LENS.ORG

A platform for innovation cartography

Osmat A. Jefferson

Joint initiative between Cambia and QUT
Promoting Science-based Innovation

Creating and *bringing to society and to market* a new product, practice or process

- Understand context
- Mitigate risks
- Coordinate efforts
- Clarity
- Public accountability
In Singapore

According to Teck Seng Low, head of Singapore’s science funding agency, Science and Technology need to be keys to “providing us with solution options to our national challenges”

“Small- to medium-sized enterprises that employ 70% of the country’s workforce, have yet to incorporate R&D into their businesses in a substantial way”

Annabel McGilvray, Nature | September 2016
In Singapore

“How do we translate all this IP [Intellectual Property] into things that can go out to the market and create companies, create jobs and drive the economy?”

MR DAREN TANG,
Chief executive of the Intellectual Property Office of Singapore

Patents as instruments in the innovation economy

Right to exclude

ex ante expected value

Obligation to Teach

Social optimum
Paths to social innovations

- Invention
  - Revolutionary
  - Evolutionary
- Patent
- Innovation
  - Use in markets
  - Government
- Benefit to Society
  - Exclusive rights?
Silos of knowledge

Journal Articles
66,255,368
10%
Open access

Patent families
55,671,970
100%
Open access

Manufacturing standards

Regulatory information

Crossref
LENS.ORG
Mapping of the knowledge artefacts

What?
*Ex-ante* instead of *ex-post*

How?
Integrated, contextual and dynamic knowledge instead of static
One to many relationships versus one to one relationships

Why?
Open instead of closed
Lens.org bridges research with industry knowledge

Lens.org hosts 100M+ patent records from ~95 jurisdictions,

32 M non patent literature records contributed by more than 30 patent offices

> 265 M patent sequences (world’s most comprehensive public database)

In addition to linking genetic sequence information to patent information, through the use of open persistent identifiers Lens.org started to link scholarly literature with patent literature to show where scholarship has influenced industry, and enables real time exploration of their interactions.

Lens.org collaborates with PubMed (NIH), CrossRef, and ORCID to resolve and enrich non patent citations for public use.

Access is free, open, private and secure.
PatSeq facility in the Lens

**PatSeq Data**
Compare biological patent holdings in the Lens with national and regional patent offices' databases, view sequence disclosures across jurisdictions over time, and download...

**PatSeq Finder**
Use input DNA or protein sequences to find matches in the Lens' PatSeq database, and determine whether the results have been referenced in the claims of a patent, or just disclosed...

**PatSeq Text Search**
- Name supplies, Human
- E. coli gene
- Arabidopsis thaliana, Thale Cress
- Bacillus subtilis, Bacteria
- Cremaphor RH, Polymerized Benzene
- Trypanosoma brucei, Fly
- Zebrafish, Zebrafish

Search for patent documents that declare at least one sequence in their sequence listings section as derived from a specific species. Use keywords to perform full text searches within...

**PatSeq Explorer**
Navigate and analyze patent disclosed sequences mapped onto genomes and chromosomes and explore linkages between sequences and phenotypes...

**PatSeq Analyzer**
Compare patenting activity at the chromosomal locus or gene level, filter by sequence or search by patent attributes to analyze extent and scope of invention at that level...
PatCite- Mapping scholarly work influence on industry
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