

HIGH COURT OF AUSTRALIA

KIEFEL CJ,
GAGELER, KEANE, GORDON, EDELMAN AND STEWARD JJ

ARISTOCRAT TECHNOLOGIES AUSTRALIA
PTY LTD

APPELLANT

AND

COMMISSIONER OF PATENTS

RESPONDENT

Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents
[2022] HCA 29
Date of Hearing: 9 & 10 June 2022
Date of Judgment: 17 August 2022
S40/2022

ORDER

Appeal dismissed with costs.

On appeal from the Federal Court of Australia

Representation

D Shavin QC and C L Cochrane SC with P J T Creighton-Selvay and
W H Wu for the appellant (instructed by Gilbert + Tobin)

C Dimitriadis SC with E E Whitby for the respondent (instructed by
Australian Government Solicitor)

F C St John with N L Gollan for the Institute of Patent and Trade Mark
Attorneys of Australia, appearing as amicus curiae (instructed by Mills
Oakley)

Fédération Internationale des Conseils en Propriété Intellectuelle appearing
as amicus curiae, limited to written submissions

Notice: This copy of the Court's Reasons for Judgment is subject to
formal revision prior to publication in the Commonwealth Law
Reports.

CATCHWORDS

Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents

Patents – Invention – Manner of manufacture – Where appellant manufactured electronic gaming machines ("EGMs") – Where appellant owned four innovation patents concerning various embodiments of EGM – Where specification described claimed invention as combination of player interface, being physical features of EGM, and game controller, being computerised components interacting with player interface to implement base game and feature game – Where player interface and game controller part of common general knowledge – Where delegate of respondent revoked innovation patents on ground that claim in each not "manner of manufacture" within meaning of s 18(1A)(a) of *Patents Act 1990* (Cth) – Whether claimed invention "manner of manufacture" within meaning of s 18(1A)(a) of *Patents Act*.

Words and phrases – "abstract idea", "artificially created state of affairs", "characterisation", "common general knowledge", "computer-implemented invention", "electronic gaming machine", "generic computer technology", "improvement in computer technology", "innovation patent", "invention", "manner of manufacture", "mere scheme or plan", "patent", "patentable subject matter", "proper subject of letters patent", "Statute of Monopolies", "useful result".

Patents Act 1990 (Cth), s 18, Sch 1.

1 KIEFEL CJ, GAGELER AND KEANE JJ. The appellant ("Aristocrat") is a company which manufactures electronic gaming machines ("EGMs"). Aristocrat owns four innovation patents granted pursuant to s 62 of the *Patents Act 1990* (Cth) ("the Act"), each of which derives from patent number 2015210489 filed on 10 August 2015 and each of which has a priority date of 11 August 2014¹. The patent the subject of consideration in this proceeding was entitled "A system and method for providing a feature game" and the field of invention described in the patent specification itself was said to relate to a gaming system and a method of gaming.

2 The respondent ("the Commissioner"), having been asked to examine the innovation patents pursuant to s 101A of the Act, revoked each of the patents on the ground that the claim in each was not for a manner of manufacture within the meaning of s 18(1A)(a) of the Act. The Commissioner's delegate concluded that, no technical contribution to the art being made by any of the innovation patents, the substance of the invention was nothing beyond the games and the game rules of gaming machines, and, as such, was not patentable subject matter².

3 Aristocrat's appeal against the delegate's decision to the Federal Court of Australia (Burley J) was allowed; but then the Commissioner appealed successfully to the Full Court of the Federal Court of Australia (Middleton and Perram JJ, Nicholas J agreeing). Aristocrat has appealed to this Court pursuant to a grant of special leave. For the reasons that follow, Aristocrat's appeal to this Court should be dismissed.

4 It is necessary to begin with a description of the design and operation of EGMs, Aristocrat's claim as formulated and a summary of the legal framework within which that claim was determined. The reasons for judgment of the courts below will then be summarised before turning to a consideration of the arguments agitated in this Court.

The design and operation of an EGM

5 An EGM is a physical device that is available for sale to licensed venues such as casinos, hotels and clubs. It is a modern form of a poker or slot machine. It typically has a number of features, which were agreed by the parties in the courts

1 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 401 [1], 402 [6], [10]; *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 575 [4]. See also *Aristocrat Technologies Australia Pty Ltd* [2018] APO 45 at [8].

2 *Aristocrat Technologies Australia Pty Ltd* [2018] APO 45 at [12], [67].

2.

below to be part of the common general knowledge possessed by persons who devote their talents to the construction of EGMs as at the priority date. Those features are³:

- "(a) a central display area or screen that displays the game(s) to be played and other game-related information (for example, prizes won and available credits);
- (b) relative to the central display area or screen, upper and/or lower display areas of screens that display various information about the game in the cabinet, including the name of the game, the supplier and other pertinent information;
- (c) a random number generator;
- (d) a game controller which controlled gameplay by executing software stored in memory;
- (e) buttons for user interaction, either touch screen or physical buttons;
- (f) a credit input mechanic, being either a cash note input or [ticket] reader;
- (g) a coin out or ticket out mechanic;
- (h) artwork featured above the display in digital form as well as artwork in hardcopy on the belly of the EGM; and
- (i) speakers to play music, sound effects and announcements."

It was also part of the common general knowledge that, in 2014, EGMs were distinguished from each other by certain features engaging and entertaining players in different ways⁴.

6

Since the 1980s, EGMs have been operated electronically including by computers, electronic circuitry and electronic display screens. In 2014, EGMs

3 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 406 [30]; *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 576 [7].

4 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 406 [31]; *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 576 [7]-[8].

3.

generally consisted of five virtual or video reels of symbols being displayed in a grid or matrix, each of which spun vertically and stopped at random positions to be displayed in that grid or matrix upon completion of the spin, as determined by a random number generator. Each of the five reels could have strips of symbols that were the same as or different from the symbols that appeared on other reels within that same game, depending on the design of the strip. The total number of symbols on a given reel defined its "reel strip order", which was determined by the game designer and comprised all the symbols that could appear on the reel. The number of possible combinations of symbols in an EGM using virtual or video reels is, in principle, unlimited⁵.

7 To commence a game, a player inserts credits, in the form of money or some other form of payment, and he or she can select the value of a bet. Whether the player wins depends on the occurrences of a winning symbol combination across the five reels on predefined "pay lines" or "win lines". A player may choose to place a wager to cover one or more win lines and each of the five reels is independent of the other. Winning combinations can also be formed if a certain symbol, known as a "scatter" symbol, appears anywhere in the grid⁶.

8 The advent of electronics allowed designers to create new ways to stimulate and maintain player interest, commonly through the use of free games, bonus games or games in addition to the main or base game (a "feature game")⁷. A feature game is a secondary game made available to a player on the occurrence of a defined "trigger event" in the base game. The player can seek to win further prizes in the feature game and will be returned to the base game upon completion. The more successful a feature game is at holding player interest – and encouraging further betting – the more lucrative the EGM is for its operator⁸.

5 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 407-409 [32], [35]-[37], [39]-[42].

6 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 408 [38], 409 [43].

7 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 409 [44].

8 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 574-575 [3]-[4].

The claim in the innovation patents

9 The innovation patents are referred to respectively as the 967 patent, the 097 patent, the 098 patent and the 629 patent⁹. The parties agreed that the specification of claim 1 of the 967 patent is sufficiently similar to the specifications of the others that it may be used for the purpose of analysis¹⁰. As noted earlier, the 967 patent was entitled "A system and method for providing a feature game".

10 The specification of the 967 patent described the architecture of the claimed invention as a computerised EGM with several of the core components being part of the common general knowledge¹¹. The part of the specification entitled "Detailed Description of a Preferred Embodiment of the Invention" described the game structure of the system as "having components which are arranged to implement a base game, from which may be triggered a feature game". The system incorporated a mechanism that enabled symbols to be configured so as to define when a feature game is triggered. The configurable symbols contained a common component and a variable component. The variable component of each configurable symbol was indicative of the value of a prize. When the feature game was triggered, the player was guaranteed to win the accumulated value of the prizes indicated by the variable portion of the configurable symbols¹². The specification only gave examples of what a feature game may look like; it otherwise left open that "any number of configurable symbols may trigger the feature game", that element of the invention being up to the person programming the computer on which it is played.

9 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 402 [5].

10 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 402 [8]-[9]; *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 574 [1].

11 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 410-415 [51]-[68].

12 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 410 [48]-[50].

5.

11

Claim 1 of the 967 patent consisted of the following integers¹³:

"(1) A gaming machine comprising:

- (1.1) a display;
- (1.2) a credit input mechanism operable to establish credits on the gaming machine, the credit input mechanism including at least one of a coin input chute, a bill collector, a card reader and a ticket reader;
- (1.3) meters configured for monitoring credits established via the credit input mechanism and changes to the established credits due to play of the gaming machine, the meters including a credit meter to which credit input via the credit input mechanism is added and a win meter;
- (1.4) a random number generator;
- (1.5) a game play mechanism including a plurality of buttons configured for operation by a player to input a wager from the established credits and to initiate a play of a game; and
- (1.6) a game controller comprising a processor and memory storing (i) game program code, and (ii) symbol data defining reels, and wherein the game controller is operable to assign prize values to configurable symbols as required during play of the game,
- (1.7) the game controller executing the game program code stored in the memory and responsive to initiation of the play of the game with the game play mechanism to:
- (1.8) select a plurality of symbols from a first set of reels defined by the symbol data using the random number generator;
- (1.9) control the display to display the selected symbols in a plurality of columns of display positions during play of a base game;

13 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 415 [69].

6.

- (1.10) monitor play of the base game and trigger a feature game comprising free games in response to a trigger event occurring in play of the base game,
- (1.11) conduct the free games on the display by, for each free game,
 - (a) retaining configurable symbols on the display,
 - (b) replacing non-configurable symbols by selecting, using the random number generator, symbols from a second set of reels defined by the symbol data for symbol positions not occupied by configurable symbols, and
 - (c) controlling the display to display the symbols selected from the second set of reels, each of the second reels comprising a plurality of non-configurable symbols and a plurality of configurable symbols, and
- (1.12) when the free games end, make an award of credits to the win meter or the credit meter based on a total of prize values assigned to collected configurable symbols."

12 The specification stated that when a "trigger event" occurs, a free feature game, as described by integers 1.10-1.12, is initiated, whereupon the configurable symbols are held in their display positions and the feature game is run. That feature game may use the configurable symbols, symbols from the base game or different symbols. The player accumulates prizes throughout the play of both the base game and the feature game¹⁴.

13 Each time a configurable symbol appears in the display grid at the end of the free game, that particular symbol position on the relevant reel stops spinning for any remaining games and remains locked in place. When the player runs out of free games in the feature game, a prize is calculated and awarded to the player based on the number of configurable symbols and their assigned values which have been locked in place. The 967 patent does not disclose any particular description of a configurable symbol, but provides for them to be assigned prize values by the computer on which the game is played¹⁵.

14 The gaming industry in Australia is, and was in August 2014, regulated by State-based authorities. In addition, the Australian/New Zealand Gaming Machine

14 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 414 [66]-[67].

15 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 577 [11]-[12].

7.

National Standard is a set of national standards that apply, and also applied in 2014, and which establish mandatory requirements for EGMs regarding matters such as cash input systems, credit metering and the minimum return to player¹⁶.

The Act

15 The Act distinguishes between two kinds of patents: standard patents and innovation patents, which are defined as letters patent for an invention granted under s 61 or s 62 of the Act respectively¹⁷.

16 Within Pt 3 of Ch 2 of the Act, s 18 defines the circumstances in which a patent is valid, or what constitutes a "patentable invention"¹⁸. A "patentable invention" is defined in the Dictionary in Sch 1 to the Act as "an invention of the kind mentioned in section 18". The term "invention" is defined as:

"any manner of new manufacture the subject of letters patent and grant of privilege within section 6 of the Statute of Monopolies, and includes an alleged invention".

17 For the purposes of an innovation patent, s 18(1A) provides:

"Subject to subsections (2) and (3), an invention is a patentable invention for the purposes of an innovation patent if the invention, so far as claimed in any claim:

- (a) is a manner of manufacture within the meaning of section 6 of the Statute of Monopolies; and
- (b) when compared with the prior art base as it existed before the priority date of that claim:
 - (i) is novel; and

16 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 409 [45], 422 [97].

17 Sch 1 to the Act, definitions of "standard patent" and "innovation patent". The version of the Act applicable to the innovation patents is that which follows the commencement of the *Intellectual Property Laws Amendment (Raising the Bar) Act 2012* (Cth), but the amendments therein are not presently relevant.

18 See also *N V Philips Gloeilampenfabrieken v Mirabella International Pty Ltd* (1995) 183 CLR 655 at 659.

8.

- (ii) involves an innovative step; and
- (c) is useful; and
- (d) was not secretly used in the patent area before the priority date of that claim by, or on behalf of, or with the authority of, the patentee or nominated person or the patentee's or nominated person's predecessor in title to the invention."

The exceptions in sub-ss (2) and (3) relate to plants, animals, human beings and the biological processes for their generation. Those exceptions are not presently relevant.

18 The requirements for a valid innovation patent differ from those for a standard patent contained in s 18(1) of the Act only in that a standard patent must involve "an inventive step", rather than "an innovative step". Nothing was said to turn on the distinction between those terms in this appeal¹⁹. The case law which has developed in relation to s 18(1) of the Act is thus relevant to the application of s 18(1A).

19 The reference to a "claim" in the introductory words of s 18(1A) directs attention to the formal requirement of s 40(2)(c) of the Act that a complete specification for an innovation patent must "end with at least one and no more than 5 claims defining the invention". It has been held that, in the context of s 40(2)(b), the equivalent provision for standard patents in materially similar terms, the word "invention" does not "import the definition in the Dictionary, but means 'the embodiment which is described, and around which the claims are drawn'"²⁰.

20 Section 18(1A)(a) uses the "centuries old terminology"²¹ that for an invention to be patentable it must be a "manner of manufacture" within the

19 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 574 [3].

