

Jupiters Ltd v Neurizon Pty Ltd [2005] FCAFC 90

FEDERAL COURT OF AUSTRALIA

HILL, FINN AND GYLES JJ

THE COURT:

INTRODUCTION

1 These two appeals have been heard together. They involve the same parties and similar (but not identical) questions. The respondent Neurizon Pty Ltd (“Neurizon”) is the proprietor of Patent Number 714299 (“the Patent”) for a prize awarding system for use with electronic gaming devices (“EGDs”) alternatively known as electronic gaming machines (“EGMs”). The inventor is Steven Brian Johnson (“Johnson”). Johnson is the principal of Neurizon. The application date of the Patent was 9 August 1999.

2 Jupiters Ltd (“Jupiters”), the first appellant, is, inter alia, an operator of casinos in which EGMs are utilised. The second appellant, Jupiters Machine Gaming Pty Ltd (“Jupiters Gaming”), is a subsidiary of Jupiters. Jupiters developed a prize awarding system for use with EGMs called “Cougar”. It used Cougar in Jupiters casinos and Jupiters Gaming supplied it to others including the third, fourth and fifth appellants. Neurizon brought this proceeding alleging that Cougar infringed the Patent. All of the respondents denied infringement.

3 Jupiters cross-claimed against Neurizon and Johnson seeking various forms of relief based upon breaches of contract, confidence and fiduciary duty by Johnson participated in by Neurizon arising out of the employment of Johnson by Jupiters. Alternatively, all the respondents cross-claimed against Neurizon for an order revoking the Patent or particular claims of the Patent on the grounds of prior secret use; lack of fair basis; lack of novelty by reason of both publication and use; and lack of inventive step. The first set of cross-claims was ultimately not pressed.

4 The primary judge found infringement of certain claims of the Patent and dismissed the cross-claim for revocation (*Neurizon Pty Ltd v Jupiters Limited* [2004] FCA 1012 (“the first decision”). The respondents offered general undertakings to the Court not to infringe

Neurizon's patent which were accepted by Neurizon and the Court. A claim for damages was stood over for further hearing.

5 Jupiters then modified the Cougar system ("modified Cougar") and utilised it thereafter. Neurizon alleged that modified Cougar breached the undertakings as it infringed the Patent. Jupiters claimed that a finding of infringement was precluded by an issue estoppel arising out of the first decision and denied infringement in any event. The issue estoppel argument was rejected, infringement was found and relief granted (*Neurizon Pty Ltd v Jupiters Limited* [2004] FCA 1380 ("the second decision")).

6 The grounds of appeal from the first decision (relating to the Cougar system) challenge her Honour's conclusions not only on infringement but also on the cross-claim for revocation on the grounds of novelty, fair basing and obviousness. The grounds of appeal from the second decision (relating to modified Cougar) relate to issue estoppel and to the finding of infringement.

7 In our opinion, the appeal from the first decision as to infringement ought to be dismissed but the appeal against dismissal of the cross-claim ought to be allowed in part and the cross-claim remitted to the primary judge as to the ground of lack of inventive step. We are of the opinion that the appeal from the second decision ought to be dismissed.

FACTUAL SETTING

8 The following is by way of general background to these appeals. It will be necessary to make separate reference to further factual matters when dealing with particular grounds of appeal. The information provided here by way of background to prize awarding systems for EGMs is drawn from a statement prepared by Neurizon for the purposes of the appeal. The matters referred to have been agreed to by Jupiters unless otherwise stated.

(i) The State regulatory environment for EGMs

9 It is normal for State regulatory bodies to require each and every EGM to provide specified information recorded in an approved fashion. The purpose of this is to ensure, amongst other things, that the operator is paying the appropriate amount of tax. Each EGM is monitored and the required information is provided to the monitoring system. Importantly,

the information so provided (e.g. of turnover on each EGM) may, but need not necessarily, be used in the jackpot awarding system for an EGM as a variable in its probability of win calculation: see “Probability” below.

10 In Queensland, the Queensland Office of Gaming Regulation (“QOGR”) has mandated the use of the Queensland Communications Protocol (“QCOM”) as the standard method for communication between a monitoring system and an EGM. The protocol provides for two-way communication between the site controller of a monitoring system and EGMs. It is to be noted in passing that this communication protocol was utilised by Jupiters in its prize awarding system. Under the QCOM contact between the site controller and an EGM is referred to as polling, with the contact message transmitted being described as a poll. An exchange between the site controller and an EGM is permitted only when the site controller sends a poll to the EGM and the EGM may then send a return message. When polling an EGM the site controller does not send a message to the EGM asking it to return any particular data. It simply asks “Do you have anything to tell me?”.

11 Each EGM has an internal turnover meter which keeps a record of the amounts wagered on the EGM, on a cumulative basis, since it was first commissioned or its memory reset to zero. Similarly, each EGM has an internal stroke meter which keeps a record of the number of games played on the EGM, on a cumulative basis, since the EGM was first commissioned or its memory reset to zero. An EGM may respond to a poll by sending a turnover meter response, which informs the site controller of the current figure showing on the EGM’s turnover meter. As will be seen, the Cougar and modified Cougar systems work on turnover meter responses to polling. An EGM may also respond to a poll by sending a stroke meter response, which informs the site controller of the current figure showing on its stroke meter.

12 Under the current QCOM, an EGM cannot send two consecutive turnover meter responses. The site controller stores only the last reported meter value. Under the QCOM, the site controller cannot poll any EGM faster than once per second.

13 When a game is played on an EGM, its turnover meter updates to take account of the amount wagered. However, the EGM cannot then send its updated turnover figure to the site controller. It must wait to be polled by the site controller before this can be done.

14 Polling is not synchronised to game play.

(ii) *Jackpots*

15 It is necessary to refer shortly to types of jackpots and to their differentiating features.

16 A jackpot is a special prize that is awarded outside the normal play of an EGM. A progressive jackpot is a jackpot where the potential prize amount increases over time. The prize amount is called the jackpot pool. Jackpots can be “stand alone” or “linked”. A stand alone jackpot is a jackpot that operates only on one EGM, where the win comes from a pool of contributions only from the EGM. A linked jackpot is a jackpot where the win comes from a pool of contributions from a number of EGMs participating in that jackpot.

17 There are various kinds of jackpots, including internal jackpots, external jackpots, standard progressive mystery jackpots, weighted progressive mystery jackpots and progressive return to player (“RTP”) or regulatory jackpots. An internal jackpot is a jackpot that has the jackpot trigger condition determined by the EGM, rather than a monitoring system. An external jackpot is a jackpot that has the jackpot trigger condition determined by a monitoring system or a jackpot controller that is external to any EGM that is participating in that jackpot.

18 A standard progressive mystery jackpot is an external jackpot. The awarding of the jackpot does not depend on the amount played on the EGM, whether on a single game or over any period of time. There is a minimum value and a maximum value of the jackpot pool that is set at the commencement of the jackpot. There is also an increment percentage whereby a set proportion of all contributions played on all of the EGMs connected to the jackpot cause the jackpot pool to increase from the minimum reset value, approaching the maximum value. A random win point is chosen between the minimum reset value and the maximum value. When the jackpot contribution pool reaches that win or trigger point, the EGM that had the contribution that caused the jackpot pool to exceed the win point is awarded the jackpot prize. This style of jackpot was first described in a patent by Boris Frankovic and others in 1985, as is referred to as a “Frankovic jackpot”.

19 A weighted progressive mystery jackpot is similar to a standard progressive mystery jackpot but differs in that the turnover in a period of time on all active EGMs is used to

weight the chance of an EGM winning the jackpot. That weighting only becomes relevant after the win point has been passed by a contribution from an EGM and the system has decided to award a jackpot. A weighted progressive mystery jackpot involves a relative contest between or among all EGMs participating in that jackpot after the win point is reached – that is the probability of win on one EGM depends on the amount bet on all participating EGMs. An example of such a jackpot is “ActivData II+” which is discussed further below in the context of novelty.

20 Neither standard progressive mystery jackpots nor weighted progressive mystery jackpots are regulatory jackpots in Queensland. Both would be categorised as “deterministic”.

21 A deterministic jackpot, according to the current QOGR definition, is one:

“Where the probability of winning the jackpot does not remain constant over time when all other variables (for example bet) are held constant. The trigger probability is dependent on previous events in time. Probability (not expectation) that the jackpot will be won usually increases over time.”

22 The perceived unfairness in a deterministic jackpot is described in the Neurizon specification in the following terms:

“[S]ince the win probability increases as the pool increases towards its predetermined maximum limit, a player playing just after the pool is reset has a lower jackpot win probability than a player playing at a later time when the pool is greater, even though both players may be wagering the same amount. For this reason, this arrangement is generally considered unfair and deterministic.”

23 A regulatory RTP jackpot is a jackpot that must comply with the regulatory requirements of the QOGR. To be considered as a regulatory return to player jackpot, it must, amongst other things, be non-deterministic. The value of a regulatory RTP jackpot can be included in the venue’s return to player calculation, which means that the venue may deduct the value of the prizes paid from the revenue on which tax is calculated, which accordingly reduces the amount of tax payable by the venue.

24 Neurizon’s specification refers to one form of RTP jackpot in its description of the prior art. “Hyperlink”, as it is known, is an internally triggered (that is within an EGM)

linked jackpot method developed and owned by Aristocrat Technologies Pty Ltd. Hyperlink jackpots are the subject of Australian Patent Number 754689. The Hyperlink jackpot is a random progressive jackpot that is incorporated within an Aristocrat EGM and it is a regulatory RTP jackpot approved for use in Queensland. The probability of a win of the Hyperlink jackpot is dependent on the amount wagered on a single game on that EGM.

25 The decision to award a prize is conducted every game, on every EGM, so that the awarding of the prize is synchronised to the playing of the game.

26 The disadvantage of Hyperlink, according to the Neurizon specification was that:

“[I]t is not easily applied to an existing [EGM] installation. Each [EGM] must be fitted with special software with a means of determining and detecting the random [“win”] event per game. Alternatively, a communications-based Central Feature Game Controller (CFG) may theoretically be employed which has a means of determining and testing for the random [“win”] event per game on behalf of each [EGM] based on the credits bet on each game.”

27 As at the priority date of the Neurizon patent (9 August 1999), Hyperlink was the only regulatory RTP jackpot that had been approved by the QOGR. There was thus a commercial imperative in 1999 for the development of a system which would be approved by the QOGR as an RTP jackpot system (and therefore attract the tax advantages), which would avoid the need of having to purchase Aristocrat EGMs and which would not infringe the Aristocrat Hyperlink patent.

(iii) Probability

28 There was no issue at trial that the word “probability” as used in claim 1 of the Neurizon Patent means mathematical probability. It can be expressed by the equation:

$$P = \frac{\text{number of desired outcomes}}{\text{number of possible outcomes}}$$

29 Jackpot systems can be and are configured such that the probability of an EGM winning the jackpot is affected by certain variables. These variables are the things which affect the probability of win of each EGM in the system.

