further, the current application's Description at page 11 lists under 'ADVANTAGES' that the claimed invention uses "a common database linking all industry participants via API's". The response further argues that D4 does not suggest "a plurality of provider application programming interfaces, each provider application programming interface associated with one of the service and asset providers". Nonetheless, new citation D6 does not simply use a single common API, as discussed above, so the response argument is moot.

The response argues (at page 3) that D4 does not disclose "handovers from one workflow to the next that are automatic and autonomous" nor "a live manifest" nor a "daisy-chain in which a live manifest is automatically sent from one provider API to a subsequent provider API" (although I note that the former and the latter examples go beyond what is specifically claimed in claim 1 as currently worded). The response also states (at page 6) that "clearly the manifest can be any manifest, in other words simply a list of anything associated with a step-wise process. In substance, the only consideration for the software platform to work is that the steps in the process are (1) associated with different and unrelated third party providers (so there is no direct coordination or communication between the parties involved), and (2) consecutive, i.e. one step follows the other."

Thus a "manifest" is just business data. Further, being "live" merely means the data/manifest is updated and distributed as needed (i.e., as per the business rules). Finally, as discussed above, D6 shows it was well-known "that the steps in the process are (1) associated with different and unrelated third party providers (so there is no direct coordination or communication between the parties involved), and (2) consecutive, i.e. one step follows the other."

Based on the above, the rest of the arguments in the response are also considered moot.

The examiner again notes (see report no. 1 for AU 2017202699) that the current application's Description is so brief on technical implementation detail, other than pedestrian references to SOA and API's, that one can only conclude that, for the person skilled in the art, there is no technical problem being solved by the computer implementation of the said business method or scheme.

See also the MPP (Manual of Practice and Procedure of the Australian Patent Office) at 2.9.2.7 'Computer Implemented Inventions, Schemes and Business Methods' where the example 'Performing Business Interactions Using Computing Devices' concludes "the "processor" and "user device" are merely performing their usual independent function, there being no improved operation of the relevant technology. … As a result, the substance of the claim is directed to a mere computer implemented rule, or scheme, for determining when to share information". While some of the business rules of the present scheme may vary from the example, in both cases there is no technical problem being solved.

There is no technical problem being solved. The substance of the invention is a set of specific business rules used for information sharing.

Therefore the claimed invention, as a matter of substance, does not define subject matter suitable for a patent.

It is to be noted that the US prosecution history does not show any objection was raised under 35 U.S.C. § 101. The US prosecution did raise 35 U.S.C. § 103 and 35 U.S.C. § 112 (b) objections which were overcome.

Conclusion regarding Case Studies 1 and 2

It is clear that IP Australia applies a certain interpretation of the Australian law, which is particularly averse to computer-implemented inventions. Whereas in the United States of America, a territory that is renowned for its tough consideration of the equivalent of the manner of manufacture under 35 U.S.C. § 101, equivalent patents have been allowed.

FICPI Australia had proposed options for changes[1] to the Patents Act that should guide the courts and examiners first to construe the whole claim, determine the characteristics of the invention and then consider 18(1)(a) as to the manner of manufacture while not applying the balance of probabilities test to that determination since the exercise of judgement on s 18(1)(a) is a matter of law and give deference to the Objects Clause 2A.

Case Study 3

The Rokt decision – Commissioner of Patents v Rokt Pte Ltd [2020] FCAFC 86 – concerned AU 2013201493 and found that the invention was not directed to a manner of manufacture. However, the international patent family includes granted US patent 11295344. While a lack of patent-eligible subject matter rejection was raised, this was overcome. Further, after dealing with obviousness objections, the patent was ultimately allowed and granted.

This demonstrates another example that patent eligibility can be different between Australia and the US.

Case Study 4

The Repipe decision – *Repipe Pty Ltd v Commissioner of Patents* [2019] FCA 1956 concerned AU 2017100560 and AU 2017100943, both patents were found not to be directed to a manner of manufacture. However, the international patent family of the patents includes granted patent JP 7232539, granted KR 102553164, and US 2018068242 is in order for grant. While a lack of patent-eligible subject matter rejection was raised in the US, this was overcome. Further, after dealing with obviousness objections, a patent was ultimately granted in JP and is allowed for grant in KR and the US.

This demonstrates that the outcome concerning patent eligibility in the JP, KR, and the US is different from that in Australia.

