

CMS for Research Organisations: A Case Study of the Institute for Defence Studies and Analyses



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ABSTRACT: *Content Management System (CMS) is a great help to research organisations. It provide a robust, secure, user-friendly and scalable framework for development of Web 2.0 compatible website.*

Keywords: Content Management Systems, Organizations, Web 2.0, Open access

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1. Introduction

The Internet since its birth has gone a long way and so has the development of websites. Earlier a website was to be a source of information about any organisation. But now much more is expected from it. This paper explains various features of Institute for Defence Studies and Analyses's (IDSA) website and how the Content Management System (CMS) helped it to transform into a knowledge base on issues of defence, foreign policy and strategic studies.

2. Institute for Defence Studies and Analyses (IDSA)

Formed in 1965, Institute for Defence Studies and Analyses (IDSA), a premier Think Tank of India, is a non-partisan body dedicated to objective research and policy relevant studies on all aspects of defence and security. Its mission is to promote national and international security through the generation and dissemination of knowledge on defence and security-related issues. IDSA is funded by the Indian Ministry of Defence. It functions autonomously.

IDSA co-publishes number of publications — Books, Journals, Monographs, Occasional Papers, Issue Briefs, Policy Briefs, Commentaries and News Digests etc. The Institute organises Conferences, Seminars and Round Tables etc. on various issues. Many research activities are done under the aegis of the following centres of the Institute:

- East Asia Centre
- West Asia Centre
- South Asia Centre
- Military Affairs Centre

- North America Centre
- Internal Security Centre
- Europe and Eurasia Centre
- Strategic Technologies Centre
- Non-Traditional Security Centre
- Nuclear and Arms Control Centre
- Southeast Asia and Oceania Centre
- Defence Economics and Industry Centre
- Africa, Latin America, Caribbean and UN Centre

3. IDSA's Website

IDSA has a large and vibrant website which contains complete and comprehensive information about it and its activities. It gives information about IDSA's mission, vision, history and organisational structure. The website contains brief summaries of its eminent present and previous Presidents and Directors / Director Generals. It provides information on various fellowships, awards and internship programmes. IDSA News provides comprehensive information about various events, interactions, visits and media reports about IDSA.

Video / Full text of Lectures

Experts, policymakers, senior bureaucrats and eminent people give their views at various events organised by IDSA. Complete text and videos of key speeches, videos and event reports are posted on the website. This provides a very comprehensive collection of views of experts on foreign affairs, defence and internal security issues to national and international visitors.

Open Access

Open Access is a well known phenomenon in Western countries. Recently the US government passed the 2014 omnibus appropriations legislation. As per its provisions, government organisations are required to provide the public with free online access to scholarly articles generated with federal funds.¹ The European Commission is also taking many initiatives to improve access to scientific information generated in Europe.² In December 2013, the EU launched a pilot project - Horizon 2020 – to share valuable information produced by researchers in many EU-funded projects.³ Studies have proved that Open Access increases the impact of research in which they invest public funds and therefore there are better returns on the investment.⁴

IDSA's former Director, Shri K. Subrahmanyam has inferred in his article titled "*The Birth of IDSA and the Early Years*" the importance of educating the public on national and international security matters.⁵ To achieve its mission and generate a scholarly debate, the Institute gives open access to all its publications through its website. The complete text of various publications is posted on website in PDF and HTML format. Each publication is tagged with relevant key words and indexed for full-text search. This makes the IDSA web portal a knowledge base on defence and security issues.

¹ Congress passes spending bill requiring free access to publicly funded research, Timothy Vollmer, January 16th, 2014. Accessible at <https://creativecommons.org/weblog/entry/41802>

² Scientific data: open access to research results will boost Europe's innovation capacity, Press Release, European Commission, Brussels, 17 July 2012. Accessible at http://europa.eu/rapid/press-release_IP-12-790_en.htm

³ Commission launches pilot to open up publicly funded research data, Press Release, European Commission, Brussels, 16 December 2013. Accessible at http://europa.eu/rapid/press-release_IP-13-1257_en.htm

⁴ John Houghton and Peter Sheehan, The Economic Impact of Enhanced Access to Research Findings, CSES Working Paper No. 23, July 2006. Available online at <http://www.cfses.com/documents/wp23.pdf>. Accessed on March 10, 2014.

