

Derwent Data Analyzer

Professional data mining technology driving confident commercial decisions

The challenge

With more than 100M patent documents and 16.1 zettabytes of data to analyze, the role of an IP professional is certainly demanding. Technical patent data, by its very nature, requires subject matter expertise to ensure that it is correctly filtered and interpreted. To meet this challenge, the ideal solution should be capable of seamlessly blending subject matter expertise with machine based intelligence to help drive IP, R&D and business strategies.

Use the best data possible for great results

It's no secret that poor data leads to poor results. Derwent provides a compelling offering to ensure that the data used for the first step of any IP project, patent search, is as clean as possible. Called the Derwent World Patents Index (DWPI) – this value added patent data is used by more than 40 leading global patent offices, including the IP5, for their own patent work.

Introducing Derwent Data Analyzer

Derwent Data Analyzer allows users to combine their own subject matter expertise, internal corporate data plus patent and scientific literature search outputs. It accelerates the path to results by automating a number of labor intensive, manual processes by harnessing the power of machine learning. Coupled with an impressive library of import filters, thesauri and macros, the workflow has been designed to meet the needs of today's IP professional.

Product overview

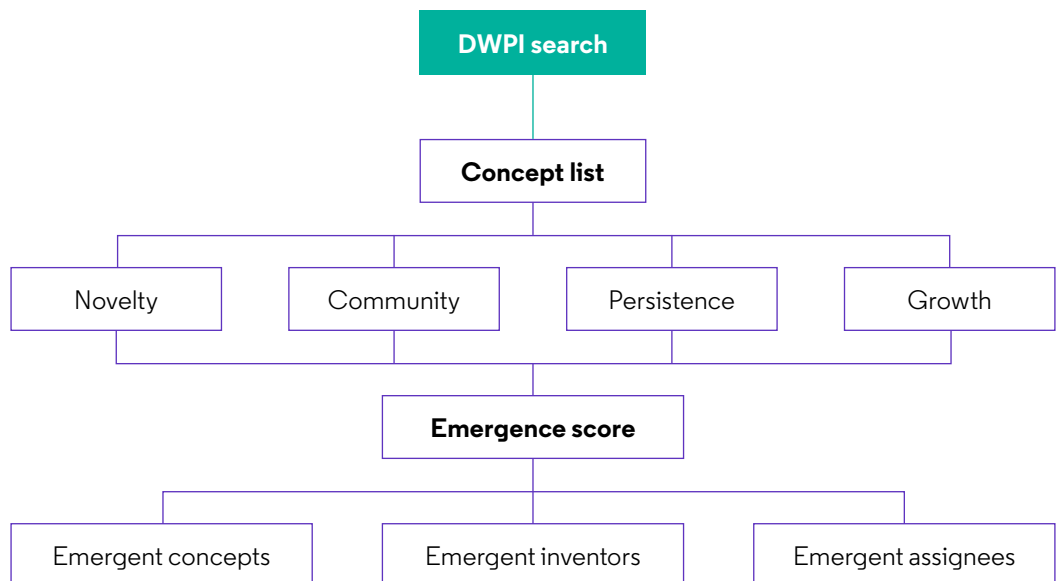
Derwent Data Analyzer is a desktop-based data mining and visualization platform. It equips expert users with sophisticated tools to slice, dice, join and manipulate data, converting it into information

intelligence using an intuitive reporting structure. In this way, business-critical insights from the wealth of information available in Derwent Innovation and Web of Science patent and literature databases can be extracted and presented to business decision makers. Users can analyze trends and profile competitor IP activity in specific technology areas more easily than ever before.

Predict competitor movements using Emergence

IP professionals can now anticipate future technologies with much greater confidence using Emergence. This valued indicator analyzes the last 10 years of patent search data linked to a particular technology through the conceptual filters of Novelty, Community, Persistence and Growth. Emergence enables users to identify emerging concepts, assignees, and inventors through DWPI. Figure 1 below illustrates these concepts.

Figure 1. Emergence – how it works



Highly visual reports, commercially-ready

Visual, easy to interpret reports are one of the main strengths of Derwent Data Analyzer. A practical example has been used to showcase this in Figures 2-4, for illustrative purposes.

A study was undertaken using chemical patent data to uncover the commercial and technical trends occurring within the Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) domain. The charts that follow pictorially represent innovation growth rates and the technical focus of major patenting authorities operating in this domain.