30 Variables can be pre-set or depend upon what happens as a matter of fact while the jackpot system is operating.

31 Pre-set or fixed variables are numbers which are pre-set into the system by the operator. This is also known as the base probability, which forms part of the overall probability equation for any EGM in that system (and forms part of all such systems). The conduct of players has no impact on the base probability which is pre-set, fixed and configured depending upon, for example, how often the operator wants the jackpot to be triggered.

32 An operator who wants the jackpot to be triggered more often will set a different base probability (which will in turn increase the probability of win of the EGMs in the system) to an operator who wants the jackpot to be triggered less often (which will in turn decrease the probability of win of the EGMs in the system).

33 The EGMs participating in the same jackpot system all share the same base probability as part of their respective probability equations and so it is said that, as between them, these variables (or base probability) can be “discounted” or ignored for the purposes of comparing probability of win between EGMs in that system. They are constants in the probability equation.

34 A jackpot system may also, in addition to its base probability, be configured to take into account (or have the probability of win depend upon) information which is provided to it as a result of the pattern of play on one or more EGMs. In such a system, the information provided by one or more of the EGMs in the system can be used as one or more of the variables in the probability of win calculation performed by that system.

THE PATENT

35 The initial general description of the invention in the specification is as follows:

“This invention relates to a prize awarding system. In particular, the invention is directed to method and apparatus for awarding a prize to players of gaming machines, wherein the probability that the player of a gaming machine will win the prize is dependent upon the amount bet on that gaming machine during an elapsed period.”

36 The specification then describes the “Background Art” and its disadvantages in a manner reflected in the above discussion of jackpots. The only additional matter in the “Background Art” to which reference should be made relates to the discussion “of specialised

communications networks designed to collect [EGM] data and to provide a means of external control over the [EGMs]”. It noted that some operators have implemented their own jackpot awarding systems utilising these networks and it is observed that:

“These networks however, cannot guarantee that each EGD’s data will be collected in synchronisation with each EGD’s game cycle. Further, many of these communications networks do not even support the collection of ‘credits bet’ data from EGDs. In some cases there may be over 6 games played between data collections. If a CFGC [Central Feature Game Controller] utilised these networks for the collection of the credits bet information for the purpose of centrally determining the random event based on credits bet on each game, there would be a real likelihood that many played games would be missed due to the data collection latency [i.e. slowness] of the communications systems. This would result in those games still contributing to the jackpot pool but with no chance of winning the prize. This makes it impractical to use credits bet per game as a basis for the determination of the random event on a game-by-game basis in a CFGC acting on behalf of each EGD.”

37 The specification indicated that the object of the invention was to overcome or ameliorate the disadvantages it had identified or else to provide a useful alternative. It summarised the invention as follows:

“In one broad form, the invention provides a method of awarding a prize in a gaming system comprising at least one electronic gaming machine, characterised in that the probability of each electronic gaming machine winning the prize is dependent upon at least some of the amount wagered on that electronic gaming machine during an elapsed period.”

38 Two preferred embodiments, each with variations, are then described. The former of these has conveniently been summarised by Dowsett J in previous infringement proceedings involving the same Neurizon patent: *Neurizon Pty Ltd v LTH Consulting & Marketing Services Pty Ltd* (2002) 58 IPR 93 (“*Neurizon (No 1)*”) at 97-98. The primary judge adopted that summary in her reasons (the first decision at [23]). It is in the following terms (which have not been disputed in this appeal) and it uses the acronym EGD synonymously with the acronym EGM used in these reasons:

“In a preferred embodiment, EGDs are connected to a communications network. The network contains a monitoring system which collects financial and other information from EGDs. This information is commonly referred to as ‘meters’. The system also contains a special prize presentation controller task (SPPCT) which is the jackpot controller, maintaining one or more jackpot pools. The jackpot controller displays the current value of each

jackpot pool on one or more jackpot displays which may be remote from the EGDs. It calculates and manages the pools from information provided to it by the monitoring system. A turnover meter on each EGD indicates the accumulated turnover since the EGD was commissioned (that is commenced operating). The jackpot controller calculates from the received turnover meter reading, the change in turnover since the last time the meter was read. This is the primary figure used for all jackpot calculations ...

For each jackpot, the jackpot controller maintains a prize pool made up of a starting amount, to which is added a fixed percentage of the increase in turnover of each EGD since the last jackpot was won. This pool will normally be the jackpot prize. The probability of an EGD winning the jackpot depends upon the turnover of that EGD over a predetermined, elapsed period of time. This period of time is said to be a sliding or rolling 'window' of time prior to each jackpot draw. Every change in the turnover meter recorded for an EGD is stored by the jackpot controller with a 'time stamp' which indicates when the change in turnover was recorded. Only turnover within the time window or 'record period' is used for the purpose of calculating the probability of a jackpot win. In other words, increases occurring prior to the commencement of each elapsed period will be discarded.

The preferred embodiment also utilises a second time window known as the 'draw period'. This is the time between attempts at awarding the jackpot. To ensure that each change in turnover is included in at least one draw, the length of the draw period may be less than, or equal to the length of the record period, but may not exceed such length. The probability that an EGD will win a jackpot draw depends upon a calculated 'scaling factor'. In the preferred embodiment the scaling factor is calculated by taking for each EGD, the total turnover in the record period, and dividing it by the number of draw periods per record period, yielding an average turnover per draw period over the record period. This is the scaling factor. Each EGD has the same predetermined 'base probability' of winning the jackpot. This is multiplied by the scaling factor for that EGD as calculated for the draw in question.

The jackpot draw can be conducted by any suitable draw method which has the required overall probability. For example, a random number generator may be used. A fixed number range is defined and divided into two separate sections – the winning band and the losing band. A random number is generated over the entire range. If it falls within the winning band, the draw is won; if it falls outside the winning band, the draw is lost. The winning band is a percentage of the entire number range, reflecting the desired probability of a win. If an EGD wins a jackpot, it enters a 'winning mode', and the prize is advertised on the display. The act of awarding a jackpot need not necessarily terminate the draw process. It is possible that another EGD might also be selected as a winner. I infer that this is because the random number is used in draws for all participating EGDs. Although the probability of each machine winning will vary, having regard to the amount wagered on it during the elapsed period, the random number may fall within the winning bands appropriate to more than one of them. If there are multiple winners,

the prize pool is preferably paid to the first detected winner, and all other winners are awarded the reset, or starting value of the pool. Alternatively, the pool may be apportioned among winners.”

39 Given the issues that arise in this appeal it is appropriate to refer verbatim to two parts of the body of the specification. First, the consistory clause states that:

“In one broad form, the invention provides a method of awarding a prize in a gaming system comprising at least one electronic gaming machine, characterised in that the probability of each electronic gaming machine winning the prize is dependent upon at least some of the amount wagered on that electronic gaming machine during an elapsed period.”

40 Secondly, in the “Detailed Description of Preferred Embodiments” the elapsed period described in one embodiment takes the form of a “sliding window of time”, or “Record Period”, the turnover in which is used for calculating the probability of a jackpot win. The movement (or “sliding”) of that window is exemplified thus:

“For example, Table 1 shows the turnover information recorded for three EGDs for a Record Period equal to the immediately preceding 30-second period. The turnover meters of the EGDs are nominally read approximately once every 10 seconds. The current time for the purpose of the example is 10:29:20. Hence the relevant window of time or Record Period was that period between 10:28:50 and 10:29:20.

As shown in Table 1, EGD 1 had its change in turnover meter recorded approximately every 8 seconds, EGD 2 approximately every 7 seconds and EGD 3 approximately every 11 seconds. This variation is due to operational variances across machines such as type, model, vintage, manufacturer and network characteristics.

Table 2 shows the changes in turnover meter recorded for the same three EGDs at 10:29:30, i.e. after a further 10 seconds have elapsed. The relevant window of time or Record Period is now that period between 10:29:00 and 10:29:30.

During the further 10 second period, several recorded values aged to a point where they were greater than 30 seconds old, and were therefore discarded. For each EGD one new change in turnover was recorded. The discarded turnover values are shown in Table 3.

It can be seen from the tables that the rolling Record Period allows for variations in operational characteristics by collating all turnover changes during a sliding period. This allows all machines to have a fairer record of activity than individual change in turnover meter figures. Individual turnover figures per EGD may be recorded at varying frequencies. By running a

sliding window any variation in operational characteristics can be normalized.

In this embodiment, the method of determining the winner of a jackpot employs a second time window, known as the Draw Period. The Draw Period is the duration between attempts at awarding the jackpot, or in other words, the duration between opportunities for an EGD to win the jackpot, known as jackpot ‘draws’. To ensure that no turnover change is excluded from the draw processing, the Draw Period can equal, but not exceed the Record Period.”

41 The advantages claimed for the “described embodiments” over the prior art include:

“Each eligible player or gaming machine has the opportunity of winning a prize, with the probability of a win being dependent upon the amount of betting activity on that machine over a recent period, and not just the last game. This provides a fairer outcome as machines with a higher average turnover during that period have a higher win probability than machines with a lower average turnover during the same period even though the latter machines may have had a higher wager on the last game.

The trigger for a draw is not a function of individual games played on a gaming machine. Rather it is a function of time. Therefore, the prize awarding system may be applied to existing EGDs of differing base denomination, manufacturer or game type without the need for specialised software support from the EGDs. The system can also be operated over existing communication networks and with centralised jackpot systems, including those with high poll latency timings.”

42 Thirty claims are made that define the invention. Her Honour found that Jupiters infringed claims 1, 2, 4, 5, 12, 13, 17, 18 and 21. For present purposes it is only necessary to refer to claims 1 and 17 which are here set out in the integer form adopted by both Dowsett J and the primary judge.

<i>Claim No</i>	<i>Integer</i>	
1	(a)	A method of awarding a prize
	(b)	in a gaming system
	(c)	comprising at least 1 gaming machine
	(d)	characterised in that the probability of each gaming machine winning the prize is dependent upon at least some of the amount wagered on that gaming machine : [emphasis added]
	(e)	during an elapsed period : [emphasis added]
		...
17	(fff)	A gaming system
	(ggg)	comprising at least one gaming machine,

- (hhh) control means connected to the gaming machine and
- (iii) adapted to conduct a series of prize draws
- (jjj) in each of which the gaming machine has an opportunity to win a prize
- (kkk) on a non-deterministic basis and
- (lll) a means for determining the winning probability of each gaming machine
- (mmm) at each prize draw
- (nnn) characterised in that the probability of each gaming machine winning a prize draw is
- (ooo) dependent on at least some of the amount wagered
- (ppp) on **that gaming machine**: [emphasis added]
- (qqq) **During an elapsed period**: [emphasis added]

43 It is common ground in this appeal that Jupiters took integers (a)-(d) of claim 1 and that on the issue of infringement (subject to questions of fair basing and novelty) only integer (e) is in contest.

