



# James Heald

Foundation for a Free Information Infrastructure

## The Great Debates: Software Patents in Europe, and the Story of the EU Directive.

17 November 2006, Boston University Law School.



# Europe: State of Play

## Two especially notable features:

1. Over 30,000 software patents issued by the EPO.
  - for "software patent" = conventional hardware + new software

But no examples (yet) of successful litigation in court for infringement.

- wariness due (?) to uncertainty of legal validity, fractured EU jurisdiction;
- but also due to a very different tort system: no jury trials, lower payouts, loser-pays costs, less litigious society, etc ...

2. Deep antipathy to and apprehension of software patents in much of the industry -- especially small firms.



# SME Apprehensions

Often dismissed as being due to “lack of familiarity” with the patent system, but SMEs have some persistent concerns:

## Opportunities ?

- Seen as expensive, uncertain and time-consuming to obtain, and prohibitively so to litigate - “big boys toys”.
- “Copyright is enough for an honest man”.

## Threats ?

- Risk of attack despite independence of creation
- Risk of destabilisation of platforms and standards
- “Need to know that we own what we write”.



# The law: Article 52 EPC

- (1) European patents shall be granted for any inventions which are susceptible of industrial application, which are new and which involve an inventive step.
- (2) The following in particular **shall not be regarded as inventions** within the meaning of paragraph 1:
  - (a) discoveries, scientific theories and mathematical methods;
  - (b) aesthetic creations;
  - (c) **schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers;**
  - (d) presentations of information.
- (3) The provisions of paragraph 2 shall exclude patentability of the subject-matter or activities referred to in that provision **only to the extent to which a European patent application or European patent relates to such subject-matter or activities as such.**



# Interpretations

*Computer program exclusion "only to the extent to which" a patent/application "relates to such subject-matter or activities as such".*

Does this mean:

- Literally, only "programs for computers" are excluded, but any functionality can be claimed ? - **No.** (eg UK: *Merrill Lynch*)
- The "core theory": find the 'core' of the invention. Is it *only* new software, controlling known hardware, with no new physical teaching ? - **Maybe.** (DE, EPO to 1985; FI; PL)
- "Technical contribution": is the claim for more than a computer program, because, as a whole, it claims a contribution which is "technical" ? - **Probably.** (EPO: *Vicom* (1986); UK; DE)

... but if so, then what is "technical" ?



# What is “technical” ?

- **EPO**: “A technical solution to a technical problem”.
  - **eg: “improved processing speed, the economical use of memory, improved or more convenient user interface, or easier image creation and manipulation”.**
  - **“You know it when you see it”**
- High water mark: *Sohei (1995)*
  - **a single on-screen form to update stock control and billing ledgers would “involve technical considerations” (unspecified).**
- Current: *Pension Benefit System (2000), Hitachi (2004)*
  - **any computer-implemented method has “technical character”, but only improved technical features can contribute to an inventive step.**
- So: Many business methods now not even searched.
  - **But no restriction on patenting data structures, or most program improvements.**



# What is “technical” ? (2)

- **UK:** technical = merely shorthand for  
“subject matter/activities not excluded by Art 52”.  
*Gale's Application* (1991): faster square roots not patentable.  
*CFPH* (2005): if a patent would foreclose all use of a computer program, then it relates to computer programming as such.
- **FFII:** technical =
  - “teaching about the use of controllable forces of nature”  
(or: about “**applied natural science**”),  
beyond the details of the data processing itself.
- “**Deutsche Bank**” test (F. Muller)
- Do programmers at Deutsche need to worry about patents ?
  - **EPO def: answer would be yes**
  - **Other defs: perhaps no - protected safe harbours?**



