

Anjana Nigam, Pramod K. Nigam¹

“Citations are an acknowledgement of intellectual debt.”

- Henry Small

INTRODUCTION

A citation is the text reference and acknowledgement of a documented information. A scientifically written article comprises a reference section at the end where all the references mentioned in the document are cited serially, and each reference is a citation. A citation count is the frequency of an article cited by other articles. A citation index is a kind of bibliographic database, an index of citations between publications, allowing the user to easily establish which later documents cite which earlier documents.^[1] Citation indexing consists of the charting of the text details of each such reference. Citations are used as a measure of importance of the information source and enables users to gather data on the “impact” of journals as well as assessing and analyzing particular areas of research activity and publication.^[2]

Developments

In 1960, Eugene Garfield’s Institute for Scientific Information (ISI, formerly Eugene Garfield Associates Inc.) introduced the first citation index for papers

published in academic journals, the Science Citation Index (SCI).^[1] Later, it was further expanded to produce the Social Sciences Citation Index (SSCI) and the Arts and Humanities Citation Index (AHCI). In 1965, de Solla Price described the inherent linking characteristic of the SCI as “Networks of Scientific Papers”.^[3] The SSCI became one of the first databases to be mounted on the Dialog system in 1972.^[4] In 1973, Small published his classic work on Co-Citation analysis, which became a self-organizing classification system and eventually an “Atlas of Science” later called “Research Reviews.”^[5] The graphical nature of the worldwide citation network was described by Ralph Garner in 1965.^[6] Autonomous citation indexing, introduced in 1998,^[7] enabled automatic algorithmic extraction and grouping of citations for any digital academic and scientific document. This led to the creation of new systems for public and automated citation indexing such as, CiteSeer (now CiteSeer^x), Cora (Rexa) and Google Scholar.

Major Citation Indexing services

There are two major publishers of general-purpose academic citation indexes:

- a. **Institute for Scientific Information (ISI):** Citation indexing has long been dominated by the ISI, which is now part of Thomson Reuters.^[8] It publishes the citation indexes in print and compact disc forms, which are generally accessed through the web under the name ‘Web of Science’ (WOS). WOS provides access to 7 databases: Science Citation Index (SCI), Social Sciences Citation Index (SSCI), Arts & Humanities Citation Index (A&HCI), Index Chemicus, Current Chemical Reactions, Conference Proceedings Citation Index: Science and Conference Proceedings Citation Index: Social Science and Humanities.
- b. **Elsevier** Which publishes Scopus, is available online only. Scopus is one of the largest abstract and citation database of peer-reviewed literature and web sources with smart tools to track,

Departments of Surgery, and ¹Dermatology and STD, Pt. J.N.M. Medical College, Raipur, Chhattisgarh, India

Address for correspondence:

Dr. Anjana Nigam,
D-30-A, Shailendra Nagar, Raipur – 492 001, Chhattisgarh, India.
E-mail: dr.anjananigam@gmail.com

Access this article online	
Quick Response Code:	Website: www.ijdvl.com
	DOI: 10.4103/0378-6323.98093

How to cite this article: Nigam A, Nigam PK. Citation Index and Impact factor. Indian J Dermatol Venereol Leprol 2012;78:511-6.

Received: November, 2011. **Accepted:** April, 2012. **Source of Support:** Nil. **Conflict of Interest:** None declared.

analyze and visualize research.

There are also a number of other readily available citation databases. Some of the notable ones among these are:

- **CiteSeer** is both a citation engine and a digital library. CiteSeer is based on the SmealSearch engine^[9] and provides citation, citation graph analysis, related document retrieval and other searching of scientific literature.^[10] Research Papers in Economics (**RePec**) provides databases in economics and other discipline-specific indexes.^[11]
- **Google Scholar (GS)** provides citation and search of scholarly literature across many disciplines and sources. Although limited to the recent articles, it is a freely-accessible web search engine. Google Scholar is generally praised for its speed.^[12]
- **EBSCOhost** is one of the world's foremost, most-used, premium, reference database service.
- **Compendex** (Engineering Index, **COMP**uterized **EN**gineering **IN**DEX) is the computerized version of the Engineering Index and is one of the most comprehensive engineering literature databases.

Bibliometrics

Bibliometrics are methods or applications used to study or measure an influence of a writer or impact of a scientific paper. Citation analysis and content analysis are most commonly used bibliometric methods. Other bibliometrics applications include: Creating thesauri; measuring frequencies; exploring author affiliations; and measuring usage by readers.

