Web of Science Group

A Clarivate Analytics company

Workshop

# Research quality and performance

Egyptian Knowledge Bank
بنك المعرفة المصري

# Contents

# Workshop presenters

## Dr. Walid Hassan

**Head of Consultancy Services and Client Education, Clarivate Analytics**
Professor in Biomedical Engineering with more than 17 years of experience in research and development (R&D), research leadership, innovation and strategies in academia, government and corporate. At *Clarivate Analytics*, he is currently working with regional governments, universities and research centers to boost research and innovation.

Dr. Hassan is an active researcher on tomographic reconstruction for emission and transmission data, medical instrumentation, biomedical signal processing and full-band EEG signal analysis. He has published many scientific papers in journals of high repute and has notable experience in public health with healthcare quality control and management, research and education assessment and strategic planning.

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## Dr. Ayman Akil

**Senior Consultant in Research and Academics, Clarivate Analytics.**
Researcher at the Max Planck Institute with more than 12 years of experience in research management, assessment and planning, university ranking, R&D projects, strategies in research institutes and education.

As a researcher, Dr. Akil works closely with universities and research entities helping them at assessing and evaluating their performance using sophisticated bibliometric indicators and methods. In addition to this, Dr. Akil works with industrial companies to offer knowledge-based solutions and has notable experience in quantum optics and sophisticated laser systems used to study ultrafast dynamics down to attosecond resolutions, solid state physics and spectroscope methods and muon-spin rotation measurements. He has published many articles in journals of high repute.

**Public profile:** linkedin.com/in/aymanakilclarivate

Web of Science Group has been the backbone of global research for over 50 years. Base your decisions on accurate data; determine impact using objective sources; Web of Science is the only independent resource you can trust.

## Web of Science platform

**33K**
Journal
(4,200 Open Access)

**70M**
Patents
(33M inventions/families)

**52**
Patent issuing authorities

**140M**
Records

**6M**
Data sets and studies

**1.4B**
Cited references

# Introduction

Researchers today are under pressure to perform their research activities at lower costs and in less time, to remain competitive, to keep up with industry norms and to better their chances of gaining access to global funding.

As a researcher, a lot of attention is focused on the novelty, innovation and robustness of your scientific research. There is also the strong need to boost your researcher profile, increase your number of publications and citations, enhance the visibility of your work in order for you to gain access to funding and to facilitate collaborate with your peers both nationally and internationally.

## Workshop objectives

1. How to define your research subject area: ideas, hot subjects, literature?
2. What to read and what to cite?
3. Research methodology: Tips on best practices in experimentation
4. Quality matrix of indicators
5. What, where and why to publish?
6. When not to publish and when one should think of filing a patent?
7. Insights on the capabilities of our data of being applied in research planning, execution and translation

## Workshop agenda

**09:30-10:00:** Registration

**10:00-11:00:** Introductions, research in the world and Egypt, research challenges

**11:00-12:00:** Identifying your research area, proposing new ideas, literature

**12:00-13:00:** Good practices in research methodology

**13:00-13:30:** Break

**13:30-14:30:** Strategy: read / cite to publish

**14:30-15:00:** Closing remarks and conclusion

## Workshop key messages

**Definition of research topic**
A systematic, quality assured approach should be followed from the definition of research topic or subject area, to the basis for the literature review, to the preparation and experimentation process, to the analysing and understanding of results, right up to either publishing or filing for a patent.

**Set of quality indicator**
There is no single research quality indicator which could reflect the 'true' impact of a research article. One needs to adopt set of indicators alongside with peer review process.

**Open access question**
With the plethora of journals currently available in almost all subject matters, publishing requires an informed selection of the correct, reputable journal or conference proceeding. The emerging question of open access publishing and the associated cost makes the situation even more challenging for some researchers.

**Patenting activities**
Articles are not always the 'coins' of science, in some cases patents are what you need to generate economic value out of research findings.