44 Claim 1 is the critical claim for the purposes of infringement.

THE COUGAR SYSTEM

45 The following represents what is agreed between the parties as to the characteristics of the Cougar system.

46 Cougar is the monitoring system currently used by Jupiters Gaming in carrying out its activities as a licensed monitoring operator in Queensland. It was developed over several stages. The first stage was to provide sufficient functionality to meet the QOGR's requirements for what the QOGR terms "basic monitoring". This consists of recording metering information and security events at a central host computer system.

47 The features of the Cougar RTP jackpot method (which is the method used in the jackpot system in relation to the probability of win) are as follows:

- (a) The Cougar RTP jackpot obtains from an EGM from turnover meter responses the amount of the turnover on that EGM; and
- (b) the method uses the reported turnover as a factor or variable in the probability of win calculation in relation to that EGM.

48 The probability of the jackpot being awarded to an EGM depends on the amount of

turnover wagered on that EGM. It does not depend on turnover wagered on any other EGM.

49 The period of time between successive turnover meter responses from an EGM to the site controller is not pre-determined in length and is not fixed. There is a timer within the system which periodically sends polls to each EGM.

50 As found by the primary judge, the Cougar RTP jackpot system is designed to poll EGMs each second. The Cougar RTP jackpot is “tied to polling”.

51 At the trial, Jupiters’ case was that the Cougar RTP jackpot system did not infringe the Patent because it was designed to poll once per second so that the practical effect of the speed of the system was such that the amount wagered on only one game is used in the probability equation. It was therefore argued that the system in practice is “game based” and that time or the amount wagered over a period of time was not a factor in the probability of win of an EGM in the Cougar RTP jackpot system.

52 Nonetheless, it is agreed for the purposes of this appeal that in practice:

- (a) an EGM in the Cougar RTP jackpot system does not necessarily or always report turnover for only one game played on an EGM when it sends a turnover meter response;
- (b) the Cougar RTP jackpot system does not necessarily or always use the turnover from only one game played on an EGM to determine the probability of win;
- (c) the Cougar RTP jackpot system does not determine whether the turnover reported by an EGM, being the turnover since the last valid turnover meter response, has been received over one game or more than one game when determining whether the EGM has won the jackpot nor, more importantly, does it determine how much was wagered on each of the respective games; and
- (d) the system calculates the difference between the previous turnover meter response and the most recent turnover meter response and the Cougar RTP jackpot system uses the resultant figure in the probability of win calculation in relation to that EGM.

THE PRIMARY JUDGE’S DECISION

53 The infringement issue before her Honour centred upon the construction of the words

“an elapsed period of time” of claim 1. It is common ground that integers (a) to (d) are found in Cougar. In *Neurizon (No 1)*, Dowsett J defined “an elapsed period” (at [27]) to mean:

“... any discrete and finite period of time which has passed, having both a beginning and an end.”

54 His Honour considered this meaning to be “self-evident”, as not being vague, and he saw “no reason to look to the specification in order to ascertain the meaning of [the] term”: at [38].

55 The primary judge took a like view. She considered the term was not meaningless, or uncertain; it did not require going to the body of the specification to ascertain its meaning; and it would be understood as having a wide meaning as was given to it by Dowsett J.

56 Her Honour commented, additionally, that (at [56]):

“It may be added that even if one had recourse to the specification it would not follow that the words ‘an elapsed period’ must have a narrower, more closely defined meaning. The specification shows, Mr Miller [called by the appellants] points out, that the elapsed period is one of a certain duration and it is set by a timer. However, as Mr Johnson [a skilled addressee called by the respondent] explains, there are many ways in which an elapsed period might be determined in a gaming system or method. They would be clear to those skilled in the art from what is taught by the patent. A timer could be used to fix a periodic rate, say of 5 seconds, or the timer could run for a random period of time, between 5 to 10 seconds. The use of a timer is not essential. The occurrence of two events could be used to mark the beginning and the end of a period. Mr Johnson gave as an example the use made by an EGM manufacturer, who has implemented the invention, of losing games. An event could be a \$20 wager on a single game, so that the elapsed period would be the period of time between two single games on which \$20 was wagered. It cannot therefore be said that the Neurizon method depends on turnover over a predetermined elapsed period of time. Whilst the period must be predetermined in some way, the length of time does not have to be.”

57 The primary judge accepted that the Cougar system did use “an elapsed period of time”, that being the period between successive meter responses which convey a change of turnover on the EGM. It was not a system based only on game play as the probability of a win did not depend upon game play but upon the amount wagered during two points in time, i.e. the two meter responses.

58 In consequence, her Honour concluded the Cougar system infringed claims 1, 2, 4, 5,

12, 13, 17, 18 and 21 of the Patent. That finding is challenged.

59 Her Honour then rejected Jupiters' cross-claim that the claims made were not fairly based on the matter described in the specification. Contentions (i) that the specification on a fair reading required an elapsed period of time to extend beyond the period in which a game is played; and (ii) that claims 17 and 24 claimed a system that was non-deterministic whereas the invention disclosed in the specification was deterministic, were rejected. Though each of these conclusions was challenged in this appeal, the latter was abandoned during the hearing.

60 The cross-claim of lack of novelty alleged several anticipations of the Neurizon invention of which only Hyperlink and ActivData II+ are relevant to the appeal. Her Honour rejected the alleged anticipation by Hyperlink in that the probability of a win in that system was dependent upon the amount wagered on a single game on an EGM and not on an elapsed period of time. ActivData was the prize awarding system used by Jupiters before the adoption of Cougar. It was progressively modified and there were successive versions including ActivData II, ActivData II+ and ActivData III. Johnson was involved in those developments for a period of time. It was alleged that ActivData II+ anticipated the Patent and that ActivData III incorporated ActivData II+. The alleged anticipation by ActivData II+ was rejected in that its system, unlike the Neurizon claim, involved a relative contest between EGMs. The Neurizon patent involves turnover on one EGM. Both of these conclusions are in contest in this appeal. The issue as to whether ActivData II+ made information publicly available did not need to be decided.

61 The primary judge rejected a cross-claim alleging that there was no inventive step involved in the Neurizon patent. The evidence of several witnesses for Jupiters was effectively rejected on various bases, leaving for consideration the evidence of an independent witness who was asked to solve the problems without seeing the Patent. It was found that the solution proposed by that witness was not the Neurizon invention.

62 The principal point of the second decision arose out of that finding. Jupiters claimed that modified Cougar represented the solution arrived at by the independent witness which had been found to be different from the Neurizon invention and that any claim for infringement would be defeated by an issue estoppel. That was rejected as the issues were different. Infringement was found.

THE FIRST APPEAL

1. CLAIM – INFRINGEMENT

63 Although the primary judge’s findings on infringement are challenged in fifteen grounds of appeal, the essence of Jupiters’ case can be put shortly. It is the contention that the Cougar system did not use the integer of “an amount wagered during an elapsed period”. Rather, it used the amount wagered on each game played on an EGM. That amount was used to determine the probability of winning a prize, not the amount bet in an elapsed period. In light of both the prior art acknowledged in the Neurizon specification and of the first advantage claimed for the embodiments, a skilled addressee would not, it is said, read the words “the amount wagered on that [EGM] during an elapsed period” as including “the amount wagered on each game of that EGM”.

64 Underlying the above contention are the claims that the primary judge misconstrued the specification and failed properly to apply the principles of construction in reaching the conclusion. It is claimed her Honour did not actually construe the specification as a whole. It equally is said that her Honour gave undue weight to the construction given to the Patent by Dowsett J in *Neurizon (No 1)*.

65 Jupiters acknowledges that the Cougar system uses the timed polling of the QCOM but so as to record the playing of a game, the evidence being that the playing of a game takes variously between 2.2 and 5 seconds.

66 Neurizon’s case, put shortly, is that her Honour did not err in the construction given to the Patent nor in her application of the principles of construction. It is conceded that if the Cougar system used the amount wagered on each individual game by reference to that game for the purpose of determining the probability of a win it would not infringe the Neurizon patent. Nonetheless Neurizon contends that while the polling Cougar uses may enable the amount wagered in a single game to be captured, the method adopted by Cougar determines probability of winning by reference to the amount wagered between two points in time, i.e. between successive turnover meter responses, which is an elapsed period.

(i) The Applicable Principles

67 There is no real dispute between the parties as to the principles of construction to be

applied in this matter although there is some difference in emphasis. It suffices for present purposes to refer to the following:

- (i) the proper construction of a specification is a matter of law: *Décor Corp Pty Ltd v Dart Industries Inc* (1988) 13 IPR 385 at 400;
- (ii) a patent specification should be given a purposive, not a purely literal, construction: *Flexible Steel Lacing Company v Beltreco Ltd* (2000) 49 IPR 331 at [81]; and it is not to be read in the abstract but is to be construed in the light of the common general knowledge and the art before the priority date: *Kimberley-Clark Australia Pty Ltd v Arico Trading International Pty Ltd* (2001) 207 CLR 1 at [24];
- (iii) the words used in a specification are to be given the meaning which the normal person skilled in the art would attach to them, having regard to his or her own general knowledge and to what is disclosed in the body of the specification: *Décor Corp Pty Ltd* at 391;
- (iv) while the claims are to be construed in the context of the specification as a whole, it is not legitimate to narrow or expand the boundaries of monopoly as fixed by the words of a claim by adding to those words glosses drawn from other parts of the specification, although terms in the claim which are unclear may be defined by reference to the body of the specification: *Kimberley-Clark v Arico* at [15]; *Welch Perrin & Co Pty Ltd v Worrel* (1961) 106 CLR 588 at 610; *Interlego AG v Toltoys Pty Ltd* (1973) 130 CLR 461 at 478; the body of a specification cannot be used to change a clear claim for one subject matter into a claim for another and different subject matter: *Electric & Musical Industries Ltd v Lissen Ltd* [1938] 56 RPC 23 at 39;
- (v) experts can give evidence on the meaning which those skilled in the art would give to technical or scientific terms and phrases and on unusual or special meanings to be given by skilled addressees to words which might otherwise bear their ordinary meaning: *Sartas No 1 Pty Ltd v Koukourou & Partners Pty Ltd* (1994) 30 IPR 479 at 485-486; the Court is to place itself in the position of some person acquainted with the surrounding circumstances as to the state of the art and manufacture at the time (*Kimberley-Clark v Arico* at [24]); and
- (vi) it is for the Court, not for any witness however expert, to construe the specification; *Sartas No 1 Pty Ltd*, at 485-486.

68 We may add that the area of invention with which this proceeding is concerned is a particularly narrow one. It is one in which business rivals are striving to invent around the patented inventions of others and within narrow regulatory limits. In such a context it is, in our view, important to recognise that claims made for an invention may need to be formulated narrowly to avoid invalidity. While accepting the primacy of purposive construction in interpreting patents, such a construction may well provide little by way of illumination where, as here, the inventive context is a cramped one. It is not appropriate to take a claim carefully drawn to avoid invalidity and then permit a wider “purposive” construction of it for infringement purposes (*Grove Hill Pty Ltd v Great Western Corp Pty Ltd* [2002] FCAFC 183; 55 IPR 257 at [311]).

