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The RePEc Swiss Knife: description and toolkit

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The RePEc Swiss Knife: description and toolkit

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Abstract: The RePEc Swiss Knife has been developed to make searches based on publications registered in RePEc, including information on authors (names, affiliations...). It uses a mix of scraping and text analysis, checking for the occurrence of one or several words. It has many uses: focused searches for literature reviews which are more precise than most existing tools; to organize a conference and build a list of guests or find a keynote speaker; to identify a specialist inside or outside an institution for human resources purposes...

JEL code: A1

Keywords: RePEc, search, keywords, affiliation, authors, JEL codes, title, literature review, human resources search.

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Inputs have been obtained with two hackathons, one internal to Banque de France and the other one posted on the www.b2ideas.eu platform. This platform enables to connect professionals and students through challenges, on the basis on anonymous contributions to fight against discriminations and increase the employability of students. This platform has a general interest purpose and has been awarded the "Trophées Solidaires" by the Banque de France Foundation in 2021 and has been posted in 2022 on the front page of the Website "1Jeune1solution" with the support of the Cabinet of the Ministry of Labour.

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Six items in the RePEc Swiss Knife enable to make efficient searches

The RePEc Swiss Knife is a tool based on RePEc data that enables to make searches with one or several criteria, completing existing tools (on this subject, see for example Orazbayev (2017)).

Figure 1: Interface of the RePEc Swiss Knife, with 6 items and an excel export tool

Recherche libre :	Titre :	Auteur :
Exemple : Gilbert Cette, E32, productivity	Exemple : Education, Market Rigidities and Growth	Exemple : Gilbert Cette, Philippe Askenazy
Affiliation:	Mots-clés :	Codes JEL (en savoir plus) :
Exemple : Banque de France, Paris School of Economics	Exemple : market rigidities, sticky prices	Exemple : E32, C67, R15
Exemple : Banque de France, Paris School di Economics	exemple . market rigidiles, sucky prices	Exemple . E32, C67, R15

"Swiss Knife" means that many uses are possible, using separately or together the six following items:

- 1. Free search, which makes the search in any of the five other items: title, author, affiliation, keywords and JEL codes.
- 2. Title: searches titles which contain the words filled in the "title" item. When several words are entered, they are searched together, which means that by default, there is an "AND" option activated between the words that are entered. This is the same rule for the other items. To search alternatively for one of the words and not all of them ("OR" option between the words), it is necessary to launch several searches separately with each of these words
- 3. Authors: one or several of the authors of a paper can be entered in this item. It is not necessary to indicate both the name and the first name of the author, but indicating them both makes the search more precise if an author has homonyms (on this issue, see for example Krichel & Zimmermann (2013)). The entire name does not need to be entered. Part of the word may be enough ("Dupon" enables to cover both "Dupont" and "Dupond" for example).
- 4. Affiliation: refers to the affiliation of (at least one of) the authors. Since some institutions may have different spellings, it may be safer to make searches using all possible spellings (for example using the acronym and the detail of the acronym).
- 5. Keywords: refers to the list of words which are usually present in the first page of the article, after the abstract, which indicate the (usually short) list of most important items present in the article.
- 6. JEL codes: refers to the list of codes made of one letter followed by some figures, that indicate to which field of economics the article belongs. The full list can be found on the following link: Association: JEL Codes (aeaweb.org). Most articles / working papers contain a list of a few JEL codes. This enables to restrict the search to a given field of economics (say Empirical Studies of Trade (F14), or labor economics (JO1) for example). This field requires to use the JEL codes and not corresponding words.

Searching according to keywords, mixed or not with other criteria, enables to have a more selective search, compared to other tools that search for the occurrence of the same keywords,

anywhere in the article. The fact that these words are present in the list of the few items retained by the authors as "keywords" guarantees that they are of upmost importance in the article, and that they are not just present incidentally.

This is particularly useful to make searches to build literature reviews.

Tips to optimize searches on institutions

The ability to include institutions of the authors is an interesting option in the RePEc Swiss Knife. Many authors have affiliations in several institutions and this option enables to get papers for which at least one author has one of his/her affiliations in this institution.