# EU Legislative Developments

1995 Green paper on Competitiveness

1997 Green paper on the Patent System in Europe

- **need to "catch up" with U.S. IP protection**

2000 Diplomatic Conference on EPC revision

- **proposal to remove Art 52 computer program exclusion. Withdrawn.**

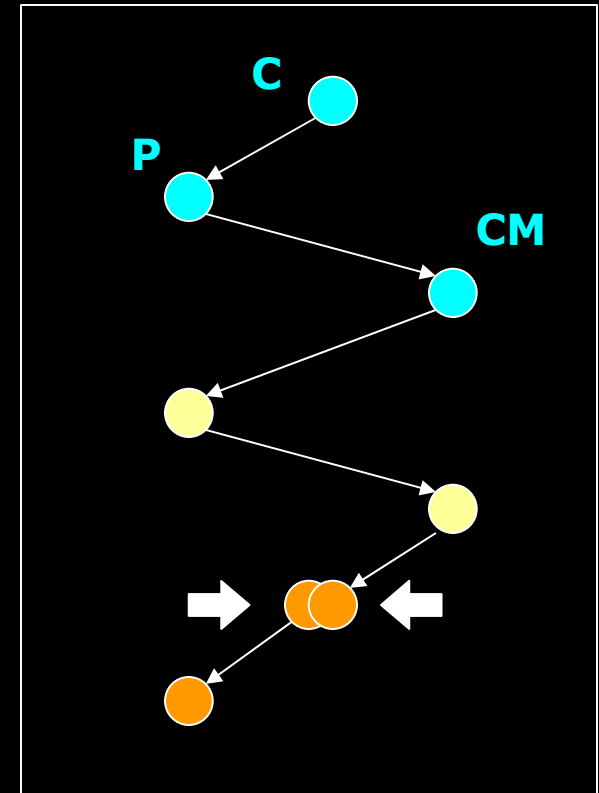
2002-2005 Proposed EU Directive

- **"on the patentability of computer-implemented inventions"**

- **validate current EPO practice**
- **empower ECJ to be final interpreter**
- **patents for inventions making a technical contribution**
- **... but no definition of "technical"**
- **anything "computer implemented" would belong to a field of technology**

# Backers of the Directive

- EU Commission – **DG Internal Market**
- Large firms canvassed (eg **IBM**)
- Business Software Alliance (**BSA**)  
**(final spin)**
- National patent offices  
**(prepared to go along with it)**
- A party-loyal UK Labour MEP  
**(to take it through parliament)**





# Claims for the Directive

- **“Harmonise” the market, tidy up confusion**
- **Promote innovation**
- **Get EU SMEs to file more US patents**
- **Stop Chinese knock-offs**

## **Above all:**

- Not follow the “disastrous” American route.
- Not allow “business method” patents  
**(unless they made a technical contribution)**
- Patents for “technical inventions” **(eg improved washing machines)**
  - not “software patents” **(“EPO has never granted a s/w patent”)**

# No business method patents?

The European E-Commerce Emergency

 [http://swpat.ffii.org/this\\_is\\_EPO\\_practice](http://swpat.ffii.org/this_is_EPO_practice)

## 1 Your webshop is **PATENTED!**

4 CDs Films Books

NEW! ORDER BY  
CELL PHONE!

2 Get help straight from our internal support databases!

15 ?



17

Ladybugs are very useful insects. They dispose of parasites. However, software patent litigators are far too large for them in general.

7 View film in Browser

Exclusive: download immediately what you buy!

Buy soundtrack (mp3) 8

Buy film 6

Liked this search result? You may also like these:

1. Lady and the bird
2. Bugging ladies
3. Lady mugger
4. Software patents and other bugs
5. Bugging me, bugging you

Click here for larger preview

5

19 <Enter rebate if applicable>

Add to shopping cart

Send as gift 10 3

Request loan 11

9 Pay using credit card



16



Preview some chapters: click on them in the TV above!

Go to one of our stores and mix/burn your own DVD à la carte!

20

13  Yes, I want to receive special offers!

14

If we don't have your order in stock, it will immediately be sent to an affiliated vendor!