(ii) Consideration

69 It cannot reasonably be said, in our view, that the primary judge gave undue weight to the construction placed by Dowsett J on the Neurizon patent in *Neurizon (No 1)* or that she misapprehended the burden of the principles to be applied.

70 Properly, for the reasons given by her Honour, it was appropriate for her to follow Dowsett J’s conclusions on the construction of the Patent unless she was convinced it was clearly wrong: but note the principles stated in Pearce & Geddes, *Statutory Interpretation in Australia*, [1.6]-[1.7] (5th ed, 2001). Nonetheless the primary judge considered it was necessary that Dowsett J’s “determination on questions of construction be considered in light of the respondents’ submissions”: at [35]. In the event, the primary judge quite obviously gave independent consideration to the meaning of “an elapsed period” in light of the submissions and evidence before her.

71 Neither can it reasonably be said, in our view, that her Honour misapprehended the principles of construction relevant to the case before her. Her Honour’s summary of those principles betrays no error.

72 The short issue raised by the infringement appeal is whether the construction given to “an elapsed period” in claim 1 was correct.

73 Three witnesses, whom her Honour considered were skilled addressees, gave evidence as to the construction to be considered in relation to both infringement and fair

basing. William Patrick Miller (“Miller”), who was called by Jupiters but who was not regarded as an independent witness whose evidence was entirely objective in all aspects, considered that in light of the specification an elapsed period meant a predefined period of time, of known duration and significantly longer than an EGM game cycle, during which multiple turnover events may be collected and used in a probability calculation. He regarded the preferred embodiment and two tables in the specification illustrating turnover being recorded in a 30 second “sliding time window” as indicating clearly what the Patent’s author intended.

74 Arnold Barry Kopff (“Kopff”) was called by Neurizon. Having noted Jupiters’ claims, he stated in his second affidavit (at pars 40-41) that:

- “40. *In my opinion, there is nothing disclosed in the specification in the Patent that requires the ‘elapsed period’ to be longer than the length of time it takes to play one game on an EGM. Further, that interpretation is not required in order to distinguish the patented invention from any prior art referred to in the specification, or any other that forms part of the prior art base.*

- 41. *None of the prior art uses turnover on a single EGM over any elapsed period of time in order to weight that EGM’s probability of winning the jackpot. All of the prior art that I have examined (that takes into account the amount wagered) always refers to just the amount wagered on the current game. In no prior art that I have seen is time a factor in the probability equation in the decision whether or not to award a jackpot prize.”*

75 Johnson, whose evidence her Honour found “helpful on many topics” also addressed construction:

- “46. *[T]here is nothing disclosed in the specification that requires that elapsed period to be longer than the game play of the EGM.*

- 47. *Furthermore, that interpretation is not required in order to distinguish any prior art referred to in the specification (or that otherwise forms part of the prior art base).*

- 48. *None of the prior art, either cited by the Patent, or cited against the Patent in the Former Proceedings or these proceedings, has the absolute probability of win of an EGM being dependent on the turnover on that and only that EGM during an elapsed period.*

...

52. *The fact that the Draw Period (in the Neurizon method) [i.e. the period between attempts to award the jackpot] can be independent of game play adds to the level of fairness in these situations, as each EGM participates in the jackpot draw, based on turnover in the Record Period, rather than based on turnover on games played.*
53. *However, that does not require any limitation of the elapsed period in the claims to a period of time longer than game play.*
54. *Nothing in the Patent specification requires the Record Period (that is the elapsed period during which turnover is recorded) to be longer than any arbitrary length of game play.*
- ...
60. *There are many possibilities for a gaming system or method to determine an elapsed period, and such possibilities should be clear to those skilled in the art, following the teaching of the Patent. Provided the gaming system, method or EGM actually determines turnover by reference to an elapsed period (and not as a discreet event, such as a single game), it would fall within the plain meaning of the term ‘during an elapsed period’ in the primary claims of the Patent.”*

76 It would seem that the primary judge approached the matter on the implicit basis that, as the specification and in particular the preferred embodiments incorporated the elapsed period integer of claim 1, it was appropriate to ask whether the manner in which the integer was described or disclosed excluded the period of a game cycle from the compass of the term “an elapsed period” or, alternatively, required an elapsed period to extend beyond the period in which one game was played. Her Honour found that no such exclusion or requirement was apparent on a fair reading of the specification.

77 In our view, this reading of the specification was clearly correct. It is fair to say that in the prior art the specification accentuated perceived limitations of game based systems, and that in the advantages claimed for the embodiments, it emphasised the capacity the invention had to overcome or ameliorate such limitations. It equally is fair to say that the actual illustrations given of an elapsed period are of periods longer than what on the evidence it would take to play one game and, usually, are of fixed and predetermined duration. However, what is notable about the descriptions and illustrations given of “an elapsed period” in the specification is that they are illustrative and permissive, not prescriptive. It is acknowledged expressly, for example, that there are “various alternative implementations” that achieve the same or similar outcome as the preferred embodiment. All that is prescribed

is that there be an elapsed period and that term has the meaning we have previously indicated it has. Beyond this there are specified and unspecified possible, permissible, or what might be considered to be preferable implementations.

78 It is for the Court not the experts to interpret this patent: see *Flexible Steel Lacing* at [81]. It is the case, though, that we read it in this respect “in the same way” as Kopff and Johnson and as not excluding the period of a game cycle.

79 We would add that, while an implementation using an elapsed period of fixed duration extending over a period in which a number of games is likely to be played may in fact provide the preferred way of overcoming perceived limitations in game based systems, or of securing the claimed advantages of the embodiment, the specification does not expressly or impliedly require the use of such a period. It is designedly not prescriptive in this respect.

80 A skilled addressee reading the specification as a whole would conclude that it differentiated between gaming systems characterised by the probability of an EGM’s winning a prize being dependent at least upon some of the amount wagered on that EGM “during an elapsed period” and those in which the probability of an EGM winning was dependent upon at least some of the money wagered on that EGM in the playing of a single game. The one system makes the relevant probability dependent on what occurs during the passage of a determined past period of time; the other makes it dependent on what transpires on the occurrence of a single event (i.e. a particular game). The specification’s prior art teaching especially in relation to Hyperlink makes plain this distinction.

81 The expression “an elapsed period” as defined by Dowsett J and accepted by her Honour is neither uncertain nor ambiguous. Though it presupposes that *termini* would be fixed in some fashion so as to provide the boundaries of a particular “elapsed period” – a need recognised by the primary judge and by Johnson (a skilled addressee whose evidence was accepted) – a claim did not, and did not need to, specify a method for determining those boundaries although some did. The expression has a wide meaning. The evidence of Johnson indicated that there were many ways in which an elapsed period might be determined in a gaming system and that this would be clear to those skilled in the art from what is taught by the Patent. This again was accepted by her Honour. We see no reason to disagree with Johnson’s view. The duration of an elapsed period can be fixed by the passage

of a specified or by a random period of time, or by two specified events.

82 A consequence of the logic of this definition is that, in respect of a single event taking a period of time to occur, that event can for present purposes be focussed upon in either of two ways – first as a single event; secondly, as a bounded period of time in which the event occurs. In response to a fair basing suggestion to the contrary, the primary judge explicitly accepted that an elapsed period could be the period of a game cycle. However, in so doing her Honour was addressing a system in which probability was not game (or single event) based as such, but rather one in which it was based on what transpired in an elapsed period. Nothing that we have said here, or that the primary judge said, requires it be concluded that the Hyperlink system infringed the Neurizon claim. Its system was made dependent on an event not on the bounded period of time of an event.

83 When one turns to the Cougar system it is clear, in our view, that its systems' probability of winning is dependent upon at least some of the amount waged on an EGM "during an elapsed period". It may be accepted that Jupiter's object in employing the particular methodology used by Cougar – the use of QCOM polling to detect successive turnover meter responses – was to ascertain the amount wagered on a particular game (although, as her Honour accepted, the evidence was that it could not do this with complete accuracy). Nonetheless the methodology itself was not game based. It did not use a game play meter. And, as has been accepted by Jupiters, the once-a-second polling employed was not synchronised to game play. Rather, as the primary judge correctly concluded, it depended upon measuring the difference in turnover between successive turnover meter responses. It used an elapse of time method to derive the required information as to the amount wagered on each particular EGM and the probability of win was dependent upon at least some of the amount wagered on that EGM during an elapsed period.

84 Jupiters seeks to deflect the obvious implication of this conclusion by submitting that **how** the amount wagered is ascertained is irrelevant to the question of infringement. What they say is important is the characterisation of the amount wagered itself: "Is it characterised by reference to game play or by reference to an elapsed period not being referred to game play?".

85 The basis of Jupiters' submission would seem to be that a skilled addressee, having

read the prior art and the stated advantages in the specification as part of reading the specification as a whole, would understand not only that the invention was not game based but also that it excluded from an apparent time based system those instances where the system was in fact using elapsed periods to identify, and thus base probability on, the amount wagered on a single game.

86 It is the case that both the prior art and the stated advantages refer to the limitations of game (or game cycle) based systems and of the advantages of basing probability of, and the trigger for, a win on betting over a period of time as distinct from the last game played. This, though, provides no justification for determining that the terms of claim 1 are not clear and unambiguous. What Jupiters is seeking to do is to add to those terms “glosses drawn from other parts of the specification”: *Welch Perrin & Co Pty Ltd v Worrel* (1961) 106 CLR 588 at 610; see also *Flexible Steel Lacing Co* at [73]-[74].

87 The question posed by Jupiters impermissibly redefines the term “an elapsed period”. More importantly, it ignores the actual claim of the Patent and the question it poses here: “Is the probability of winning using the Cougar system dependent upon at least some of the amount wagered on that [EGM] during an elapsed period?” The answer to this must be “yes”. It uses the elapsed period between two meter responses to ascertain the amount wagered albeit, because of the relationship of the frequency of the QCOM poll to the time taken to play a game, that amount will ordinarily be the amount played on a particular game.

88 The Cougar system used the fourth integer of the Neurizon patent’s claim 1 and, thus, infringement of claim 1 and dependent claims is established.

2. CROSS-CLAIM

FAIR BASING

89 We would note at the outset that at the hearing of the appeal counsel for Jupiters limited their fair basing ground to the primary judge’s finding in respect of the “elapsed period” integer.