20 *D'Arcy v Myriad Genetics Inc* (2015) 258 CLR 334 at 343 [13], quoting *Kimberly-Clark Australia Pty Ltd v Arico Trading International Pty Ltd* (2001) 207 CLR 1 at 14 [19], 15 [21], citing *AMP Inc v Utilux Pty Ltd* (1971) 45 ALJR 123 at 127.

21 *D'Arcy v Myriad Genetics Inc* (2015) 258 CLR 334 at 339 [4].

meaning of s 6 of the *Statute of Monopolies*²². That section declared all monopolies to be void save for:

"Letters Patents and Grants of Privilege for ... the sole working or making of any manner of new Manufactures within this Realm, to the true and first Inventor and Inventors of such Manufactures, which others at the time of making such Letters Patents and Grants shall not use, so as also they be not contrary to the Law nor mischievous to the State, by raising prices of Commodities at home, or hurt of Trade, or generally inconvenient ..."

21 The course of authority in this Court²³ has established that, in an application for a patent under the Act, s 18(1)(a) raises the question: "Is this a proper subject of letters patent according to the principles which have been developed for the application of s 6 of the *Statute of Monopolies*?"

22 Generally speaking, "working directions and methods of doing things" fall outside s 6 of the *Statute of Monopolies*²⁴. It has long been accepted that claims to a mere scheme, plan or discovery, or mere abstract ideas or information, are not claims for patentable subject matter²⁵. Neither the discovery of a natural phenomenon or law of nature, nor a scheme or plan devised for the accomplishing of a task, nor a set of rules whether devised for the conduct of a business or the playing of a game, is the proper subject of letters patent.

22 21 Jac I c 3 (1623).

23 *National Research Development Corporation v Commissioner of Patents* (1959) 102 CLR 252 at 269; *Apotex Pty Ltd v Sanofi-Aventis Australia Pty Ltd* (2013) 253 CLR 284 at 297-301 [10]-[16], 324-325 [71], 356 [186]-[187]; *D'Arcy v Myriad Genetics Inc* (2015) 258 CLR 334 at 345 [18].

24 *Grant v Commissioner of Patents* (2006) 154 FCR 62 at 66-67 [15].

25 *Re Cooper's Application* (1901) 19 RPC 53 at 54; *Reynolds v Herbert Smith & Co Ltd* (1902) 20 RPC 123 at 126; *Grant v Commissioner of Patents* (2006) 154 FCR 62 at 66 [14], citing Lahore, "Computers and the Law: The Protection of Intellectual Property" (1978) 9 *Federal Law Review* 15 at 22-23, approved in *CCOM Pty Ltd v Jiejing Pty Ltd* (1994) 51 FCR 260 at 292; *Research Affiliates LLC v Commissioner of Patents* (2014) 227 FCR 378 at 397-398 [94]-[95]; *Commissioner of Patents v RPL Central Pty Ltd* (2015) 238 FCR 27 at 49 [96]; *Encompass Corporation Pty Ltd v InfoTrack Pty Ltd* (2019) 372 ALR 646 at 667 [99].

23 It was held by this Court in *National Research Development Corporation v Commissioner of Patents* ("NRDC")²⁶, and affirmed in *D'Arcy v Myriad Genetics Inc*²⁷, that the terminology of "manner of manufacture" taken from s 6 of the *Statute of Monopolies* is to be treated as "a concept for case-by-case development" applied in accordance with common law methodology. It is not to be confined to the use of any verbal formula in lieu of "manner of manufacture", though various formulations have asked whether there is a "vendible product"²⁸ or "an artificially created state of affairs"²⁹.

24 The practical implementation of a discovery of an abstract truth about nature, or a strategy devised for the conduct of business, or a set of rules devised for a game – whatever the level of originality of the discovery or exhibited in the devising – is not patentable subject matter if the mode of implementation is not itself patentable. The distinction is "between mere intellectual information and a method that affect[s] the operation of an apparatus in a physical form"³⁰. So, in *Grant v Commissioner of Patents*³¹, it was held that a method for protecting assets from unsecured judgment creditors was not patentable. The method comprised establishing a trust, giving money to the trust, borrowing said money from the trust and the trustee securing the loan by taking a charge for the money over the asset. The Full Court (Heerey, Kiefel and Bennett JJ) concluded that the claimed method was "at best an abstract, intangible situation"; it had no physical consequence for process or product³².

25 Of course, a claimed invention which serves a "mechanical purpose that has useful results" is not unpatentable "merely because the purpose is in the carrying

26 (1959) 102 CLR 252 at 269.

27 (2015) 258 CLR 334 at 339 [5].

28 *Apotex Pty Ltd v Sanofi-Aventis Australia Pty Ltd* (2013) 253 CLR 284 at 303 [21]; *D'Arcy v Myriad Genetics Inc* (2015) 258 CLR 334 at 345 [19], both citing *Re GEC's Application* (1942) 60 RPC 1 at 4.

29 *NRDC* (1959) 102 CLR 252 at 277.

30 *Grant v Commissioner of Patents* (2006) 154 FCR 62 at 67 [18].

31 (2006) 154 FCR 62.

32 *Grant v Commissioner of Patents* (2006) 154 FCR 62 at 70-71 [30]-[32].

on of a branch of business"³³. In relation to computers and computer-related technology, it has been held in decisions of the Federal Court that a claimed invention will be a proper subject of letters patent if it has some "concrete, tangible, physical, or observable effect", as distinct from "an abstract, intangible situation" or "a mere scheme, an abstract idea [or] mere intellectual information"³⁴. It has been held that an artificial state of affairs may also be created if the invention can broadly be described as an "improvement in computer technology", where the computer is integral to the invention, rather than a mere tool in which the invention is performed³⁵. These propositions may be illustrated by reference to those decisions.

26 *CCOM Pty Ltd v Jiejing Pty Ltd*³⁶ concerned a claim for an invention which enabled a standard English keyboard to be used to generate Chinese characters for word processing purposes. The invention used a particular method of characterisation of character strokes which were applied to an apparatus in such a way that the operation of the keyboard would enable the selection through the computer of the appropriate Chinese characters. The Full Court (Spender, Gummow and Heerey JJ) held that the claimed invention was patentable subject matter. It was capable of being a manner of manufacture because it was concerned with a mode or manner of achieving an end result which was an "artificially created state of affairs of utility in the field of economic endeavour", that field being the use of word processing to assemble text in Chinese language characters³⁷. The Full Court, in reaching its conclusion in favour of patentability of subject matter,

33 *Grant v Commissioner of Patents* (2006) 154 FCR 62 at 66 [14], citing *Re Fishburn's Application* (1938) 57 RPC 245 at 248.

34 *Grant v Commissioner of Patents* (2006) 154 FCR 62 at 70 [30]-[32]. See also *International Business Machines Corporation v Commissioner of Patents* (1991) 33 FCR 218; *CCOM Pty Ltd v Jiejing Pty Ltd* (1994) 51 FCR 260 at 295; *Commissioner of Patents v RPL Central Pty Ltd* (2015) 238 FCR 27 at 49-50 [96]-[99]; *Encompass Corporation Pty Ltd v InfoTrack Pty Ltd* (2019) 372 ALR 646 at 665 [88].

35 *Commissioner of Patents v RPL Central Pty Ltd* (2015) 238 FCR 27 at 49-50 [96]-[99].

36 (1994) 51 FCR 260.

37 *CCOM Pty Ltd v Jiejing Pty Ltd* (1994) 51 FCR 260 at 295.

referred with evident approval³⁸ to the observations of Graham J, delivering the decision of himself and Whitford J, in *Burroughs Corporation's Application*³⁹:

"[I]f a method is regarded purely as the conception of an idea, it can always be said that the product of such a method is merely intellectual information. If, however, in practice the method results in a new machine or process or an old machine giving a new and improved result, that fact should in our view be regarded as the 'product' or the result of using the method, and cannot be disregarded in considering whether the method is patentable or not."

27 The Full Court later noted in *Grant* that the invention claimed in *CCOM* included a "physically observable effect", being "the retrieval of graphical representations of desired characters for the assembly of text"⁴⁰, such that *CCOM* could be said to have fallen within a category of case in which, as an element of the invention, "there was a component that was physically affected or a change in state or information in a part of a machine"⁴¹.

28 There is no issue that *CCOM*, as so explained, was correctly decided. As will be apparent from what will be said later in these reasons, there is nevertheless an aspect of the reasoning in *CCOM* which must be treated with caution in light of subsequent authority in this Court.

29 In contrast to *CCOM*, in *Research Affiliates LLC v Commissioner of Patents*⁴², the Full Court (Kenny, Bennett and Nicholas JJ) held that a computer-implemented business scheme for compiling a weighted index of securities using generic computer technology to produce an electronic file, for the purpose of determining how capital should be allocated, was not patentable subject matter. Similarly, a claim for a computer-implemented method and apparatus for displaying information relating to one or more entities, and thereby providing business intelligence, was held in *Encompass Corporation Pty Ltd v InfoTrack Pty Ltd*⁴³ to be no more than "an instruction to apply an abstract idea (the steps of the

38 *CCOM Pty Ltd v Jiejing Pty Ltd* (1994) 51 FCR 260 at 293.

39 [1974] RPC 147 at 158.

40 *Grant v Commissioner of Patents* (2006) 154 FCR 62 at 68 [20].

41 *Grant v Commissioner of Patents* (2006) 154 FCR 62 at 70 [32].

42 (2014) 227 FCR 378 at 400 [103], 402-403 [115]-[120].

43 (2019) 372 ALR 646 at 667 [99].

method) using generic computer technology". A claim for a computer-implemented method for linking a user to an advertising message by way of an intermediate engagement offer, involving a series of detailed processing steps, was also held not to be patentable subject matter in *Commissioner of Patents v Rokt Pte Ltd*⁴⁴.

30

Aristocrat accepts that *Grant* was correctly decided. It is important, therefore, to note in relation to *Grant* that the method the subject of the claim was not patentable subject matter even though it was reduced to written form and thus instantiated as a vendible product. The presentation of an idea or method or scheme – or the rules of a game – in written form is one of the most obvious (and among the most ancient) examples of common general knowledge. Thus the facilitation of card games by the use of packs of cards bearing visible symbols and values has for so long been part of common general knowledge that no one would suggest that a new variation of the rules of a game such as poker is patentable subject matter. In such a case, the well-known pack of cards is put to a different use for the purpose of the new game; but no one would suggest that there is an invention because the only difference from the common general knowledge lies in the idea of the new game⁴⁵. In the present case, the integers in claim 1 defining the core physical and hardware components, including computer components⁴⁶, do not disclose any departure from the common general knowledge as to the computerisation of games or gaming. As the parties agreed was part of the common general knowledge, most EGMs in 2014 were "distinguished from each other by the way in which features were introduced to utilise the physical or hardware components to provide different products that would engage and entertain users in different ways"⁴⁷. As will become apparent later in these reasons, that carries significance in respect of whether the claimed invention is a manner of manufacture.

44 (2020) 277 FCR 267 at 296 [108]-[109], 297-298 [114]-[115].

45 See, eg, *Re Cobiانchi's Application* (1953) 70 RPC 199 at 201.

46 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 604 [131].

47 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 406 [31]; *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 576 [7]-[8].

The reasons of the primary judge

31 Pursuant to s 101F(4) of the Act, Aristocrat appealed from the delegate's
decision to the Federal Court⁴⁸. As noted above, that appeal was successful.

32 Before the primary judge, a large volume of expert evidence was adduced
from a patent attorney, several gaming experts and Human Computer Interaction
experts⁴⁹. The primary judge used this evidence as an aid to construing the claim,
noting that expert evidence in such cases should be used only to place the court in
the position of a person acquainted with the surrounding circumstances as to the
state of the art and manufacture as at the priority date⁵⁰.

33 The primary judge framed the "central question" as whether a claim for an
EGM, which included a combination of physical parts and computer software to
produce a particular outcome in the form of gameplay, is a manner of manufacture
within s 18(1A)(a) of the Act⁵¹. As noted earlier, in accordance with the parties'
agreement, the primary judge found it necessary to consider only claim 1 of the
967 patent to dispose of the matter⁵².

34 The primary judge assumed, uncontroversially, that the requirements of
novelty, innovative step and usefulness were met, and that there had been no secret

48 An appeal pursuant to that sub-section proceeds as a matter in the original jurisdiction of the Federal Court of Australia, which is conducted as a hearing de novo: *Commissioner of Patents v Sherman* (2008) 172 FCR 394 at 399 [18], 400 [22]; *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 401 [2]-[3].

49 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 402-406 [10]-[28].

50 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 405-406 [27]-[28], citing *Kimberly-Clark Australia Pty Ltd v Arico Trading International Pty Ltd* (2001) 207 CLR 1 at 16 [24]; *D'Arcy v Myriad Genetics Inc* (2015) 258 CLR 334 at 342-343 [12].

51 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 401 [1].

52 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 402 [8]-[9].

use before the priority date⁵³. His Honour then stated he was required to consider whether the claims in suit, as read in light of the specification as a whole and the relevant art, were for a manner of manufacture⁵⁴. His Honour then, controversially, adopted a two-step process: first, he asked whether the claimed invention was for a "mere scheme or business method of the type that is not the proper subject matter of a grant of letters patent"; and secondly, if that question were answered in the affirmative, he asked whether the computer-implemented method is one where invention lay in the computerisation of the method, or whether the language of the claim involves "merely plugging an unpatentable scheme into a computer"⁵⁵. The second inquiry would have involved consideration of whether the contribution of the claimed invention is "technical in nature" or solves a "technical" problem, or whether it merely requires "generic" computer implementation⁵⁶ – matters which were the subject of expert evidence⁵⁷. His Honour proceeded to decide the issue of characterisation of claim 1 of the 967 patent by resolving the first of these questions in the negative.

35 The primary judge accepted that the core components of an EGM provide an interactive means of playing a game, and that the EGM described in claim 1 was "a device of a particular construction, known and recognised by those [skilled] in the art"⁵⁸. Nevertheless, his Honour went on to find that the claimed invention was not a "mere scheme or plan" on the basis that it was "to a mechanism of a particular construction, the operation of which involve[d] a combination of

53 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 419 [84], citing *CCOM Pty Ltd v Jiejing Pty Ltd* (1994) 51 FCR 260 at 291.