# Activities

## Activity one

**Choose the best answer (go through the 'facts' part)**

1. **Q1 journal means that the journal is in the top 25% according to**

a. Journal Normalized Citation Impact (JNCI)

b. number of citations

c. Journal Impact Factor (JIF)

2. **The Impact Factor published in 2018 takes into consideration the citations got in**

a. 2018

b. 2017

c. 2016

3. **Which of the following is NOT a quality indicator?**

a. Number of publications

b. % documents cited

c. Category Normalized Citation Impact

4. **The JIF for 2017 takes into consideration papers published in**

a. 2016 and 2017

b. 2015 and 2016

c. 2015, 2016 and 2017

5. **Highly Cited Papers are defined as**

a. papers (articles and reviews) that rank in the top 1% by citations for field and year

b. papers (articles and reviews) that rank in the top 10% by citations for field and year

c. papers (articles and reviews) that rank in the top 1% by citations for field

6. **Paper A got 10 citations, and paper B got 2 citations, then**

a. paper A has higher quality than paper B

b. paper A is older than paper B

c. more data is needed

7. **A journal with impact factor of 5 means**

a. on average every paper published in this journal gets around 5 citations in 1 year

b. on average every paper published in this journal gets around 5 citations in 2 years

c. none of the above

8. **Having a clear research methodology increases**

a. research quality

b. research budget

c. impact factor

9. **Which of the following does NOT affect the research quality?**

a. Number of authors

b. Quality of cited references
you cannot build your research
on low-quality papers

c. Amount of fund

**10. Having CNCI greater than 1 means**

**a.** this paper gets more than 1 citation every year

**b.** this paper is performing better than the world average compared to other papers with the same document type, publication year, and category

**c.** this paper is getting higher citations compared to other papers with the same document type, publication year, and journal

**11. Recent papers tend to collect more citations than older ones as researchers like to build their research on the state of the art**

**a.** True

**b.** False

**12. A journal with impact factor of 30 in medicine is performing better than a journal with impact factor of 3 in mathematics**

**a.** True

**b.** False

**13. High quality journals are only those present in Q1**

**a.** True

**b.** False

**14. The h-index is an absolute metric for quality and performance**

**a.** True

**b.** False

**15. Open access journals are considered low-quality journals**

**a.** True

**b.** False

**16. A journal with impact factor of 2 can NOT be in Q1**

**a.** True

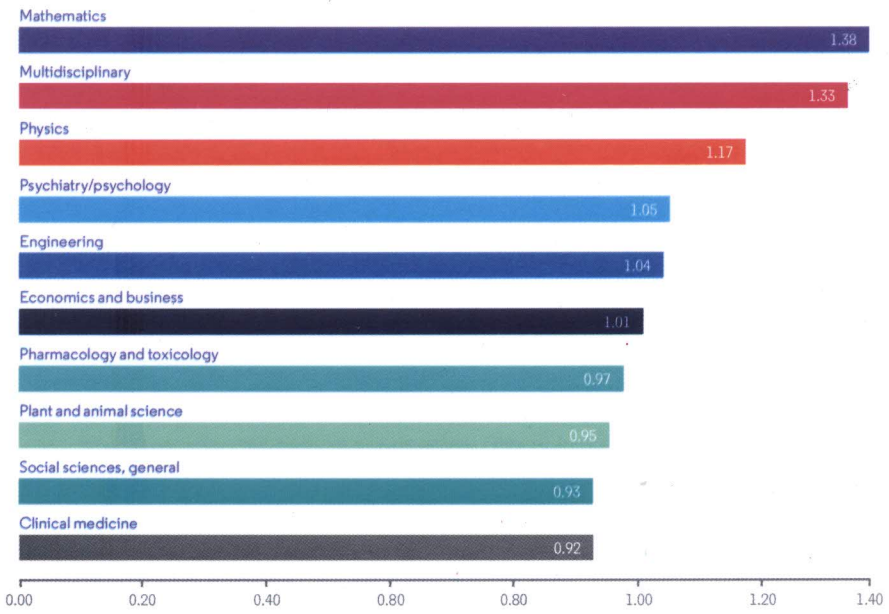
**b.** False

**17. The number of citations is NOT correlated to the research quality**

**a.** True

**b.** False

**Egypt Research Areas Impact (CNCI)**



# Activity two

**What is the Quartile of journal X?**
A journal X has a journal impact factor (JIF) of 2.0 and belongs to the *Web of Science* category 'Mathematics', while the journal Y has a JIF of 4.0 in the *Web of Science* category 'Physics, Applied'