90 Section 40(3) of the *Patents Act 1990* (Cth) (“the Act”) requires that the claim or claims (defining the invention) “must be clear and succinct and fairly based on the matter

described in the specification”. The language of the section

“points to a comparison between the claims and what is described in the specification only, and ... does not call for any inquiry into an ‘inventive step’, or an inventive ‘merit’ or a ‘technical contribution to the art’.”
(*Lockwood Security Products Pty Ltd v Doric Products Pty Ltd* (2004) 212 ALR 1 at [54])

It is necessary to split the Patent into claims and the body of the specification for this purpose (*Lockwood* at [49]). The term “invention” in s 40(2), implicitly incorporated in s 40(3), means “the embodiment which is described and around which the claims are drawn” (*Lockwood* at [53]). “Embodiment” in that sense is not limited to the preferred embodiments (*Lockwood* at [69]).

91 The High Court in *Lockwood* (at [68]) pointed out that:

“It is wrong to seek to isolate in the body of the specification ‘essential integers’ or ‘essential features’ of an alleged invention and to ask whether they correspond with the essential integers of the claim in question”,

and cited, with approval, the following explanation of “a real and reasonably clear disclosure” by Gummow J in *Rehm Pty Ltd v Websters Security Systems (International) Pty Ltd* (1988) 81 ALR 79 at 95. :

“The circumstance that something is a requirement for the best method of performing an invention does not make it necessarily a requirement for all claims; likewise, the circumstance that material is part of the description of the invention does not mean that it must be included as an integer of each claim. Rather, the question is whether there is a real and reasonably clear disclosure in the body of the specification of what is then claimed, so that the alleged invention as claimed is broadly, that is to say in a general sense, described in the body of the specification.”

92 It has been noted repeatedly of the fair basing requirement that what is required to be fair is the basis which the body of the specification affords for the invention claimed: *CCOM Pty Ltd v Jeijing Pty Ltd* (1994) 51 FCR 260 at 281.

93 As was said by the High Court in *Lockwood* at [99]:

“The inquiry is into what the body of the specification read as a whole discloses as the invention. An assertion by the inventor in a consistory clause of that of which the invention consists does not compel the conclusion by the court that the claims are fairly based nor is the assertion determinative of the identity of the invention. The consistory clause is to be considered by the court with the rest of the specification.”

94 Jupiters' case is that the invention disclosed in the body of the specification is not as wide as the invention claimed. It is contended (i) that the primary judge's conclusion that the specification does not exclude the period of a game cycle falling within claim 1 is inconsistent with the disclosure in the specification; (ii) the specification contemplates that the boundaries of the elapsed period (the "Record Period" in the Patent) be predetermined and longer than the period it takes to play one game and, if the Record Period is equal to or shorter than the period it takes to play one game, then the system captures each and every game and is a game based system such as Hyperlink; (iii) the preferred embodiments are based on fixed predetermined periods of time; (iv) having acknowledged the problem of "latency" (i.e. slowness) of delivery of meter increments in a communications system, the specification acknowledged that it is impractical to use credit bet per game as a basis for the determination of a win on a game by game basis; (v) the Patent's solution to latency was to use a fixed Record Period which was greater than the time taken to play the game.

95 Neurizon's submission is that, in their own written submissions for this appeal, Jupiters state that "[T]he preferred embodiments each incorporate each of the essential features of claim 1". Additionally, there was disclosure in the consistory clause. This case, it is said, is not one where the specification as a whole shows that the invention disclosed in the specification is narrower than what is described in the consistory clause. In consequence it is submitted that the specification provides fair basis for a claim that requires the probability of winning to be determined by reference to the amount wagered on the EGM during an elapsed period.

96 Our consideration of the construction of the specification in relation to infringement leads us to reject Jupiters' challenge to the finding on fair basing. For reasons we do not need to repeat there is conformity between the claims and the body of the specification so far as an elapsed period is concerned. Given that the submissions of both Jupiters and Neurizon are based in part on the consistory clause, we should also indicate that, on our reading of the specification, the invention described in the consistory clause is that disclosed in the specification as a whole: cf *Lockwood* at [99]-[101].

97 We reject Jupiters' challenge to the primary judge's fair basing finding in relation to "an elapsed period".

NOVELTY

98 Both at trial and on appeal, Jupiters has challenged the validity of the Neurizon patent on novelty grounds in two distinct respects. It is contended first that Aristocrat's Hyperlink patent anticipated Neurizon's claimed invention and that the primary judge erred in not so finding; and, secondly, that the ActivData II+ system developed and used by Jupiters prior to Neurizon's patent application amounted to prior use that destroyed the validity of the patent for want of novelty.

99 As to the ActivData II+ system, Neurizon contended both before the primary judge and on this appeal that there was no relevant public use proven on the evidence which would entitle Jupiters to a finding that ActivData II+ anticipated the Neurizon patent. This matter is considered separately below.

100 For present purposes it is unnecessary to enlarge at any length upon the test for determining when prior publication or use is sufficient to deprive a later invention of novelty. It is sufficient to refer, as did the primary judge, to the "reverse infringement test":

"The basic test for anticipation or want of novelty is the same as that for infringement and generally one can properly ask oneself whether the alleged anticipation would, if the patent were valid, constitute an infringement."

Meyers Taylor Pty Ltd v Vicarr Industries Limited (1977) 137 CLR 228 at 235; see also *Olin Corporation v Super Cartridge Co Pty Ltd* (1977) 180 CLR 236 at 260-261; *Bristol-Meyers Squibb Company v FH Faulding & Co Ltd* (2000) 97 FCR 524 at 546.

(i) Hyperlink

101 It is not disputed by Neurizon that the first four integers of claim 1 of its patent are anticipated by Hyperlink. The issue here relates to the fifth integer of an elapsed period of time. The primary judge held the Hyperlink specification did not disclose that integer.

102 Put shortly, Hyperlink as disclosed in the agreed facts, is an internally triggered (i.e. within an EGM) linked jackpot method. The probability of win of the jackpot is dependent on the amount wagered on a single game on that EGM and the decision to award a prize is conducted every game on every EGM.

103 Jupiters' case is that the Hyperlink specification discloses a game cycle represented in

five steps in figure 2 of the specification from which it is determined whether a game played is awarded a jackpot. That cycle has a starting point (the initiation of play on the machine) and an end point (the conduct of the draw or else the time at which the jackpot controller receives details of the game play). As such it involves a period of time and it is an elapsed period by the time the jackpot is awarded or notification of failure is provided to the player. They point, furthermore to Johnson's agreement with the suggestion that the "repeating loop" of waiting for game initiation, starting a draw process, gathering the data of the game played when available and then testing for a win occurs in the computer system over a period of time, albeit Johnson went on to say "everything occurs in our universe over a period of time".

104 There is a short answer to Jupiters' contention and it is suggested in part in Johnson's observation. Events happen in time and in that sense have a beginning and an end. Nonetheless, the turnover used in Hyperlink to affect probability of win is not measured by time, but by reference to the occurrence of a single game as such. The Hyperlink specification is, relevantly, event not time based and, properly read, conveys as much. Time, elapsed or otherwise, is not an integer in the probability equation of its jackpot system. A necessary incident of the Hyperlink game cycle is that it takes time. But that is an unimportant characteristic of what is described in the Hyperlink specification.

(ii) ActivData II+

105 The following proceeds on the assumption that the implementation of Jupiter's ActivData II+ system in the MGM Grand Casino in about July 1996 and then in several other casinos in 1997 involved a use or uses of that system which made publicly available information about it. The correctness of that assumption is considered separately below. The present question is whether ActivData II+ anticipated claim 1 of the Neurizon patent.

106 To reiterate, the terms of the claim are that:

"1. A method of awarding a prize in a gaming system comprising at least one electronic gaming machine, characterised in that the probability of each electronic gaming machine winning the prize is dependent upon at least some of the amount wagered on that electronic gaming machine during an elapsed period."

107 ActivData II+ supports a standard progressive mystery jackpot. Each EGM in the jackpot contributes to the jackpot pool which has a predetermined minimum and maximum

value and does so by way of a set percentage of its turnover which is deducted from that EGM's revenue and is contributed to the jackpot pool. The trigger point for the award of a jackpot is a randomly generated number which has a value somewhere between the minimum and maximum predetermined values of the jackpot pool. When the value of the trigger point is exceeded, all active EGMs are selected to participate in the jackpot draw. The winning EGM is selected from amongst all the active EGMs by an algorithm that weights each EGM's chance of being selected by comparing the rating of that EGM (which is derived from turnover during the previous minute's play) with the respective ratings of all active EGMs within that period. Put shortly, the probability of a machine winning is dependent upon the amount wagered on it and on every other active machine during the other one minute period.

108 Though the ActivData II+ system involves a "relative contest" between all active machines, it can properly be said as a matter of ordinary English usage that, in the case of each active machine, that machine's probability of winning is "dependent upon at least some of the amount wagered on that ... machine during an elapsed period": cf claim 1. It is unsurprising that Johnson and Kopff, both of whom her Honour considered to be skilled addressees, could accept that the ActivData II+ system could be so described, though they each gave evidence that in their respective views, it nonetheless did not fall within claim 1 on its proper construction. That is an issue of construction.

109 Some number of the witnesses in this matter gave evidence on the question of construction presently in issue. Several of these were not considered by the primary judge to be qualified as skilled addressees. Two others, the mathematicians, Dr Philip Keith Pollett ("Pollett") and Professor Peter James Donnelly ("Donnelly"), were not put forward as skilled addressees but as persons qualified to give evidence on matters relating to the concept of, and to the meaning of, some mathematical expressions.

110 The particular parts of claim 1 that have generated the construction issue are, first, the words "dependent upon" and secondly, the word "that" in the description "on that [EGM] during an elapsed period".

111 As to the first of these, both Pollett and Donnelly agreed that the words in this context had their mathematical meaning, informed by ordinary English usage. It means "dependent, amongst other things, upon" and not "dependent only upon". That construction is not in

contest in this appeal. However, it does magnify the issue relied upon by Jupiters because, it is said, it allows claim 1 to encompass ActivData II+ which encompasses both the stated dependency in claim 1 and another but not excluded dependency (i.e. the “relative contest” with other active EGMs).

112 Neurizon’s contention is that a skilled addressee reading claim 1 would understand that the amount wagered on the particular EGM during an elapsed period is always a variable in the probability of win calculation even if it is the only active EGM. That addressee would further understand that, while there can be other variables in the probability of win calculation depending on how an operator wishes to set up a particular jackpot system, the amount wagered on any other EGM is **never** a variable. No competition between EGMs occurs at all. No comparison is made. Whatever happens on other EGMs in the system is irrelevant to the calculation of probability of win in relation to that EGM. Reliance in this is placed upon the evidence particularly of Johnson, Kopff and Pollett. The appropriateness of that reliance is another matter.

113 Pollett’s evidence can be disregarded as unhelpful. He was engaged as an expert mathematician. Nonetheless he presumed to advance the view that when he “read the Patent and specification” it was clear to him that the probability of a given EGM winning a jackpot using the Neurizon method has, as its only variable in the probability equation, the amount or some of the amount bet on that EGM during the elapsed period. It did not depend on any turnover on any other EGM in the system. He said in cross-examination that “the rest of the document amplifies what claim 1 is intended to convey”.