⁵ K. Subrahmanyam. (1990). The Birth of IDSA and the Early Years", *Strategic Analysis*, 13 (4), July, 463-570

The IDSA website integrates various publications brought out by different centres on a common platform. It also connects different Centres with topics of common interest. The user-friendly website is social media compatible and has the latest web 2.0 features. Some of the key features of the IDSA's website are as follows:

- **User-Friendly Navigation:** The website has the main navigation bar on top as a horizontal bar which contains links to all the main sections including About us, Events, Library, Publications, Membership and Contact us. The website also has left navigation which changes as per the main section. This makes it easier for the user to navigate and drill down to the required page.
- **Simple Interface:** The interface of the website is very simple but has all the important elements. Apart from the top and left navigation, the website has links to related topics and articles on the right side. All the pages have the option to print and share the page on popular social networking sites. The pages also have the complete route of the page which includes a link to the main section and its sub-sections.
- **List of Publications by Centre:** The Centre page contain a small brief about the Centre, names of Centre members, list of publications by the Centre and list of events organised by the Centre.
- **LIST OF PUBLICATIONS BY AN AUTHOR:** The website has a page for all the experts which contain small bios of the author with contact details and link to the list of all the publications at the Institute by the expert. The publication may be a book, monograph or journal article.
- **List of Publications by Topic:** Publications can also be filtered on the basis of relevant topic. The list contains all the publications — book, monograph, issue brief and policy brief etc. on the topic.
- **Event Calendar:** The website has an event calendar which lists all the events in a month. The calendar documents all the events in the Institute and has the option to view previous events. A list of events by category like Conference, Round Tables and Lectures etc. is also given. A list of three forthcoming events is given on the homepage of the website.
- **Visitors Comments:** The website provides the option to comment on various publications available on the website. Submitted comments are posted on the website after approval of the administrator. This creates an environment for healthy online discussion.
- **RSS Feeds:** Rich Site Summary (RSS) Feeds is given for various lists like list of books, list of monographs, list of journal articles, list of new publications, list of author's publications, list of publications by the Centre, List of publications on a topic and events etc.
- **Search:** The website provides search facility. The visitor can search by any keyword and narrow down the search to a particular publication or author.
- **Search Engine friendly:** The website is very friendly to various popular search engines like Google, Bing and Yahoo etc. It provides auto site map for the search engines which helps search engines to crawl the site easily.
- **Members Details:** The website provides a complete list of all the Life members, Associate members and other members online. Members can check their membership status online by giving membership number and surname.
- **Integration with Social Networking websites:** The Institute has a page on all the popular social networking websites like Facebook, Twitter, Linkedin and YouTube. The social networking websites are integrated with the Institute's website and all the new updates to the Institute's website are automatically posted on the social networking websites.
- **Visitor's Report:** A comprehensive report of a visitor's activity on the website is generated. The report includes details of the number of visitors, pages visited by visitors, location of visitors and many other details.

4. Content Management System

IDSA's website contains more than 14,500 pages which include publications, event details, reports and many other pages. The pages are linked to each other by topic, author, publication type, Centre etc. In a static website it is very cumbersome to create so many pages and update the various links. The IDSA website is developed using the Content Management System (CMS). A CMS provides a central interface to post, edit and modify content. Some of the benefits of CMS are:

1. In a static website to update or add content on the website, knowledge of HTML or the coding language is required. In a CMS posting or updating content is very easy. We do not have to rely on a developer to make changes to the website content. This saves time and money. For a website which is updated frequently, this feature is a great help.

2. In a CMS coding and content are separate entities. As the content is updated by the authors, the developers' can work on design of the front end or implementation of new features and functionality.

