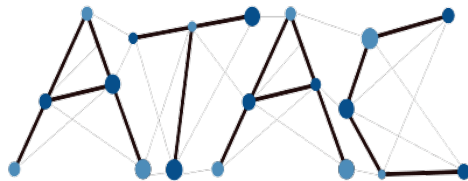# Machine Learning tools for IP office administration: Challenges and opportunities

WIPO Conversations on Intellectual Property and Frontier Technologies
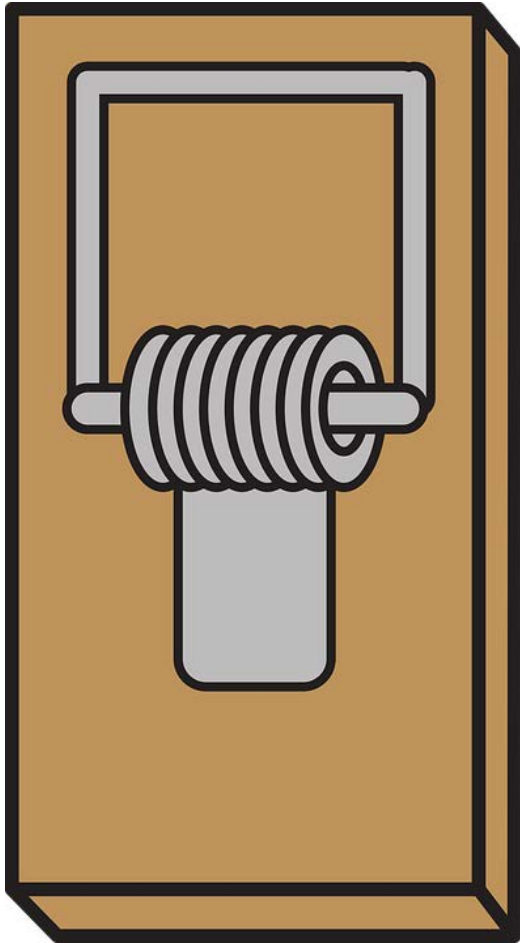
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WIPO
WORLD
INTELLECTUAL PROPERTY
ORGANIZATION

Machine Learning tools: the pitfalls

1. The black box effect
2. Difficult quality assessment
3. Unrealistic marketing speeches
4. Rapid obsolescence

Machine Learning tools: some recommendations

- If you can, use a deterministic algorithm
- Measure quality & determine ROI
- Avoid «big bang» investment

Machine Learning tools: success factors

- A rich and high quality training set
- A <u>matching</u> business case with <u>managed</u> and <u>well communicated expectations</u>
- A controlled budget:

«Fail or succeed fast and cheaply»

Dilemnas

- Invest now or later?
- Build or buy ?

Dilemna: invest now or later?

	Cons	Pros
Wait	Lose market shares Corporate image Forever stall	No risk Potentially do better or cheaper but later
Invest now	Insufficient ROI Choose sub optimal solution Locked in vendor contract Human factor (fear of losing jobs)	Implement new service Raise productivity Gain market shares Corporate image

Build or buy ?

	Challenges	Advantages
Build	Training data inadequate Lack of internal skills Long to develop Irrealistic expectations	Tailored to your needs Better quality Can evolve Scales Competitive advantage
Buy	Price Misleading marketing speech Not adapted to use case Difficult to integrate	Time to market Price

Third option: reuse other IP offices'

1. Experience and lessons learned
2. Quality assessments of existing tools
3. IP data to build better training sets
4. Internally developed tools

Thanks a lot for your attention!

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