54 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 419 [86]. See also 420 [87].

55 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 420 [91], citing *Commissioner of Patents v Rokt Pte Ltd* (2020) 277 FCR 267 at 290 [84]. See also *Commissioner of Patents v RPL Central Pty Ltd* (2015) 238 FCR 27 at 49-50 [99].

56 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 420 [91], quoting *Commissioner of Patents v RPL Central Pty Ltd* (2015) 238 FCR 27 at 49-50 [99].

57 See *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 403-405 [13]-[26].

58 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 411 [54].

physical parts and software to produce a particular outcome in the form of an EGM that function[ed] in a particular way"⁵⁹.

36 His Honour found that the invention as claimed included hardware, firmware and software components that were identified, particularly the display, credit input mechanism, gameplay mechanism and game controller. His Honour found that the expert evidence established that a skilled reader would understand, upon reading the specification, that EGMs are subject to regulatory supervision and standards imposing requirements across many areas. To a person skilled in the art, "the machine that is the subject of the claims is built to allow people to play games on it", where each of its physical and virtual components amounted to nothing more than a combination of features to create "a device of a specific character"⁶⁰.

37 The primary judge was influenced in his resolution of the first question in his two-step process by the consideration that his approach advanced the social utility and value of innovation. His Honour observed that if claim 1 were to have been implemented mechanically in "the old-fashioned way", using cogs, physical reels and motors to create the gameplay instead of software, there would undoubtedly have been a manner of manufacture because the combination of physical parts would be inseparable from the features of the game. His Honour considered that the utilisation of the efficiencies of electronic technology could not disqualify the invention from patent eligibility. To hold otherwise, his Honour observed, "would be antithetical to the encouragement of invention and innovation"⁶¹.

38 His Honour considered that the claims in the case before him were analogous to those considered by the Federal Court in *Aristocrat Technologies Australia Pty Ltd v Konami Australia Pty Ltd*⁶², where claims for an EGM had been held to amount to a manner of manufacture. Because *Konami* was not plainly

59 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 421 [95].

60 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 421-422 [96]-[98].

61 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 423 [102].

62 (2015) 114 IPR 28.

wrong, his Honour considered himself obliged to follow it⁶³ in holding that the invention as claimed in claim 1 of the 967 patent was for a manner of manufacture⁶⁴. It is noteworthy that the claims in *Konami* were for what were found to be "new and useful gaming machines and new and useful methods of operation producing new and improved results"⁶⁵. Having found that the claimed invention was not a mere scheme, the primary judge considered it unnecessary to consider the second inquiry, so he did not make findings of fact to that effect.

The reasons of the Full Court

39 The Full Court held that the primary judge erred in adopting his two-step approach, and hence in his characterisation of the claimed invention.

40 Middleton and Perram JJ identified the question as whether the invention disclosed in claim 1 constituted patentable subject matter⁶⁶. Their Honours noted that the feature game was an "abstract idea" that was not itself patentable, but recognised that an abstract idea may be patentable if it is physically embodied by an invention that gives it practical application⁶⁷. Their Honours gave the example of a mechanical poker machine which allows a game defined by particular rules to be played, but emphasised that "the patent protects *the invention which is the poker*

63 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 424 [104].

64 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 424 [106].

65 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 424 [104], quoting *Aristocrat Technologies Australia Pty Ltd v Konami Australia Pty Ltd* (2015) 114 IPR 28 at 72 [223]-[224].

66 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 576 [9], citing *D'Arcy v Myriad Genetics Inc* (2015) 258 CLR 334 at 342-343 [12].

67 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 578 [14]-[16].

machine and not the *abstract idea consisting of the game which it plays*"⁶⁸. Earlier decisions involving board or card games were cited in support of that approach⁶⁹.

41 Their Honours understood from claim 1 that integers 1.10-1.12 were to be implemented by means of a computer program rather than by any mechanical apparatus, but noted that the integers of the claim did not disclose any particular computer program and did nothing more than call for the utilisation of a computer by the person implementing the invention⁷⁰. In the upshot, their Honours held that integers 1.10-1.12 (along with the game controller in integer 1.6) would not of themselves be a patentable invention, and none of the additional features in claim 1 could make it so, because claim 1 did not claim an advance in computer technology⁷¹.

42 Middleton and Perram JJ considered that the formulation of the primary judge's first question did not involve any question of computer implementation, and that the second assumed that the scheme in question had been implemented in a computer. That is, the question whether the invention was, in truth, a computer-implemented invention was never asked and consequently was never answered⁷². That was in error, their Honours held, because the invention proposed

68 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 578 [16] (emphasis added).

69 See *Re Cobianchi's Application* (1953) 70 RPC 199 at 201; *Re Peter Szabo and Associates Pty Ltd* (2005) 66 IPR 370 at 379 [38], citing *Official Ruling 1926A* (1926) 43 RPC Appendix i; *A Couple 'a Cowboys Pty Ltd v Ward* (1995) 31 IPR 45. See also IP Australia, "Patent Manual of Practice and Procedure: 2.9.2.9 Games and Gaming Machines", available at <<https://manuals.ipaustralia.gov.au/patent/2.9.2.9-games-and-gaming-machines>> [<https://perma.cc/MEA4-TCJV>].

70 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 578-579 [17]-[18].

71 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 579 [18], 594 [94].

72 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 580 [21], 581 [28].

in the 967 patent was not so self-evidently computer-implemented that the issue did not require to be addressed⁷³.

43 Their Honours asked two questions: is the invention claimed a computer-implemented invention; and if so, can the invention claimed broadly be described as an advance in computer technology⁷⁴? As it happened, their Honours answered the first question in the affirmative, finding that an EGM is a computer and the feature game identified in integers 1.10-1.12 is a computer-implemented invention⁷⁵. But their Honours' answer to the second question was "no". While their Honours said that some aspects of the 967 patent – being changes in the reel structure as identified in claim 3 and the idea of configurable symbols – may have been advances in gaming technology, they were not advances in computer technology. Fatal to the claim, in their Honours' view, was the circumstance that integers 1.10-1.12 left it entirely up to the person designing the EGM to do the programming which gave effect to the game or games defined by those integers⁷⁶.

44 As to the primary judge's suggestion that if claim 1 had been for a mechanical poker machine it would have been patentable subject matter, their Honours said that the circumstance that a computer's only purpose is to give effect to abstract ideas embodied in the code which it executes, so as to "giv[e] life" to that abstract idea by that means, does not, without more, warrant the grant of a monopoly; it "would rather monopolise the abstract ideas thus embodied"⁷⁷. The supposed anomaly that troubled the primary judge was, in their Honours' view, nothing more than a difference in the way that the implementation of abstract ideas has been approached by the courts given the availability of computer implementation. It may be said immediately that, in this respect, their Honours

73 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 580-581 [22], [24]-[25]. Cf *Encompass Corporation Pty Ltd v InfoTrack Pty Ltd* (2019) 372 ALR 646; *Commissioner of Patents v Rokt Pte Ltd* (2020) 277 FCR 267.

74 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 581 [26]-[29], 587 [57].

75 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 581-587 [30]-[57].

76 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 588-589 [63]-[65].

77 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 593-594 [88]-[91].

were clearly correct. It may readily be accepted that on the first occasion a mechanical poker machine was invented, it was patentable. But a later model of the same machine would not have been patentable simply because it allowed a new variant of poker to be played. That difference would not have relevantly differentiated it from the prototype⁷⁸.

45 The other member of the Full Court, Nicholas J, agreed that the appeal should be allowed, but reached his conclusion by asking whether the claimed invention produced an "artificially created state of affairs". The answer to that question was said to turn on whether the claimed invention "solves a technical problem or makes some other technical contribution to the field of the invention"⁷⁹. His Honour declined to take an "excessively rigid or formulaic approach" to the question whether a computer-implemented scheme is a manner of manufacture, especially where there may be no clear distinction between the field to which an invention belongs, and the field of computer technology⁸⁰.

46 Nicholas J accepted that "[m]ere business schemes" and abstract ideas or information have never been regarded as sufficiently tangible in character to constitute patentable subject matter, but said that they may become something patentable if the abstract ideas or information are given "practical effect and transformed into a new product or process which solves a technical problem, or makes some other technical contribution in the field of the invention"⁸¹. His Honour rightly said that *Konami* should be understood as a case in which a gaming machine or gaming system that could be seen to provide a technical solution to a practical problem in the field of gaming was proper subject matter of a patent⁸².

78 See, eg, *Re Crown Melbourne Ltd* (2020) 161 IPR 144.

79 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 601 [117].

80 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 600 [116], citing *Research Affiliates LLC v Commissioner of Patents* (2014) 227 FCR 378 at 403 [117]; *Commissioner of Patents v RPL Central Pty Ltd* (2015) 238 FCR 27 at 49 [98].

81 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 601 [118]-[119].

82 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 602 [124].

47 His Honour considered that the two-step approach adopted by the primary judge was erroneous because it failed to engage with the Commissioner's submission that the invention was a "mere scheme or set of rules for playing a game implemented using generic computer technology for its well-known and well-understood functions". In his Honour's view, the primary judge's approach failed fundamentally to address the question whether the EGM referred to in claim 1 was, or included, a computer and whether the invention was a computer-implemented scheme or a set of rules governing the playing of a game⁸³.

48 Nicholas J observed that the specification did not identify any specific problem in the computer implementation of the new game to which the claimed invention was directed⁸⁴. It merely described an EGM consisting of physical components that were common to such machines; neither that description, nor its capacity to trigger a feature game, was said to be anything new⁸⁵. The instructions embodied in the game code that determined the course of the base game and the feature game represented "abstract information in the nature of a scheme or set of rules governing the playing of a game"⁸⁶; that amounted to neither the required "artificial effect" nor an "unusual technical effect" because the code could not be regarded as transforming the way in which the EGM operated so as to make it patentable subject matter⁸⁷.

49 Nevertheless, Nicholas J had reservations as to whether the appeal to the Full Court could finally be determined and would have remitted the proceeding to the primary judge to determine whether claim 1 of the 967 patent "is a manner of manufacture on the basis that it involves technical and functional improvements to

83 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 605 [135].

84 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 602 [126], 606 [141].

85 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 605 [136]-[137].

86 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 605 [139].

87 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 605-606 [140]-[142].

EGMs through the use of configurable symbols of the kind more fully described in the specification"⁸⁸.

Aristocrat's argument in this Court

50 Aristocrat accepted that mere schemes, plans or methods are not patentable subject matter as a manner of manufacture, but submitted that the Federal Court decisions post-dating *CCOM* and *Grant* fell into, and perpetuated, error by developing "contrived constraints"⁸⁹ which anomalously fetter the patentability of inventions that utilise a computer.

51 Aristocrat also accepted that the assessment of manner of manufacture is to be undertaken, as a matter of substance, by reference to the subject matter of the claims and having regard to the utility of the claimed invention in the field of economic endeavour.

52 Aristocrat emphasised that claim 1 was not merely for a set of game rules, which it accepted was not patentable, but for a "combination of many elements that includes the functionality of the gaming machine". It was submitted that viewing the claim as a combination allows it to be assessed as a whole as a manner of manufacture. Aristocrat urged that this Court should not disturb the primary judge's finding of fact that the claimed invention was not a mere scheme.

53 In Aristocrat's submission, *Research Affiliates* and subsequent decisions⁹⁰ erroneously conflated the issue as to manner of manufacture with issues as to novelty and inventive step, thereby narrowing unjustifiably the conception of manner of manufacture. Aristocrat emphasised that each of the grounds of invalidity is distinct from the others. Aristocrat endorsed the primary judge's approach, emphasising the central importance of asking whether the claimed invention is a mere scheme separately from any question of inventiveness.

54 Aristocrat also submitted that the Full Court's decision in *Research Affiliates* inappropriately drew upon principles of patent law from the United Kingdom and the United States that did not translate to Australian law. Aristocrat

88 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 606 [144].

89 *Grant v Commissioner of Patents* (2006) 154 FCR 62 at 65 [8].

90 *Commissioner of Patents v RPL Central Pty Ltd* (2015) 238 FCR 27; *Encompass Corporation Pty Ltd v InfoTrack Pty Ltd* (2019) 372 ALR 646; *Commissioner of Patents v Rokt Pte Ltd* (2020) 277 FCR 267.

deprecated the US approach as having "resulted in chaos", in preference for the "watershed" and "celebrated judgment" in *NRDC*.

55 Aristocrat argued that the approach of *Middleton and Perram JJ* relied on an understanding of "computer" that could "encompass, practically, any device containing a processor and memory", which would have "significant ramifications for industry" by excluding from patentability goods from digital clocks to writing instruments to "the whole Internet of Things". It was also said to produce the incoherence that the claimed invention is not patent-eligible, but a mechanical equivalent would be.

56 In Aristocrat's submission, Nicholas J was right to hold that there was no requirement for an advance in the field of computer technology, but fell into error by adopting the approach in earlier Full Court decisions and equating an "artificially created state of affairs" with a "technical innovation, technical contribution or technical effect".

The Commissioner's argument in this Court

57 The Commissioner submitted that, as a matter of substance and in light of the common general knowledge, the invention claimed in claim 1 of the 967 patent was properly characterised as being for a set of rules for playing a game, implemented using conventional computer technology. The Commissioner emphasised that integers 1.1-1.6 of the claim were part of the agreed common general knowledge relating to EGMs, as at 2014.

58 The Commissioner submitted that the apparatus disclosed in claim 1 of the 967 patent is a conventional gaming machine having well-known and well-understood functions, involving the selection and display of symbols on reels and the awarding of prizes to carry out an electronic game. It was said that the substance of the claim, and what differentiated it from other conventional gaming machines, was what it disclosed only in its feature game, which, as an abstract idea, is not patentable.

59 The Commissioner submitted that each of the recent Full Court decisions challenged by Aristocrat correctly applied the principles in *NRDC* and *Myriad*, in recognising the distinction between an abstract idea that has been implemented using conventional computer technology, and an invention that involves some differentiation from generic computer technology to implement the idea and is distinct from the idea itself.