**a.** How many JIF value does an indexed journal in SCIE receive per year? When?

**b.** Does it make sense to compare the JIFs of X and Y? Why?

**c.** If the 'Average JIF percentile' of journal X is 44, what is its quartile?

**d.** What is the average number of citations received by a citable item published in journal Y?

**Web of Science – Create Citation Report and Analyze results**


# Activity three

**Actions in quality evaluation**
While trying to assess the quality of a research paper, several actions are presented. Give your feedback on each of them

| Action | Impact | |
|---|---|---|
| | True | False |
| The paper received 5 citations in its 1st year of publication, then the paper has a great citation performance | | |
| The paper received large number of citations in its 1st year of publication compared to other articles of the same research area, this means it is imp actful | | |
| If the article was published in a high JIF journal, then its CNCI is certainly high | | |
| In the same research area, reviews tend to collect more citations compared to papers published in the same journal issue | | |
| A highly cited paper is counted also as a hot paper | | |
| Citation analyses offers a research link between past, present and future as well | | |

# Key indicators

**% documents in top 1%**
Percentage of publications in the top 1% based on citations by category, year, and document type

**% highly cited papers**
Percentage of publications that are assigned as Highly Cited in ESI (top 1% by citations for field and year)

**Journal impact factor**
Average number of citations to articles of the same document type from the same journal in the same database year

**5 year journal impact factor**
The 5 year journal impact factor is the average number of times articles from the journal published in the past 5 years have been cited in the *JCR* year. It is calculated by dividing the number of citations in the *JCR* year by the total number of articles in the five previous years

**Eigenfactor**
Based on the number of times articles from the journal published in the past five years have been cited in the *JCR* year, but it also considers which journals have contributed these citations so that highly cited journals will influence the network more than lesser cited journals. References from one article in a journal to another article from the same journal are removed, so that Eigenfactors are not influenced by journal self-citation

**Article influence**
Determines the average influence of a journal's articles over the first five years after publication. It is calculated by multiplying the Eigenfactor by 0.01 and dividing by the number of articles in the journal normalized as a fraction of all articles in all publications

**Baseline**
A baseline is the average performance of a global set of publications with the same subject area, document type and year

**Category normalized citation impact (CNCI)**
Citation impact (citations per paper) normalized for subject, year and document type

**Journal normalized citation impact**
Citation impact (citations per paper) normalized for journal, year and document type

**Citation impact**
Average (mean) number of citations per paper

**Cited half-life**
Median age of the articles that were cited in the *JCR* year. Half of a journal's cited articles were published more recently than the cited half-life

# Facts
## History of citation indexing

### Journal Citation Reports

**Evaluate the world's leading scientific journals**
Built on the foundation of *Web of Science*, *Journal Citation Reports (JCR)* uses the most thorough, accurate, and objective information available. A *JCR* subscription gives you systematic, objective means to evaluate the world's leading scientific and scholarly journals. By analysing citation references, *JCR* measures research influence and impact at the journal and category levels and shows the relationship between citing and cited journals. The *Web of Science Core Collection* includes more than 11,000 indexed journals, around 250 disciplines, 81 countries or regions and 2.2 million articles, reviews, and other source items.

**Using the Journal Impact Factor wisely**
*Clarivate Analytics* does not depend on the impact factor alone in assessing the usefulness of a journal, and neither should anyone else. The impact factor should not be used without careful attention to the many phenomena that influence citation rates; for example the average number of references cited in the average article. The impact factor should be used with informed peer review. In the case of academic evaluation for tenure it is sometimes inappropriate to use the impact of the source journal to estimate the expected frequency of a recently published article. Again, the impact factor should be used with informed peer review. Citation frequencies for individual articles are quite varied.

### Using citation indicators wisely

Research evaluation is increasingly being conducted using bibliometric methodology and citation analysis. Because no individual bibliometric indicator can account for all aspects of research performance, it is recommended that selections of bibliometrics indicators are utilized to provide a broader view and to discover any data artifacts.

*InCites* supports a comprehensive class of advanced bibliometric indicators assessing various aspects of research performance. For each indicator it is important to know related questions such as:

- What does the indicator measure?
- How is it calculated?
- What is its value?
- What is its role in the process of research performance evaluation?
- What is the guideline for appropriate usage?

