shers/, indicates several such publications which have originated and are operating in India. To name a few: Abhinav (http://www.abhinavjournal.com/index.aspx) publishes three journals in three different subject domains, Academic Journals Online (AJO, http://www.academicjournalsonline.co.in/) publishes more than 30 journals in different subject domains, including computer science, agricultural science, and library and information science; Academic & Industry Research Collaboration Centre (AIRCC, http://airccse.org/journal.html) publishes as many as 70 journals across a spectrum of subjects; Bio-IT International (http://bipublication.com/index.html) publishes seven journals on bioscience and technology, and Mehta Press (http://www.mehtapress.com/) publishes more than 150 journals in different subject domains. Many of these journals have an ISSN number and are claimed to be international journals (it is surprising that many of these journal titles start with 'international').

Many of these publishers have also claimed that their journals are indexed in international citation indexing databases such as SCIRUS, Open J-Gate, get-CITED, Index Copernicus, etc. Articles published in e-journals and online mode get automatically indexed in *Google Scholar* or other similar indexing databases. Some of the journals have also mentioned their impact factor. Impact factor for journals can be obtained easily using simple mathematical formulation. This is completely misleading and unethical.

In such a case, how does UGC determine the quality of the articles or journals? Do the appointment or promotion committees really look into this matter at the time of appointments? What they want is only the number of publications and where these articles have appeared (international or national journals). UGC guidelines are also tailor-made in such a way that the number of publications is the major criterion for appointments and tenure promotions, and not their quality. There is no mechanism to identify the quality of the journal articles or the predatory publishers and journals. There is immediate need to develop a mechanism to identify such predatory publishers and blacklist them. Otherwise, good research and researchers would suffer.

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Uncited *SSCI* publications in China

The *Social Sciences Citation Index* (*SSCI*), developed by the Institute for Scientific Information, is a citation database covering journals of social sciences across several disciplines. It fully indexes 2996 journals across 56 social sciences disciplines. It also indexes individually selected, relevant items from over 3300 of the world's leading scientific and technical journals. China has now started catching up in social sciences. In recent years, the visibility of China's social sciences research outputs in the *SSCI* database has increased significantly[1]. However, the share of citations is rather low[2].

A search 'Peoples R China' in publications addresses in the *SSCI* database on 15 January 2013, returned 48,580 items, out of which 21,921 have never been cited. *Pnc*, the percentage of publications

Table 1. Top 10 most productive *SSCI*, *SCI* and *A&HCI* subjects of the 21,921 *SSCI* publications from China

SSCI subject	*U*	*T*	*Pnc* (%)	*SCI* subject	*U*	*T*	*Pnc* (%)	*A&HCI* subject	*U*	*T*	*Pnc* (%)
Area studies	676	1,350	50.1	Psychology	2,183	9,358	23.3	Literature	1,080	1,347	80.2
Linguistics	798	1,646	48.5	Mathematics	397	1,731	22.9	Religion	188	257	73.2
Education and educational research	748	2,242	33.4	Nursing	241	1,201	20.1	Architecture	121	167	72.5
Social sciences – other topics	531	1,792	29.6	Computer science	494	2,572	19.2	Philosophy	443	637	69.5
Information science and library science	318	1,294	24.6	Public, environmental and occupational health	324	1,749	18.5	History	267	388	68.8
Psychology	2,183	9,358	23.3	Environmental sciences and ecology	461	2,548	18.1	Asian Studies	624	917	68.0
Business and economics	2,180	10,279	21.2	Engineering	466	2,704	17.2	Music	77	121	63.6
Nursing	241	1,201	20.1	Operations research and management science	317	1,913	16.6	Art	114	183	62.3
Public, environmental and occupational health	324	1,749	18.5	Psychiatry	385	2,364	16.3	History & philosophy of science	68	121	56.2
Psychiatry	385	2,364	16.3	Neurosciences and neurology	250	1,629	15.3	Archaeology	52	206	25.2

U, China's not cited in *SSCI* publications; *T*, China's *SSCI* publications.

not cited during the time-period considered, was proposed by Moed *et al.*[3] as one of the standard bibliometric indicators for research performance. For the collection of China's *SSCI* publications, *Pnc* is 45.1%. Meanwhile, the values of *Pnc* for China's *Science Citation Index* (*SCI*) and *Arts & Humanities Citation Index* (*A&HCI*) publications are 30.8% and 76.7% respectively.