3. A CMS provides a multi-level user authentication facility which allows multiple users to post content to the website.

4. In a CMS, the designing elements are centrally controlled. By putting style rules in place, we can change design elements such as font sizes and colours for the entire website. We do not have to change these elements manually on all the pages. This makes maintenance of the website easy.

5. A CMS has many useful functionalities at its core. Developing these functionalities from scratch would normally entail a high cost.

6. Most CMS softwares are web-based, which means that you can access and edit your site from any computer with an internet connection. No specific software needs to be installed.

7. In a CMS, we can add new functionality by installing the module for that function. This makes further development of the website easy and increases scalability.

5. Drupal

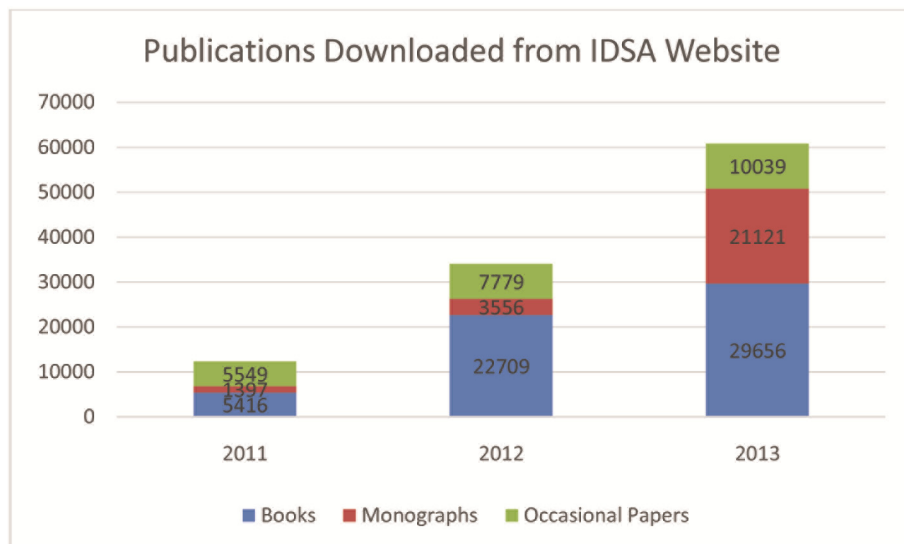
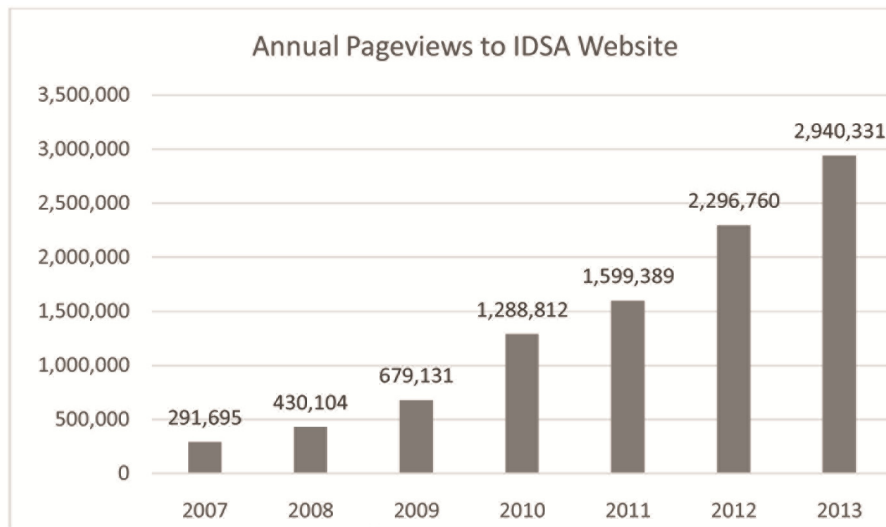
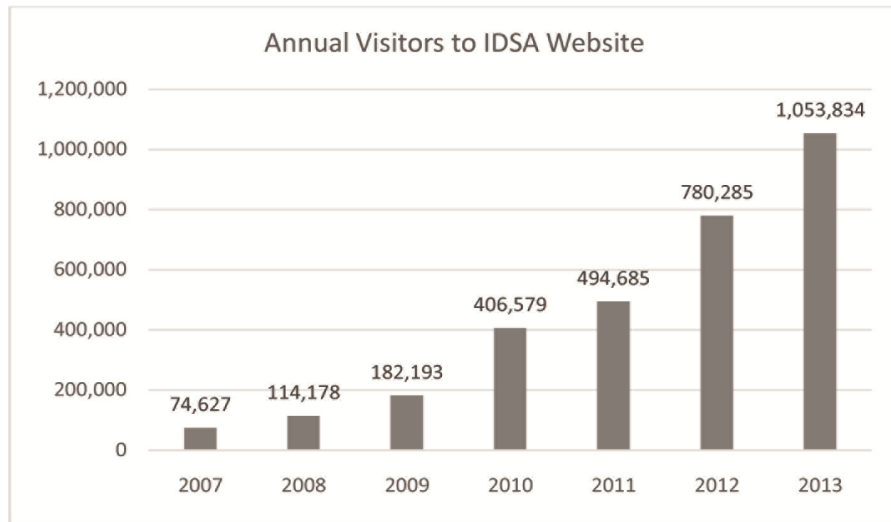
Taking into account the number of pages within the IDSA website and future expansion, the Institute is using Drupal for its website. Drupal is an open-source free Content Management System. It is one of the most secure open source CMS and therefore, even the White House is using Drupal for its website WhiteHouse.gov. Drupal provides many options to the developer for customization. It has