For example, to get articles using DSGE models for which at least one author has an affiliation in Banque de France, one should thus indicate "DSGE" in the keywords item, and "Banque de France" in the Affiliation.

To get articles using DSGE in central banks, a tip is to write "ban" in the affiliation (see Figure 2 hereafter). Indeed, in most languages, central banks contain the root "ban": "bank" in English and in German, "banco" in Spanish and in Portuguese, "banque" in French, "banca" in Italian... This should guarantee that most central banks (including the BIS that gathers several central banks) are in the list, even if there may be a few institutions containing "ban" without being centrals banks (for example private banks).

Figure 2: Illustration of a search on articles dealing with DSGE models with at least one author affiliated to a central bank

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Recherche libre: Exemple: Gilbert Cette, E32, productivity	Titre: Exemple: Education, Market Rigidities and Growth	Auteur : Exemple : Gilbert Cette, Philippe Askenazy	
Affiliation : Exemple : Banque de France, Paris School of Economics	Mots-clés : Exemple : market rigidities, sticky prices	Codes JEL (en savoir plus) : Exemple : E32, C67, R15	
ban	dsge		
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Auteurs : Aya Achour : Bank Al-Maghrib	change et fonctionnement de l'économie marocaine: enseignements à partir d'un modèle DSGE Aya Achour : Bank Al-Maghrib DSGE / rigidités / estimation bayésienne / politique monétaire		
JEL: DSGE / rigidites / estimation bayesienne	/ politique monetaire		
Nombre de pages : 54			
Date : 2019-12-11			
Bayesian Estimation of an Open Economy Malin Adolfson: Sveriges Riksbank	/ DSGE Model with Incomplete Pass-Throu	ugh	
Auteurs : Stefan Laseen : Sveriges Riksbank Jesper Linde : Sveriges Riksbank Mattias Villani :			
	y Policy / Bayesian Inference / Business cycle		
JEL: C11 E40 E47 E52			
Nombre de pages : 82			
Date : 2005-03-01			

According to the same logic, if one wants to get publications in a given field written by academics, the root "univ" can be indicated in the affiliation item, since the word for universities has this same root in many languages: "University" in English, "Université" in French,

"Universidad" in Spanish, "Universität" in German, "Università" in Italian, "Universidade" in Portuguese...

Still, if the academic belongs to a "school" and not to a "university", then this tip no longer works.

Using the affiliation may be quite useful if one wants **to organize a conference on a given issue**. To follow the same example, when organizing a conference on DSGE models, using the affiliation item enables to make lists of guests from central banks or elsewhere (if one wants to capture all the specialists, whatever their affiliation, then the affiliation can be left empty).

To capture only specialists who are still active, it is possible to use the excel export and rank by date, keeping only authors with at least one paper over most recent years (see the part on excel exports below).

When organizing a conference, the RePEc Swiss Knife also enables to have a view on best experts in the field, to find keynote speakers for example.

Excel exports bring additional functionalities

Once the search is implemented, it is possible to export the results in excel. This option may be useful for several reasons.

Excel enables for example to classify results according to the date, the institution of affiliation or the author, which makes it possible to see how many articles / working papers an author or an institution has written, and to select most recent or most ancient articles.

Classifying by institution and by date enables for example **to get the list of publications of all the members affiliated to an institution, year by year**. This can be useful for a laboratory / an economics department or a university to have a quick and exhaustive list of its publications year by year (conditional on the fact that its members are registered in RePEc).

Excel exports also makes it easier to build massive aggregate statistics on papers, for example the number of co-authors, as in Rath & Wohlrabe (2015) or the themes through the JEL codes, as in Wohlrabe & Rath (2015), for example.

The RePEc Swiss Knife can also be used for human resources purposes

Suppose that you work in a central bank or a university and an economist who is specialized in a given item chooses to move. To have a quick view of the specialists of the same field, inside the same institution or outside, then the RePEc Swiss Knife may be used (possibly mixed, again, with the excel export tool to keep only specialists who are still active with recent publications in the field).

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