60 The Commissioner endorsed the approach of *Middleton and Perram JJ*, but also endorsed the approach of Nicholas J, arguing that there was no fundamental difference in principle. It was said that the two approaches were simply "two sides

of the same coin", in making the distinction between an "abstract idea", on the one hand, and an invention involving some technological adjustment or advance or improvement in the apparatus, on the other.

Patentable subject matter – an idea for a game or product or process

61 The monopoly rights of a patentee are conferred by s 13(1) of the Act; they relevantly include the exclusive rights to, where the invention is a product, "make, hire, sell or otherwise dispose of the product". Where the invention is a method or process, those rights are to use the method or process to do any such act in respect of a product resulting from such use⁹¹. In *Myriad*, French CJ, Kiefel, Bell and Keane JJ said⁹²:

"The idea of something which can be 'made' by human intervention is central and long-standing⁹³ – "[m]anufacture" connotes ... the making of something⁹⁴. It is an important element of the exclusive right to exploit a patented product."

62 *Myriad* concerned product claims for an isolated nucleic acid which coded for, in the sense of having the potential to produce, an identified protein with mutations or polymorphisms indicative of a predisposition to breast and ovarian cancer. This Court held that the claim was not for a manner of manufacture and so was not a patentable invention.

63 The plurality said that the genetic information which was the substance of the claim was not invented by human action, but was a natural phenomenon discerned as a matter of discovery of a fact of the natural world⁹⁵. In reaching that conclusion, their Honours emphasised that an invention is something which involves "making", whether that be a product, a process or an outcome which can be characterised as an "artificially created state of affairs"; and it must be brought

91 Sch 1 to the Act, definition of "exploit".

92 *D'Arcy v Myriad Genetics Inc* (2015) 258 CLR 334 at 344 [16].

93 *R v Wheeler* (1819) 2 B & Ald 345 at 349-350 [106 ER 392 at 394-395]; *Lane Fox v Kensington and Knightsbridge Electric Lighting Co* [1892] 3 Ch 424 at 428-429; *Reynolds v Herbert Smith & Co Ltd* (1902) 20 RPC 123 at 126.

94 Blanco White, *Patents for Inventions*, 2nd ed (1955) at 12.

95 *D'Arcy v Myriad Genetics Inc* (2015) 258 CLR 334 at 339-340 [6], 372 [91].

about by human action⁹⁶. The claim in *Myriad* failed to meet that requirement because satisfaction of an integer of the claim depended upon a discovery of a characteristic of the human being from whom the nucleic acid was isolated and not an invention of that characteristic by the person doing the isolating⁹⁷. The point of principle of present relevance supported by that decision is that neither the discovery of a truth about the nature of things nor the devising of a scheme or game for entertainment is the invention of a manner of manufacture.

64 In addition, the plurality in *Myriad* said that the purpose of the Act would not be served by according patentability to a class of claims which by their very nature lack well-defined boundaries or have negative or chilling effects on innovation⁹⁸. Their Honours considered that there would be a "real risk" that the chilling effect of the claims "would lead to the creation of an exorbitant and unwarranted de facto monopoly on all methods of isolating nucleic acids containing the sequences coding for the [relevant] protein"⁹⁹. Gageler and Nettle JJ expressed a similar concern¹⁰⁰, as did Gordon J¹⁰¹. It has been seen that the primary judge in the present case was influenced in his characterisation of the subject matter of the claim by a concern that too "narrow" a characterisation might be "antithetical to the encouragement of invention and innovation"¹⁰². His Honour's concern is offset by the consideration that the characterisation of the invention favoured by his Honour carries with it the risk of chilling innovation by excluding competitors from this field of the gaming business.

65 *NRDC* held that a new use of an old product may be a method that is patentable if it is itself an invention. In *NRDC*, the manner of manufacture in question, methods for the eradication and control of weeds by the application of a known herbicide, was patentable as an invention because it produced the economically beneficial effect of a new use of the particular chemical compound,

96 *D'Arcy v Myriad Genetics Inc* (2015) 258 CLR 334 at 340 [6], quoting *NRDC* (1959) 102 CLR 252 at 276-277. See also 344 [16], 372 [91].

97 *D'Arcy v Myriad Genetics Inc* (2015) 258 CLR 334 at 340 [6].

98 *D'Arcy v Myriad Genetics Inc* (2015) 258 CLR 334 at 340 [7], 351-352 [28]-[29].

99 *D'Arcy v Myriad Genetics Inc* (2015) 258 CLR 334 at 340 [8]. See also 352 [29].

100 *D'Arcy v Myriad Genetics Inc* (2015) 258 CLR 334 at 372 [93].

101 *D'Arcy v Myriad Genetics Inc* (2015) 258 CLR 334 at 414-415 [259]-[264].

102 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 423 [102].

as distinct from the earlier, and different, economic effect from a different use of that compound¹⁰³. It is necessary to appreciate that *NRDC* is not authority for the proposition that a claim for a new use of an old product may confer a patent monopoly over the old product. In such a case, the old product is, in light of the prior art, not relevantly a manner of manufacture that can be said to have been invented by the claimant. *NRDC* does not support the view that new, but unpatentable, subject matter presented or operated through generic technology is patentable¹⁰⁴. It is important to appreciate that to say this is not to err, as Aristocrat claims, by conflating the issue of manner of manufacture with issues of novelty and inventive (or innovative) step.

66 In *N V Philips Gloeilampenfabrieken v Mirabella International Pty Ltd*¹⁰⁵, Brennan, Deane and Toohey JJ referred to s 18(1) of the Act as identifying "the essential characteristics of a 'patentable invention' for the purposes of the Act". Focussing upon the introductory words of that sub-section, their Honours upheld the approach of the primary judge and the Full Court in that case, whereby "independently of the specific provisions of s 18(1)(b) relating to novelty and inventive step, s 18(1)(a) must be read as containing a threshold requirement to the effect that what was claimed as a patentable invention must be a proper subject of letters patent according to the principles which have been developed for the application of s 6 of the *Statute of Monopolies* 1623 (Imp)"¹⁰⁶. In characterising a claimed invention for this purpose, one does not trespass impermissibly into issues of novelty or obviousness by focussing on the features of the claimed invention that differentiate it from the common general knowledge. These are the features which enable one to identify what is said to be the "invention" for the purposes of s 18(1) and s 18(1A) of the Act.

67 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,

103 *NRDC* (1959) 102 CLR 252 at 277.

104 cf *Mullard Radio Valve Co Ltd v British Belmont Radio Ltd* (1938) 56 RPC 1 at 20. See also *Harwood v Great Northern Railway Co* (1865) 11 HLC 654 at 682 [11 ER 1488 at 1499], cited with approval in *Willmann v Petersen* (1904) 2 CLR 1 at 20; *Interlego AG v Toltoys Pty Ltd* (1973) 130 CLR 461 at 480.

105 (1995) 183 CLR 655 at 659.

106 *N V Philips Gloeilampenfabrieken v Mirabella International Pty Ltd* (1995) 183 CLR 655 at 660. See also 662-663; *Bristol-Myers Squibb Co v F H Faulding & Co Ltd* (2000) 97 FCR 524 at 531-533 [20]-[23].

the specification would itself disclose the absence of 'an alleged invention' within the second limb of the definition [of the term 'invention']", and in such a case the Commissioner "was entitled to reject the application for the reason that it failed to satisfy the threshold test". Their Honours specifically rejected the proposition "that s 18(1)(b)'s requirements of novelty and inventive step (when compared with the identified applicable prior art base) are exclusive and exhaustive in so far as inventiveness (whether of step or idea) is concerned"¹⁰⁷.

68 Brennan, Deane and Toohey JJ emphasised the primary significance of the words "a patentable invention is an invention that ..." in s 18(1), as it then stood, as words which "impose a threshold requirement which must be satisfied before one reaches that contained in the body of par (a)"¹⁰⁸, that being the requirement of manner of manufacture. Their Honours explained¹⁰⁹:

"The effect of those opening words of s 18(1) is that the primary or threshold requirement of a 'patentable invention' is that it be an 'invention'. Read in the context of s 18(1) as a whole and the definition of 'invention' in the Dictionary in Sch 1, that clearly means 'an alleged invention'¹¹⁰, that is to say, an 'alleged' 'manner of new manufacture the subject of letters patent and grant of privilege within s 6 of the Statute of Monopolies'¹¹¹. In the light of what has been said above about what is involved in an alleged manner of new manufacture, that threshold requirement of 'an alleged invention' will, notwithstanding an assertion of 'newness', remain unsatisfied if it is apparent on the face of the relevant specification that the subject matter of the claim is, by reason of absence of the necessary quality of inventiveness, not a manner of new manufacture for the purposes of the *Statute of Monopolies*. That does not mean that the threshold requirement of 'an alleged invention' corresponds with or renders otiose the more specific requirements of novelty and inventive step (when compared with the prior art base) contained in s 18(1)(b). It simply means that, if it is apparent on

107 *N V Philips Gloeilampenfabrieken v Mirabella International Pty Ltd* (1995) 183 CLR 655 at 662-663.

108 *N V Philips Gloeilampenfabrieken v Mirabella International Pty Ltd* (1995) 183 CLR 655 at 663.

109 *N V Philips Gloeilampenfabrieken v Mirabella International Pty Ltd* (1995) 183 CLR 655 at 663-664.

110 See the final words of the definition.

111 See the first part of the definition.

the face of the specification that the quality of inventiveness necessary for there to be a proper subject of letters patent under the *Statute of Monopolies* is absent, one need go no further. In that regard, the position under s 18(1) remains that indicated in the following extract from the judgment of Dixon CJ, Kitto and Windeyer JJ in [*NRDC*]¹¹²:

'... in the portion of the definition of invention which includes in the meaning of the word an alleged invention, the word "alleged" goes only to the epithet "new" in the expression "a manner of new manufacture", and ... accordingly the Commissioner may properly reject a claim for a process which is not within the concept of a "manufacture". But the case cited [ie *Microcell*] shows also that even if the process is within the concept the Commissioner is not bound to accept the allegation of the applicant that it is new, if it is apparent on the face of the specification, when properly construed, that the allegation is unfounded: see also *Re Johnson's Patent*¹¹³. It is therefore open to the Commissioner in a proper case to direct the deletion of a claim for a process which may be seen from the specification, considered as a whole, to be "outside the whole scope of what is known as invention" because, in the words of Lord Buckmaster, when Solicitor-General, in *Re BA's Application*¹¹⁴ it is "nothing but a claim for a new use of an old substance"¹¹⁵.'

69 In *N V Philips*, Brennan, Deane and Toohey JJ addressed arguments to the same effect as were addressed to this Court by Aristocrat, by reference, inter alia, to this Court's earlier decision in *Commissioner of Patents v Microcell Ltd*¹¹⁶. The relevant passage is lengthy, but given Aristocrat's reliance on a view that has been authoritatively rejected, it should be cited in full. Their Honours said¹¹⁷:

112 (1959) 102 CLR 252 at 261-262.

113 (1937) 55 RPC 4 at 19.

114 (1915) 32 RPC 348.

115 *Re BA's Application* (1915) 32 RPC 348 at 349.

116 (1959) 102 CLR 232.

117 *N V Philips Gloeilampenfabrieken v Mirabella International Pty Ltd* (1995) 183 CLR 655 at 664-665 (some footnotes omitted). See also *D'Arcy v Myriad Genetics Inc* (2015) 258 CLR 334 at 382-383 [129]-[131].

"It is true that it can be argued that there is internal tension in an overall legislative scheme which imposes a threshold requirement of inventiveness reflecting the effect of the saving clause in s 6 of the *Statute of Monopolies* and then proceeds, if that threshold requirement be satisfied, to impose more specific requirements of novelty and inventive step. It seems to us, however, that there are several answers to that argument. One is that there is no construction of s 18(1) of the Act which is not susceptible of some legitimate criticism. Another is that traditional patents law under s 6 of the *Statute of Monopolies* long recognised cumulative requirements of an element of invention (as distinct from, eg, mere discovery or analogous use) in the subject matter as described by the specification and novelty or newness as disclosed by comparison with a prior art base¹¹⁸. The distinctive requirements of novelty and inventive step required by s 18 of the Act are emphasised by their elaboration in s 7. In that regard it may be noted that in the [*Patents Act 1952* (Cth)] one of the grounds for revocation of a patent was that the invention 'was obvious and did not involve an inventive step, having regard to what was known or used in Australia' (s 100(1)(e)). More important, it seems to us to be highly unlikely that it was the legislative intent that there should be a significant alteration of the law as explained in *Microcell* by extending the ambit of a patentable invention so as to include what is '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'. In that regard, we do not accept the argument on behalf of Philips that *Microcell* was decided on the question of newness and not on manner of manufacture. It is true that, in *Microcell*, 'counsel for the applicants argued that ... they were required to show no more than that the specification described a manner of manufacture and that it was alleged to be new'. But it is clear that the decision of the Court was that '[t]he specification in the present case does not, in our opinion, disclose a patentable invention'. Rather, the deliberate retention of the established definition of 'invention' in the Dictionary in Sch 1 strongly supports the view that it was the legislative intent that the threshold requirement of 'an invention' would continue to exclude from a 'patentable invention' any claimed process, method or use which was not, on the face of the specification, a proper subject of letters patent according to traditional principles."

118 See, eg, *Gadd and Mason v Mayor of Manchester* (1892) 9 RPC 516 at 525-526; *Sharp & Dohme Inc v Boots Pure Drug Co Ltd* (1928) 45 RPC 153 at 170-173.

Philips, which was, of course, ultimately upheld by this Court. In *CCOM*, the Full Court said, in obiter dicta, that¹¹⁹:

"counsel for [the party contending for invalidity] ... resiled from [reliance on the decision of the Full Court in *N V Philips*] in so far as issues more apt to obviousness may have intruded into the consideration of the concept of manner of manufacture. Counsel accepted that many of the old cases which may have been treated in the texts under the heading of 'manner of new manufacturer' would now be treated as decisions upon degree of inventiveness, that is to say obviousness."

