SCIENTIFIC & FINANCIAL DATA: EXPLORING PID-BASED BRIDGES

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AUTOMATED PATENT VALUATION

- Task: predict any patent’s current market value
- Indicators: citations, number of claims, age, family size, etc.
- Requires cross-references with:
  - Publications (∞ sources)
  - Patent applications, grants, and assignments (USPTO, EPO)
  - Clinical trials (NIH, EMA)
  - Drug applications (FDA, EMA/EMCDDA)
  - Financial statements (IRS/SEC, ESMA/AMF/BaFin/...)
AUTOMATED PATENT VALUATION

CRAWL ALL THE X-REFS!
AUTOMATED PATENT VALUATION

No PIDS?
When an inventor applies for a patent, the USPTO does not require that he or she record a unique identifier. As a result, searching for all the patents associated with a specific inventor can be difficult.
No PIDs
No Project
Automated valuation is very too ambitious

Can we answer easier questions about IP portfolios?
  Can we track innovations from research to market?
  Who’s talking about your (competitor’s) IP?

No PIDs, but tons of URLs and URNs
  F. Lester, “Backlinks: Alternatives to the Citation Index for Determining Impact”. doi:10.3998/3336451.0010.207
<1% of the world population speak English as their first language

Only two hypotheses for English-only projects:

- All conversations about scholarly or legal content happen in English
- English data is a perfectly-balanced sample

Both are wrong
Monitor trusted sources to index citations, PIDs, and URLs

- All IP-related documents, all fields, all languages
- Started with data from Wikimedia and StackExchange
- 45M documents and 63M citations/backlinks

Goal: deliver normalized altmetrics data

- We are **not** building a new metric
- We keep track of usage stats when available
PID EXTRACTION/NORMALIZATION

- doi:10.1351/GOLDBOOK.A00046
- https://doi.org/10.1351/goldbook.A00046
- {{Citation|doi=10.1351/goldbook.A00046}}
- {{GoldBookRef|file=A00046}}
Which game(s) have you played the most?
3,994 responses

- Zelda
- Legend of Zelda: Breath of the Wild
- Breath of the Wild
- BOTW
- Botw
- Breath of the wild
- BotW
- zelda
- Legend of Zelda
- Zelda BOTW
- BoTW
- botw
- Zelda: Breath of the Wild
- Zelda BotW
- Zelda Breath of the Wild
- The Legend of Zelda
- Breath Of The Wild
- The Legend of Zelda Breath of the Wild
- Zelda: BOTW
- Zelda: BotW
- Breath of the Wild
- Zelda breath of the wild
- Breath Of The Wild
- Legend of Zelda Breath of the Wild
- LoZ
- LoZ: BotW
- Zelda botw
- zelda botw
- breath of the wild
- Legend of zelda
- legend of zelda
- LoZ BOTW
- The Legend of Zelda: Breath of The Wild
- The Legend of Zelda: breath of the wild
- ZELDA
- Zelda: BoTW

https://www.reddit.com/r/NintendoSwitch/comments/6wovzo


doi:10.1080/15548627.2015.1100356
pmid:26799652