A US-China Comparative View of AI Challenges to Patent Law: Subject Matter and Inventive Step

Prof Robert Merges

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Of the many issues AI is raising, I emphasize Two

- **Patentable Subject Matter (U.S. § 101)**
- **Nonobviousness/Inventive Step**

Patentable Subject Matter

- **US Law is a mess**
  - ***Bilski* and *Alice*: The Dead End of Measuring "Abstractness"**
- **China's approach (similar to the EPO) is to ask whether a claimed invention presents a technical solution to a technical problem**

The “technical problem” Approach

- **Most AI tools and techniques will be patentable**
  - **Whether the output is art, human conversation, astronomical models, crash test models,whatever – the measure is the tool**
  - **Emphasis will (and should) shift to inventive step/nonobviousness, disclosure, and the like**

Inventive Step and AI

- **Patent Law will have to adjust to the issue of "creative problem framing"**

- **[1] Where to "aim" the AI tool**
- **[2] Recognition of a promising or useful output/result from use of AI tools**
- **[3] "Vertical" AI applications: AlphaFold, synthetic genes, chemical structures, many others**

Inventive Step and AI

Consider *In re Dillon*, 919 F.2d 688, 693 (Fed. Cir. 1990):

"An inventor's discovery of a previously unrecognized problem is generally accounted for in the analysis of the scope of the prior art and a motivation to combine prior art elements. See Leo Pharm. Prods., Ltd. v. Rea, 726 F.3d 1346, 1353–54 (Fed. Cir. 2014) (finding that because the prior art does not disclose the problem discovered, there was no motivation to combine prior art elements to solve that problem).

Inventive Step and AI: Simultaneous Development

Ceco Corp. v. Bliss & Laughlin Indus., Inc., 557 F.2d 687, 690 (9th Cir. 1977) (stating that "[t]he independent development of similar subject matter by others is further evidence of obviousness"); see also Fred Whitaker Co. v. E.T. Barwick Indus., Inc., 551 F.2d 622, 628 (5th Cir. 1977) (stating that "contemporaneous independent development can be evidence of obviousness"); Lerner v. Child Guidance Prods., Inc., 547 F.2d 29, 31 (2d Cir. 1976) (indicating that "[c]ontemporaneous independent development can be evidence of obviousness").