71 In *N V Philips*, Brennan, Deane and Toohey JJ expressly adverted to these observations, but ultimately affirmed the approach of the primary judge and the Full Court as to the interpretation of s 18(1), noting that all of them were in agreement¹²⁰.

72 *N V Philips* provides an answer to Aristocrat's reliance on observations in *CCOM* about the structure of s 18 of the Act which were encapsulated in the example that "whilst a claim for the ball point pen now would fail for anticipation [want of novelty] and obviousness [want of an inventive step], it would still be a claim for a manner of manufacture"¹²¹. The ball point pen would not, now or at the time *CCOM* was decided, have met the threshold requirement of s 18 that it be an invention because it is not, and was not then, new.

Characterising the claimed invention

73 In accordance with the approach in *Myriad*¹²², it is necessary to characterise Aristocrat's claimed invention by reference to the terms of the specification having regard to the substance of the claim and in light of the common general knowledge. 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

119 *CCOM Pty Ltd v Jiejing Pty Ltd* (1994) 51 FCR 260 at 294.

120 *N V Philips Gloeilampenfabrieken v Mirabella International Pty Ltd* (1995) 183 CLR 655 at 660 esp at fn 26.

121 *CCOM Pty Ltd v Jiejing Pty Ltd* (1994) 51 FCR 260 at 291.

122 *D'Arcy v Myriad Genetics Inc* (2015) 258 CLR 334 at 342-343 [12], 385-388 [138]-[145]. See also *Kimberly-Clark Australia Pty Ltd v Arico Trading International Pty Ltd* (2001) 207 CLR 1 at 12-13 [16], 16 [24].

invention is claimed to subsist. The title of the 967 patent and the field of invention described in the patent specification accurately characterise the invention claimed by Aristocrat. The claimed invention takes its character, as an *invention*, from those elements of the claim which are not common general knowledge. If that were not so, every EGM conforming to the generic physical and hardware components, including computer components, described in the claim would be patentable simply because it, like every other EGM, allowed a new game to be played. And the only thing differentiating each new claimed invention, as an *invention*, would be that unpatentable game.

74 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.

75 All members of the Full Court were right to conclude that the subject matter of Aristocrat's claim is not patentable subject matter. It is common ground that the new game devised by Aristocrat, as an idea, is not itself patentable subject matter; and 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.

76 Neither the primary judge nor the Full Court made any finding that any of the integers of claim 1 addressed the exigencies of the physical presentation of the operation of the game devised by Aristocrat. And it is not apparent from the terms of the specification of the 967 patent or claim 1 itself that there is a basis for such a finding. In the absence of such a finding, there is no basis for concluding that the claimed invention is patentable subject matter. It is no more than an unpatentable game operated by a wholly conventional computer, using technology which has not been adapted in any way to accommodate the exigencies of the game or in any other way.

77 Two aspects of the reasons of Middleton and Perram JJ warrant comment. First, the two-step analysis proposed by their Honours unnecessarily complicates the analysis of the crucial issue. As explained in *Myriad*¹²⁴, the crucial issue is as to the characterisation of the invention by reference to the terms of the specification having regard to the claim and in light of the common general knowledge. It is not apparent in the present case that asking whether the claimed invention is an advance in *computer* technology as opposed to *gaming* technology, or indeed is

123 *Grant v Commissioner of Patents* (2006) 154 FCR 62 at 70 [32].

124 *D'Arcy v Myriad Genetics Inc* (2015) 258 CLR 334 at 342-343 [12], 385-388 [138]-[145].

any *advance* in technology at all, is either necessary or helpful in addressing that issue. As Nicholas J explained, the issue is not one of an "advance" in the sense of inventiveness or novelty. In conformity with the decision in *N V Philips*, the issue is whether the implementation of what is otherwise an unpatentable idea or plan or game involves some adaptation or alteration of, or addition to, technology otherwise well-known in the common general knowledge to accommodate the exigencies of the new idea or plan or game.

78 Secondly, the suggestion by Middleton and Perram JJ that the claimed invention may be an advance in gaming technology but not an advance in computer technology was an unnecessary flourish. This observation might be thought to reject the notion that an advance in gaming technology may be patentable subject matter. That would be erroneous. The flourish was unnecessary because there is no reason to conclude from the terms of claim 1 of the 967 patent that it was claiming an advance in gaming technology other than the use of a generic computer to play its new game. It was also neither necessary nor appropriate to speak of *advances* in gaming technology where one is concerned with a 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. As Nicholas J appreciated, a new idea implemented using old technology is simply not patentable subject matter¹²⁵. It may be noted here that the claim does not disclose any basis on which one might conclude otherwise. On that basis, there was no occasion for the Full Court to consider remitting the proceeding to the primary judge to enable findings to be made as to whether the claimed invention made any technical contribution to the common general knowledge of computerised gaming. Nicholas J had no sufficient reason to think that the remitter he proposed was necessary or appropriate.

79 During the course of argument in this Court, a question arose as to the significance of the configurable symbols, which are referred to in integers 1.6-1.12. Claim 1 does not disclose that the configurable symbols somehow facilitate the implementation of the game by the EGM in any way different from a generic EGM. There is nothing in the claim over and above an instruction to provide configurable symbols, an instruction which a person skilled in the art could be expected to act upon in the exercise of his or her own judgment, in light of the common general knowledge. Put another way, there is nothing new

125 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 598-599 [111], 601 [118]-[119].

or inventive about the interaction between the configurable symbols and the game¹²⁶.

80 There is also nothing disclosed in the claim in the specification to suggest that the configurable symbols have any function or physical presentation that differentiates the claimed invention from a generic EGM. As was said in *Calidad Pty Ltd v Seiko Epson Corporation*¹²⁷, the price for the monopoly rights conferred by a patent "is that the invention must be disclosed in the patent".

81 In this regard, the claim is of central importance in the definition of a patentable invention¹²⁸. As Lord Russell of Killowen observed in 1938, the function of a patent claim is "to define clearly and with precision the monopoly claimed, so that others may know the exact boundaries of the area within which they will be trespassers"¹²⁹. As the primary judge found, the EGM described in the claim is "a device of a particular construction, known and recognised by those [skilled] in the art"¹³⁰. Nothing in the reasons of the primary judge suggests that his Honour was invited to find that the configurable symbols should be regarded as standing outside this conclusion.

Aristocrat's application to amend its notice of appeal

82 Aristocrat submitted that should this Court reject its primary contention, the matter should be remitted to the primary judge for determination of the issue whether the claimed invention involved a technical contribution, including in the field of gaming technology. Aristocrat, in its reply in oral argument, sought leave to amend its notice of appeal to assert that Middleton and Perram JJ erred in failing to remit the proceeding to the primary judge to consider whether claim 1 of the 967 patent is a manner of manufacture. As discussed above, the primary judge expressly declined to make findings that the claimed invention made any technical

126 cf *Advanced Building Systems Pty Ltd v Ramset Fasteners (Aust) Pty Ltd* (1998) 194 CLR 171 at 182 [12].

127 (2020) 94 ALJR 1044 at 1075 [152]; 384 ALR 577 at 611.

128 s 40(2)(b) of the Act.

129 *Electric & Musical Industries Ltd v Lissen Ltd* (1938) 56 RPC 23 at 39. See also *D'Arcy v Myriad Genetics Inc* (2015) 258 CLR 334 at 343-344 [14], citing Bodkin, *Patent Law in Australia*, 2nd ed (2014) at 367 [5960].

130 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 411 [54].

contribution in the sense of involving the creation of an artificial state of affairs¹³¹. To the extent that Aristocrat seeks now to embrace the reservations of Nicholas J as to the final disposition of the matter, that course should not be entertained.

83 Although the Commissioner did not oppose Aristocrat's application, she submitted that it would be futile to grant it. As these reasons have explained, the Commissioner was correct to submit that 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.

84 Claim 1 of the 967 patent does not disclose any technical contribution to either computer or gaming technology outside the common general knowledge. At best, the claimed invention contains a new game which may enhance player enjoyment¹³²; but that cannot be said to amount to a technical contribution or to solve a technical problem in the field of computer or gaming technology. In addition, special leave was granted in this matter on the footing that the appeal would resolve issues of legal principle that were ripe for determination. An appellant in such a case should not expect to be allowed to expand its appeal to extend the final resolution of the matter by remitting it for further litigation of issues of fact not adverted to when special leave was being sought.

85 Aristocrat's application for leave to amend its notice of appeal should be refused.

The IPTA's submissions

86 The Institute of Patent and Trade Mark Attorneys of Australia ("the IPTA") was granted leave to appear to make submissions as amicus curiae in support of Aristocrat's appeal. The IPTA made submissions that were supportive of Aristocrat. To the extent that IPTA argued in support of Aristocrat's contention that the approach of Middleton and Perram JJ conflated or confused issues of novelty or obviousness with the issue as to manner of manufacture, that argument cannot be sustained having regard to this Court's decision in *N V Philips*.

87 The IPTA also expressed concern that the approach of Middleton and Perram JJ would have "seismic" effects beyond the gaming industry, rendering unpatentable "swathes of inventions" that otherwise would have been, such as

131 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 420 [91], 421 [95].

132 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 602 [125]-[126], 605 [136], 606 [141].

medical imaging and diagnostic machines, speed detection camera systems and biotechnology inventions such as COVID-19 diagnosis systems. It must be understood that a claimed invention for patentable subject matter does not become unpatentable because it is operated by generic computer technology.

The FICPI's submissions

88 The Fédération Internationale des Conseils en Propriété Intellectuelle ("the FICPI") was granted leave to provide written submissions as amicus curiae with respect to the position under US law on the requirement for patent-eligible subject matter. It too supported Aristocrat's appeal generally.

89 The FICPI too argued that the merits of an invention, such as inventiveness, play no part in assessing patentability; and that the two-step test that the Supreme Court of the United States developed in the decisions of *Mayo Collaborative Services v Prometheus Laboratories Inc*¹³³ and *Alice Corporation Pty Ltd v CLS Bank International*¹³⁴ involves a "search for an 'inventive concept'".

90 The Supreme Court held in *Alice* that a requirement of generic computer implementation of a method does not transform a patent-ineligible abstract idea into a patent-eligible invention¹³⁵. The relevant statutory provision on which that decision was based, 35 USC §101, provides that:

"Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title".

91 The FICPI noted subsequent decisions and academic writings which have criticised the two-step *Mayo/Alice* test as conflating patent eligibility with obviousness¹³⁶. The consequence, it was said, was adversely to affect the

133 (2012) 566 US 66.

134 (2014) 573 US 208. See esp at 217.

135 *Alice Corporation Pty Ltd v CLS Bank International* (2014) 573 US 208 at 221.

136 *Ariosa Diagnostics Inc v Sequenom Inc* (2015) 788 F 3d 1371 at 1381; *Interval Licensing LLC v AOL Inc* (2018) 896 F 3d 1335 at 1348; *Athena Diagnostics Inc v Mayo Collaborative Services LLC* (2019) 927 F 3d 1333 at 1335; *American Axle & Manufacturing Inc v Neapco Holdings LLC* (2020) 967 F 3d 1285 at 1312; Committee on the Judiciary, Subcommittee on Intellectual Property, "The State of

development of innovations in the US in fields where computer-implemented technologies are used. The FICPI submitted that the proposed alternative approach of Middleton and Perram JJ is "highly likely" to have that same chilling effect on innovation in Australia by restricting patentable computer-related inventions to those that demonstrate an "advance in computer technology".

92 Having regard to the reasons set out above, it can be seen that the FICPI's argument is unnecessarily alarmist. In addition, as with the argument for Aristocrat and the IPTA, it is inconsistent with this Court's decision in *N V Philips*. Further, since the relevant US statutory provision is different from the relevant terms of the Act, it will be readily apparent that the decisions in cases such as *Alice* have little significance for the outcome of this case. The foregoing reasons for holding that the appeal to this Court should be dismissed involve no reliance on the reasoning in *Alice*, or any other decision of the US courts.

93 It may also be said that if this Court's decision in a patent case would bring Australian patent law into conflict with that of a major trading partner such as the US, that would be a reason to scrutinise with special care the reasoning which would lead to such a result. That would be so especially where there are no substantial differences in the relevant statutory provisions¹³⁷. But where no problem of conflict arises, that is not necessary. And it is of little assistance to the application of Australian law to criticise the jurisprudence of a different legal system for reaching the same solution to a problem that Australian courts have reached.

Conclusion and orders

94 The appeal should be dismissed with costs.

Patent Eligibility in America: Part I", available at <<https://www.judiciary.senate.gov/meetings/the-state-of-patent-eligibility-in-america-part-i>> [<https://perma.cc/S27H-4H8F>] see esp Testimony of Judge Paul R Michel (Ret) [<https://perma.cc/KMJ2-9BLN>], Testimony of David J Kappos [<https://perma.cc/2GFA-9MQK>]; Taylor, "Confusing Patent Eligibility" (2016) 84 *Tennessee Law Review* 157 at 230, 235.

137 cf *Calidad Pty Ltd v Seiko Epson Corporation* (2020) 94 ALJR 1044 at 1052-1054 [17]-[24], 1063-1064 [83]-[84]; 384 ALR 577 at 582-584, 596-597.

GORDON, EDELMAN AND STEWARD JJ.

Introduction

95 An electronic gaming machine ("EGM") is a device that was described in expert evidence in this case as a "video slot machine"¹³⁸. An EGM typically has a player interface by which players input money into the machine, make wagers, and play the game. The appellant, Aristocrat Technologies Australia Pty Ltd ("Aristocrat"), claimed innovation patents under s 18(1A) of the *Patents Act 1990* (Cth) concerning various embodiments of an EGM, including one that incorporated a standard player interface integrated with, and governed by, the hardware and software of an electronic game controller which included feature games and configurable symbols.