**Journal Citation Reports indicators**
The *InCites* Explorer includes *Journal Citation Reports (JCR)* journal indicators and links to *JCR Journal Profiles* within the results table. For research producers, these indicators identify the share of work published in top journals, enhancing promotion or enabling strategies for improved standing within the community and among competitors. Publishers can now leverage the improved features of *InCites Benchmarking* to track performance of journals, identify significant contributors, and benchmark against peers. In other words, for all indicators in the *InCites Explorer*, the time period will dictate the *JCR* year of the indicator displayed. For instance, a time period filter of 1980-2013 will display the 2013 *JCR* indicator.

**The following JCR indicators are available:**

**Journal impact factor**
Average number of times articles from a journal published in the past two years have been cited in the *JCR* year. For example, a 2011 *Journal Impact Factor* of 4.25 means that, on average, an article published in the journal in 2009 or 2010 received 4.25 citations in 2011.

**5 years journal impact factor**
The 5 year *journal impact factor* is the average number of times articles from the journal published in the past five years have been cited in the *JCR* year. It is calculated by dividing the number of citations in the *JCR* year by the total number of articles published in the five previous years.

**Cited half-life**
Median age of the articles that were cited in the *JCR* year. Half of a journal's cited articles were published more recently that the cited half-life.

**Eigenfactor**
The Eigenfactor calculation is based on the number of times articles from the journal published in the past five years have been cited in the *JCR* year, but it also considers which journals have contributed these citations so that highly cited journals will influence the network more than lesser journals. References from one article in a journal to another article from the same journal are removed, so that Eigenfactors are not influenced by journal self-citation.

**Immediacy index**
The Immediacy Index is the average number of times an article is cited in the year it is published. The Journal Immediacy Index indicates how quickly articles in a journal are cited. The Aggregate Immediacy Index indicates how quickly articles in a subject category are cited. The Immediacy Index is calculated by dividing the number of times an article is cited in the year it is published. Because it is a per-article average, the Immediacy Index tends to discount the advantage of large journals over small ones. However, frequently issued journals may have an advantage because an article published early in the year has a better chance of being cited than one published later in the year. Many publications that publish infrequently or late in the year have low Immediacy Indexes. For comparing journals specializing in cutting-edge research, the immediacy index can provide a useful perspective.

## Baseline

A baseline is the average performance of a global set of publications with the same subject area, document type and year. For example, a global set might consist of all articles in the field of chemistry published in 2006. Baselines and subject schemas create useful reference points for comparison, and they are the basis of normalization to overcome subject bias. Baselines are calculated using a whole counting method, this means that all papers in a subject area are counted towards the baseline calculation regardless of whether those papers are also in other subject areas or not.

The table below shows some sample publications A-D that are in different subjects and have different document types. For simplicity of the demonstration of the calculation, all papers are in the same year, but in reality, baselines are also calculated for each year.

The citation impact (average citations per paper) baseline for each variant of subject, year and document type will be calculated as the mean average:

$$e_{f,t,d} = \frac{\sum_f \sum_t \sum_d c}{\sum_f \sum_t \sum_d p}$$

Where: e = the expected citation rate or baseline, c = times cited, p = the number of papers, f = the field or subject area, t = year, and d = document type.

| Article ID | Times cited | Subject areas | Document type | Year |
|---|---|---|---|---|
| A | 0 | Chemistry, Organic | Article | 2010 |
| B | 12 | Chemistry, Organic and Chemistry Physical | Article | 2010 |
| C | 5 | Chemistry, Physical | Article | 2010 |
| D | 8 | Chemistry, Organic | Review | 2010 |

# University rankings mechanisms

## World-class universities: understanding the attributes, pursuing the stature

**By Christopher King**

For many universities, the status of 'world class' is either a treasured achievement or a persistent goal. A world-class university (WCU) can be many things to many people: a centre of innovation, an economic engine, and a point of regional or national prestige and pride. Therefore, the aspiration to achieve world-class stature is easy to comprehend — even if, as several commentators have noted, an exact definition or categorization of a world-class university is lacking. Philip Altbach, who has specialized in international higher education, wrote in 2004: "Every country wants a world-class university. No country feels it can do without one. The problem is that no one knows what a world-class university is, and no one has figured out how to get one." (Academe, January-February 2004.) Nevertheless, efforts to describe the attributes of WCUs are now embodied in a substantial literature, as are case studies and recommendations aimed at helping universities whose administrators have committed to pursuing WCU status. In this report, we will briefly review some of these materials and examine available resources that allow universities to monitor, assess, and benchmark their progress toward membership in this elite group of institutions.