Psychology has the most number of *SSCI* publications which are not cited (Table 1). The subject categories of the publications originate from *SSCI*. As the second most productive social sciences subject in China, psychology has 2183 uncited *SSCI* publications, followed by the most productive subject, e.g. business and economics. Literature, an *A&HCI* subject, has the highest *Pnc* value (80.2%) among all subjects of China's *SSCI* publications. Between *SSCI* and *SCI* subjects, the highest *Pnc* values are found for area studies and psychology – 50.1% and 23.3% respectively. Note that partial *SSCI* publications were categorized into *SCI* subjects, *A&HCI* subjects or multiple subjects simultaneously. Therefore, there exist non-*SSCI* subjects in Table 1. In addition, a few subjects are included in multiple databases; for example, psychology appears in both *SSCI* and *SCI* databases. Table 1 shows that the *Pnc* value of *SSCI* subjects is significantly higher than that of *SCI* subjects and significantly lower than that of *A&HCI* subjects, which is inversely related to the coverage of the databases.

It is thus concluded that psychology has the largest number of uncited *SSCI* publications in China and literature has the highest percentage of uncited *SSCI* publications. Also, *SSCI* subjects are more inclined to be not cited compared to *SCI* subjects and less inclined to be not cited compared to *A&HCI* subjects.

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Adding audio to Digital Earth – enhancing geospatial portals

Digital Earth (DE) is a concept of virtual representation of planet Earth using a wide range of multi-resolution and multi-temporal geographic referenced information gathered from different sources (ground, aerial, space) that could enable exploring and interaction with a wider range of natural and cultural information. The term and concept of DE was first mentioned by the former US Vice-President Al Gore[1] and further elaborated upon in 1998. He referred to it as geographic computing system for education and research[2,3]. The concept was visualized as a virtual globe on the digital platform solving curiosities of school children, adding to our existing knowledge of different geographic locations, accessing vast amounts of scientific and cultural information. Availability of such information on the desktop would help to develop understanding about the Earth and human activities on it[4,5].

Since then researchers from academia, government, industry and corporate working with geospatial dataset started collating information towards creation of DE. The concept has a wide range of possibilities while handling the spatial and temporal information content, integrating these in a meaningful way, developing visualization tools customized to various users and providing on the fly analytical operation with efficiency. The greater part of such knowledge is expected to be set free to all via the internet; however, commercial usage and services were seen as a co-benefit of this technology. For example, virtual globe geobrowsers such as Skyline, *Google Earth* and Microsoft's Bing Maps are widely used for scientific, social and commercial purposes.

Remote sensing and other satellite technologies are a key data source for such environment, but are not sufficient for a full understanding. The condensed information is provided through a wide range of other geospatial technologies and techniques: (i) geographic information system; (ii) global positioning system; (iii) object-based image analysis; (iv) sensor web, (v) *in situ* or *ex situ* databank and (vi) a holistic integration of these technologies within the language of Open Geospatial Consortium (OGC) standards. The amalgamation of thoughts around DE demanded research and development in the geospatial data creation, evaluation, management and application for users and providers within all levels of government. This resulted in strengthening Global Spatial Data Infrastructure (GSDI), National Spatial Data Infrastructure (NSDI) and also State Spatial Data Infrastructure (SSDI). The OGC and the International Standard Organisation (ISO) were initiated for sharing and visualization of geographic referenced information. As a result, collaborative development of concepts of Web Map Services (WMS), Web Processing Services (WPS), Web Feature Services (WFS), Web Map Context (WMC), Web Coverage Services (WCS), Styled Layer Descriptor (SLD), Software as a Service (SaaS), Geography/Extensible Markup Language (GML/XML) and many others was possible. All these aimed towards development of Digital Earth Reference Model (DERM).

The novel approaches in the cartography and management of globally distributed geographic database remained a research focus worldwide (K. E. Grossner, unpublished). As a result, Keyhole Earthviewer and the GeoFusion GeoPlayer appeared in 2001, and NASA's World Wind was released in 2003. These received notice among a fairly small community. In October 2004, Google acquired Keyhole Corporation and in June 2005, *Google Earth* geobrowser software was realized foreshadowing a major development. It captured an enormous interest as it was free and fast, has