96 The only question on this appeal is whether the claim by Aristocrat¹³⁹ is not the proper subject matter of a patent because it is not a manner of manufacture within s 6 of the *Statute of Monopolies* as required by s 18(1A)(a) of the *Patents Act*. Before the primary judge in the Federal Court of Australia, in a concession that was rightly never revoked on appeal to the Full Court of the Federal Court of Australia or to this Court, the Commissioner accepted that if the relevant claim had involved a mechanical implementation "using cogs, physical reels and motors to create the gameplay" then there would have been no doubt that the relevant claim was a manner of manufacture¹⁴⁰. The primary judge held that the electronic and digital nature of an EGM made no difference to that conclusion. The Full Court unanimously allowed an appeal. Two members of the Full Court held that a claim that involved a "computer-implemented invention" could only be a manner of manufacture if it could broadly be described as an advance in computer technology.

97 In the 21st century, a law such as s 18(1A) of the *Patents Act* that is designed to encourage invention and innovation should not lead to a different conclusion where physical cogs, reels, and motors are replaced by complex software and hardware that generate digital images. Throughout this litigation, the Commissioner attempted to avoid such a curious result by re-characterising Aristocrat's claim as a mere scheme or abstract idea. The Commissioner could only

138 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 584 [45].

139 Claim 1 of the 967 patent. See [130] below.

140 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 423 [102].

38.

achieve that characterisation by filleting from the claim essential and interdependent integers providing for the implementation of the game on the EGM. The integers stripped from the Commissioner's characterisation included components as basic as the display component of the player interface on which the images of symbols generated by the software and hardware appeared.

98 For the reasons below, the appeal must be allowed.

Section 18 of the *Patents Act*

99 Section 18 of the *Patents Act* provides:

"Patentable inventions

Patentable inventions for the purposes of a standard patent

- (1) Subject to subsection (2), an invention is a patentable invention for the purposes of a standard patent if the invention, so far as claimed in any claim:
- (a) is a manner of manufacture within the meaning of section 6 of the Statute of Monopolies; and
 - (b) when compared with the prior art base as it existed before the priority date of that claim:
 - (i) is novel; and
 - (ii) involves an inventive step; and
 - (c) is useful; and
 - (d) was not secretly used in the patent area before the priority date of that claim by, or on behalf of, or with the authority of, the patentee or nominated person or the patentee's or nominated person's predecessor in title to the invention.

Patentable inventions for the purposes of an innovation patent

- (1A) Subject to subsections (2) and (3), an invention is a patentable invention for the purposes of an innovation patent if the invention, so far as claimed in any claim:
- (a) is a manner of manufacture within the meaning of section 6 of the Statute of Monopolies; and

39.

- (b) when compared with the prior art base as it existed before the priority date of that claim:
 - (i) is novel; and
 - (ii) involves an innovative step; and
- (c) is useful; and
- (d) was not secretly used in the patent area before the priority date of that claim by, or on behalf of, or with the authority of, the patentee or nominated person or the patentee's or nominated person's predecessor in title to the invention.

- (2) Human beings, and the biological processes for their generation, are not patentable inventions.

Certain inventions not patentable inventions for the purposes of an innovation patent

- (3) For the purposes of an innovation patent, plants and animals, and the biological processes for the generation of plants and animals, are not patentable inventions.
- (4) Subsection (3) does not apply if the invention is a microbiological process or a product of such a process."

100 An "invention" is defined in Sch 1 to the *Patents Act* as meaning "any manner of new manufacture the subject of letters patent and grant of privilege within section 6 of the Statute of Monopolies, and includes an alleged invention".

The preliminary question of characterisation

101 The starting point for any assessment of whether an applicant has satisfied the requirements of s 18(1) or, as in this case, s 18(1A) is characterisation of the relevant claim. Section 18(1A), like s 18(1), requires answers to questions such as: "is the subject matter an alleged invention?"; "is the alleged invention a manner of manufacture?"¹⁴¹; "is the alleged invention novel?"¹⁴²; "does the alleged invention

141 *Patents Act 1990* (Cth), s 18(1A)(a).

142 *Patents Act 1990* (Cth), s 18(1A)(b)(i).

involve an innovative step?"¹⁴³; "is the alleged invention useful?"¹⁴⁴; and "was the alleged invention secretly used?"¹⁴⁵ None of these questions can be answered without first characterising the claim, which involves answering the fundamental question of "what is the subject matter of the claim"? Relatedly, it also involves asking "what are the facts and matters which are relied upon to justify a conclusion that the claim contains an invention?"¹⁴⁶

102 The characterisation of the claim must be undertaken as a matter of substance, not mere form¹⁴⁷. It requires consideration of all of the integers of the claim in light of the relevant facts and matters in the specification. The exercise of characterisation might reveal an alleged invention which may be either a process or a product.

103 The characterisation exercise should not be artificial. An artificially specific characterisation could confine *any* claim to a mere intellectual idea, which, as is explained below, could deny an obvious manner of manufacture by ignoring the means of implementing the idea. Similarly, an artificially generalised characterisation could remove the element of novelty or inventiveness from any claim.

104 The risk of artificially characterising a claim is particularly pronounced where the claim contains interdependent integers. Unless a claim asserts a monopoly "in any integer by itself", it is "only necessary that each integer form part of a full description of the invention"¹⁴⁸. As will be explained below, the claim which is the subject of this appeal did not assert a monopoly in any single integer; the claim relied upon the full description of the alleged invention. In *Minnesota*

143 *Patents Act 1990* (Cth), s 18(1A)(b)(ii).

144 *Patents Act 1990* (Cth), s 18(1A)(c).

145 *Patents Act 1990* (Cth), s 18(1A)(d).

146 *D'Arcy v Myriad Genetics Inc* (2015) 258 CLR 334 at 417 [278].

147 *D'Arcy v Myriad Genetics Inc* (2015) 258 CLR 334 at 370-371 [86]-[88], 373 [94], 387-388 [144], 417-418 [279].

148 *Lockwood Security Products Pty Ltd v Doric Products Pty Ltd* (2004) 217 CLR 274 at 304 [78].

*Mining and Manufacturing Co v Beiersdorf (Australia) Ltd*¹⁴⁹, Aickin J referred to such a circumstance as a "combination patent" where:

"it combines a number of elements which interact with each other to produce a new result or product. Such a combination may be one constituted by integers each of which is old, or by integers some of which are new, the interaction being the essential requirement."

105 In short, the characterisation of the claim at the appropriate level of generality should include all of the matters that properly form part of the idea, as well as its implementation. Only then can the questions required by s 18(1) or s 18(1A) properly be answered.

The threshold requirement for "an alleged invention"

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*. This threshold question was most clearly expressed in *N V Philips Gloeilampenfabrieken v Mirabella International Pty Ltd*¹⁵⁰.

107 In *N V Philips*, a purported invention characterised as a "low-pressure mercury vapour discharge lamp" had been held by the primary judge and a majority of the Full Court of the Federal Court of Australia not to be a patentable invention because it was merely a new use of a known product, namely using the known luminescent properties of phosphors in a lamp¹⁵¹. On appeal to this Court, the appellants submitted that this reasoning impermissibly imposed a threshold requirement for "newness" separately from the independent requirement of novelty in s 18(1)(b)(i)¹⁵².

108 A majority of this Court in *N V Philips*, Brennan, Deane and Toohey JJ, dismissed the appeal. Their Honours held that the reference to a "patentable

149 (1980) 144 CLR 253 at 266.

150 (1995) 183 CLR 655.

151 (1995) 183 CLR 655 at 665-666. See also *Re BA's Application* (1915) 32 RPC 348 at 349, "a new use of an old substance", quoted with approval in *Commissioner of Patents v Microcell Ltd* (1959) 102 CLR 232 at 247 and *National Research Development Corporation v Commissioner of Patents* (1959) 102 CLR 252 at 262.

152 (1995) 183 CLR 655 at 657.

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 invention¹⁵³. 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 base¹⁵⁴. Without satisfaction of that threshold requirement, there can be no manner of manufacture as required by s 18(1)(a)¹⁵⁵.

109 In recognising the threshold requirement, the majority in *N V Philips*¹⁵⁶ relied upon the earlier decision of this Court in *Commissioner of Patents v Microcell Ltd*¹⁵⁷, 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".

110 In *N V Philips*, Dawson and McHugh JJ dissented, saying that it was "scarcely to be thought that the legislature, in closely defining the context for consideration of the questions of novelty and inventiveness, intended that those or related questions should otherwise remain, and remain at large"¹⁵⁸. Later, this Court in *Lockwood Security Products Pty Ltd v Doric Products Pty Ltd [No 2]*¹⁵⁹ also denied that the decision in *Microcell* involved a threshold test. Nevertheless, in *D'Arcy v Myriad Genetics Inc*¹⁶⁰, French CJ, Kiefel, Bell and Keane JJ confirmed, citing *N V Philips*, that an "anterior exclusion" may arise "based upon an admission, on the face of the specification, which makes clear that the invention claimed is not novel or does not involve an inventive step". Similarly, Gordon J,

153 (1995) 183 CLR 655 at 659, 663-664.

154 (1995) 183 CLR 655 at 664-665.

155 (1995) 183 CLR 655 at 664, 667-668.

156 (1995) 183 CLR 655 at 665.

157 (1959) 102 CLR 232 at 251.

158 (1995) 183 CLR 655 at 671.

159 (2007) 235 CLR 173 at 211 [106].

160 (2015) 258 CLR 334 at 342 [12].

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also citing *N V Philips*, said that the "primary or threshold requirement of a 'patentable invention' is that it be an 'invention'"¹⁶¹.

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. Like those provisions, the threshold should not be assessed in hindsight: "[t]he opening of a safe is easy when the combination has been already provided"¹⁶². And, when assessing this threshold question without the benefit of expert evidence as to prior art, it is important to "remember warnings" that "[the] Court should be careful to avoid assuming a technical expertise it does not have"¹⁶³.

Manner of manufacture

The established principle

112 Provided that a claim overcomes the threshold requirement of a minimal degree of novelty and inventiveness, the iterative issues that will arise are those contained in s 18, namely: (i) manner of manufacture within the meaning of s 6 of the *Statute of Monopolies*; (ii) novelty; (iii) inventive or innovative step; (iv) utility; and (v) absence of secret use. This appeal is concerned only with manner of manufacture.

113 A manner of manufacture within the meaning of s 6 of the *Statute of Monopolies* has long extended beyond the etymology of "manufacture" to include new processes in any art that produce effects that are useful to the public. Hence, Eyre LCJ said in 1795¹⁶⁴:

"Under things made, we may class, in the first place, new compositions of things, such as manufactures in the most ordinary sense of the word;

161 (2015) 258 CLR 334 at 407 [219].

162 *Minnesota Mining and Manufacturing Co v Beiersdorf (Australia) Ltd* (1980) 144 CLR 253 at 293.

163 *Bristol-Myers Squibb Co v F H Faulding & Co Ltd* (2000) 97 FCR 524 at 541 [44], quoting in part from *CCOM Pty Ltd v Jiejing Pty Ltd* (1994) 51 FCR 260 at 284.

164 *Boulton v Bull* (1795) 2 H Bl 463 at 492 [126 ER 651 at 666]. See also *National Research Development Corporation v Commissioner of Patents* (1959) 102 CLR 252 at 270.

secondly, all mechanical inventions, whether made to produce old or new effects, for a new piece of mechanism is certainly a thing made. Under the practice of making we may class all new artificial manners of operating with the hand, or with instruments in common use, new processes in any art producing effects useful to the public."

114 A manner of manufacture thus requires only the existence of some material and artificial advantage, which was expressed, in the "watershed"¹⁶⁵ decision of this Court in *National Research Development Corporation v Commissioner of Patents*¹⁶⁶, as requiring the process or product which is said to be the proper subject matter of a patent to be part of the useful arts rather than the fine or intellectual arts. As this Court emphasised, "manufacture" does not bear its ordinary meaning "by reference to the idea of making tangible goods by hand or by machine"¹⁶⁷.

115 In *National Research Development Corporation* it was held that there was a manner of manufacture in the application of known chemicals to rid crop areas of certain weeds. In that new use of existing products there was "an artificially created state of affairs" with a useful result, an obvious indicium of which was that the result was of economic significance¹⁶⁸. Nevertheless, in a product claim, the existence of a vendible product involving an artificially created state of affairs with economic significance is not a sharply defined test for manner of manufacture¹⁶⁹. Indeed, any product that "improves, restores or preserves" a vendible product and thereby creates some new and useful effect will be a manner of manufacture¹⁷⁰.

165 *Joos v Commissioner of Patents* (1972) 126 CLR 611 at 616.

166 (1959) 102 CLR 252 at 275, citing *Re Virginia-Carolina Chemical Corporation's Application* [1958] RPC 35 at 36.

167 *National Research Development Corporation v Commissioner of Patents* (1959) 102 CLR 252 at 269.

168 (1959) 102 CLR 252 at 277. See also *D'Arcy v Myriad Genetics Inc* (2015) 258 CLR 334 at 416 [272]-[273].

169 *National Research Development Corporation v Commissioner of Patents* (1959) 102 CLR 252 at 278. See also *D'Arcy v Myriad Genetics Inc* (2015) 258 CLR 334 at 339 [5].

170 See Blanco White, *Patents for Inventions and the Protection of Industrial Designs*, 5th ed (1983) at 157-158 [4-902] and *National Research Development Corporation v Commissioner of Patents* (1959) 102 CLR 252 at 271-275.

Schemes, games, and other intellectual endeavours

116 It is well established that a "mere scheme or plan"¹⁷¹, or any other merely intellectual endeavour, cannot be the subject matter of a patent. They are part of the fine or intellectual arts rather than the useful arts. Hence "[b]usiness, commercial and financial schemes"¹⁷², without more, are not the proper subject matter of a patent. Nor are the rules of a game. In order for patentable subject matter to exist, there must be more than "a mere method or mere idea or mere desideratum"¹⁷³.

117 It is, however, equally well established that one way in which a "mere method" will become a manner of manufacture is when it is practised or used in a way that is embodied in a physical form¹⁷⁴. As this Court expressed the point in *Lockwood Security Products Pty Ltd v Doric Products Pty Ltd [No 2]*¹⁷⁵, although an "idea simpliciter" cannot be patented:

"When an idea is incorporated into a means for carrying out an idea, the idea itself can be taken into account when considering validity, and inventiveness may repose largely in the idea. As a matter of language, it is almost inevitable that the subject matter of an invention which involves an improvement to a known combination will be spoken of as 'an idea' or 'a concept', as occurred here, and invention may lie in 'the idea of taking the step in question'".