Observation based on all the Case Studies

It is apparent that patents are being granted in the US and other major jurisdictions for inventions that IP Australia or the Australian courts have found are not directed to a manner of manufacture. This leads to a situation where Australians applying for patents cannot gain

[1] **Response to question 4 – "any views on changing or retaining current Australian law."**

protection in their own country but in other countries. It also leads to the situation where foreign entities that are unable to gain protection in Australia are inclined not to invest in the Australian economy due to that lack of protection.

The problem is exacerbated when it is Australian entities that are taking matters beyond examination to hearings and to the courts in order to seek protection over their investment, and disproportionately, those Australian entities are carrying the load seeking to correct this imbalance, whereas the Australian government through IP Australia is resisting this effort and actively encouraging the courts to deny protection for technology involving computer-implemented ideas that other countries allow patents for.

It is apparent that at least the application of the law, if not the law itself, is much more restrictive on the allowance of patents just because the inventions are computer-implemented.

Response to question 4 – "any views on changing or retaining current Australian law."

This presentation of the current state of the law is meant to highlight what FICPI Australia considers to be critical issues.

The proposals and options for change are intended to be a catalyst for constructive discussion.

In Australia, sections 18(1)(a) and 18(1A)(a) of the Patents Act 1990 (Cth) provide that an 'invention' is patentable if it is 'a manner of manufacture within the meaning of s 6 of the Statute of Monopolies'. A substantial body of common law jurisprudence as to what a 'manner of manufacture' (MoM) is within the meaning of s 6. As such, s 18(1)(a) confers a broad statutory discretion upon Australian courts to develop the concept of manner of manufacture. The breadth of the conception of manner of manufacture allows patent law to adapt in concert with developments in technology and science as discoveries inspire new and beneficial applications of that technology and science.

As recently as February 2020, an amendment to the Australia Patent Act 1990 introduced an objects clause Section 2A providing a framework within which the provisions of the Patents Act are to be considered.

"The object of this Act is to provide a patent system in Australia that promotes economic wellbeing through technological innovation and the transfer and dissemination of technology. In doing so, the patent system balances over time the interests of producers, owners and users of technology and the public."

There are legislated exceptions to what is considered a manner of manufacture in sub-ss (2) and (3) of section 18, which relate to plants, animals, human beings and the biological processes for their generation. However, there are also court-determined exceptions, being the discovery of a natural phenomenon or law of nature, or mere intellectual information, which includes a mere abstract idea, a mere scheme or a plan devised for the accomplishing of a task, or a set of rules whether devised for the conduct of a business or the playing of a game, are not the proper subject of letters patent.

Legislators purposely left the application of sections 18(1)(a) and 18(1A)(a) to the court to apply its logic and rigour to the determination of patentable subject matter. This means that when determining patent-eligible subject matter, the deliberate ambulatory nature of the common law

concept of manner of manufacture enables Australian courts to maintain the necessary compromise between private monopoly and public benefit. [145] *Myriad*

Many jurisdictions codify what is or is not patent eligible subject matter. For example, European Patent Convention requires the subject matter be technical and has a list of per se exclusions. Other countries have a technical requirement that can mean if the form of the claim has the necessary requirement to be technical, with there being no problem with form over substance which Myriad decries.

FICPI Australia contends it is appropriate for the courts to retain its role in determining the breadth of the concept of manner of manufacture.

However, FICPI Australia suggests that IP Australia consider various options to change the law, or at least the manner in which it applies the current law, which will affect how the courts and other decision-makers determine an alleged invention is a manner of manufacture.

As background to the various options, it is instructive to examine how the courts have considered the issue of manner of manufacture.

> The first step in the process of considering manner of manufacture is one of construing or construction the claim for the alleged invention.
>
> The second step is characterising the alleged invention defined by the claim.
>
> Only once those steps have been properly executed can the court or the decision-maker address the issue of whether the alleged invention is proper subject matter for a patent within the meaning of s 18(1)(a) or s 18(1A)(a).

As of the date of this submission, the courts have provided guidance on how to perform the step of construction but have not provided clear guidance as to how to perform the characterisation step of an alleged invention.

The reasoning and factors espoused by numerous courts do not guide how the characterisation step is to be assessed, nor the weight to be afforded to individual factors, or precisely which factors must be considered in a particular case. Refer to the attached Appendix.

FICPI Australia urges careful consideration of a targeted legislative change in the determination of the construction and characterisation of an alleged invention.

The technology of the alleged invention should not influence the performance of the characterisation step.

This submission primarily deals with computer-implemented inventions, but the analysis and indicated proposed changes should be equally applicable to any alleged invention now and in the future and its attendant technology.

The most recent High Court pronouncement relating to manner of manufacture in relation to computer-implemented inventions is the Aristocrat HC Decision.