114 Kopff made a variety of references to claim 1. The following both from his affidavit and from cross-examination capture the burden of his views:

- (i) *“I agree with Professor Donnelly in the Donnelly Affidavit that the word ‘dependent’, in its ordinary meaning, does not mean dependent only. In isolation, the expression ‘dependent on ...’ also allows other factors to be incorporated or considered that may affect the outcome.*

However, in the context of the claims of the Patent and specification as a whole, it is clear that in the invention, the only variable in the probability equation (and the only factor that can make the probability of win of a particular EGM different to the probability of any other EGM that is participating in the same jackpot pool), in determining whether the EGM wins the jackpot prize, is the turnover on that

particular EGM during the relevant elapsed period of time. This is described clearly on pages 10, 11 and 12 of the Patent.” [These are a part of the description of the preferred embodiment.]

(ii) in cross-examination on claim 1:

“--- The crucial word, your Honour, is ‘that’. It is on ‘that’ EGM. It doesn’t say on ‘that and other’, or ‘that and all other’, or ‘that and any other’, it says on ‘that’ EGM. And that immediately eliminates the concept of a relative contest. A relative contest is a very very common mechanism used in lots of games and competitions, and so eliminating a relative context I thought was very clever.”

115 Finally there is Johnson’s evidence. It is important to note, he was both the inventor of the Neurizon system and the person responsible for the development and management of the ActivData II+ software. In explaining the probability of an EGM winning the jackpot prize in the Neurizon method he stated in his affidavit that:

“There may be other variable factors that affect the win probability of an EGM, but those other factors cannot be turnover on another EGM, or turnover outside the elapsed period. The only turnover that can be a variable factor is turnover on the relevant machine during the elapsed period.”

In cross-examination he indicated his view that claim 1 gave the instruction to use only the turnover on a single EGM and not turnover on other EGMs. He was then asked: “It doesn’t use the word ‘only’ at all, does it?” His reply was that:

“It doesn’t need to, your Honour, because the way I read claim 1, your Honour, is there is a method of awarding a prize in a gaming system comprising at least one gaming machine, characterised in the probability of each electronic gaming machine – and we are talking about the potential plurality of gaming machines involved, when we talk about ‘each’.

Winning the prize is dependent upon at least some of the amount wagered on that electronic game machine during an elapsed period.

And we have focused down from the plurality to the single. To me that means that words like ‘wagered on that and only that electronic gaming machine’ would be superfluous in an interpretative sense. To take a broader definition than that, you would have to say that it is not only turnover on other EGMs that could be a factor; but it is turnover outside the elapsed period that could be a factor as well, and if you say that, then I don’t understand what claim 1 means at all, because it is talking about just turnover on any EGM inside an elapsed period or anywhere, and to me, those words then don’t make sense if I take a broader view than – by saying that, ‘electronic games machine during a elapsed period’, that is what I’m saying the turnover is. It’s turnover on that electronic gaming machine. It is not turnover on the machine beside it.

It is not turnover on the machine behind it. It is turnover on that electronic gaming machine, and I understand it in the normal restrictive sense of the word 'that' your Honour."

116 The primary judge appears to have taken a like view to that of Johnson and Kopff on the significance of the word "that" in claim 1. Her Honour went on to say that it was not possible to discern a relative contest as coming within the Neurizon patent. It involved turnover on one EGM. The ActivData II+ system was to be characterised as one requiring a plurality of EGMs for turnover to be taken into account. Her Honour concluded that in the ActivData II+ system the probability of an EGM winning depended on turnover of other EGMs. That was not part of claim 1.

117 Counsel for Jupiters has pointed to a portion of the specification that he submits is an example of a relative contest. Attention was first drawn to that example towards the end of the trial and was not the subject of any evidence. It was not referred to by the primary judge. It was again referred to on appeal and does not appear to have been referred to on behalf of Neurizon. It is not self-explanatory to the lay person.

118 For the purposes of argument we are prepared to accept that the embodiments described in the specification do not involve a relative contest and that the only turnover that is a variable factor in them is the turnover on the relevant machine during an elapsed period.

119 Though Kopff has sought, in expressing his view on claim 1, to attribute a particular significance to the word "that" in the claim, we are satisfied that both he and Pollett have viewed claim 1 through the prism of the specification and have given it a meaning accordingly. As indicated below that reading involves no mere contextual interpretation of the claim. Rather it substitutes a new subject matter for the claim from that conveyed by the words of the claim.

120 Johnson's evidence is somewhat more problematic. Account must be taken of the possible effect on his evidence of his role as inventor of the Neurizon system and the person responsible for the development of the software for ActivData II+. It is well accepted that it is impermissible to construe the claims of a patent by reference to the actual thoughts, intentions, purposes and opinions of a patentee or inventor: *Glaverbel SA v British Coal Corporation* [1994] RPC 443 at 485-486; *Sartas No 1 Pty Ltd* at 485-486. For this reason

Johnson's evidence must be treated with understandable reserve on this matter although we do not question the accuracy of his description of the Neurizon method itself.

121 Once it is accepted that the words "dependent upon" mean "dependent, amongst other things, upon", the difficulty in Neurizon's proposed construction becomes plain. While the claims are to be construed in the context of the specification as a whole, the boundaries of a clear claim cannot be narrowed by adding words drawn from other parts of the specification. The present is not a case in which the Court has been asked "to read unqualified words as applying only to the normal or ordinary or practical use of the patented invention contemplated by the persons to whom the patent was addressed": *Stanway Oyster Cylinders Pty Ltd v Marks* (1996) 66 FCR 577 at 584-585. Rather it is said that the necessary qualification on the ambit of the claim inheres in the words of it and, in particular, in the use of the description "**that** [EGM]" consequent upon the reference to "the probability of **each** electronic gaming machine winning".

122 The adjectival usages of the word "that" can be both varied and nuanced: see *Oxford English Dictionary* ("the OED") vol 17, 870 (2nd ed, 1989). Commonly it is used as a simple demonstrative indicating a thing that has just been mentioned (cf "that EGM" following a reference to "an EGM"): see OED, above, "that" II 1(a). It can also be used by way of opposition to distinguish one thing from another (cf "all the other EGMs and that EGM"): see the OED, above, "that" II 2(a).

123 The proper meaning to ascribe the adjective in its claim 1 setting is not a matter requiring the evidence of a skilled addressee. It has no unusual or special meaning here that a skilled addressee might give it which differs from its ordinary meaning. It is not a special word at all. And when one asks what work it was intended to do in the claim, there is no reason to suggest its function was other than that of a simple demonstrative adjective referring back to the EGM that had previously been mentioned, and that is all. There is no ambiguity. We are unable to read it both as distinguishing the particular EGM from all other EGMs linked to a jackpot pool and as negating the possibility that some of the amount of the turnover on those other EGMs in the elapsed period may affect the probability of the particular EGM winning. If such was the intent to be effectuated in claim 1 more words were needed.

124 On the assumption on which we have been proceeding, we would have concluded that ActivData II+ would infringe claim 1 and it anticipates it. However, for the reasons we next give, we do not consider that Jupiters has proved an enabling public disclosure was made in the implementation of ActivData II+.

Public Disclosure

125 In the course of the appeal Neurizon was permitted to file a Notice of Contention in the following terms:

“With reference to par 27–31 of the Amended Notice of Grounds of Appeal, the respondent will contend that there was no evidence to support a finding that the information constituting the “second” phase of the ActivData II+ system was made publicly available before the Priority Date.”

That is a reference to the inclusion in the definition of “prior art base” in the dictionary to the Act “information made publicly available through doing an act” for the purposes of s 18(1)(b)(i) of the Act.

126 The primary judge did not make a finding upon this issue as it was held that the ActivData II+ system did not anticipate the Patent even if included in the prior art base. It is necessary for a finding to be made. We are satisfied that the nature of the relevant evidence makes it appropriate to decide the issue on appeal.

127 Andrew John Paull (“Paull”) commenced employment in February 1996 with M&B Electronics, by then a division of Jupiters. He was then, and continued to be, employed in a team which developed Jupiters EGM monitoring systems. He is a software engineer. At the time that Paull was first employed the then current version of the Jupiters Monitoring System was known as ActivData II. Subsequent versions of the system were known as ActivData II+ and ActivData III. ActivData II and ActivData II+ were implemented at Conrad Treasury and Conrad Jupiters Casinos. That was effectively “in house”. Paull’s evidence is that the MGM Grand Casino Darwin (“MGM Darwin”) was an ActivData II+ customer of Jupiters, the enhanced version of it being implemented on 12 July 1996 when the jpweight.cpp file was added and certain other files were modified. From that date onwards the monitoring system at the MGM Darwin was able to and did administer external weighted mystery jackpots. Paull says that on a date that he cannot precisely recall, he was sent to the MGM Darwin to do an ActivData III software release and to talk to the users of that software in

relation to the then current issues. He recalls going out on to the Casino floor where the systems were monitoring all of the Casino's EGMs. Some of those EGMs had associated linked weighted jackpots that utilised the weighting system coded in the jpweight.cpp file. His evidence was that the ActivData III system was also implemented at Sheraton Townsville Hotel and Casino (Sheraton Townsville), although he does not say when that took place. ActivData III incorporated ActivData II+. It was found to have been installed by March 1997.

128 Mark Raymond Gregory ("Gregory") has a Bachelor of Science in Microelectronics and Computing. He commenced work as a general programming contractor on 10 March 1997 specialising in serial communication protocols and embedded systems to Jupiters. From 1 December 1999 he ceased to be a contractor and was directly employed as a senior programmer. When he started work he commenced in the team which maintained the ActivData II, ActivData II+ and ActivData III systems. His original role was to fix errors in the existing implementation of the ActivData systems at MGM Darwin, Sheraton Townsville, Conrad Jupiters Casino on the Gold Coast and Conrad Treasury Casino in Brisbane. The evidence was that the ActivData II+ system was in place at the Conrad Jupiters and Treasury Casinos. ActivData III was a modification to the ActivData II+ system which had been implemented in the MGM Darwin and at the Sheraton Townsville. At the time he started, ActivData III was the monitoring system in place at each of those Casinos.

129 Richard John Krimmer ("Krimmer") is an experienced computer programmer. He commenced work for Jupiters on 4 October 1996 as a contract programmer and has been employed since. Most of his work has been directed towards EGM monitoring products. His initial contract was to conduct system maintenance and implement database reports for ActivData III. This progressed to a hands-on role in the correction and bedding down of ActivData III at MGM Darwin. After stabilising the system at MGM Darwin he then implemented it at the Sheraton Townsville. He put this as occurring within six months or so from starting at Jupiters. During his visits to MGM Darwin he observed that ActivData III mystery jackpots were operational on some EGMs in the Casino under the name "Lion Link". While he was there he saw Casino patrons operating and winning the mystery jackpot on those EGMs.

