Patentability of AI inventions

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Outline

1. Al's as inventors
2. Conclusions from the study & Explanation of the conclusions
3. Recommendations
GENIUS IS 1% INSPIRATION AND 99% PERSPIRATION.

-THOMAS EDISON
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AI:
(1) Able to understand unstructured data
(2) Able of computer reasoning
(3) Able to learn automatically
(4) Can be used to automatize (even if partially) the inventing process
AI-generated inventions are in principle patentable subject-matter

- **US**: no statutory definition of invention
- **Europe**: no (positive) definition
- **Japan**: invention = the highly skilled advanced creation of technical ideas utilizing the laws of nature [Sec. 2.1 JPA]
Objective of inventive step is the same across the 3 jurisdictions
- Excluding from patentability inventions that could be easily made by a person skilled in the art
- IP rationales:
  - Patents incentivize inventors to invent
  - Reward: the results of intellectual labour should be granted the creator’s
  - Encourage information exchange and technological development
Approach taken by the 3 offices is similar to some extent...

- Comparison of the invention with prior art
- Assessment of the differences between the invention and prior art
- Delimitation of the relevant field while including adjacent/analogous fields in the scope of the prior art
Approach taken by the 3 offices is similar to some extent (cont.)...

- Inclusion of secondary considerations in the inventive step or non-obviousness assessment, examples:
  - **US**: commercial success; long felt but unresolved needs; failure of others to reach a solution (all to be connected to the invention)
  - **Europe**: satisfaction of long-felt need; commercial success
  - **Japan**: commercial success; long-felt need
...but different guidelines might lead to divergent solution on this subject...

- Definition of person skilled in the art
  - **US**: someone who has “ordinary creativity” (*KSR v. Teleflex*)
  - **Europe**: skilled practitioner in the relevant field of technology, with average knowledge and ability; has at disposal “means and capacity for routine work and experimentation” but lacks creative thinking
  - **Japan**: person who has common general knowledge of inventions in the technical field of the claimed invention; is able to use ordinary technical means for research and development; is able to exercise ordinary creativity
...and other differences might lead to a different result too (United States)

“Patentability shall not be negated by the manner in which the invention was made” [sec. 103 US Patent Act]

- Subjective tests barred – no hurdle for AI-generated inventions?

  But consider:

- Flexibility of the clause (Brunswick Corporation)
- Level the different human inventing processes
...and other differences might lead to a different result too (Japan)

1. Intellectual Property High Court: “significant effort” and “special creative effort” in conceiving the invention linked with a finding that the invention could not have been easily made

2. Japanese Patent Office: Determination of inventive step in AI-related technologies is made similarly to other fields
WELL, I'VE READ ALL THE BOOKS IN THE HOUSE--NOW, WHAT?
1. Change guidelines, not laws
   - Laws are similar and technology neutral
   - Easier “harmonization”

2. Clear common guidelines on analogous arts
   - Broaden the scope of the concept of “analogous arts”

3. Addition to secondary indicia: “made by AI”
   - AI intervention as an indicator for obviousness
4. Consideration of technological developments and of use of AI when defining the skilled person
- Align European practice with the other 2: “ordinary creativity”
- Consider the means that the skilled person has at her disposal:
  (i) If the use of AI is not a normal means of experimentation: patent granted if invention is not obvious for a person skilled in the art without the use of AI (even if AI was used).
  (ii) If the use of AI is a normal means of experimentation: patent granted if invention is not obvious for a person skilled in the art who uses the AI (even if AI was not used)
- Broaden the scope of “analogous arts”
- Add to secondary indicia “made by AI”
- Consider technological developments

- Incentive
- Results of intellectual labour rewarded, while some is left for others
- Information exchange and technological development not hindered
Pictures, by order of appearance

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QUESTIONS?

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