Citation analysis

Citations can be counted as measures of usage and impact of the cited work.^[13] Data from citation indexes can be analyzed to determine the popularity and impact of specific articles, authors and research publications. This is called citation analysis. Some of the measures that have emerged from citation analysis are:

a. Citation Count

A Citation Count is the number of times an article is cited by other articles.^[14] Sometimes, it is considered to indicate the quality and influence of the article.^[14] The citation count may be analyzed for:

- The frequency of citation of an individual article
- Total citations / average citation count of an author per article
- The average citation count for the articles in the journal

• Journal impact factor

Citation counts are correlated with other measures of scholarly / scientific performance and impact and can in some cases be enhanced by making a work open access by self-archiving the complete article on the web, publishing it in an open access journal, or publishing it as an open access article in one of the Hybrid open access journals.^[15]

b. H-index

The H-index, sometimes called the Hirsch index or Hirsch number, was first developed by Hirsh^[16] as a measure to quantify the impact and quality of the published work of a scientist or scholar. A scientist has index h if h of his N_p papers have at least h citations each, and the other $(N_p - h)$ papers have no more than h citations each. In other words, a scholar with an index of h has published h papers, each of which has been cited in other papers at least h times.^[16] For example, if the h -index is 15, you have 15 papers cited 15 times or more. If your h -index is 20, you have 20 papers cited 20 times or more.

Citation reports in Web of Science and citation tracker in Scopus calculate the h -index of a search result. Harzing's Publish or Perish program^[17] calculates the h -index based on Google Scholar entries. Various proposals to modify the h -index in order to emphasize different features have been made.^[18] Bornmann *et al.*,^[19] recently proposed 3 additional metrics, h_2 lower, h_2 center, and h_2 upper to give a more accurate representation of the distribution shape. Scientists with high h_2 upper percentages are perfectionists, whereas scientists with high h_2 lower percentages are mass producers.

c. i10-index

i10-index is the number of publications with at least 10 citations. In July 2011, Google Scholar started a tool, which allows scholars to keep track of their own citations and also produces an h -index and an i10-index.

d. Download counts

While the number of times a scientific article is cited by other articles is currently the gold standard for ranking its impact, online publishing offers another measure: The number of unique downloads.^[20] A recent analysis finds that downloads are a good predictor of citations, and they are available significantly faster.^[20]

Journal of Vision (JOV) recently began publishing download counts for every published article. The journal also ranks the top 20 articles by download.

Download counts mirror citations, but are available about 2 years earlier and thus download counts predict future impact of scientific papers.^[21]

e. KeyWords Plus®

In 1990, ISI was able to introduce this citation-based method of derivative subject indexing, called KeyWords Plus®.^[22] In addition to title words, author-supplied keywords and abstract words supplies words and phrases to enhance retrievability.

Journal Impact Factor

An important and predictive measure of research impact in research is the Journal Impact Factor (JIF) of the journal in which the article appears.^[23] The JIF is the average number of citations per article per year.^[23] It is an indication of the importance and uptake of that research, denoting the relative importance of a journal within its field, like journals with higher impact factors are deemed to be more important than those with lower ones. Impact factors are generally calculated yearly.^[23]

In a given year or period, the impact factor of a journal is the average number of citations received per paper published in that journal during the 2 preceding years.^[24] For example, an impact factor 2011 for a journal is calculated as follows:

- N^1 = Number of times articles published in 2009-2010 were cited in indexed journals during 2011
- N^2 = Number of articles, reviews, proceedings

or notes (not editorials or Letters-to-the-Editor) published in 2009-2010

- Impact factor 2011 (IF-2011) = N^1 / N^2

(Note: As the IF is calculated for the 2 preceding years, the IF 2010 will be actually published in 2011 because it could not be calculated until all of the 2010 publications have been processed by the indexing agency. Similarly, IF 2011 will be published in 2012). The Journal Impact Factor 2011 for few journals is shown in Table 1.

Related Indices: Some related values, connected with Journal Impact Factor are:

1. Immediacy index

Immediacy index measures the average number of times that an article, published in a specific year within a specific journal, is cited over the course of the same year.^[25]

2. Cited half-life

Cited half-life measures the number of years, going back from the current year that account for half the total citations received by the cited journal in the current year.^[25] For example, if a journal's cited half-life in 2005 is 5, that means the citations from 2001-2005 are half of all the citations from that journal and the other half of the citations precede 2001.