The High Court (HC) in Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents [2022] HCA 29 issued an evenly split decision in its determination of the patentability of a

computer-implemented invention. It is accepted that the technology was not of the type that requires the exercise of the court's discretion as to whether new and groundbreaking technology was a manner of manufacture.

Both the separate joint judgments of Kiefel CJ, Gageler and Keane JJ (**Kiefel CJ judgment**), in denying the appeal, and Gordon, Edelman and Steward JJ (**Gordon J judgment**) in allowing the appeal, agreed there is an initial "threshold requirement" that must be met before an assessment can be made as to whether an invention involves a manner of manufacture.

In the referenced High Court decision, the first step of construing the invention seems to have been skipped, as the terms 'construe' and 'construction' only appear in paragraphs [067] and [111] as quotations from other cases. HC Aristocrat [067] "Kiefel CJ judgment" Brennan, Deane and Toohey JJ went on to hold that "if it were apparent on the face of the specification when properly construed and understood, that a subject process was (for example) nothing more than a new use of an old product," while referring to the N V Philips Gloeilampenfabrieken v Mirabella International Pty Ltd case, and in similar terms when referring to the NRDC case.

The High Court, in this case, did not clearly enunciate the construction of the invention. It could be said that the court dealt with the construction and characterising steps as one step.

In the referenced High Court decision regarding the second step of characterisation, their Honours made many statements. It could be said that the court was much like other courts in the way in which it used analogous reasoning by making comparisons and then making a determination without providing a reason for its thinking as if the analogous reasoning was the sufficiency of the determination.

In the referenced High Court decision, when discussing their conclusions regarding the characterising step, the Justices made it clear and in alignment with jurisprudence, that the invention is to be understood as a matter of substance and not merely a matter of form. It is a much-used phrase and often mis-used to dismiss a countervailing characterisation but is not necessarily instructive of how their honours perform the characterisation step or the reason for application of the phrase to the circumstances.

However, in the referenced High Court decision, it was agreed that if the invention's proper characterisation were a mere scheme, plan or game, then there was no patentable subject matter.

Accepted Jurisprudence - Dealing with the Construe / Construction Step

Commissioner of Patents v Rokt Pte Ltd [2020] FCAFC 86 provides the most comprehensive guidelines for construing the claimed alleged invention.

[071] There is no real dispute between the parties as to the principles of construction to be applied in this matter although there is some difference in emphasis. It suffices for present purposes to refer to the following:

> *(i) the proper construction of a specification is a matter of law: Décor Corp Pty Ltd v Dart Industries Inc (1988) 13 IPR 385 at 400;*
>
> *(ii) a patent specification should be given a purposive, not a purely literal, construction: Flexible Steel Lacing Company v Beltreco Ltd (2000) 49 IPR 331 at [81]; and it is not to be read in the abstract but is to be construed in the light of the common general knowledge and the art before the priority date: Kimberley-Clark Australia Pty Ltd v Arico Trading International Pty Ltd (2001) 207 CLR 1 at [24];*

(iii) the words used in a specification are to be given the meaning which the normal person skilled in the art would attach to them, having regard to his or her own general knowledge and to what is disclosed in the body of the specification: Décor Corp Pty Ltd at 391;

(iv) while the claims are to be construed in the context of the specification as a whole, it is not legitimate to narrow or expand the boundaries of monopoly as fixed by the words of a claim by adding to those words glosses drawn from other parts of the specification, although terms in the claim which are unclear may be defined by reference to the body of the specification: Kimberley-Clark v Arico at [15]; Welch Perrin & Co Pty Ltd v Worrel (1961) 106 CLR 588 at 610; Interlego AG v Toltoys Pty Ltd (1973) 130 CLR 461 at 478; the body of a specification cannot be used to change a clear claim for one subject matter into a claim for another and different subject matter: Electric & Musical Industries Ltd v Lissen Ltd [1938] 56 RPC 23 at 39;

(v) experts can give evidence on the meaning which those skilled in the art would give to technical or scientific terms and phrases and on unusual or special meanings to be given by skilled addressees to words which might otherwise bear their ordinary meaning: Sartas No 1 Pty Ltd v Koukourou & Partners Pty Ltd (1994) 30 IPR 479 at 485-486; the Court is to place itself in the position of some person acquainted with the surrounding circumstances as to the state of the art and manufacture at the time (Kimberley-Clark v Arico at [24]); and

(vi) it is for the Court, not for any witness however expert, to construe the specification; Sartas No 1 Pty Ltd, at 485–486.

