



Topics of Interest- Editorial Goo-Med Index: What’s the Meat of the Matter?

Stefan Eggli, MD,
Harish S. Hosalkar, MD, MBMS (Orth), FCPS(Orth), DNB(Orth)

Abstract:

Scientific writing in the past years has been confounded to some degree by the advent of the internet. Publicly available information can now be obtained by the lay public in ways which were never before possible. Direct marketing to the public, and the medical community is now possible through search engines such as Google. We propose a “Goo-Med” index, that is an index that attempts to quantify the relationship between market driven information (Google) and Scientific information (Pub Med).

Introduction

Scientific writing has constantly continued to evolve since time immemorial.¹ Rapid globalization and electronic information that is readily available on the internet has made the function of scientific papers as a medium of presenting and propagating original scientific ideas to colleagues across the world that are less fortunate to have access to similar facilities for research an increasingly obsolete entity.

Many will continue to advocate that the fundamental purpose of writing continues to be the exchange of findings among researchers. A second well-described function of research is as a unit for keeping score.^{2,3,4,5} A researcher accumulates a list of papers, accredited by publication that serves as a score sheet in awarding positions, promotions, and research grants.

In the current era of rapidly spreading information, most scientists hear of developments in their field long before they receive the hard-copy dissemination of information by electronic media print of the journal. By the same token, the rapid

and search engines⁶ has become a huge marketing tool for many researchers including physicians who want to reap benefits (either financial or otherwise) for their practice patterns.

These aspects of electronic marketing and rapid dispersal of scientific information for secondary gain now brings us into a new era of medical indexed papers linked to internet search engines. The ‘scientific content’ and measured ‘citation index’^{7,8,9,10} are now threatened by a mind-boggling number of ‘hits’ on search engines that may present confusing and sometimes conflicting information to the amateur reader and uninformed patient or family member.

With this background we hereby propose a new scale for evaluating the quality of scientific content in the current day. This index should include both indexed medical citations as well as the ‘hits’ on a search engine. We considered ‘PUBMED’ citations as the standard method of evaluating the indexed scientific articles on a subject and ‘GOOGLE’ hits as the best form of evaluating the internet search engine at this point in time. Based on the number of hits that one finds in either category we have created what we call a ‘GOO-MED’ index for evaluating the ‘scientific’ content or the ‘marketing angle’ of a particular subject. The index is achieved by obtaining a ratio of Google hits/ Pub med hits. Depending on the ratio we then divide the article into five grades (Table 1). What it essentially entails is that a high Goo-Med Index depicts a marketing driven idea/innovation (less scientific evidence) whereas a low Goo-Med index denotes scientific driven idea/innovation (lot of scientific evidence).

Address for Correspondence:

Stefan Eggli, MD
Department of Orthopedic Surgery
Inselspital,
University of Berne
Email: Stefan.eggli@insel.ch

Stephan Eggli is an attending Orthopedic Surgeon, Inselspital, and University of Berne
Harish Hosalkar is a Clinical Instructor and Chief Resident at the Hospital of the University of Pennsylvania
(HHPEDPOD@gmail.com)

Goo-Med Index	Description
< 50	Purely Scientific
50 – 100	Mainly Scientific and less of marketing
100- 500	Equally scientific / and Marketing
500- 1000	Mainly marketing and less of scientific
>1000	Pure Marketing

Table 1: Categories of the Goo-Med index

Topic/ Subject	Google Hits	Pubmed Hits	Goo-Med Index
Computer Assisted Surgery	425000	16987	25
Endoscopy	5690000	199989	28
Total Hip Arthroplasty	438000	13855	32
Coronary Angioplasty	1160000	33435	35
Stem Cell Therapy	2060000	58229	35
Antivenom for Scorpion Bite	6690	154	43
Chemotherapy for Leprosy	194000	4236	46
Chemotherapy for Osteosarcoma	352000	5387	65
ACE inhibitors for Hypertension	1190000	17477	68
BMP Growth Factor	432000	5367	80
Framingham Study	276480	3072	90
Antibiotics for Pneumonia	2420000	14524	167
Laminar Airflow for Arthroplasty	1850	11	168
Oral Polio Vaccine	498000	2845	175
Microdiscectomy	60900	315	193
Smoking Cessation	3970000	17225	230
TURP	1940000	4510	430
Melatonin	7566000	14377	526
Dental Bleaching	1040000	1198	868
Acupuncture	15000000	13526	1109
Liposuction	5330000	2597	2052
Laser Therapy for Skin Wrinkles	1970000	542	3635
Loosing Body Fat	773000	193	4005
Sports Hernia	692000	161	4298
Viagra	54500000	3662	14883
Interventions for Painless Labor	70000	2	35000

Table 2: Random examples selected to demonstrate the Goo-Med index in individual cases.

Discussion

As information continues to flood the thoughts of readers in today's world, it is important to understand that not all scientific information is propagated in a correct and scientific manner. Reader and author bias continue to define themselves both on the internet and in print.

Our proposed "Goo-Med" score serves two purposes: first, it brings to mind the perspective that internet search engines are not exactly the same as pure scientific indexed journal searches^{11,12} and that the authenticity of scientific matter should not be judged based on the hits on a popular search engine. Secondly, it brings forth a scoring system, albeit in a humorous way, that weighs marketing strategy over scientific weight, i.e. the meat of the matter.

Needless to say, this score is not a citation index of one's scientific work. It is also not a personal criticism of either the search engine (Google in this case) used or the website of indexed medical literature (Pub med in this case). Our report, or editorial if you may, purely outlines the need to have a 'perspective' on newer things and ideas or concepts prior to embracing them based on

popularity and not scientific content. We hope the readers take time to enjoy the concept and the article. Of course further work would be needed to validate such a measure, but we believe that this is needed to reconcile the discrepancies between market driven and science driven information.

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