3. Aggregate impact factor for a subject category

It is calculated taking into account the number of citations to all journals in the subject category and the number of articles from all the journals in the category.^[25]

Table 1: Journal Impact Factor 2011

Rank	Medicine Journals Overall		Surgery Journals Overall		Dermatology Journals	
	Journal	Impact Factor	Journal	Impact Factor	Journal	Impact Factor
1	New Engl J Med	53.484	Ann Surg	7.474	J Invest Dermatol	6.27
2	Lancet	33.633	Endoscopy	6.096	Pigm Cell Melanoma Res	4.75
3	J Am Med Assoc	30.011	Am J Transplant	6.048	Br J Dermatol	4.351
4	Ann Intern Med	16.729	J Neurol Neurosurg Ps	4.791	J Am Acad Dermatol	4.274
5	PLOS Med	15.617	Arch Surg-Chicago	4.5	Arch Dermatol	4.231
6	Br Med J	13.471	Br J Surg	4.444	Exp Dermatol	4.159
7	Annu Rev Med	12.457	J Am Coll Surgeons	4.241	J Dermatol Sci	3.712
8	Arch Intern Med	10.639	Ann Surg Oncol	4.182	Contact Dermatitis	3.672
9	Can Med Assoc J	9.015	Am J Surg Pathol	4.106	Wound Repair Regen	3.443
10	Cochrane Db Syst Rev	6.186	J Vasc Surg	3.851	J Eur Acad Dermatol	3.309
11	J Intern Med	5.935	Transplantation	3.676	Acta Derm-Venereol	3.78
12	BMC Med	5.75	J Thorac Cardiovasc Sur	3.608	Dermatology	3.714
13	Mayo Clin Proc	5.712	Ann Thorac Surg	3.558	Skin Pharmacol Phys	3.711
14	Am J Med	5.115	Wound Repair Regen	3.443	Clin Dermatol	3.424
15	Ann Fam Med	4.457	Surg Endosc	3.436	Eur J Dermatol	3.421

Source: <http://impactfactor.weebly.com/>

4. Median impact factor

It is the median value of all journal impact factors in the subject category.^[26]

5. Year Impact Factor

It is similar in nature to the Journal Impact Factor; however, the citations are counted to the previous 5 years and again divided by the source items published in the previous 5 years. A base of 5 years may be more appropriate for journals in certain fields because the body of citations may not be large enough to make reasonable comparisons, publication schedules may be consistently late, or it may take longer than 2 years to disseminate and respond to published works.^[27] For example, 5 yr Impact Factor: 32457 citations in 2011 to items published in 2010, 2009, 2008, 2007, and 2006 / 11648 items published in 2006-2010 = 2.392.

C3PO (Citation Performance Per Paper Online)

ISI reports the mean number of citations for an ISI journal, namely total citations up to a given day divided by the number of papers published in an ISI journal up to the same day as the “average” number of citations. The C3PO of an ISI journal on any given day is defined as ‘C3PO (Citation Performance Per Paper Online) = Total citations to a journal / Total papers published in a journal.’^[28]

Z-influence

It measures the number of papers in a journal that have never been cited. The lack of citations of a published paper, especially over an extended period, must surely detract from the quality of a journal by exposing: (i) what might be considered as incorrect decisions by the editorial board of a journal; and (ii) the lost opportunities of papers that might have been cited had they not been rejected in favor of papers that are ignored by the profession. Z influence = zero influence, based on zero citations in ISI journals.

Z influence can be measured by the PI-BETA (Papers Ignored (PI) - By Even The Authors (BETA) ratio, and is calculated for an ISI journal on any given day as: $PI-BETA = \text{Number of Z - influence papers in an ISI journal} / \text{Total papers published in an ISI journal}$. Thus, PI-BETA for 20 January 2012 is based on Z influence and total papers up to and including 20 January 2012.^[29]

The daily updates change the h-index, C3PO and PI-BETA scores.

Impact Factor Inflation (IFI)

The ratio of 2-year impact factor (2YIF) to 2-year impact factor without self citations (2YIF*) is intended to capture how journal self citations inflate an impact factor of a journal. An Impact Factor Inflation (IFI) is defined as “ $IFI = 2YIF / 2YIF^*$ ”. The minimum value for IFI is 1, with any value above the minimum capturing the effect of journal self citations on the 2-year impact factor.^[29]

Self-citation Threshold Approval Rating (STAR)

ISI has implicitly recognized the inflation in journal self citations by calculating an impact factor that excludes self citations, and provides data on journal self citations, both historically and for the preceding 2 years, in calculating 2YIF. The Self-citation Threshold Approval Rating (STAR) is the difference between citations in other journals and journal self citations.