130 A body of evidence was directed to the cross-claim by Jupiters alleging, inter alia, that

ActivData II+ and ActivData III were confidential trade secrets of Jupiters wrongly appropriated by Neurizon and Johnson. That cross-claim was pursued until final addresses. Johnson was employed by Jupiters from 16 December 1994 as Software Development Manager of the Technology Division until the end of November 1996. He was responsible for the design and management of software by various systems including ActivData II and ActivData II+ that was installed at MGM Darwin. He was not involved with ActivData III. Johnson caused Neurizon to be incorporated on 9 January 1997. In January 1997 Neurizon was engaged by Jupiters as consultant to work on the ActivData II and II+ polling PC host. This did not involve work on the jackpot subsystem.

131 Johnson was cross-examined as follows:

“So you’re suggesting it was all right to go and speak your mind about it, are you, as long as you didn’t actually take things physically from the building? -- - There was no – there was no culture of not speaking about what happened within the building, your Honour.

Mr Johnson, you were aware then that certain information within companies is regarded as confidential or a trade secret. You were aware of that then? --- Certainly, yes, I was, your Honour.

Information that was commercially sensible, commercially sensitive and commercially important to an employer would be information which you would be aware as an employee should not be freely divulged to others? --- As long as you’re aware that that information is so then I would say that’s true, your Honour.

Yes. And such information would include information relating to your development of and design of ActivData Two and ActivData Two Plus? --- Not necessarily, your Honour. There were many parts of those systems which were discussed in various meetings with various individuals without there being any requirement of confidentiality on any party.

Can you just assume that when I’m asking these questions about ActivData Two and ActivData Two Plus I am, in particular, directing your attention to those aspects of it which deal with awarding jackpots? --- Yes, I can.

And that aspect of the information in respect of ActivData Two and ActivData Two Plus you would have clearly understood to have been information confidential to your employer? --- No, your Honour, I did not understand that to be so.”

132 It is clear enough that the ActivData II+ system was operating at the two Jupiters Casinos prior to the priority date and that that system, enhanced as ActivData III, was operating at MGM Darwin and Sheraton Townsville before the priority date. There is also

direct evidence that the system was operating to allocate jackpots at MGM Darwin before the priority date. It can be inferred that the same applied at Sheraton Townsville and at the two Jupiters Casinos.

133 The operation of the systems to allocate jackpots was in public for present purposes. That the Casinos were privately owned and (it might be inferred) that patrons could be excluded at will, would not detract from the fact that, generally speaking, they are commercial establishments open for general business (cf *Arrow Pharmaceuticals Ltd v Merck & Co, Inc* (2004) 213 ALR 182 at [100] in a related but distinct context). It does not necessarily follow that such operation made relevant information publicly available so as to be included in the prior art base.

134 Possible public disclosure is not limited to looking at matters through the eyes of persons observing operations in the Casinos. The system in use in the Casinos was operated by parties other than Jupiters. It can safely be inferred that that was pursuant to a commercial arrangement. There is no direct evidence as to the nature of those commercial arrangements. It is not clear what information was provided by Jupiters to the operators of the Casino. It could have been minimal. It could have been considerable. It is quite possible that the respective Casinos and their employees may have been bound by express and implied duties of secrecy and confidence which would prevent use or disclosure of ActivData II+ or ActivData III to any person without the consent of Jupiters.

135 In considering the authorities it is necessary to distinguish between several situations that deal with what can broadly be described as prior use or disclosure of an invention, all with a long history, but which now must be considered by reference to the Act. The first is that, in circumstances where it is proved that the inventor knew of the anticipation by a third party, it could be found that the patentee was not the true inventor, or that to suggest such was a false suggestion: s 15(1)(a) and s 138(3)(a) and (d) of the Act are now relevant (cf *Arrow v Merck* at [117] and [118]). The second is secret use by the inventor. That topic is now dealt with in ss 9, 18(1)(d) and 18(1A)(d) and is discussed by Dowsett J in *Grove Hill Pty Ltd v Great Western Corporation Pty Ltd* [2002] FCAFC 183; 55 IPR 257 at [211]–[233] and in *Azuko Pty Ltd v Old Digger Pty Ltd* [2001] FCA 1079; 52 IPR 75 per Beaumont J at [72], Heerey J at [103]–[146] and Gyles J at [166]–[186]. The third is the principle that a third party cannot be prevented from continuing to do what they were doing prior to the grant of

the patent (*Bristol-Myers Co v Beecham Group Ltd* [1974] AC 646 per Lord Diplock at 681). That topic is now dealt with in a restricted fashion by s 119 of the Act. The fourth is public use by the inventor before the priority date. *Longworth v Emerton* (1951) 83 CLR 539 was such a case. Depending upon the circumstances, that may destroy novelty and is picked up by s 18(1)(b)(i) and s 18(1A)(b)(i).

136 The fifth is use by a third party before the priority date which anticipates the invention and so destroys novelty. That was the topic examined in *Cullen v Welsbach Light Co of Australasia Ltd* (1907) 4 CLR 990. As explained in that case, the issue arose from the terms of the Statute of Monopolies. It is now picked up by s 18(1)(b)(i) and s 18(1A)(b)(i). That is the situation with which this case is concerned.

137 In *Merrell Dow Pharmaceuticals Inc v HN Norton & Co Ltd* (1995) 33 IPR 1 Lord Hoffmann explained that the change in the law in the United Kingdom relating to anticipation effected by the *Patents Act 1977* (UK), particularly when construed in the light of the European Patent Convention, means *Bristol-Myers Co v Beecham Group Ltd* is no longer good law in that country. It is not necessary to discuss whether or not, and, if so, the extent to which, this is a departure from the earlier Australian authorities. Section 2 of the *Patents Act 1977* (UK) was as follows:

- “(1) *An invention shall be taken to be new if it does not form part of the state of the art.*
- (2) *The state of the art in the case of an invention shall be taken to comprise all matter (whether a product, a process, information about either, or anything else) which has at any time before the priority date of that invention been made available to the public (whether in the United Kingdom or elsewhere) by written or oral description, by use or in any other way.*
- (3) *The state of the art in the case of an invention to which an application for a patent relates shall be taken also to comprise matter contained in an application for another patent which was published on or after the priority date of that invention, if the following conditions are satisfied, that is to say –*
 - (a) *that matter was contained in the application for that other patent both as filed and as published; and*
 - (b) *the priority date of that matter is earlier than that of the invention.*”

138 What is required to satisfy the provision is an “enabling disclosure” of the invention

by the prior conduct (*Merrell Dow* at 8–9; *PLG Research Ltd v Ardon International Ltd* [1993] FSR 197 at 225, unaffected by the subsequent appeal [1995] RPC 287; *Asahi Kasei Kogyo KK's Application* [1991] RPC 485 at 539; *Quantel Ltd v Spaceward Microsystems Ltd* [1990] RPC 83 at 108; *Pall Corporation v Commercial Hydraulics (Bedford) Ltd* [1990] FSR 329). Counsel were not able to refer to any recent Australian decisions referring to this line of authority.

139 The structure of the Act and the language of both s 18 and the definition of “prior art base” are sufficiently similar to the relevant parts of the *Patents Act 1977* (UK) to make guidance from authorities upon those provisions helpful, notwithstanding the effect of European jurisprudence and the need for caution as a result. Australian authorities not dealing with the 1990 Act also need to be considered with caution. It should be accepted that s 18(1)(b)(ii) and s 18(1A)(b)(i) are concerned with disclosure by conduct, not anticipation by conduct as such. It is useful to examine how different factual situations involving alleged third party disclosure have been dealt with in some of the recent English cases.

140 *Quantel Ltd v Spaceward Microsystems Ltd* concerned patents related to computer-based video graphics systems. A third party had developed a similar system and demonstrated it to visitors whilst a graduate student at New York Institute of Technology (“NYIT”). The demonstration was of the system in operation. The program was not supplied and there was no oral disclosure of the program. That was held not to be an enabling disclosure (at 126). We have no doubt that was correct. The same party did disclose relevant details to his instructors and some graduate students at Utah University and said that there was no confidentiality in such discussions. However, he agreed that the work had been done at the NYIT and that his work there belonged to that Institute absolutely. Falconer J held that he was not satisfied that there was no bar of confidentiality as to the use or dissemination of such information and therefore concluded that there was no enabling disclosure (126–127). In our opinion, that was a controversial finding and was influenced by European guidelines. It is also worth noting that Falconer J declined to follow *Wheatley's Patent Application* [1985] RPC 91 in relation to anticipation by alleged commercial use as such without disclosure (at 129).

141 In *PLG Research*, Aldous J held that to form part of the state of the art, the information must have been made available to at least one member of the public who was

free in law and equity to use it (at 226). He also held, in effect, that a skilled addressee would use available investigation techniques to analyse samples of product and glean the information that could be so gleaned (e.g. 226–227).

142 That approach appears to have been confirmed by Lord Hoffmann in *Merrell Dow* (at 11) referring with apparent approval to a European ruling that the composition or internal structure of a product became part of the state of the art if it is possible for a skilled person to discover it and reproduce it without undue burden.

143 *Lux Traffic Controls Ltd v Pike Signals Ltd* [1993] RPC 107 concerned patents for traffic light control systems with certain characteristics. The defendant claimed that one of them was invalid as it lacked novelty by reason, inter alia, of the use of a prototype traffic controller which had been used in field trials in Somerset. The key feature of the patent in question was what was described as a minimum green extension. When a vehicle was detected the controller would make the lights remain green for a period additional to the minimum green time. If there were two vehicles approaching from different directions, the one sensed first would be given precedence, while the other would be held by a red light. Aldous J found that the housing of the controller would have remained locked. There was no evidence as to what happened when the prototype was used or that anybody, other than an employee bound by confidence, realised that it provided a minimum green extension. It was accepted that on some occasions the minimum green extension facility would have operated. The light system was made available on a number of occasions to maintenance contractors who were free to examine it. Aldous J held that, although the contractors would not have had access to the control panel, a thorough investigation, together with some inferences, would have led to an understanding that the extended green period was provided and of the mechanism by which it was provided. There was thus anticipation.

144 The discussion of this topic in *Cullen v Welsbach Light Co of Australasia Ltd* (1907) 4 CLR 990, particularly in the judgments of Griffith CJ at 998–1003 and Barton J at 1008, remains useful notwithstanding the changes to the legislation in the meantime and is consistent with the recent English authorities as is the decision in *Longworth v Emerton* (1951) 83 CLR 539 where inspection of the particular machine made apparent the character of the invention. Application of this reasoning would lead to the question “What information was given by the use of the system at the Casinos as to the nature of the invention?”. We

were referred by counsel for Jupiters to no evidence that would establish that anything of relevance to the Patent would be gleaned from mere observation of the system in operation, even by a skilled observer.