[085] The reference to using the computer for its "well-known and understood functions" involved consideration of computers having regard to their basic and well-known functions. This did not require, and should not be taken to encourage, a review of the common general knowledge beyond the use of the common general knowledge, to the extent necessary, to construe the specification.

The courts have not slavishly followed these guidelines, but it appears to be settled that the guidelines are sound.

Unsettled Law – Dealing with the Characterisation Step

In regards to the step of characterise/characterisation/character, the following paragraphs including at least one of those terms, were located in the Aristocrat HC decision.

Kiefel CJ judgment

[073] In the absence of a claim to some variation of or adjustment to generic computer technology to give effect to, or accommodate the needs of, the new game, there is no reason to characterise the claimed invention as other than a claim for a new system or method of gaming: it is only in relation to the feature game that the invention is claimed to subsist. … The claimed invention takes its character, as an invention, from those elements of the claim which are not common general knowledge.

[074] Unlike CCOM, the present cannot be said to fall within a category of case in which, as an element of the invention, "there [is] a component that [is] physically affected or a change in state or information in a part of a machine"123.

[075] … there is nothing in claim 1 that might lead to the conclusion that it has produced some adaptation or alteration of, or addition to, technology otherwise well-known in the common general knowledge.

[078] … (the) claimed invention that discloses no adaptation or alteration of, or addition to, apparatus well-known in common general knowledge in order to accommodate the exigencies of the new idea …. a new idea implemented using old technology is simply not patentable subject matter.

[083] … the essential question is to characterise the invention, an inquiry which is conducted by reference to the claim in light of the specification as a whole and the common general knowledge … and in [073] the substance of the claims is stated.

Gordon J judgment
[106] Once the subject matter of the claim has been characterised, and the facts and matters relied upon for that characterisation are identified, there is a threshold question of whether the subject matter can meet the description of an alleged invention within Sch 1 to the Patents Act.

[108] N V Philips Gloeilampenfabrieken v Mirabella International Pty Ltd (1995) 183 CLR 655 makes reference to a "patentable invention" in the prefatory words in s 18(1), read in light of the definition of "invention", imposed a threshold requirement for an "alleged invention" requiring a minimal level of "newness" and "inventiveness" before something could be a patentable invention. As the language ("so far as claimed in any claim") of s 18(1) illustrates, that threshold requirement is to be assessed by reference to the face of the claim in the context of the specification rather than, as ss 18(1)(b)(i) and 18(1)(b)(ii) read with s 7 require for the independent requirements of novelty and inventiveness, by reference to the prior art base. Without satisfaction of that threshold requirement, there can be no manner of manufacture as required by s 18(1)(a).

[109] (the High) Court in Commissioner of Patents v Microcell Ltd, in which a claim characterised as a self-propelled-rocket projector was refused on the basis that on the face of the specification it was nothing more than "the use of a known material in the manufacture of known articles for the purpose of which its known properties make that material suitable".

[111] Whatever controversy may remain as to the threshold requirement for an alleged invention, the decision in Microcell and the remarks in D'Arcy v Myriad Genetics Inc demonstrate that the threshold is low. Further, the threshold necessarily imposes a less stringent requirement than the independent requirements of novelty and inventiveness in ss 18(1)(b)(i) and 18(1)(b)(ii) read with s 7.

[114] A manner of manufacture thus requires only the existence of some material and artificial advantage, which was expressed, in the "watershed" decision of this Court in National Research Development Corporation v Commissioner of Patents 102 CLR 252 at 275.

[122] …the ultimate single question of whether there is a manner of manufacture within s 6 of the Statute of Monopolies, would be to ask whether, properly characterised, the subject matter that is alleged to be patentable is: (i) an abstract idea which is manipulated on a computer; or (ii) an abstract idea which is implemented on a computer to produce an artificial state of affairs and a useful result.

[122] The artificial state of affairs and useful result may be a physical change in something, but it need not be. The artificial state of affairs may be an improvement in computer technology, but it need not be. It is enough that the artificial state of affairs and useful result are created by "the way in which the method is carried out in the computer.

[123] Further, the method of carrying out the idea in the computer, and the artificial state of affairs and useful result, need not be inventive or ingenious.

[124] CCOM Pty Ltd v Jiejing Pty Ltd19 (1994) 51 FCR 260. In that case, the Full Court of the Federal Court of Australia held a claim to be the proper subject matter of a patent where it was characterised as one that enabled, through the operation of a computer keyboard, the selection of Chinese characters for word processing.