### What is a WCU?

In their 2011 book, The Road to Academic Excellence, Philip Altbach and Jamil Salmi propose a definition of WCUs based on three principal attributes:

1. A high concentration of talent, referring to both faculty and students

2. Abundant resources to foster a rich learning environment and support advanced research

3. Favourable governance procedures that favour foresight, strategic vision, and the flexibility to make changes without excessive reliance on bureaucracy

Writing in the Journal of Education and Practice (6 [5]: 125, 2015), Hanaa Ouda and Khadri Ahmed review various criteria for a WCU. These include an international community of faculty and students and the production of globally employable graduates. Other factors pertain to quantifiable research performance, such as relative performance against a set of measures (rankings, for example); delivery of a range of specific outputs and wider benefits, including economic and social impacts via a large volume of research.

Similarly, to be recognized as world-class, a university must attract investment from business and international sources and exploit the findings of research and technological breakthroughs. As Qi Wang of Shanghai Jiao Tong University and colleagues summarize in Building World-Class Universities (2012): "It is commonly agreed that world-class universities are academic institutions committed to creating and disseminating knowledge in a range of disciplines and fields, delivering of elite education at all levels, [and] serving national needs and furthering the international public good." Of course, no university can simply declare itself a WCU. As noted above, the status must be confirmed by objective assessment, such as the measures presented in official rankings.

Examples of these regularly published listings include the Academic Ranking of World Universities (ARWU), prepared by Shanghai Jiao Tong University, which analyses 3,000 universities and ranks the top 500 among them. Similarly, the US News Best Global Universities annually ranks the top-performing 750 universities according to citation impact, reputation, and other measures. Both are powered by *Web of Science* data. Yet another such listing has been published by Reuters since 2015, using data generated by *Clarivate Analytics*, formerly the IP and Science business of Thomson Reuters.

By scrutinizing figures on the impact of published research and patenting activity, the Reuters ranking identifies the world's 100 most-innovative universities, as well as the most innovative in Europe and in Asia. Once a university has attained WCU standing, by virtue of its attributes as well as its measurable performance, the institution can claim any number of benefits: international visibility and influence, stature as an economic driver, and a role in addressing the most pressing problems of the day in terms of the health and well-being of society. The presence of talent, in turn, will attract more talent, more funding, more acclaim, etc., thereby perpetuating WCU status. But for a university just embarking on a transition toward WCU standing, or even considering such a move, the question looms: how best to proceed?

**Tools for evaluation**

One invaluable asset would be a set of tools that allows a university to assess and track its own research performance, identifying areas of strength as well as those in need of increased attention and resources. *InCites*, powered by *Web of Science* data, constitutes such an asset. To return to Altbach and Salmi's definition of a WCU: *Web of Science* capabilities can address each of the essential components:

- **Governance**
  By providing the ability to assess position, performance and impact, both on an institutional and individual researcher level, as well as to benchmark performance against peers, *Web of Science* fosters an informed, flexible, strategic vision needed to join the world's top-performing universities.

- **Talent**
  By identifying the most active and influential researchers in any given specialty area, *Web of Science* points the way not only to the most advantageous collaborators across international boundaries, but to potential additions to the ranks of faculty and research staff as part of an overall growth strategy.

- **Resources**
  With its indexing of the funding agencies listed on published papers since 2008, *Web of Science* provides a searchable store of funders and the specific research they have supported. This insight will maximize the efficiency of seeking additional support for research initiatives.

Today, it (Science Citation Index) is considered to be one of the most reliable of resources in tracing the development of an idea across the multitude of disciplines that are part of our body of scientific knowledge.

## What's new in Journal Citation Reports?

**Jennifer Minnick,**
**Product Manager, InCites**

On June 26th, *Journal Citation Reports* was released with both the new 2017 data and innovative levels of transparency and journal intelligence captured in an enhanced journal profile page. This blog article looks at the new profile page features.

The new journal profile page tells a story about that journal. At the very top is the same background information we have always shown: journal title, publisher, categories, languages, publication frequency, and links to the Table of Contents. Data for prior years are accessed by the 'All Years' tab or in the Source Data table.