145 However, Jupiters was under no obligation of confidence to Neurizon or anyone else in relation to its use of ActivData II+ and ActivData III before the priority date. It could do business with whatever member of the public it chose to deal with and did so in at least two cases. Customers and potential customers of Jupiters are relevantly members of the public for this purpose (*Arrow v Merck* at [100]). The primary judge found that Johnson had an obligation to Jupiters to keep confidential any developments in jackpot systems made at Jupiters which had a commercial use. The same would no doubt apply to other employees. It may have been subject to qualification so far as dealing with customers and potential customers was concerned. That obligation of confidence was not owed to the patentee Neurizon.

146 The question as to what information was made available by Jupiters to its customers remains. No direct evidence was given on the point. We have held that mere observation of the system in operation by a person skilled in the art would not disclose the features about it which would anticipate the invention claimed here. However, it is quite possible that the essential features of the system would have been disclosed to personnel at each of the external Casinos in the course of arriving at the commercial arrangements and in the subsequent operation of the system.

147 We have referred to the evidence to which attention was drawn by counsel in relation to this issue. The evidence called by Jupiters does not descend to the detail of the dealings on its behalf with actual or potential customers. Counsel for Neurizon points out that there was a good forensic reason for this – Jupiters was asserting by cross-claim that ActivData was a closely guarded trade secret. The evidence of Johnson in cross-examination gave some assistance to Jupiters on this point, he, no doubt, being conscious of the cross-claim against Neurizon and himself. It is very general. It was not followed up to provide necessary detail as the cross-examiner was clearly aiming to establish the contrary. The onus lies on Jupiters to establish enabling disclosure. The evidence taken at its highest for Jupiters would not be sufficient to establish enabling disclosure of ActivData II+ or ActivData III. Thus, neither forms part of the prior art base for the purposes of s 18(1)(b) and so the particularised ground

of invalidity based upon lack of novelty cannot succeed.

LACK OF INVENTIVE STEP

148 The issue of lack of inventive step, conveniently called obviousness, substantially
turns upon one paragraph of the primary decision, although that paragraph must be
understood in context.

149 In dealing with fair basing, the primary judge said (at [86]–[87]):

“The prior art does not use turnover on a single EGM in an elapsed period of time to weight that EGM’s probability of winning.

...
The distinction from the prior art, as earlier noted, is that the probability of an EGM winning does not depend on a discrete event, but what occurs in a period, even if it be that only one game occurs.”

150 In dealing with obviousness, the primary judge said (at [146]):

“The solution contained in the present invention was not one which was the result of long experiment or research. Mr Johnson had been asked by a gaming manufacturer to devise an alternative to the Hyperlink system in mid 1999. It was whilst he was driving to Sydney for a meeting with the manufacturer that it occurred to him that he had been approaching the solutions to the problems he perceived in Hyperlink in the wrong way. He thought that turnover on an individual EGM in an elapsed period might condition probability on that EGM. The fact that the invention came rather readily to Mr Johnson does not of course mean that it would have occurred to another person skilled in the art: Re Dow Corning Corporation’s Application [1969] RPC 544 at 560, cited in Aktiebolaget Hässle v Alphapharm Pty Ltd at 139, par [39]; or that Neurizon should be denied the protection of a patent.”

151 Having dealt with the evidence of certain witnesses which is not in issue on the appeal, her Honour turned to deal with evidence given by a witness Spencer. It is this topic which led to the paragraph which counsel for Neurizon correctly identified as the most troublesome part of the judgment for his side. It is best that the relevant context be set out:

“154 The respondents also relied upon direct evidence of obviousness given by Mr Spencer, and the exercise carried out by him. Mr Spencer was provided with three problems identified under the heading ‘Background Art’ in the Neurizon patent and was asked to attempt a solution to them. Mr Spencer said that he had not seen the Neurizon patent either at the time he undertook this task or at the time he gave evidence.

...

159 *The third problem was where a player has multiple wagers and the probability of a win is no longer proportional to the wager. His solution would be to implement a trigger mechanism in a remote jackpot controller whereby inputs from multiple EGMs would be compared against a random trigger value and jackpot prizes would be awarded when the trigger condition has been met. He goes on:*

“To overcome problems with network latency in this solution, I would enhance my earlier solution of aggregating bet amounts between inputs into the jackpot controller and require the jackpot controller to receive from the EGD the total amount of bets and the total number of games played since the last input into the jackpot controller. The controller would then calculate the average bet per play and use this to assess whether or not the trigger had been satisfied.”

160 *Mr Spencer’s solution is based upon the average amount wagered on each game. The amount wagered between the time when information is received by the jackpot controller is aggregated. The EGM informs the controller of the total amount of bets and the total amount of games played and the average amount wagered on each game is calculated. That average is then used to determine the probability of a win. The average amount bet might be compared against a trigger value. His solution might involve a comparison between EGMs of the amount bet, but it might also be applied to each EGM.*

161 *It is possible to identify in Mr Spencer’s solution a period which has elapsed, given that it is concerned with the amount wagered in the time between information or ‘inputs’ to the jackpot controller. He would fix it by time and does not contemplate the period being fixed by events. **Mr Spencer’s solution does not however use the amount wagered in that elapsed period in the probability calculation. His solution takes the average amount wagered on each game to influence the probability of an EGM winning. This would appear to be a game-based solution. It does not have the characteristics of the Neurizon patent.*** [emphasis added]

152 With great respect to the primary judge, the last four sentences of par 161 are not easy to follow given what preceded them. It may be correct to say that the Spencer solution takes the average amount wagered on each game on an EGM to influence the probability of an EGM winning. In this sense, but only in this sense, can it be said to focus on a game not on an elapsed period of time. However, one cannot conclude from that that the Spencer solution is, and is only, a game based solution. The average amount wagered on a game on a particular EGM is itself computed by reference to the amount wagered on that EGM in an elapsed period of time. In consequence using the average amount wagered on a game to influence the probability of the EGM winning necessarily makes that probability dependent,

amongst other things, upon at least some of the amount wagered on that gaming machine in an elapsed period of time.

153 Counsel for Neurizon was unable to point to any evidence upon which her Honour's conclusion could have been reasonably based. Rather, a full-scale attack was mounted upon the evidence given by Spencer, including the probative value of the general hypothetical approach taken, flaws in the brief given to him, the relevance of the questions asked of him and the relevance of the answers given. Those submissions are misplaced. There was no objection taken to the evidence at trial and none of the criticisms advanced were put to the witness or advanced during final address. The primary judge's conclusion was not based upon any of those arguments. There was no fundamental flaw relating to the evidence and certainly none that could not have been cured at trial. The methodology has been used in other cases. That is not to say that the evidence given by Spencer is necessarily decisive of the issue or is not to be subject to critical examination within permissible limits. A proper assessment of the effect of that evidence properly understood in the light of all of the evidence is required. It is not appropriate for such an assessment to be done by a Full Court. The finding on obviousness must be set aside and the matter returned for a new trial on that point, limited to the evidence which was led at the trial.

154 Although other grounds of appeal relevant to this issue were not pursued, the rejection of the relevance of the evidence of Krimmer and Gregory on the basis that they were not "skilled addressees at the priority date" may require reconsideration on the remitter. The actual findings as to lack of qualification appear to have been made in relation to assistance in construction of the patent. That in itself is a somewhat controversial issue. It does not give rise to the same issue as obviousness. Section 7(2) of the Act refers to the hypothetical person "skilled in the relevant art in the light of the common general knowledge as it existed in the patent area before the priority date of the relevant claim". That person is wholly hypothetical. Much evidence is admissible from persons none of whom would precisely answer the statutory description. Some may be more skilled in the relevant art than others. Some may be skilled and inventive; some may be brilliant; some may be plodders; some may be aware of particular pieces of art claimed to be part of the common general knowledge and others not. It is for the Court, having admitted relevant evidence, to come to a conclusion as to the application of the section. It appears that the view was taken that Gregory and Krimmer were not skilled or knowledgeable enough. That would not be a ground for

rejecting the relevance of their evidence. Indeed, it may make their evidence very powerful if it were accepted that they did or would have come across the invention. The usual problem in cases of this sort is the over-qualified expert. It is not necessary or appropriate that any final view be expressed about this as the matter was not ultimately pursued in oral submissions.

THE SECOND APPEAL – MODIFIED COUGAR

155 The finding in par 161 of the primary judgment indirectly led to an unfortunate sequel. Jupiters saw the opportunity of rescuing victory from what counsel for Jupiters described as “the wreckage of defeat”. On the basis that it had been found that the Spencer solution was game based and so not the Neurizon system, Jupiters sought to modify the Cougar system so that it accorded with the Spencer solution in order to contend that there was no infringement of the Neurizon patent as it was now a game based system. That led to contempt proceedings which became proceedings for an injunction to restrain infringement of the modified system. That proceeding was heard by the same judge who heard the original proceeding. Jupiters said that it was entitled to succeed because of an issue estoppel arising out of the finding in par 161. That was rejected. It was then found that modified Cougar was not game based and was an infringement of the Neurizon patent. Jupiters appeals against both those findings. That appeal can be disposed of very quickly.

156 The modified Cougar system is a clear infringement of the Neurizon patent and as much was virtually conceded in the course of argument, both at first instance and on appeal, although no formal admission was made. There is no need to add to the reasons for the primary judge’s finding on that point.

157 The issue estoppel point has some initial attraction as it appears that there is a logical inconsistency between two findings of the same judge on different occasions. However, for issue estoppel to arise, the same issue, or as it is sometimes put, the same question, must be decided. Counsel for Neurizon is on sound ground in submitting that the issue or question whether an inventive step was involved in the Neurizon patent is not the same issue or question as whether or not the modified Cougar system infringed the Neurizon patent. Furthermore, what was found at par 161 of the primary judgment was not a finding upon an issue or a question but, rather, was part of the reasoning along the way to making the decision as to inventive step. There is no issue estoppel (*Blair v Curran* (1939) 62 CLR 464; *Murphy*

v Abi-Saab (1995) 37 NSWLR 280 per Gleeson CJ at 288; *Kuligowski v Metro Bus* (2004) 208 ALR 1). That conclusion makes it unnecessary to decide whether the apparent logical inconsistency was indeed an inconsistency. To so find would involve, amongst other things, deciding whether modified Cougar did represent the Spencer solution. The sequel, however, reinforces the need for a fresh consideration of the issue of obviousness.

CONCLUSION

158 The appeal from the first decision is allowed in part; the order dismissing the cross-claim for revocation and orders for costs of the cross-claim will be set aside and the cross-claim remitted to the primary judge for consideration of the ground of lack of inventive merit; the costs of the primary hearing, the appeal and the remitted hearing relating to the cross-claim for revocation should be dealt with by the primary judge in the light of the result of the further hearing. The appeal from the second decision will be dismissed and the appellants ordered to pay the costs of the respondent. In the event that the cross-claim for revocation succeeds, consequential orders will need to be made in relation to the orders made on the claim in the first decision and the orders in the second decision. That can be done by the primary judge.