[139] The primary judge (Burley J) rejected the characterisation of Claim 1 by the Delegate. The primary judge explained that the Delegate's characterisation was based upon the error of first identifying the "inventive concept" and using that to characterise the claim as a mere scheme. As the primary judge correctly observed, "[a]ny claim can be stripped back to remove all specific limitations, so that at its core an abstract idea emerges". The primary judge characterised Claim 1 as "a machine of a particular construction which implements a gaming function ... [T]he physical and virtual features of the display, reels, credit input mechanism, gameplay mechanism and game controller combine to produce the invention."

[140] In determining whether Claim 1, so characterised, was a manner of manufacture, the primary judge applied a two-stage test involving an "initial question" of whether the claimed invention was for "a mere scheme or business method" that is not the proper subject matter of a patent. If so, there was said to be a "subsequent inquiry" as to "whether the computer-implemented method is one where invention lay in the computerisation of the method" or whether it involved “merely plugging an unpatentable scheme into a computer". The primary judge concluded, however, that Claim 1 was not a mere scheme and that it was, on its proper characterisation, a manner of manufacture.

[144] Nicholas J in the FFC decision characterised Claim 1 in a similar manner to Middleton and Perram JJ, referring to both the "physical components that are common to [EGMs]" and the operation of the "gaming machine ... which seeks to enhance player enjoyment by offering a feature game that may be triggered during play of the base game". Nicholas J applied a test stating that “a manner of manufacture required that an abstract idea "has been transformed in some definite and tangible way so as to result in a product or method providing the required artificial effect" … In the present case, his Honour held that Claim 1 was not a manner of manufacture because the specification did not "identify any technological problem to which the patent purport[ed] to provide a solution.”

[145] It was common ground on this appeal that integers 1.1 to 1.6 were, as a matter of common general knowledge, components of generic EGMs. If the proposed invention the subject of this appeal were characterised by exclusively focusing upon those integers, as a "gaming machine" or EGM, it would not be patentable. The claim would fail at the threshold stage. It would not display even the minimal degree of novelty and inventiveness required for it to be an alleged invention.

[147] At the other extreme, of characterisation which is artificially specific, Claim 1 might be characterised by reference only to those elements that are deduced from the specification to involve alleged novelty and inventiveness. Although the Delegate characterised Claim 1 by reference only to the configurable and non-configurable symbols, neither the primary judge nor any member of the Full Court characterised Claim 1 in such an artificially specific manner. Such a characterisation should not be accepted. At that level of specificity, the characterisation

entirely ignores other elements of the game controller and the whole of the player interface, which is interdependent with the game controller.

[149] ... Characterisation at the proper level of generality involves an exercise of judgment with regard to all of the integers of the claim…. There will often be a number of reasonable alternatives. Each of the characterisations of the primary judge, and of Middleton and Perram JJ and Nicholas J in the Full Court, was reasonable. … However, given the emphasis upon both the feature game and the configurable symbols in the specification, the best characterisation of Claim 1 is: an EGM incorporating an interdependent player interface and a game controller which includes feature games and configurable symbols.

[151] The proper approach to assessing whether a manner of manufacture exists is that which was enunciated by this Court, as described above, in National Research Development Corporation. There is only one question: is there a manner of manufacture within s 6 of the Statute of Monopolies?

[153] It suffices to say that, although modern computers could not have been in the mind of anyone in the Jacobean era of the Statute of Monopolies, the implementation of a scheme or idea on a computer to create an artificial digital state of affairs should not be treated any differently from the implementation of a scheme or idea by any other machine to create an artificial physical state of affairs. In both cases, however, the implementation must do more than merely manipulate an abstract idea. In the language of National Research Development Corporation, it must create an artificial state of affairs and a useful result.

[154] Claim 1, characterised in light of the specification as a whole, is a manner of manufacture within s 6 of the Statute of Monopolies. As explained above, the proper characterisation of Claim 1, as an EGM incorporating an interdependent player interface and a game controller which includes feature games and configurable symbols, is not merely the idea of a game, incorporated into a game controller, without any novelty or inventiveness. The game controller, which includes feature games and configurable symbols, has been assumed at all stages of this litigation to meet the threshold requirements for an alleged invention. No suggestion to the contrary was made in this Court. Nor, on its proper characterisation, is Claim 1 a scheme or idea for a game that is separate from the external or artificial application of that game. In the characterisation of Claim 1, the operation of the game controller cannot be severed from the interdependent player interface in the EGM. The claimed operation of the game controller, displayed through the player interface, is an altered EGM involving an artificial state of affairs and a useful result amounting to a manner of manufacture.