more than 25,000-plus add-on modules contributed by developers for free use¹. Some of the main modules which IDSA is using are as follows²:

1. CCK: Allows administrators to define new content types.
2. Content Taxonomy: Defines a field type for taxonomy terms
3. ImageField: Defines an image field type.
4. Comment: Allows users to comment on and discuss published content.
5. Path: Allows users to rename URLs.
6. Search: Enables site-wide keyword searching.
7. Taxonomy: Enables the categorization of content.
8. Upload: Allows users to upload and attach files to content.
9. Custom Breadcrumbs: Allows administrators to define custom breadcrumb trails for node types.
10. Calendar: Views plugin to display views containing dates as Calendars.
11. Date: Defines CCK date/time fields and widgets.
12. Footnotes: Add automatically numbered footnotes to your posts.
13. Menu block split: Allow to have an splitted menu tree within two blocks
14. Webform: Enables the creation of forms and questionnaires.

⁶ Home page of Drupal, <https://drupal.org/>.

⁷ The description of the modules is as given in the Drupal installation



15. Google Analytics: Adds Google Analytics javascript tracking code to all your site's pages.
16. Views: Create customized lists and queries from your database.
17. Similar By Terms: Use Views to show similar content based on taxonomy terms
18. XML Sitemap: Create a XML sitemap conforming to sitemaps.org specifications.

6. Benefit for Outreach

IDSA had a static website and it launched its Drupal-based website in October 2009. Drupal helped a great deal in maintenance and promotion. In these years, as per new requirements, many changes have been undertaken in layout and structure of the website. The website's pages are ranked among top 10 on most of the popular keywords on defence and foreign relations in Google and other popular search engines.

Due to the increased visibility in Search Engines and the user-friendly structure of the website, the visitors and pageviews of the website have increased 923 and 684 times respectively from 2008 to 2013, as the figures below corroborate⁸.

With the increase in posts on the website and visitors' activity, the Alexa ranking of the Institute's website has improved from 6,00,402 in August 2009 to 99,140 in March 2014⁹.

⁸ Data compiled by the author using Google Analytics and log files.

⁹ Alexa Internet, Inc. (<http://www.alexa.com/>) is a California-based company which provides commercial web traffic data. Its toolbar collects data on browsing behaviour and transmits it to the Alexa website, where it is stored and analyzed, forming the basis for the company's web traffic reporting. Data for IDSA website is available at <http://www.alexa.com/siteinfo/idsa.in>