

Schedule 1: Search Skills Syllabus

Searching Knowledge

Background

- What is the difference between data, information and knowledge?
 - o Information retrieval basics (e.g. precision / recall dilemma)
 - o Structured data vs flat file (i.e. relational databases vs using internet search engines)
 - o Command based interfaces vs forms
 - o Named field searching vs mere keyword input
 - o Boolean logic and proximity operators
 - o Truncation and stemming

Patent and Intellectual property knowledge for searching

- What kinds of industrial property rights are there?
 - o Different IP rights (patents, utility models, design, etc)
 - o Difference between application, publication and granted patent
 - o Knowledge on territorial coverage (national vs regional and PCT* applications and priority country)
- What is a patent?
 - o Knowledge on patent law → see Schedule 2
 - o Different publication stages, their significance and their kind codes
 - o Patent life spans, opposition procedures, SPCs*, PTAs*
 - o Annuity payments and patent life span, reinstatement, others
- What parts is a patent made of?
 - o Knowledge on different parts of patents (cover page, bibliographic data, INID codes*, title, abstract, description, claims, drawings)
 - o Patent families – different types
 - o Claim interpretation – commonly found words – comprising/consisting of etc
- What are important dates in the life of patent?
 - o Application, priority and publication dates, grace periods
 - o Duration, expiry
 - o How to determine whether a patent is “in force”
 - o How dates relate to prior art, validity and other search types → see Schedule 2

- What is a legal status?
 - o Sources of legal status (national / federated registers* vs aggregated data (Inpadoc*))
 - o Access to legal status data (national registers)
 - o Interpretation of legal status codes*, event classes
 - o Exceptions to statuses (esp. non-payment of the annual fee and non-entry into national / regional phase restitutio)

Databases and patent information resources:

- What patent data are there?
 - o Publicly accessible data (Espacenet*, Google Patents*, others)
 - o Knowledge on bibliographic, abstract, full-text and procedure related data (Espacenet*, Patentscope*, national office data, registers, others)
 - o National register data
 - o Data formats (PDF, XML, HTML, others)
- What is a patent database?
 - o Publicly available patent data (national, regional offices, registers)
 - o Commercial databases
 - o Database structures (fields, operators, proximity, others)
 - o Database/Host command language(s)
 - o Database documentation
 - o Database pricing structures

Searching skills

- What is a command language?
 - o How to enter commands
 - o How to access databases
 - o Fielded searching: how to search fields (field=, /field, others)
 - o How to find information on the structure of the database
 - o Search history: documentation of search steps
 - o Dividing a search into a multitude of search steps
 - o Combining / re-using earlier search statements
 - o Knowledge on available display commands and their respective formats
 - o Searching numerical properties of items (length, weight, conductivity, etc)
 - o Knowledge on miscellaneous commands (expand, select, analyse, others)
 - o Meaningfully combine data (e.g. dates and kind codes)
- How to prepare a patent search?
 - o Resources for technical background (e.g. Wikipedia etc.)

- Llinguistic resources (dictionaries, translation services. PatentScope*)
- Where to find database documentation e.g. database fact sheets
- Database provider's information resources (database description, guide to commands, examples, best practices)
- How to find valid keywords?
 - Extracting meaningful search words from a search request
 - Knowledge on how to choose from scanning exemplary hits (rough first hit set)
 - Use of citing and cited patents
 - Knowledge on dictionaries and foreign language interfaces (e.g. PatentScope, Google Translate, others)
 - Using database's keyword highlighting to help evaluate result
 - Combining keywords into concepts
- What to consider when faced with name search
 - Where to find information on applicant (e.g. corporate websites)
 - Company structures and affiliations
 - Using expand commands for expanding on company name roots
 - Using corporate tree mechanism in patent databases
 - Where to find owner information in patent legal status

Classification and specialist searching:

- What is patent classification?
 - IPC* based classification (CPC*, DEKla*, FI*)
 - Other public non-IPC based classification (F-terms*, USClass*)
 - Commercial non-IPC based classification (Derwent Class* and Manual Code*)
 - Basic knowledge on classification for other IP rights (Nice*, Locarno*, Vienna*, etc.)
- How do you find the right classification?
 - WIPO*, EPO*, GPTO*, USPTO* and JPO* office classification sites
 - Availability of different search facilities (e.g. WIPO search in class definition text vs EPO search in limited number of patent documents and statistical display)
 - Use of classification thesauri in patent databases
 - Using analysis of the results of a keyword search for finding classification
- How do you find chemical data?
 - CAS registry number (finding numbers through Registry, internet)
 - Structure searching (when it is suitable and when not)
 - Using roles in relation to chemical entities
 - Linking of chemical aspects to the chemical entity
 - Chemical nomenclature and finding synonyms/common words
 - Chemical name searching/controlled terms in Patbase, Derwent, chemical



- abstracts
 - Generics vs specifics in chemistry
 - Polymer searching in CAS, WPI etc
 - Sequence searching different databases and how to use them
- What is a citation search?
 - What a citation in a patent means
 - Difference between examiner and applicant citations
 - Difference between forward and backward citations
 - Citation categories (e.g. "X", "Y" and "A" in EPO / WIPO search reports)
 - How to search for citations in databases

