Web-accessible medical literature database use of Japanese healthcare professionals; analysis based on log information of "Ichushi- Web"

Mami Matsuda, Toshinori Kurosawa, Minoru Ikusaki, Atsutake Nozoe

NPO Japan Medical Abstracts Society, Tokyo

Objective

"Ichushi-Web" is domestic medical literature database service provided by NPO Japan Medical Abstracts Society, which is most frequently used in Japan.

Coverage: medicine and other allied health disciplines from 2,700 domestic journals
About 6.7 million bibliographic data
Provided to: about 2,000 institutions – research and educational institutions, hospitals, for-profit companies such as pharmaceutical companies, public libraries, etc.

The purpose of this study is to analyze log information of "Ichushi-Web" users, and thus review the current status of database use, links to electronic journals, and links to OPAC or Link Resolver.

Methods

The access information was extracted from log files stored on the "Ichushi-Web" server.

Daily and yearly distribution of login, and the number of click-on the links to electronic journals and to OPAC or Link Resolver were analyzed.

The information regarding optional settings such as linkage to OPAC or Link Resolver, which are customized by each users' organization was also obtained and examined.

Results

Usage of Ichushi-Web
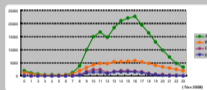
Daily number of login

Utilization of "Ichushi-Web" service has been growing year by year.
The average daily number of login during the weekdays in October 2008 was nearly 14,000.

Usage - on a sectoral basis

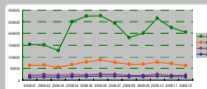Daily and yearly distribution of login were examined on users' sector basis:

A research and educational institutions
B hospitals
C for-profit companies such as pharmaceutical company
D others

Daily distribution of login

The number of daily login from (A) reached its peak at 4:00 p.m., distribution of which was characterized by a nearly bell-shaped curve with a remarkable drop at 12:00 p.m.
Whereas, those of (B),(C), and (D) varied less greatly during the daytime.

Yearly distribution of login

The data of login from (A) showed a distinct bimodal distribution with peaks in May/June, and October.
As for the other three sectors, namely, (B),(C), and (D), much less seasonal fluctuation was seen.
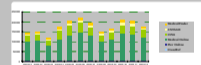
Links to Electronic Journals

About 1.9 million citations in "Ichushi-Web" are linked to electronic full-text or bibliographic data in external sites.
Nearly 1.2 million citations out of the total records are linked to the full-text article.
We gathered data on users' clicking on the icons to view electronic full-text, and analyzed the obtained information to find what types of articles were often accessed.

The cumulative number of links to Electronic Journals – every year

Service	Provider
MedicalOnline	Igaku Chuo Zasshi ...
J-STAGE	JST(Japan Science and Technology Agency)
CiNii	NII(National Institute of Informatics), Japan
Medical Online	Meteo Co., Ltd.
Flee Online	Nanzendo Co., Ltd., Japan
CrossRef	CrossRef.org

Number of clicking on links to Electronic Journals - monthly

The average monthly number of users' clicking on the links to electronic journals was about 170,000.
(January through December 2008)

Number of clicking on links to Electronic Journals by type of article and Service Provider

Seen by provider and article type, "Review Article" contained in the "Medical Online" has been accessed more often than any other type of literature.
※ "Review Article" includes introductory or general articles describing particular themes.

Links to OPAC or Link Resolver

Each institutional user can customize the interface for the result of "Ichushi-Web" search, by setting optional links for OPAC or Link Resolver.
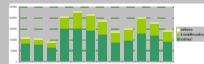The information regarding optional settings and clicking on the icons was gathered and analyzed.

Number of institutions setting links to OPAC or Link Risolver

Institutional clients setting links to OPAC or Link Resolver has been increasing in number year after year.

Approximately 20 % out of the total institutional customers have set links to OPAC or Link Resolver. The rate in medical school libraries was much higher, nearly 70％.

Number of clicking on links to OPAC or Link Risolver - monthly

Statistics showed that the average monthly number of clicking the links to OPAC or Link Resolver was about 160,000. (January through December 2008)

Conclusions

As many as 14,000 people are estimated to make active use "Ichushi-Web" each day.

The seasonal and daily fluctuation with significant peaks were seen in "Ichushi-Web" utilization by colleges or research institutes.

The analysis of the log information about users' clicking on the links to access electronic articles showed that the users more often viewed "Review Articles", included introductory articles in commercial journals.