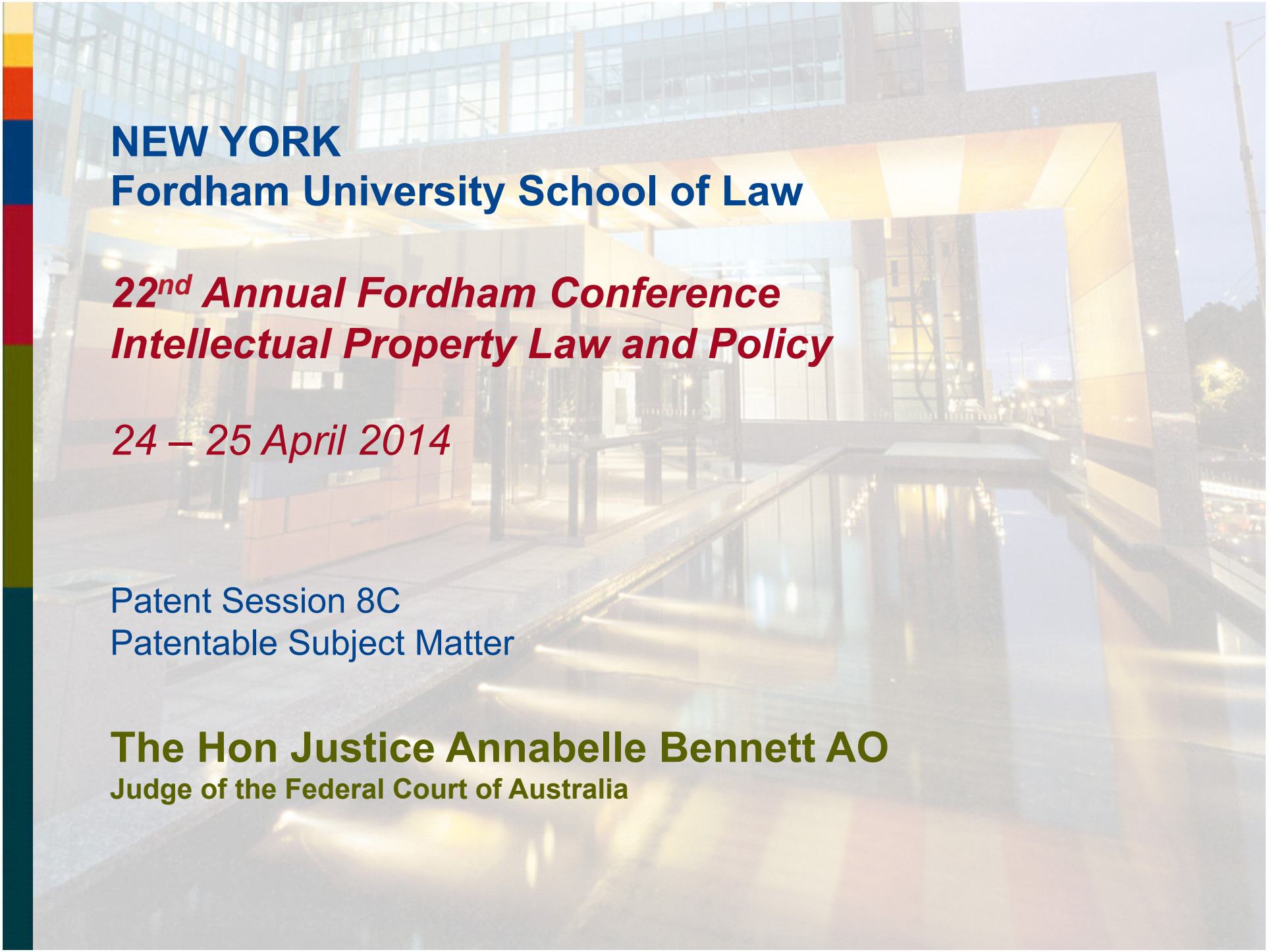

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Patent Session 8C
Patentable Subject Matter

The Hon Justice Annabelle Bennett AO
Judge of the Federal Court of Australia

NATIONAL RESEARCH DEVELOPMENT CORPORATION
v
COMMISSIONER OF PATENTS
(1959) 102 CLR 252

A process … must be one that offers some advantage which is material, in the sense that the process belongs to a useful art as distinct from a fine art (citation omitted) – that its value to the country is in the field of economic endeavour …

… the view which we think is correct in the present case is that the method the subject of the relevant claims has as its end result an artificial effect falling squarely within the true concept of what must be produced by a process if it is to be held patentable.

CANCER VOICES AUSTRALIA
v
MYRIAD GENETICS INC

Claim 1

An isolated nucleic acid coding for a mutant or polymorphic BRCA1 polypeptide, said nucleic acid containing in comparison to the BRCA1 polypeptide encoding sequence set forth in SEQ.ID No:1 one or more mutations or polymorphisms selected from the mutations set forth in Tables 12, 12A and 14, and the polymorphisms set forth in Tables 18 and 19.

CANCER VOICES AUSTRALIA
v
MYRIAD GENETICS INC

On appeal – Cancer Voices says:

- ❑ The claims do not claim a manner of manufacture because each claim comprises “isolated” nucleic acid that is not materially different to nucleic acid that occurs in nature.
- ❑ At first instance, they argued that there is no significant or material difference between nucleic acid in the natural and isolated states. On appeal, they said that the isolated nucleic acid is ‘*precisely the same*’ as the naturally occurring sequence.
- ❑ Naturally occurring DNA and RNA, even in isolated form, are products of nature, rather than “artificial effects”.
- ❑ The question of patentability is not foreclosed by the mere presence of an artificial effect of economic utility – that would be too broad a test.