In practice

Prior art searching

- What to consider when faced with a state of the art search?
 - Combining keywords into concepts
 - Knowledge on keyword and classification search and the combination of both
 - Knowledge on exactitude vs completeness of search result (precision vs recall)
 - Report writing: Identifying relevant parts of patents/literature to cite to client

Validity/opposition searching

- What to consider when faced with an opposition search?
 - Claim interpretation ((in-) dependent, preamble, characterizing part)
 - Knowledge on priority dates / grace periods to allow suitable time frame to be searched
 - Which part of document should be searched
 - Subject matter eligible for prior art, obviousness
 - Non-patent literature sources
 - Use of citation searches
 - Report writing: Identifying relevant parts of patents/literature to cite to client

Patent infringement risk searching

- What to consider when faced with a patent infringement risk search?
 - How to determine a potentially infringing patent with a product
 - Identifying intended markets for scope of search – limiting to countries of interest and regional counterparts
 - Extracting important features from search request / product description for searching

- Translation of important features into a search strategy
- Determining time scale for searching potentially living patents → see Schedule 2
- Knowledge on identifying product features in claim language
- Searching/evaluating claims to assess relevancy
- Determining the status of a patent to determine whether it is still in force or pending patents → see Schedule 2
- Report writing: neutral language and words to be avoided when reporting potentially threatening patents (words that should be avoided – “valid” “infringe” etc)

Patent analysis and statistics

- What to consider when faced with a statistical search?
 - In-depth knowledge on database structure, data fields and operators
 - Knowledge on how to check assignee data for company cross-ownerships / acquisition
 - Meaningfully combine data (e.g. dates and kind codes)
 - Basic knowledge on statistics
 - Knowledge on publicly available data (patent offices, PatStat*) / commercial offerings
 - Visualising data
 - Limitations of integrated visualisation features of databases
 - Cleaning data up and why/when

Post processing results and preparing reports

- How to postprocess your results?
 - Downloading search results
 - Data formats (e.g. plain text, csv, XML, PDF, others)
 - How to integrate your search result into a word processing or spreadsheet program
 - How (and how not) to formulate your findings / conclusions
 - Report writing: what not to write into your search report
- How do you document your work?
 - How to save your search steps for future reference and / or re-use
 - Knowledge on which steps in your preparations, search and client communication to document
 - Identifying important parts of your search to check and update when re-using a search at a later point in time

Annex:

- PCT <http://www.wipo.int/pct/en/faqs/faqs.html>
(Patent Cooperation Treaty)
- SPC http://en.wikipedia.org/wiki/Supplementary_protection_certificate
(supplementary Protection Certificate)
- PTA <http://www.uspto.gov/patents/law/aipa/pta/>
(Patent Term Adjustment)
- INID codes <http://www.wipo.int/export/sites/www/standards/en/pdf/03-09-01.pdf>
(Internationally agreed Numbers for the Identification of (bibliographic) Data)
- Patent families <http://www.epo.org/searching/essentials/patent-families.html>
- Legal status codes <http://www.epo.org/searching/data/data/tables/legal-status.html>
- Federated registers <http://www.epo.org/service-support/fag/searching-patents/register.html>
- Inpadoc <http://www.epo.org/searching/subscription/raw/product-14-11.html>
- Espacenet <http://www.epo.org/searching/free/espacenet.html>
- Google Patents https://www.google.com/?tbn=pts&gws_rd=ssl
- Patentscope <http://www.wipo.int/patentscope/en/>
- Classification related sites
- IPC <http://www.wipo.int/classifications/ipc/en/>
(International Patent Classification)
- CPC <http://www.cooperativepatentclassification.org/>
(Cooperative Patent Classification)
- DEKla <https://depatisnet.dpma.de/ipc/>
(Deutsche Klassifikation)
- FI http://www5.ipdl.inpit.go.jp/pmgs1/pmgs1/pmgs1_E
(Japanese File Index)
- USCla <http://www.uspto.gov/patents/resources/classification/index.jsp>
(US Classification – now defunct)

F-terms http://www5.ipdl.inpit.go.jp/pmgs1/pmgs1/pmgs_E
(Japanese File Forming Terms)

Derwent manual codes
<http://ip-science.thomsonreuters.com/support/patents/dwpioref/reftools/classification/>

Nice classification <http://www.wipo.int/classifications/nice/en/>

Locarno classification <http://www.wipo.int/classifications/locarno/en/>

Vienna classification <http://www.wipo.int/classifications/vienna/en/>

Classification search

WIPO <http://web2.wipo.int/ipcpub/#refresh=page>

EPO http://worldwide.espacenet.com/classification?locale=en_EP

USPTO <http://www.uspto.gov/web/patents/classification/index.htm>

German office <https://depatisnet.dpma.de/ipc/recherchex.do>

JPO <http://www4.ipdl.inpit.go.jp/Tokujitu/tjftermena.ipdl?N0000=114>

Statistics

| PatStat <http://www.epo.org/searching/subscription/expert/about.html>