## The whole story

Dr. Eugene Garfield, founder and now Chairman Emeritus of *ISI* (now *Clarivate Analytics*), was deeply involved in the research relating to machine generated indexes in the mid-1950's and early 1960's. One of his earliest points of involvement was a project sponsored by the Armed Forces Medical Library (predecessor to our current National Library of Medicine). The Welch Medical Library Indexing project, as it was called, was to investigate the role of automation in the organization and retrieval of medical literature. The hope was that the problems associated with subjective human judgement in selection of descriptors and indexing terms could be eliminated. By removing the human element, one might thereby increase the speed with which information was incorporated in to the indexes. It might also increase the cost-effectiveness of the indexes. Garfield grasped early on that review articles in the journal literature were heavily reliant on the bibliographic citations that referred the reader to the original published source for the notable idea or concept. By capturing those citations, Garfield believed, the researcher could immediately get a view of the approach taken by another scientist to support an idea or methodology based on the sources that the published writer had consulted and cited as pertinent in the bibliography. As retrieval terms, citations could function as well as keywords and descriptors that were thoughtfully assigned by a professional indexer.

In the early 1960s, Eugene Garfield and Associates developed two pilot projects that would test the viability and efficiency of citation indexing. The first project involved the creation of a database that would index the citations of 5,000 chemical patents held by two private pharmaceutical companies. The referenced citations in this instance were to prior patents, the documentation sources that the government patent examiners were using to support a decision to grant or deny a patent. The connections that the patent citation index made were then analysed with two comparable classification and indexing systems that were currently being used by the participants. Based on this investigation and analysis, the project sponsors determined that citation indexing permitted the retrieval of relevant literature across arbitrary classifications in a way that subject- oriented indexing could not.

A second pilot project in 1962 involved Garfield's recently incorporated enterprise, the Institute for Scientific Information (now *Clarivate Analytics*), with the United States National Institutes of Health in building an index to the published literature on genetics. This project was far more complex in nature than the patents index. Three databases were built to cover the literature over 1 year, 5 years and 14 years with a varying number of source publications indexed in each. While this project was to test the feasibility and utility of a narrow, discipline-oriented citation index, at completion, it was concluded that the database with the most set of source publications formed the most comprehensive and useful guide to the published literature in the field of genetics. The database for the single-year term had drawn not just on journals that were primarily devoted to the field of genetics research but had drawn as well from a large pool of journals that published genetics papers on a more peripheral or occasional basis. Additionally, while the automated system required a certain level of effort in standardizing the entries from a wide variety of published materials, the project demonstrated the cost-effectiveness of citation indexing as opposed to the expense of traditional subject indexing processes.

While, at the time of the project's completion, the government sponsors chose not to subsidize the development of a national citation database, Eugene Garfield was encouraged to move ahead with the private publication of his multidisciplinary citation index as the first edition of the *Science Citation Index (SCI)*. Available for purchase since 1963, the *SCI* then and now represents the most comprehensive citation index to the scientific journal literature. Today, the Web-based version of that index covers 5,600 journals across more than 150 scientific disciplines.

Garfield's achievement lay in establishing the utility and objectivity of a citation index in pulling up related papers in published literature that at first glance might not have seemed pertinent to the researcher's inquiry. Today, it is considered to be one of the most reliable of resources in tracing the development of an idea across the multitude of disciplines that are part of our body of scientific knowledge.