On appeal – Myriad says:

- ❑ The claims are to products that consist of an artificial state of affairs providing a new and useful effect that is of economic significance.
- ❑ Nucleic acid found in a human cell differs chemically, structurally, and functionally from the isolated nucleic acid of the claims.

CANCER VOICES AUSTRALIA
v
MYRIAD GENETICS INC

In his first instance decision, Nicholas J said:

- *The real problem lies in knowing, or rather not knowing, what degree of human intervention is necessary before it can be concluded that the requisite artificial state of affairs exists. It is an especially difficult problem in the present case, so much because the authorities provide no clear solution to it, but because the problem has an almost metaphysical dimension to it'*.

- *NRDC* does not require the Court to ask whether something is a "product of nature" for the purpose of deciding whether or not it is patentable – and indeed recognises that it may be unhelpful to approach the problem this way – and this is especially true with regards to biotechnology.

- *NRDC* does not require the Court to ask whether a microorganism is "markedly different" to something that already exists in nature for the purposes of deciding if it is patentable – cf US decision of *Chakrabarty*.

RESEARCH AFFILIATES LLV
v
COMMISSIONER OF PATENTS

Claim 1

A computer-implemented method for generating an index, the method including steps of:

(a) accessing data relating to a plurality of assets;

(b) processing the data thereby to identify a selection of the assets for inclusion in the index based on an objective measure of scale other than share price, market capitalization and any combination thereof;

(c) accessing a weighting function configured to weight the selected assets;

(d) applying the weighting function, thereby to assign to each of the selected assets a respective weighting, wherein the weighting:

i. is based on an objective measure of scale other than share price, market capitalization and any combination thereof; and

ii. is not based on market capitalization weighting, equal weighting, share price weighting and any combination thereof, thereby to generate the index.

RESEARCH AFFILIATES LLV
v
COMMISSIONER OF PATENTS

In his first instance decision, Emmett J said:

- *"The method of the claimed invention does not involve a specific effect being generated by the computer. The mere use of a computer necessarily carries with it the writing of information into the computer's memory*

- *The implementation of the method of the claimed invention by means of a computer, at the level articulated in claim 1, is no more than the modern equivalent of writing down the index on pieces of paper. On the face of the Specification, there is no patentable invention in the fact that the claimed method is implemented by means of a computer. The Specification asserts a patentable invention, not in the use of the computer, but in the particular series of steps that give rise to the generation of the index. Those steps could readily have been carried out manually. The aspect of computer implementation is nothing more than the use of a computer for a purpose for which it is suitable. That does not confer patentability."*

RESEARCH AFFILIATES LLV
v
COMMISSIONER OF PATENTS

On appeal – Research Affiliates says:

- Each of the transformations of data occurring in the computer at each stage of the process of accessing data, processing data, accessing the weighting function and applying the weighting function, and culminating in the creation of an index, involves a physical effect and creates an artificial state of affairs.

- In assessing whether an artificially created state of affairs exists, it is irrelevant to consider whether the claimed method can be performed manually rather than on a machine.

On appeal – Commissioner of Patents says:

- The description in the specification provides no substantive detail regarding the aspect of computer-implementation. The focus of the description is instead on the nature of metrics used to weight the securities portfolio index. It is apparent that the asserted novelty of the invention resides in those metrics, and not in the fact or means of computer-implementation.

- A method does not necessarily relate to a “useful art” merely because it has “economic significance”.

- Business, commercial and financial schemes as such have never been considered patentable, and the fact that the mere writing down of information does not render it patentable.

- The applicant’s approach involves a mechanistic application of the criterion of an “artificially created state of affairs” or “physical effect” that would confer patentability on any business or financial scheme stated to be implemented by means of a computer.

APPLE v SAMSUNG

Manner of Manufacture

Example claim

A computer-implemented method, comprising:

at a device with a touch screen display,

detecting a movement of an object on the touch screen display;

in response to detecting the movement, translating an electronic document displayed on the touch screen display in a first direction;

in response to an edge of the electronic document being reached while translating the electronic document in the first direction while the object is still detected on the touch screen display, displaying

an area beyond the edge of the document; and

after the object is no longer detected on or near the touch screen display, translating the document in a second direction until the area beyond the edge of the document is no longer displayed.

Samsung says:

- Advances in the design, appearance and behaviour of user interfaces are not patentable – they are mere “eye candy”, analogous to animated effects.

- Inventions claimed in HCI patents are just “information communicated to a user” and intellectual information of this kind is not patentable. It is the patenting of a mere design choice.

- The effects created by the implementation of the HCI patents – such as “beauty, elegance and subjective satisfaction” are merely effects that exist in the human mind – and a change in the perception of human thought is not a material concrete, tangible and physical effect. Further – it does not relate to the useful, rather than fine, arts.

Apple says:

- The inventions claimed have practical application for the improved use and operation of devices with touch screen displays (as opposed to the finding in *Research Affiliates* that the claimed invention did not improve the use of computers).
- Samsung disregards the wording of the claims, including the features expressly specifying hardware and software components – these components form part of the invention as claimed.
- The inventions claimed in the HCI patents, due to the combinations of features specified in the claims, enable the production of improved and more intuitive, effective, efficient and/or satisfying user interfaces – and improved user interfaces can stimulate user engagement, meaning that a user is more likely to interact with a device. This has utility in the field of economic endeavour, as opposed to the “fine” arts alone.