Figure 2. Innovation activity growth rates from 2005-2015, highlighting inventive activity by priority

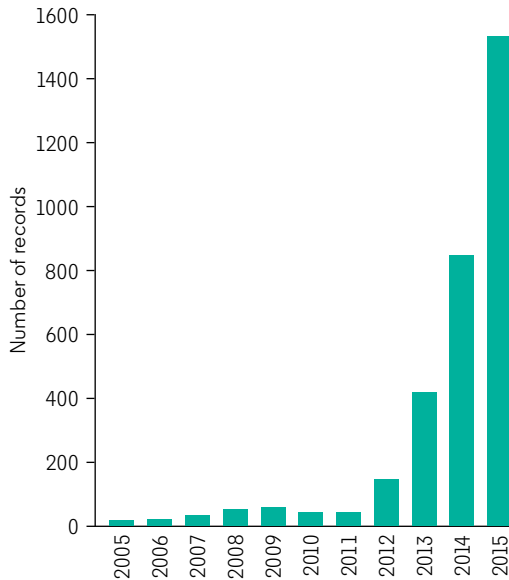


Figure 3. Patent filing activity by priority year. Cas9, gRNA and diagnosis patents indicate fast innovation rates during 2013-2015

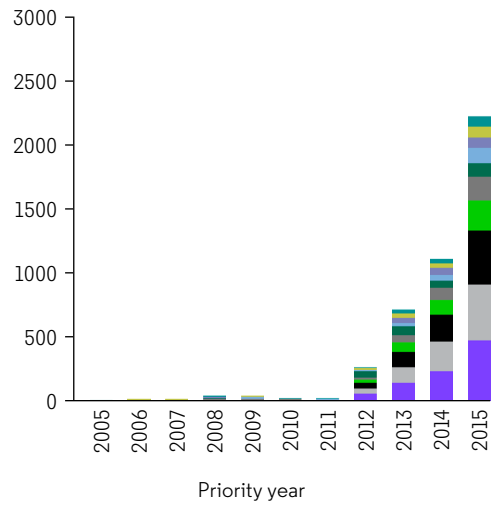
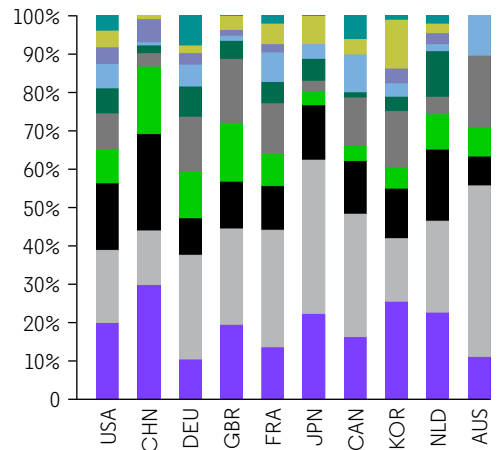


Figure 4. Technical focus of the major patenting authorities within the CRISPR landscape



- Delivery - nanoparticle
- Mediator - PAM
- Use - targeting
- Use - formulation
- Mediator - TracrRNA
- Vector - bacterial
- Vector - plasmid
- Mediator - gRNA
- Use - diagnosis
- Mediator - Cas9

How does Derwent Data Analyzer work?

The power of Derwent Data Analyzer resides in its fully integrated workflow – designed with an IP professional in mind.



Step 1: Refine

- Imprint patent expert knowledge onto patent search data
- Structure and categorize expert knowledge to achieve data validation



Step 2: Analyze

- Conduct analyses from different global perspectives
- Reduce the number of unknown variables from search results
- Understand the “hidden” movements of competitors



Step 3: Report

- Imprint patent expert knowledge onto patent search data
- Structure and categorize expert knowledge to achieve data validation

How can IP professionals benefit from Derwent Data Analyzer?

- Using machine learning, manual analytical processes are augmented and continuously improved in a repeatable manner, delivering time saving efficiencies
- Large volumes of patent search data can be quickly and accurately transformed into powerful, commercially-ready insights using advanced data mining algorithms
- Expert knowledge can be imparted onto search data – allowing dynamic analysis to be made possible that seamlessly combines the best of machine and human intelligence.

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