Conclusion – as to the question "any views on changing or retaining current Australian law."

Both groups of HC judges agreed, following the majority decision in N V Philips Gloeilampenfabrieken v Mirabella International Pty Ltd [1995] HCA 15, that section 18 of the Patents Act imposes a threshold requirement that there be an (alleged) invention disclosed on the face of the specification, as it would be read and understood by the skilled person in light of their common general knowledge in the relevant field of endeavour. (See **Kiefel CJ judgment** at [66]-[72], and the **Gordon J judgment** at [106]-[111]; but note that the **Gordon J judgment** recognised, at [110]-[111], that the Philips decision has been attended by some controversy.) It

was not suggested by either group of judges that Aristocrat's claims did not satisfy the low threshold requirement. [2]

The **Kiefel CJ judgment** took the view that '[t]he claimed invention takes its character, as an invention, from those elements of the claim which are not common general knowledge. … The approach of the Kiefel CJ judgment might be regarded as an 'inventive contribution' analysis.[3]

In FICPI Australia's respectful view, this approach does not account for a new combination of known integers because all of the elements in the new combination can be in the common general knowledge, leaving nothing else. Thus, in our respectful view, the subtraction of CGK from the claim is not an appropriate approach.

The **Gordon J judgment** accepted that 'an idea implemented on a computer to produce an artificial state of affairs and a useful result' which may be patentable (at [124]). … Gordon J judgment approach might be regarded as a 'whole of claim' analysis.[4]

In FICPI Australia's respectful view, this approach is appropriate because the whole of claim approach allows for a new combination of known integers. However [149] highlights the problem with the current characterisation approach. In particular, 'Characterisation at the proper level of generality involves an exercise of judgment with regard to all of the integers of the claim…. There will often be a number of reasonable alternatives. Each of the characterisations of the primary judge, and of Middleton and Perram JJ and Nicholas J in the Full Court, was reasonable.' In FICPI Australia's view, adopting such 'acceptance' is in itself problematic, given that abstracting to any given level necessarily involves disregarding features otherwise recited in a claim, whether the features themselves and individually form part of CGK. There should only be one 'objective' characterisation possible of an invention as defined in a claim. Thus, characterising the invention should not involve judgement of the level of generalisation. It should simply come down to what is the essence of the invention, as per the whole claim, without any abstraction, but not slavishly being bound by the form of the claim over the substance of what is in the claim. Further, the greater wrong is in abstraction. Abstraction risks masking the substance or essence of the invention, which is often the implementation of an arguably abstract idea so as to be useful. By focusing on the abstract idea and not the implementation, which is inherently tied to the form of the claim, it is easy to claim a lack of substance over form.

In *Myriad*, the substance of the invention of claim 1 was in the coding of the genetic information, not a chemical compound. The characterisation depended on the proper construction of the claim and its essential integers. Thus, proper characterisation is not simply a generalisation. So, ultimately, the characterisation of the invention defined in claim 1 was not a manner of manufacture, but the characterisation of the invention defined by other claims was such that properly characterised they were a manner of manufacture.

Hence, in the *Aristocrat* case, no consistent and clear guidance to lower courts or decision-makers was provided as to how their Honours determined the relevant factors and how those factors may have been weighted to arrive at a characterisation of the alleged invention.

FICPI Australia proposes that the 'whole of claim' analysis is the correct approach.

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[2] William Barlett https://www8.austlii.edu.au/cgi-bin/viewdoc/au/journals/JILawInfoSci/2015/14.html#:~:text=In%20three%20separate%20judgments%20ultimately,of%20the%20Statute%20of%20Monopolies

[3] Op cit.

[4] Op cit.

Construing the whole of the claim, without abstraction, to determine whether the invention is directed to technical subject matter is the approach taken in most international jurisdictions.

Refer to the attached appendix for excerpts that include the terms “construe”, “construction”, “characterise”, and “substance over form” from the following cases:

NV Philips Gloeilampenfabrieken v Mirabella International Pty Ltd [1995] HCA 15; 183 CLR 655
Myriad D'Arcy v Myriad Genetics Inc [2015] HCA 35
Re: International Business Machine Corporation
N.V. Philips Gloeilampenfarbrieken and Philips Lighting Pty Ltd v Mirabella International Pty Ltd
CCOM Pty Ltd and Ronald Howard Thomas v Jiejing Pty Ltd,
Research Affiliates LLC v Commissioner of Patents [2014] FCAFC 150
Commissioner of Patents v RPL Central Pty Ltd [2015] FCAFC 177 (11 December 2015)
Encompass Corporation Pty Ltd v InfoTrack Pty Ltd [2019] FCAFC 161
Commissioner of Patents v Rokt Pte Ltd [2020] FCAFC 86

From all the seminal court decisions (provided in the appendix) relating to computer-implemented inventions, it is clear that the characterisation step is not consistently exercised or necessarily based on a properly construed claim.