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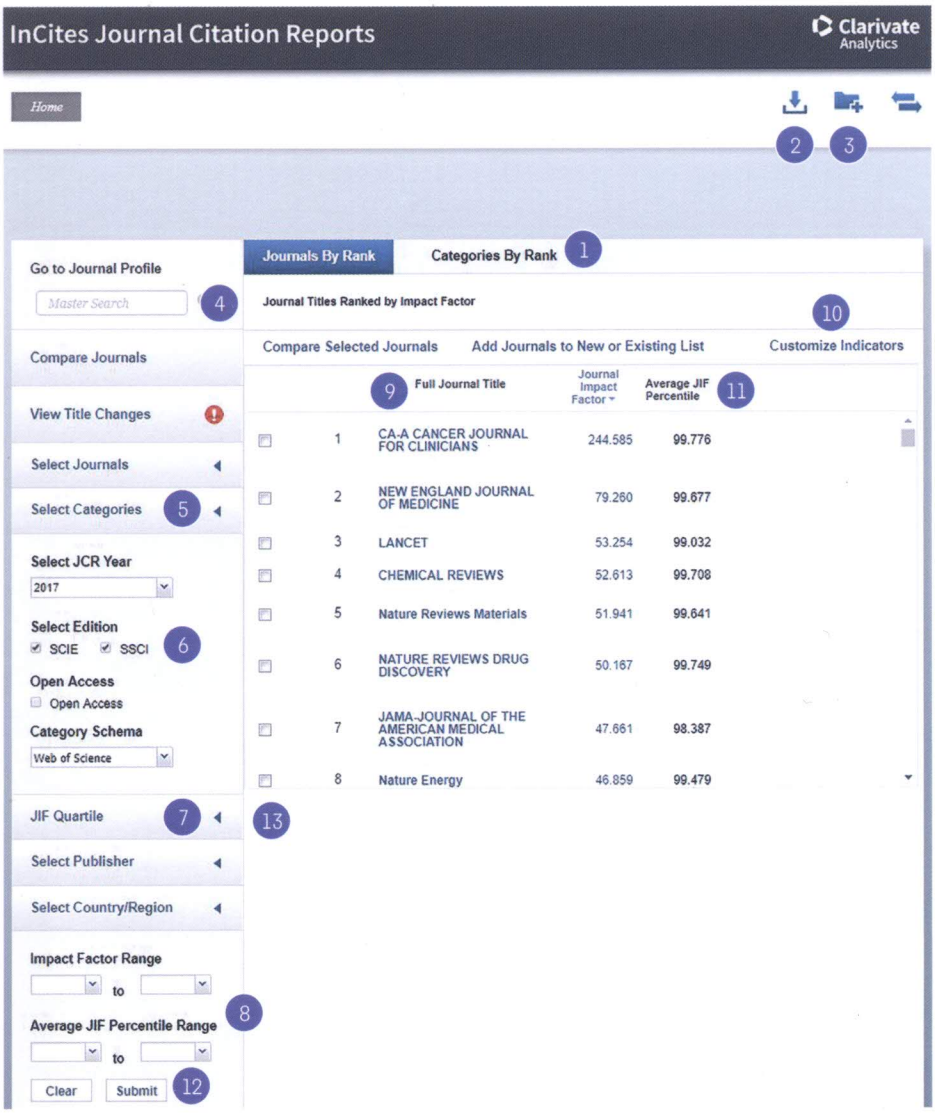
# Factsheets

## InCites at a glance


1. Choose your analysis starting point from the explorers
2. Save and share analyses with the dashboard
3. Build your analysis with the analytics tab
4. Select your dataset (*InCites* or a dataset exported from *Web of Science*) and a time period
5. Set any thresholds for number of documents, citations and authors
6. Build your analysis by applying filters
7. Choose which indicators to include in your analysis
8. Update your analysis with any changes
9. Download the visualization as a PNG file
10. Visualization: Choose a graphical type and indicator, or display a trend graph
11. Use benchmarks to add global and item baselines
12. Download your results data (up to 50k records) including annual trend as a CSV file
13. View document list with key article level metrics and navigate to individual records in *Web of Science*
14. Refocus to pivot your analysis on another item. Where available, view the institution or the journal profile (in *Journal Citation Reports*)
15. Your analysis data. Sort on any indicator or search for specific items. Pin and exclude items as necessary

# Journal Citation Reports




1. View category level data
2. Download data from the table below
3. Open saved custom reports
4. Search for a journal by name, ISSN, or *JCR* abbreviation
5. Choose one or more categories for analysis
6. Filter by edition or open access status
7. Filter by *Journal Impact Factor* quartile
8. Set *Journal Impact Factor* percentile range
9. Create journal comparisons or custom journal lists
10. Choose which indicators to display in the table
11. Sort the table by clicking a column heading
12. Submit selected filters to create a list
13. Select journals for comparison reports or to add to a custom list

# Related workshops

**Research assessment methodology and tools (advanced)**
This is an advanced workshop that targets researchers and research managers in the process of research management and orientation. The objectives are to introduce the different bibliometric indicators used to assess research.

It lends to answer questions like:

- How is research assessed?
- What are the different indicators in research development and how do they develop?
- How are indicators measured and how are they evaluated and assessed?

**Research funding and collaboration**
Identification of funders, funding mechanisms, research translation. This workshop aims to help researchers identify active funders in a domain and understand what possible funding mechanisms enable them to get funding for their research as well as set the framework enabling research translation.