If S = journal self citations, STAR is defined as “ $STAR = (100 - S) - S = (100 - 2S)$ ”. If S = 0, 25, 50 or 100, for example, STAR = 100, 50, 0 and -100, respectively. As STAR can be calculated using journal self citations, both historically and for the preceding 2 years, historical STAR is **H-STAR** and a 2-year STAR is **2Y-STAR**.^[30]

Cited Article Influence (CAI)

Article Influence is intended to measure the average influence of an article across the sciences and social sciences. As an article with zero citations cannot have influence, a more suitable measure of the influence of cited articles is Cited Article Influence (CAI), which is defined as “ $CAI = (1 - PI-BETA)(\text{Article Influence})$ ”. If PI-BETA = 0, then CAI is equivalent to Article Influence; if PI-BETA = 1, then CAI = 0. As Article Influence is calculated annually, whereas PI-BETA is updated daily, CAI may be updated daily.^[30]

Recursive impact factor

In 1976, a recursive impact factor that gives citations from journals with high impact greater weight than citations from low-impact journals was proposed.^[31] It resembles the PageRank algorithm of the Google search engine.

Eigen factor

The Eigen factor is another PageRank-type measure of journal influence with rankings freely available online. The Eigen factor™ score of a journal is an estimate of the percentage of time that library users spend with that journal.^[32]

SCImago Journal Rank (SJR) indicator

The SJR is an open access, free journal citation-metric, based on citation information from Scopus. SJR indicator is a measure of scientific influence of scholarly journals that accounts for both the number of citations received by a journal and the importance or prestige of the journals where such citations come from.^[33] The SJR indicator provides an alternative to the Impact Factor (IF)

Journal Citation Reports

Journal Citation Reports (JCR), integrated with the Web of Knowledge, is an annual publication by the healthcare & science division of Thomson Reuters.^[34] It provides information about academic journals in the sciences and social sciences subject categories, including impact factors, the journal immediacy index and the journal citing half life. The JCR citation data on journals provides quantitative tools for ranking, evaluating, categorizing and comparing journals.^[8]

Indian Citation Index

Indian Citation Index (ICI) database was developed with specific motives to promote knowledge contents, published in Indian journals and bridge the gap between the content sources and content users via World Wide Web.^[35] ICI database covers about 1000 Indian scholarly journals, encompassing all disciplines of knowledge including the sciences, social sciences, arts, and humanities. ICI like other indexes enables user to move back in time to previously published papers, but uniquely one can also look forward in time to determine who has subsequently cited an earlier piece of research. This feature makes this database a specialized information product and highly useful for researchers, policy makers, decision takers, editors, librarians etc.^[35] The ICI database also produces other useful by-products like Indian Science Citation Index (ISCI), Indian Social Science and Humanities Citation Index (ISSHCI), Indian Journals Citation Reports (IJCR), Indian Science and Technology Abstracts (ISTA) and Directory of Indian Journals (DOIJ).^[35]

Citation indexing: Uses and Limitations

Citation indexes provide authoritative, timely and prospective as well as retrospective in-depth access to the literature.^[6] Citation indexes also provide various indicators to evaluate the author impact in a subject. Through citation analysis, citation index provides journal ranking by giving information about what articles, themes, and topics were being published, cited, or ignored and also offers unique insight into

a particular journal and provides data on historical trends, immediacy index, cited half-life of journals etc.^[36] Citation analysis helps to know the Journal Impact Factor (JIF), Author Self-Citation (ASC) and Journal Self-Citation (JSC). Citation index also helps to determine the latest areas of research through bibliometric indicators.