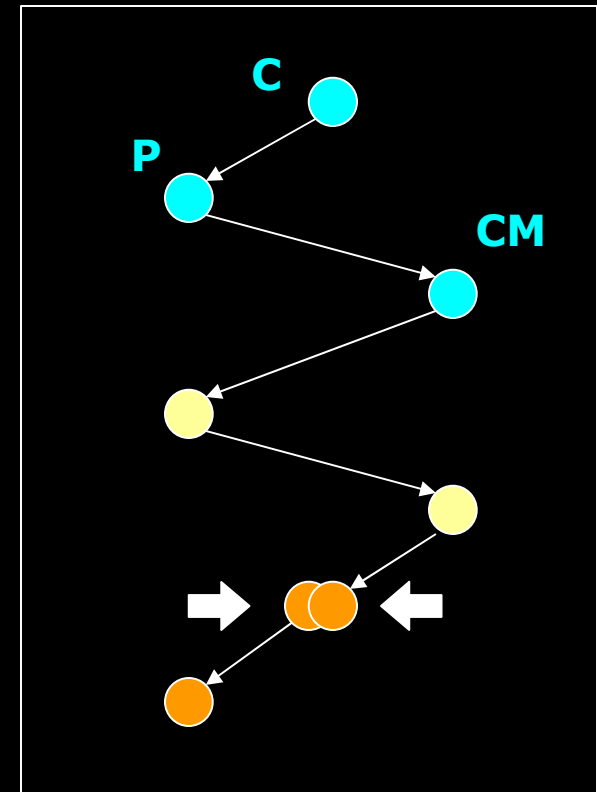


# September 24, 2003

- MEPs take the Commission at its word
  - Patents for technical inventions, not software patents
- **“data processing is not to be considered to be a 'field of technology' ”**
- **“the use of natural forces to control physical effects beyond the digital representation of information belongs to a technical field”.**
- **“the processing, handling, and presentation of information do not belong to a technical field, even where technical devices are employed for such purposes”.**
- **“... not considered to be patentable inventions merely because they improve efficiency in the use of resources within the data-processing system”.**
- **Interoperability: “conversion of the conventions used in two different computer systems or networks so as to allow communication and data exchange between them... is not considered to be an infringement”.**

# Reaction

- DG Internal Market decided to bulldoze ahead anyway.
- Supported by national patent offices.
- But increasing resistance being felt at a political level (DK, NL, BE, ES, DE, PL).
- No “political agreement” until May 2004
- Even then, unprecedented wrangling continued until March 2005.
- In the meantime, the new parliament had called for a clean-sheet restart.
  - Request rejected (also unprecedented).





# 2005 second reading: new players

- EICTA
  - **Nokia, Ericsson (GSM interests)**
  - **Siemens**
- Volvo, Scania
  - (all still arguing the Directive was only about “technical inventions”)
- Swedish Enterprise
  
- Microsoft ? **no**, but...
  - **Comptia, BSA, ACT**
  - **“Campaign for Creativity”** (award: EU worst lobbyist, 2005)
- SAP

In the last days,

- IBM, Sun, RedHat lobbying very hard for interoperability



# Parliament: second reading

## Initially, new rapporteur Rocard goes for even stronger prohibitions

- Would forbid any patenting of known hardware + new software.
- Alienates MEPs. Fails to carry key committee.

## Response: 21 cross-party “compromise amendments”:

- “**7.** While products and processes in all fields of technology are patentable inventions regardless of whether or not they involve computer programs, the subject matter and activities within the computer programs are not patentable on their own”.
- “**8.** A computer-aided invention shall not be regarded as making a technical contribution merely because it uses better algorithms so as to reduce the need for processing time, storage space or other resources within the data processing system.
- Accordingly, inventions involving computer programs which do not solve any problems of applied natural science beyond the improvement of data-processing efficiency shall not be patentable”.



# The political balance

Of the MEPs,

- **1/3 opposed ideologically to *any* software patents.**
- **1/3 ready to put their trust in pro-swpat 'lead' MEPs.**
- **1/3 want patents for technical inventions, but not software patents**

**but in the last days there is a move from column 2 to column 3 “like a glacier breaking up”**

The Directive also becomes very much seen as a battle of the big against the small...

# A symbolic scene on the canal





# The End of the Directive

- On 5 July 2005, EICTA changes its advice:
  - **No longer of vital importance to European industry to have the Directive, passed unamended.**
  - **EICTA now recommends the Directive be voted down.**
- FFII sees the Directive as an unpredictable loose cannon
  - **Recommends it is best thrown overboard.**
- 24 hours later, the MEPs vote 648 to 14 to kill it.
  - **One of the heaviest votes ever against Commission legislation**
  - **The first, and currently only, time a Directive has been thrown out at second reading.**



# What next ?

- EPO (and national offices) still granting patents.
- More awareness that patents have cons as well as pros. (?)
- Possible trends towards more restrictive caselaw  
(eg German BGH, UK *CFPH (2005)*, *Macrossan (2006)* ).

## New EU Project: EPLA

- A unified EU patent court structure, with EU-wide reach
- No more *Improver vs Remington (1989)*, *Ranbaxy vs Pfizer (2006)*
- Swpat concern: much more ready enforceability
  - **Small tail wagging a big dog ?**
  - **Or a very real threat for SMEs worried about swpats ?**

<http://epla.ffii.org>