Some of the questions covered are:

- Who is funding what in a certain research field/country?
- What possible mechanisms exist to get funds for research projects?
- How to spot research areas of more interest to the funders and fund grasping?
- What are the possible practices that help to generate an economic value of the research done?
- How to enhance my chances of getting accepted for funding?
- How do funders evaluate funding applications?

**Attend and publish in conferences more effectively**
Optimising on attendance. This workshop discusses conferences and aims to answer questions such as:

- What are the objectives of attending conferences?
- Which conference should one attend?
- How does one prepare for a conference?

**Journal indexing criteria in Web of Science**
This workshop aims to introduce publishers to the journal selection criteria to be indexed in the *Web of Science* database.

The workshop aims to cover:

- The principles and goals of the journal selection process
- A new approach to collection building and curation
- Journal submission and evaluation process
- Journal selection criteria
- *Journal Impact Factor* calculation

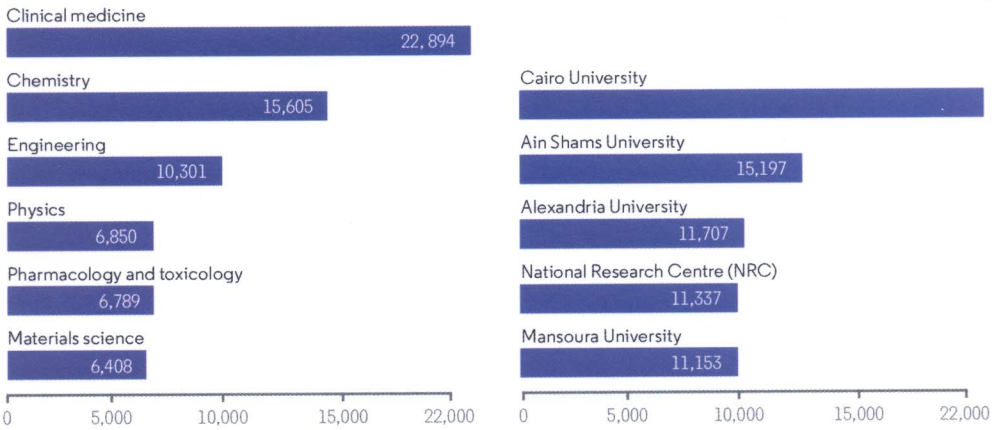
**Introduction to intellectual property**
This workshop aims to introduce researchers to the concept of intellectual property, raise the awareness and familiarizing with the different types of intellectual property forms.

The workshop will answer:

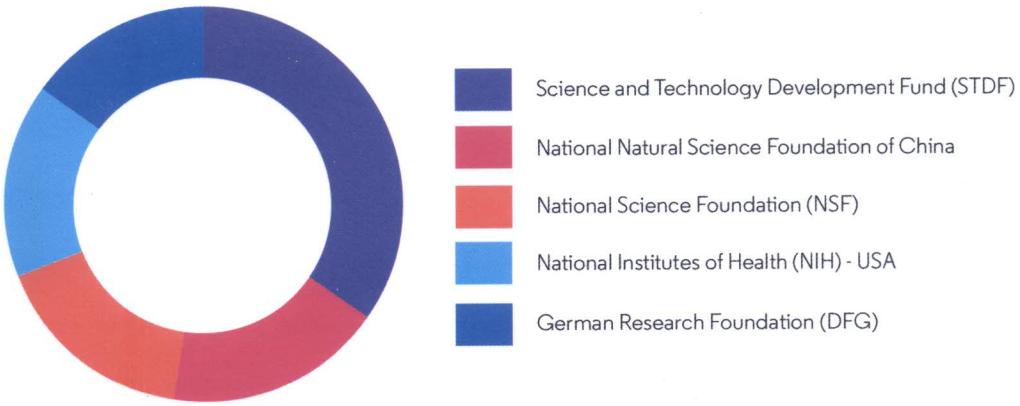
- What is intellectual property?
- What are the forms of intellectual property?
- As well as more on patent filing and prosecution

# Annexure:
# Egyptian factual data (2009–2018)

### Egyptian number of publications by research area




### InCites Egypt top 5 funding agencies



WS190050 / 11

## About Web of Science Group

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