With citations used as the criterion for importance, utmost care should be taken as the authors may cite their own work, thus increasing its apparent academic importance. Secondly, significant articles may appear in obscure places (non-core journals) and be missed by the indexers.^[37]

CONCLUSION

Multiple sources are available on the web like Web of Science, Scopus, Google Scholar, and others to evaluate research impact and quality of a research work accurately as well as to find out citation counts, h-index and so on. The h-index has been proposed as the best measure of a scientist's research productivity.^[38] Citation analysis has shown that some 90% of papers that have been published in academic journals are never cited, and as many as 50% of papers are never read by anyone other than their authors, referees and journal editors.^[39] The citation databases, tools and citation methods mentioned here are just a few of many new and powerful indicators of research output. Citation index needs to be upgraded from time-to time by creating and designing it for specific subject using latest technology and manual efforts.^[40]

REFERENCES

1. Citation index. Available at: http://en.wikipedia.org/wiki/Citation_index. [Last accessed on 2011 Nov 18].
2. Using Citation Indexes. Available at: <http://www.lib.utexas.edu/chem/info/citations.html>. [Last accessed on 2011 Nov 18].
3. de Solla Price DJ. Networks of Scientific Papers. *Science* 1965;149:510-5.
4. Dialog, A Thomson Business. "Dialog invented online information services". Available at: <http://www.acml-egypt.com/ACML%20Publishers/Dialog.htm>. [Last accessed on 2011 Nov 18].
5. Small H. Co-citation in the scientific literature: A new measure of the relationship between two documents. *J Am Soc Inf Sci* 1973;24:265-9.
6. Garner R, Lunin L, Baker L. Three Drexel Information Science Research Studies. Available at: <http://www.garfield.library.upenn.edu/rgarner.pdf>. [Last accessed on 2011 Nov 18].
7. Giles CL, Bollacker K, Lawrence S. CiteSeer: An Automatic Citation Indexing System, DL98 Digital Libraries, 3rd ACM Conference on Digital Libraries; 1998. p. 89-98.
8. The Concept of Citation Indexing: Unique and Innovative Tool for Navigating the Research Literature. Available at: <http://>