118 This reasoning applies equally where the idea consists of the rules of a game. Although the rules of a game alone are not the proper subject matter of a patent, they may be the proper subject matter when combined with physical materials used for playing the game. In *Re Cobiانchi's Application*¹⁷⁶ an idea for a new way of playing the game of "Canasta" with differently marked cards was held to be a manner of manufacture. Lloyd-Jacob J, the first specialist British

171 *Re Cooper's Application* (1901) 19 RPC 53 at 54.

172 *Grant v Commissioner of Patents* (2006) 154 FCR 62 at 66 [14]. See also at 70-71 [32].

173 *Burroughs Corporation (Perkins') Application* [1974] RPC 147 at 160, quoted with approval in *Grant v Commissioner of Patents* (2006) 154 FCR 62 at 67 [18].

174 *Grant v Commissioner of Patents* (2006) 154 FCR 62 at 67 [18].

175 (2007) 235 CLR 173 at 199 [60].

176 (1953) 70 RPC 199.

patent judge¹⁷⁷, held that "the game itself, whatever its ingenuity, could not be the subject of patent protection" but that the new pack of cards, "which requires the operation of a manner of manufacture for its reproduction", could not be "dismissed as a mere idea or plan"¹⁷⁸.

119 In the 21st century, it would be absurd if the application of this principle were any different where the idea of the game is combined with a digital representation rather than a cardboard representation of the game. For instance, as senior counsel for the Commissioner properly accepted on this appeal, the game of Monopoly is patentable subject matter where it is embodied in a physical form such as a designed cardboard board, dice, and playing characters. It could not possibly be the case that the game of Monopoly ceases to be patentable subject matter if the graphics are displayed on a machine rather than on cardboard. To treat the two differently on the basis that the digital representation does not involve a physical transformation of something would plainly be to allow form to triumph over substance. As Heerey, Kiefel and Bennett JJ said in *Grant v Commissioner of Patents*¹⁷⁹, "[a]n application is not limited to a physical transformation". Rather, the requirement of a "physical effect" includes "a concrete effect or phenomenon" and extends to "a change in state or information in a part of a machine"¹⁸⁰.

120 However, it is not enough that the scheme involves the use of a machine to manipulate abstract ideas. Where the manner of manufacture relies upon some change in state or information in a machine, then that change must produce an artificial state of affairs and a useful result¹⁸¹. Thus, as Emmett J said in *Dynamite Games Pty Ltd v Aruze Gaming Australia Pty Ltd*¹⁸², although a mathematical formula is not the proper subject matter of a patent, "if the claim is not for a mathematical formula in the abstract, but rather a way of using the mathematical formula in a process for producing particular products, there may be a patentable invention".

121 Numerous examples can be given where the proper characterisation of the claim is one that merely involves the use of a machine to manipulate an abstract

¹⁷⁷ See *Tribute to the Late Mr Justice Lloyd-Jacob* [1970] RPC 27 at 28.

¹⁷⁸ (1953) 70 RPC 199 at 201.

¹⁷⁹ (2006) 154 FCR 62 at 68 [22].

¹⁸⁰ (2006) 154 FCR 62 at 70 [32].

¹⁸¹ *Grant v Commissioner of Patents* (2006) 154 FCR 62 at 68 [22].

¹⁸² (2013) 100 IPR 86 at 117 [160].

idea rather than involving the implementation of the idea on a machine to produce an artificial state of affairs and a useful result. An idea that uses a computer, but does not generate some artificial state of affairs, remains no more than an idea. In *Grant v Commissioner of Patents*¹⁸³, a scheme for protecting assets from unsecured judgment creditors was not the proper subject matter of a patent although the scheme involved the use of a computer. In *Research Affiliates LLC v Commissioner of Patents*¹⁸⁴, a scheme for constructing data concerning a non-capitalisation weighted portfolio of assets was not the proper subject matter of a patent although it involved the use of a computer to access and process the data and to apply a weighting function. In *Commissioner of Patents v RPL Central Pty Ltd*¹⁸⁵, a scheme for assessing the competency or qualification of people in accordance with recognised standards was not patentable subject matter merely because it involved the use of a computer. In *Encompass Corporation Pty Ltd v InfoTrack Pty Ltd*¹⁸⁶, a method and apparatus for displaying information to provide "business intelligence" was not the proper subject matter of a patent because, in substance, it was "no more than an instruction to apply an abstract idea (the steps of the method) using generic computer technology". No particular software was an essential feature of the invention¹⁸⁷. In *Commissioner of Patents v Rokt Pte Ltd*¹⁸⁸, a marketing scheme did not become patentable subject matter merely because it happened to be digital and therefore involved the use of a computer. It involved "computer technology that is utilised for its basic, typical or well-known functions"¹⁸⁹.

122 Although there was no artificial state of affairs created in any of these cases, and the results in all of these cases are plainly correct, some of the statements explaining the results in these and other cases must be read in the context of what was being decided. For instance, one expression of the characterisation question in some of the cases was whether the implementation of the scheme could be

183 (2006) 154 FCR 62.

184 (2014) 227 FCR 378 at 403 [119].

185 (2015) 238 FCR 27 at 52 [110].

186 (2019) 372 ALR 646 at 667 [99].

187 (2019) 372 ALR 646 at 667 [100].

188 (2020) 277 FCR 267.

189 (2020) 277 FCR 267 at 292 [91].

described as "an improvement in computer technology"¹⁹⁰. A better way of expressing the point in such cases, consistent with 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. 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"¹⁹¹.

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. The ingenuity may lie only in the idea but, when the idea is applied to produce an artificial state of affairs and a useful result, there will be a manner of manufacture. As this Court said in *National Research Development Corporation*¹⁹²:

"This is perhaps nowhere more clearly put than it was by *Fletcher Moulton* LJ in *Hickton's Patent Syndicate v Patents and Machine Improvements Co Ltd* when he said of Watt's invention for the condensation of steam, out of which the steam engine grew: 'Now can it be suggested that it required any invention whatever to carry out that idea when once you had got it? It could be done in a thousand ways and by any competent engineer, but the invention was in the idea, and when he had once got that idea, the carrying out of it was perfectly easy. To say that the conception may be meritorious and may involve invention and may be new and original, and simply because when you have once got the idea it is easy to carry it out, that that deprives it of the title of being a new invention according to our patent law, is, I think, an extremely dangerous principle and justified neither by reason nor authority'." (footnotes omitted)

190 *Commissioner of Patents v Rokt Pte Ltd* (2020) 277 FCR 267 at 296 [108]. See also *Repipe Pty Ltd v Commissioner of Patents* (2021) 164 IPR 1 at 2 [4]. Compare *Encompass Corporation Pty Ltd v InfoTrack Pty Ltd* (2019) 372 ALR 646 at 669-670 [107]-[110].

191 *Commissioner of Patents v RPL Central Pty Ltd* (2015) 238 FCR 27 at 51 [104].

192 (1959) 102 CLR 252 at 264, quoting *Hickton's Patent Syndicate v Patents and Machine Improvements Co Ltd* (1909) 26 RPC 339 at 347-348.

124 By contrast with the examples above in which a computer was merely used to manipulate an abstract idea, an example of an idea implemented on a computer to produce an artificial state of affairs and a useful result is the invention in *CCOM Pty Ltd v Jiejing Pty Ltd*¹⁹³. 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. The invention was one that implemented changes to the hardware and software of a computer in carrying out the idea. It was not merely the use of a computer to manipulate the abstract idea. The Full Court correctly held that it was not necessary that there be "anything new and unconventional in computer use"¹⁹⁴. Although there might be doubt about whether *CCOM* sufficiently recognised the threshold requirement for an invention¹⁹⁵, the reasoning in *CCOM* as to manner of manufacture has never been doubted and has been approved on many occasions in the Federal Court¹⁹⁶, including in recognising as a manner of manufacture the results produced by the application of computer programs in EGMs¹⁹⁷.

125 Another example of a computer carrying out a method to produce an artificial state of affairs and a useful result, rather than merely manipulating an abstract idea, is a decision of the Patents Appeal Tribunal in *Burroughs Corporation (Perkins') Application*¹⁹⁸. In that case, Graham J, delivering the judgment of himself and Whitford J, held that a proper subject matter for a patent was an idea that was implemented in a computer program to make a "slave computer" interrupt the operations of a "central computer". A manner of manufacture existed in the artificial state of affairs of "an old machine giving a new and improved result", since "[i]f the bare method or idea is also clothed ... with a practical garment in the shape of apparatus enabling that method or idea to

193 (1994) 51 FCR 260.

194 (1994) 51 FCR 260 at 291.

195 See *N V Philips Gloeilampenfabrieken v Mirabella International Pty Ltd* (1995) 183 CLR 655 at 660, fn 26.

196 See, eg, *Welcome Real-Time SA v Catuity Inc* (2001) 113 FCR 110 at 135-136 [116]-[122]; *Grant v Commissioner of Patents* (2006) 154 FCR 62 at 67-68 [17]-[20]; *Research Affiliates LLC v Commissioner of Patents* (2014) 227 FCR 378 at 402 [111].

197 *Neurizon Pty Ltd v LTH Consulting and Marketing Services Pty Ltd* (2002) 58 IPR 93 at 122 [101].

198 [1974] RPC 147.

be realised in practice, it should no longer be regarded as a naked conception, for it has found a practical embodiment in the apparatus"¹⁹⁹.

126 The decision in *Burroughs Corporation (Perkins') Application* reflects long-established principle. It was quoted with approval by Heerey, Kiefel and Bennett JJ in *Grant v Commissioner of Patents*²⁰⁰. It was cited with approval in *CCOM*²⁰¹. And it was relied upon in *International Business Machines Corporation v Commissioner of Patents*²⁰², where Burchett J concluded that the application of mathematical methods to a computer to produce an image of a desired curve was the proper subject matter of a patent.

The dangers of reliance upon foreign law concerning manner of manufacture

127 A characteristic of some of the Australian decisions in relation to the patentability of ideas implemented through the use of computers has been a focus upon overseas authorities in which similar questions have arisen. It is necessary to explain why this is an area where overseas authorities are, at best, of limited assistance and, at worst, dangerously misleading.

128 As to the United Kingdom, in *CCOM*²⁰³ the Full Court emphasised the need to take care when referring to decisions under the *Patents Act 1977* (UK). Following that legislation, the Jacobean *Statute of Monopolies* that underpinned, and still underpins, the terms of manner of manufacture in Australia "no longer supplies a criterion for patentability in the British legislation". In *Aktiebolaget Hässle v Alphapharm Pty Ltd*²⁰⁴, four members of this Court spoke of the "failure in an appreciation" in the lower courts of the divergence between Australian case law and United Kingdom case law. And in *Lockwood Security Products Pty Ltd v Doric Products Pty Ltd [No 2]*²⁰⁵, this Court reiterated the divergence between the

199 [1974] RPC 147 at 158.

200 (2006) 154 FCR 62 at 67 [18].

201 (1994) 51 FCR 260 at 293.

202 (1991) 33 FCR 218 at 225.

203 (1994) 51 FCR 260 at 288.

204 (2002) 212 CLR 411 at 430 [42].

205 (2007) 235 CLR 173 at 193 [46], quoting *Aktiebolaget Hässle v Alphapharm Pty Ltd* (2002) 212 CLR 411 at 432 [49]. See also *Apotex Pty Ltd v Sanofi-Aventis Australia Pty Ltd* (2013) 253 CLR 284 at 384-385 [290].

Australian and the United Kingdom patent systems and the "shift in grundnorm" after the enactment of the *Patents Act 1977* (UK) following the Convention on the Grant of European Patents (1973). Following that shift, and in light of the concern in Art 52 of the Convention for "all fields of technology", the concept of a contribution having a "technical character" has featured as a requirement for an invention in decisions of the EPO Technical Board of Appeal and the courts of the United Kingdom²⁰⁶.

129 As to the United States, §101 in Title 35 of the *United States Code* is expressed in very different terms from s 18 of the *Patents Act*. It relevantly provides that "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor ...". Unsurprisingly, in cases that might otherwise have provided comparators with the circumstances of this case the focus is upon the question of whether there is any "new and useful improvement" in a machine or other technology²⁰⁷.

Claim 1 of the 967 patent and the specification

130 The focus of the proceedings below was upon Claim 1 of a patent referred to as "the 967 patent". Before the Delegate of the Commissioner, there were four innovation patents in issue. The dispute at all times has been whether the innovation patents are manners of manufacture. It was, however, common ground before the primary judge and the Full Court that if Claim 1 of the 967 patent was a manner of manufacture then the other claims in the four patents would also be manners of manufacture. Claim 1 was set out by the primary judge as follows:

- "(1) A gaming machine comprising:
 - (1.1) **a display**;
 - (1.2) **a credit input mechanism** operable to establish credits on the gaming machine, the credit input mechanism including at least one of a coin input chute, a bill collector, a card reader and a ticket reader;
 - (1.3) **meters** configured for monitoring credits established via the credit input mechanism and changes to the established credits due to play

206 See *Symbian Ltd v Comptroller-General of Patents* [2009] RPC 1 at 7 [9], 8 [11], referring to *Duns Licensing Associates* T 0154/04, 15 November 2006.