No wonder when the complexities of computers are included in the mix, courts and decision-makers vary so greatly in their consideration of Section 18(1)(a).

Of note is that computer-implemented inventions are often the subject of adverse characterisation, by abstraction or by subtraction of known integers, or both. The conclusion could be drawn that the courts and patent examiners do not understand the complexity of computer hardware and software. They are dismissive of the reality that the programmability of a computer and the functionality they provide is different in every circumstance. The ‘generic computer hardware’ or ‘generic computer implementation’ is a misconceived legal construct.

Not all computers are similarly configured or programmed, and not all computers have the same hardware. The way in which computers handle the quantity and type of data they process is variable and evolving. However, computer configuration and programming necessary for the performance (providing a tangible manner of implementation) of an idea are being dismissed under the rubric of mere computer or mere computer programmability and compared without justification to mere common general knowledge or generic computer technology. Further. when the output of a computer is information that is the benefit of the implementation of the idea and is useable by another computer or a human, this is often characterised as mere information, regardless of this being artificially created and having economic significance by there being some tangible value and significance attributed to that output (meeting the NRDC ‘test’).

The whole claim should be construed, and only then can the idea be characterised. Since the proper characterisation represents the idea of the alleged invention, only then should manner of manufacture within the meaning of section 6 of the Statute of Monopolies be considered.

To complicate those determinations and considerations, the terms used in the claim (of computer-implemented inventions) are deliberately broad and sometimes light on functional details. This approach can be necessary since the implementation of the steps in a computer, once the idea embodied in the claim is known, is taught by the specification and can be replicated by those competent in the art of computer implementation and programming. Also,

due to the multiple configurations and options for programming a computer or the differing configurations of the hardware of a computer, there is little value in limiting the scope of the claim to one invocation of the idea. However, in FICPI Australia's firm opinion, the patentability merit of a broad, lightly functional claim is a question of novelty, inventive step and section 40 requirements, not a question of whether it meets the flexible threshold subject matter requirement of being in the useful arts.

It is the manner of implementation of the idea that is central to computer-implemented inventions.

Assuming novelty and inventiveness – an inventor is claiming that the computer is configured in way that it has not been configured before to do something useful.

In FICPI Australia's view, if there is a manner of implementation by physical/tangible means, recited in the construed claim, then that is sufficient for there to be patent-eligible subject matter. The invention may yet fail the test for novelty, inventiveness and utility, but the invention is squarely within the useful arts, not the fine arts. Whether that implementation is by computer is only relevant to whether the implementation is new, inventive and useful. In other words, computer-implemented inventions should be treated no differently from any other technical fields.

The failure by Australian courts to provide proper guidance on how to construe and characterise the invention (regardless of the technology) and IP Australia's unsatisfactory approach to that task, particularly with respect to computer-implemented inventions, has created a situation that requires careful consideration a possibly of a targeted legislative change in the determination of the characterisation of an alleged invention. Any change must be carefully considered and targeted to retain the benefit of the flexible threshold test that the parliament intended manner of manufacture to be.

The law could still be clarified by the High Court. However, if and when this occurs is unknown.

FICPI suggests consideration be given to the parliament clarifying how its flexible threshold test of being little more than a test for being in the useful arts should be implemented. Otherwise, the test for what is and what is not patentable subject matter should be codified so that there is certainty in the test and its implementation.

FICPI Australia proposes that consideration be given to careful consideration of the issue and possibility to legislate the construction and characterisation of each claim and/or the forced consideration of the 'whole of the subject matter as claimed'.

The whole of the subject matter of claim should be considered. This does not obviate the need to properly construe the claim according to traditional principles, but it does not allow only parts of the claim to be considered, as occurs when common general knowledge or prior art is subtracted from the claim. Incorrectly construed, the task of characterisation is more likely to be skewed towards an excluded subject matter. It will remain that the form of the claim, be it method/process or apparatus/machine should not factor in the determination of MoM. It will still be the essence (substance) as claimed that will be evaluated, in that inconsequential form over substance will not play a part in the evaluation as to whether there is a manner of manufacture. Abstraction begs the question of the degree and permits various outcomes when there should only be one characterisation of the invention as claimed.