- thomsonreuters.com/products_services/science/free/essays/concept_of_citation_indexing/. [Last accessed on 2011 Nov 18].
9. Citation index. Available at: http://edutechwiki.unige.ch/en/Citation_index. [Last accessed on 2011 Nov 18].
 10. Citeseer[™]. Available at: <http://citeseerx.ist.psu.edu/about/site>. [Last accessed on 2011 Nov 18].
 11. The RePEc Project and Scholarly Societies. Available at: <http://repec.org/docs/RePEcSchol.html>. [Last accessed on 2011 Nov 18].
 12. Bosman J, Mourik I, Rasch M, Sieverts E, Verhoeff H. Scopus reviewed and compared: The coverage and functionality of the citation database Scopus, including comparisons with Web of Science and Google Scholar. Available at: <http://igitur-archive.library.uu.nl/DARLIN/2006-1220-200432/Scopusdoorgelicht&vergeleken-translated.pdf>. [Last accessed on 2011 Nov 18].
 13. CitationIndex. Available at: http://www.newworldencyclopedia.org/entry/Citation_index. [Last accessed on 2011 Nov 18].
 14. What is a citation count? Available at: <http://www.library.uq.edu.au/research/citation.html>. [Last accessed on 2011 Nov 18].
 15. Eysenbach G. Citation advantage of open access articles. *PLoS Biol* 2006;4:e157.
 16. Hirsch JE. An index to quantify an individual's scientific research output. *Proc Natl Acad Sci U S A* 2005;102:16569-72.
 17. Rousseau R. Reflections on recent developments of the h-index and h-type indices. Available at: <http://www.tarupublications.com/journals/cjsim/7-Rousseau.pdf>. [Last accessed on 2011 Nov 18].
 18. Anderson TR, Hankin RK, Killworth PD. Beyond the Durfee square: Enhancing the h-index to score total publication output. *Scientometrics* 2008;76:577-88.
 19. Bornmann L, Mutz RD, Daniel HD. The h index research output measurement: Two approaches to enhance its accuracy. *J Informetr* 2010;4:407-14.
 20. Watson AB. Comparing citations and downloads for individual articles at the Journal of Vision. Available at: <http://www.journalofvision.org/content/9/4/i>. [Last accessed on 2011 Nov 18].
 21. Anthis N. Download counts predict future impact of scientific papers. Available at: http://scienceblogs.com/scientificactivist/2009/04/download_counts_predict.php. [Last accessed on 2011 Nov 18].
 22. KeyWords Plus[®]: ISI's breakthrough retrieval method. Part 1. Expanding your searching power on Current Contents on Diskette[®]. *Curr Contents* 1990;32:5-9. (Reprinted in: *Ibid.*, 1991;13:295-9). Cited by Garfield E. Where was this paper cited. Available at: http://thomsonreuters.com/products_services/science/free/essays/where_was_this_paper_cited/. [Last accessed on 2011 Nov 18].
 23. Harnad S, Carr L, Brody T, Oppenheim C. Mandated online RAE CVs linked to university eprint archives: Enhancing UK research impact and assessment. Available at: <http://www.ariadne.ac.uk/issue35/harnad/>. [Last accessed on 2011 Nov 18].
 24. Science: Introducing the Impact Factor. Available at: http://thomsonreuters.com/products_services/science/academic/impact_factor/. [Last accessed on 2011 Nov 18].
 25. Impact Factor, Immediacy Index, Cited Half-life. Available at: <http://www.bib.slu.se/kurser/sss/sprida/publicera/impactfactor/eimpactfactor.html>. [Last accessed on 2011 Nov 18].
 26. Journal Citation Reports: An Introduction. Available at: <http://library.kfupm.edu.sa/ISI/PDF/JCRDISC.pdf>. Accessed November 18, 2011.
 27. Bibliometrics. Available at: <http://www.elsevier.com/wps/find/editorshome.editors/biblio>. [Last accessed on 2011 Nov 18].
 28. Chia-Lin C, McAleer M, Oxley L. What makes a great journal great in the sciences? Which came first, the chicken or the egg? *Scientometrics* 2011;87:17-40.
 29. Great Expectations: Great Papers, Great Journals, Great Econometrics. Available at: <http://www.econ.canterbury.ac.nz/RePEc/cbt/econwp/1036.pdf>. [Last accessed on 2011 Nov 18].
 30. How are Journal Impact, Prestige and Article Influence Related? An Application to Neuroscience. Available at: <http://www.econ.canterbury.ac.nz/RePEc/cbt/econwp/1106.pdf>. [Last accessed on 2011 Nov 18].
 31. Pinski G, Narin F. Citation influence for journal aggregates of scientific publications: Theory with application to literature of physics. *Inf Process Manag* 1976;12:297-312.
 32. Bergstrom C. Eigenfactor: Measuring the value and prestige of scholarly journals. Vol. 68, no. 5. *College & Research Libraries News*; 2007. Available at: <http://crln.acrl.org/content/68/5/314.full.pdf+html>. [Last accessed on 2011 Nov 18].
 33. About SJR. Available at: <http://info.scopus.com/journalmetrics/sjr.htm>. [Last accessed on 2011 Nov 18].
 34. Journal Citation Reports. Thomson Reuters. Available at: http://science.thomsonreuters.com/m/pdfs/mgr/jcr_0805_q.pdf. [Last accessed on 2011 Nov 18].
 35. Indian Citation Index. Available at: <http://www.indiancitationindex.com/ici.aspx?target=products>. [Last accessed on 2011 Nov 18].
 36. Smith DR. A 30-Year Citation Analysis of Bibliometric Trends at the Archives of Environmental Health, 1975-2004. *Arch Environ Occup Health* 2009;64:43-54.
 37. Chandler HE, Roper VP. Citation indexing: Uses and limitations. Available at: http://www.theindexer.org/files/17-4/17-4_243.pdf. [Last accessed on 2011 Nov 18].
 38. Baldock C, Ma RM, Orton CG. The h index is the best measure of a scientist's research productivity. *Med Phys* 2009;36:1043-5.
 39. Meho LI. The rise and rise of citation analysis. Available at: <http://arxiv.org/ftp/physics/papers/0701/0701012.pdf>. [Last accessed on 2011 Nov 18].
 40. Kumar S, Singh M. Structure and functions of citation index. Available at: <http://shodhganga.inflibnet.ac.in/dxml/bitstream/handle/1944/1653/61.pdf?sequence=1>. [Last accessed on 2011 Nov 18].

Staying in touch with the journal

1) Table of Contents (TOC) email alert

Receive an email alert containing the TOC when a new complete issue of the journal is made available online. To register for TOC alerts go to www.ijdv.com/signup.asp.

2) RSS feeds

Really Simple Syndication (RSS) helps you to get alerts on new publication right on your desktop without going to the journal's website. You need a software (e.g. RSSReader, Feed Demon, FeedReader, My Yahoo!, NewsGator and NewzCrawler) to get advantage of this tool. RSS feeds can also be read through FireFox or Microsoft Outlook 2007. Once any of these small (and mostly free) software is installed, add www.ijdv.com/rssfeed.asp as one of the feeds.