207 See *Alice Corporation Pty Ltd v CLS Bank International* (2014) 573 US 208 at 225.

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of the gaming machine, the meters including a credit meter to which credit input via the credit input mechanism is added and a win meter;

- (1.4) **a random number generator;**
- (1.5) **a game play mechanism** including a plurality of buttons configured for operation by a player to input a wager from the established credits and to initiate a play of a game; and
- (1.6) **a game controller** comprising a processor and memory storing (i) game program code, and (ii) symbol data defining reels, and wherein the game controller is operable to assign prize values to configurable symbols as required during play of the game,
- (1.7) the game controller executing the game program code stored in the memory and responsive to initiation of the play of the game with the game play mechanism to:
- (1.8) select a plurality of symbols from a first set of reels defined by the symbol data using the random number generator;
- (1.9) control the display to display the selected symbols in a plurality of columns of display positions during play of a base game;
- (1.10) monitor play of the base game and trigger a feature game comprising free games in response to a trigger event occurring in play of the base game,
- (1.11) conduct the free games on the display by, for each free game, (a) retaining configurable symbols on the display, (b) replacing non-configurable symbols by selecting, using the random number generator, symbols from a second set of reels defined by the symbol data for symbol positions not occupied by configurable symbols, and (c) controlling the display to display the symbols selected from the second set of reels, each of the second reels comprising a plurality of non-configurable symbols and a plurality of configurable symbols, and
- (1.12) when the free games end, make an award of credits to the win meter or the credit meter based on a total of prize values assigned to collected configurable symbols."

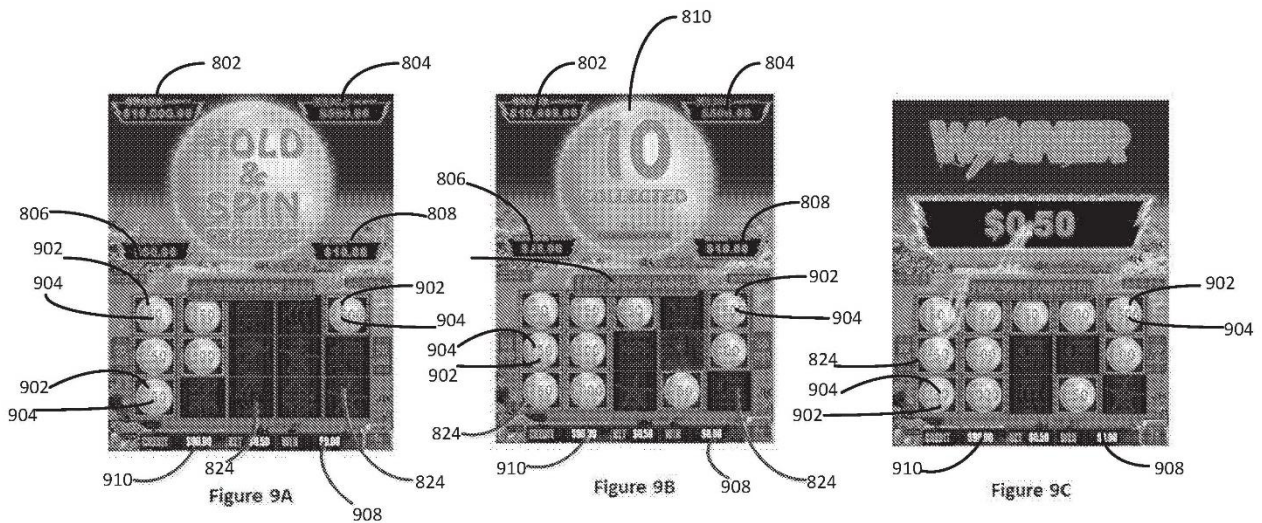
interaction between the player and the EGM. Integers 1.1 to 1.5 mostly describe the physical features of an ordinary EGM, and are generally part of the player interface. Integers 1.6 to 1.12 interact with the physical features of the player interface and are components of what is described as a "game controller".

132 The player interface in integers 1.1 to 1.5 includes mechanisms to enable the player to input credits and receive payouts; one or more displays; a game play mechanism such as a touch screen or buttons; and speakers. The game controller is a combination of integrated hardware and software typically including a processor, memory which stores instructions and data for the processor, hardware meters to monitor player credit and ensure regulatory compliance, a random number generator, and an input/output interface to communicate with the player interface. The game controller communicates with the player interface by a processor that processes the player's instructions in accordance with game play rules and sends outcomes to the display. The processor is any device that can receive and process inputs in accordance with instructions stored in memory and generate outputs. It may include: a microprocessor, microcontroller, programmable logic device or other computational device, a general-purpose computer (eg a PC), or a server.

133 In the embodiments described in the specification, a player makes a wager and starts playing the base game. The symbol selector uses the random number generator to select symbols from the symbol data. The symbol data stores both configurable symbols (symbols which can be configured during the game to change the value of the prize) and non-configurable symbols. The selected symbols are sent to the display controller, which then displays the symbols on the player interface display.

134 The pictures below illustrate the configurable symbols in one embodiment described in the specification. The configurable symbols each have a common component: a pearl symbol (marked 902). The configurable symbols also have a variable component: the numbers that overlay the configurable symbol and indicate the value of the prize associated with it (marked 904). The prize value is assigned to the configurable symbol by an electronic value assigner which draws on prize value data.

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135 During the base game, an outcome evaluator determines whether a "trigger event" has occurred, such as the display of a particular number of configurable symbols. If a trigger event occurs, then a feature game will begin. The combined prize value of the configurable symbols at the end of the base game will have been won by the player. Those configurable symbols will be held in their respective display positions during the feature game. The player can then win additional prizes from configurable symbols in the feature game.

136 In the feature game, the outcome generator causes the feature game to be displayed by retrieving symbol data and passing the data to the display controller. As in the base game, the symbol selector selects symbols to be displayed in the display positions that are not otherwise displaying a configurable symbol. The outcome evaluator monitors the play of the feature game. If at least one configurable symbol is displayed, then that symbol will be held on the reel and the configurable symbol counter (marked 810) will be increased. If a predefined number of configurable symbols are displayed on the reels, a jackpot will be paid.

137 It is apparent that two important elements of the claim, as described in the specification, are the configurable symbols and the feature games, which are part of the game controller. There was expert evidence before the primary judge that the configurable symbols, particularly the prize values overlaid on them, are a significant enhancement of a player's experience²⁰⁸. Both the configurable symbols and the feature games require implementation in the EGM. In the operation of the

208 See *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 604 [133].

EGM, they interact with, and are entirely dependent upon, other integers of the claim, especially the physical integers. They are inextricably connected with the player interface. For instance, the configurable symbols and feature games operate by reference to modules stored in memory and implemented by the processor, namely: the outcome generator comprising the symbol selector, value assigner and rule modifier; the outcome evaluator; and the display controller.

The decisions of the Delegate, the primary judge and the Full Court

138 The Delegate of the Commissioner characterised Claim 1 as a feature game in which configurable symbols from a main game were retained but non-configurable symbols were removed and replaced with other configurable or non-configurable symbols, with a prize at the end of the feature game based on the values displayed on the configurable symbols. Based on this characterisation, the Delegate found that Claim 1 was merely a "game rule" and was not a manner of manufacture. The Delegate revoked the 967 patent as well as the three other patents in issue.

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 scheme²⁰⁹. 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"²¹⁰. 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."²¹¹

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

209 *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 423 [99].

210 (2020) 382 ALR 400 at 423 [101].

211 (2020) 382 ALR 400 at 422 [98].

"merely plugging an unpatentable scheme into a computer"²¹². 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.

141 The Full Court allowed an appeal. Two members of the Full Court (Middleton and Perram JJ) began – with respect, correctly – by identifying the critical issue as the proper characterisation of the invention based upon the construction of Claim 1²¹³. Their Honours considered that the primary judge had characterised Claim 1 as being "solely the EGM itself"²¹⁴. Middleton and Perram JJ preferred a characterisation which accounted for both the EGM and the feature game, namely: a "feature game implemented on [a] computer which is an EGM"²¹⁵.

142 Middleton and Perram JJ rejected the two-stage approach of the primary judge. As their Honours observed, that approach has the potential to convert the proper enquiry – is the invention patentable subject matter? – into a different question which asks whether the invention is a scheme²¹⁶. In place of the approach of the primary judge, Middleton and Perram JJ proposed two different questions: (i) is the invention claimed a computer-implemented invention?; and (ii) if so, can the invention claimed broadly be described as an advance in computer technology? If the answer to (i) is "no", the general principles of patentability must be considered. If the invention is computer-implemented but the answer to (ii) is "no", then the invention is not patentable subject matter²¹⁷.

143 Middleton and Perram JJ applied this approach to their characterisation of Claim 1 to conclude that Claim 1 was not the proper subject matter of a patent. The claim was for a feature game implemented by a computer and, although their Honours reasoned that the configurable symbols "may constitute advances in

212 (2020) 382 ALR 400 at 420 [91], quoting from *Commissioner of Patents v Rokt Pte Ltd* (2020) 277 FCR 267 at 290 [84].

213 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 576 [9].

214 (2021) 286 FCR 572 at 587 [55].

215 (2021) 286 FCR 572 at 587 [56].

216 (2021) 286 FCR 572 at 580-581 [25].

217 (2021) 286 FCR 572 at 581 [26]-[27].

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gaming technology", their Honours declined to equate advances in gaming technology with advances in computer technology²¹⁸.

144 Nicholas J agreed with Middleton and Perram JJ that the appeal should be allowed and that the orders of the primary judge should be set aside. His Honour 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"²¹⁹. However, his Honour did not adopt Middleton and Perram JJ's proposed new test, holding instead 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"²²⁰. In an earlier decision, Nicholas J had held that a "new and useful" feature game including a claim involving a random prize awarding feature implemented by an EGM was a manner of manufacture²²¹. 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"²²². Nevertheless, Nicholas J, dissenting on this point, would have remitted the matter to allow the primary judge to consider whether the invention involved technical and functional improvements to EGMs²²³.

The proper characterisation of Claim 1

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

218 (2021) 286 FCR 572 at 589 [65].

219 (2021) 286 FCR 572 at 605 [136].

220 (2021) 286 FCR 572 at 601 [119].

221 *Aristocrat Technologies Australia Pty Ltd v Konami Australia Pty Ltd* (2015) 114 IPR 28 at 72 [223]-[224].

222 *Commissioner of Patents v Aristocrat Technologies Australia Pty Ltd* (2021) 286 FCR 572 at 606 [141].

223 (2021) 286 FCR 572 at 606 [144].

the minimal degree of novelty and inventiveness required for it to be an alleged invention.

146 Such a characterisation would be absurdly and artificially generalised. It would entirely ignore the integers of Claim 1 that provide its alleged novelty and inventiveness; in particular, core features of the game controller in integers 1.7 to 1.12 including the configurable symbols and feature games were, emphatically, not part of common general knowledge. At no stage in this litigation has such a generalised characterisation been proposed by any party. Contrary to the views of Middleton and Perram JJ in the Full Court, the primary judge's characterisation was not so generalised. His Honour had focused upon the gaming function that was implemented as well as the gaming machine. Hence, neither before the primary judge in the Federal Court, the Full Court, nor this Court did the Commissioner suggest that Claim 1 must fail at the threshold stage for reasons of complete lack of novelty or inventiveness.

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.

148 In this Court, the Commissioner's characterisation was also extremely specific and narrow. The Commissioner described Claim 1 as no more than "an instruction to carry out an electronic game, using conventional computer technology for its well-known and well-understood functions". That characterisation might encompass most integers of the claim concerning the game controller, but it ignores entirely the interaction between the instructions and those integers concerned with the player interface.

149 By contrast, the various characterisations proposed by Aristocrat in this Court have the common feature of reiterating the elements of Claim 1, but without describing the essence of the claim. 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. All included the elements involved in both the game controller and the player interface, and Middleton and Perram JJ rightly included the feature game in the characterisation. 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.

Is Claim 1, as properly characterised, patentable subject matter?

150 The only objection to Claim 1 was that it was a mere scheme or intellectual idea and therefore not a manner of manufacture within s 18(1A)(a). At no stage in this litigation before the primary judge, the Full Court, or this Court did the Commissioner argue that Claim 1 failed to meet the threshold requirement for sufficient novelty or inventiveness for an alleged invention. Although the Delegate received submissions under s 28(1) of the *Patents Act*, which allows a person to object to the validity of a patent under s 18(1A) for the reason that the claimed invention lacks inventive step or novelty, the Delegate declined to consider those submissions. No issue was subsequently raised in the courts below concerning any threshold requirement for an alleged invention or any requirement in s 18(1A)(b), s 18(1A)(c), or s 18(1A)(d)²²⁴.

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*²²⁵. There is only one question: is there a manner of manufacture within s 6 of the *Statute of Monopolies*? The focus of that question commonly leads to enquiries such as: whether the process or product is part of the useful arts rather than the fine or intellectual arts; whether there is an artificially created state of affairs with a useful result including a result of economic significance; and whether the subject matter of a claim is no more than a mere intellectual idea, scheme, or game. But, as the authorities have long shown, the limits involved in each of these enquiries are not narrow. To take an approach to a manner of manufacture that is too confined is "unsound to the point of folly"²²⁶.

152 The question of whether a claim, as properly characterised, is the proper subject matter of a patent should not be deconstructed to require, separately from the general principles of patentability, consideration of whether the subject matter is "computer-implemented". It is unnecessary to descend into the serious policy concerns that were raised against such an approach in the written and oral

²²⁴ See *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2020) 382 ALR 400 at 419 [84].

²²⁵ (1959) 102 CLR 252.

²²⁶ *National Research Development Corporation v Commissioner of Patents* (1959) 102 CLR 252 at 271.

submissions by the Institute of Patent and Trade Mark Attorneys of Australia appearing as amicus curiae. Nor is it necessary to determine whether such consideration would amount, in substance, to a judicial addition to the exceptions in s 18(3).

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

155 Claim 1 is a manner of manufacture within the meaning of s 6 of the *Statute of Monopolies*. Orders should be made as follows:

- (1) Appeal allowed.
- (2) Set aside the orders of the Full Court of the Federal Court made on 6 December 2021 other than Order 1, and, in lieu thereof, order that the appeal to the Full Court be dismissed with costs.
- (3) The respondent pay the appellant's costs.

156 In the circumstances, it is unnecessary to consider Aristocrat's application to amend its Notice of Appeal in order to seek alternative relief of remitting the

Gordon *J*
Edelman *J*
Steward *J*

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matter to the Federal Court for the purpose of considering expert evidence led by Aristocrat concerning the novelty and inventiveness of the claim.