Further the CGK is not to be used aside from construing the meaning of the claim and the prior art is not considered at all in considering the whether the subject matter of an invention is patent-eligible.

By assessing the whole of the subject matter of a claim, without abstraction, the accepted exceptions to a manner of manufacture, abstract ideas, mere schemes, and intellectual information, all being fine arts, are not patent eligible, whereas machines and concrete processes that are or create artificially created states of affairs having economic utility are useful arts and are patent-eligible subject matter.

FICPI Australia notes that codification of patent-eligible subject matter would be a substantial change away from manner of manufacture.

While not advocating for this change, it would need detailed policy consideration, with the need to avoid the problems experienced in the US. It could provide certainty if the manner of assessment was clearly articulated and may be desirable from that view point. It could also be made more consistent with other jurisdictions. However, the process of considering this option is likely to take a considerable amount of time. Accordingly in the meantime some short term approach is need in our view to the address the immediate problems.

Suggestions for Proposed Changes to the Patent Examiner Manual to Achieve Short-Term Reform

FICPI Australia proposes the Australian Examiners Manual be updated to guide examiners as to the proper approach to construction and characterising the invention. Examiners then need to provide their construction and characterisation in the examination report. Only then can examiners consider whether the claims define a manner of manufacture in accordance with section 18(1)(a).

The first update is to require the whole of the claim to be construed to determine its meaning. The principles of construction are summarised in Jupiters Ltd v Neurizon Pty Ltd (2005) 222 ALR 1545 at [67] and are repeated in [71] of *Rokt*.

Evidence may be relevant as to how the PSA would construe the claim in light of the Common General Knowledge (CGK). Balance of probabilities may apply to what the evidence in total shows, particularly in the case of completing evidence. The construction arrived at is separate from and precedes the characterising step.

The second update is to require the characterising step to be performed after the claim has been construed and by having proper regard to the emphasis of the subject matter claimed in view of the specification as a whole (per *Myriad*) and as required by *Rokt*. This does not include having regard to the CGK or the prior art. The suggestion that *Myriad* authorises the use of CGK beyond construction is, in our respectful view, plainly wrong.

Usually, the most useful part of the specification to identify the substance of the invention described is the background and statements of the invention that indicate what the inventor believes the invention to be and emphasises as such in the specification. This should not involve abstraction but rather identification of the emphasis in the claim as guided by the whole of the specification. It is not a European style characterisation by identifying the new element(s) in the claim.

The characterisation step is a matter of law.

It is noted that the specification may describe more than one invention, but a claim should only define one invention. Material in the specification related to subject matter not relevant to the current claim under consideration should not be considered in relation to the invention under consideration.

The properly characterised invention is then considered to determine whether or not it is a manner of manufacture in accordance with s 18(1)(a), that is, whether or not it is the proper subject matter for a patent. *NRDC* considered that a product or process producing an outcome as a result of human action (aka an artificially created state of affairs) and having economic utility will ordinarily be sufficient.

For example, implementing a mere business scheme in a computer is not the test; it is an example of applying the *NRDC* test because the mere business scheme itself has no physicality or tangibility. It is intellectual only and does not create an artificially created state of affairs. In contrast, if the substance of the invention is a physical manner of implementation of an idea, not the idea itself, it is more than the idea and thus is not merely an abstract idea. The manner of implementation being physical is tangible, and this is an artificially created state of affairs. These extra formulations are not tests but only guidance as to how the normally sufficient *NRDC* test should be applied.

When the guidance of *NRDC* is not sufficient, as may be the case for emerging and new technologies, other factors identified in *Myriad* can be applied. If there is some other reason why the normally sufficient *NRDC* test should be definitive, this this would need to be sufficiently justified.

It is improper to make a determination of whether the claims as a whole define a manner of manufacture without construction and proper characterisation steps being performed.

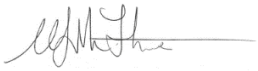
The Office should err on the side of considering the threshold test to be met so that substantive issues of novelty and inventive step according to s40 can be examined. Only in clear cases should there be a finding of the whole of the claim not being a manner of manufacture. Only then should an objection be raised/maintained.

The examiner should clearly enunciate their reasoning for each step of construing and characterisation of the whole of the claim and their reasoning to satisfy s 18(1)(a).

If the examiner is justified in their determination in light of a response or responses by the applicant, the matter is properly the subject of a hearing decision called at the discretion of the applicant, and in the case of multiple parties, the dispute as to patentable subject matter can be properly ventilated in an opposition proceeding.

FICPI Australia thanks IP Australia for the opportunity to present this submission.

Yours faithfully



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