NHMRC: IMPACT CASE STUDY

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Australian Government
National Health and Medical Research Council

NHMRC

Providing access to the latest knowledge

The growth of the international scientific enterprise has led to the creation of enormous amounts of new knowledge. This knowledge has positively transformed health and medicine in many ways, but over time managing and gaining access to this knowledge became increasingly difficult. To address this challenge, NHMRC was instrumental in introducing to Australia a system called MEDLARS. This system – now known as PubMed – has become essential research infrastructure worldwide.

Origin

In 1964, the US National Library of Medicine (NLM) launched a computer-based service called MEDLARS - the Medical Literature Analysis and Retrieval System. Medical staff and researchers would ask NLM for information about journal articles related to health and medicine, and NLM staff would obtain that information using MEDLARS. Prior to MEDLARS, such searches had to be performed using printed books. In 1966, NHMRC began working to provide this service to Australian researchers and medical personnel.

Investment

In 1966, NHMRC provided a grant to John Bennett and Robert Donnelly at the Basser Computing Department of the University of Sydney, to develop the new system.

Over time, many other countries started developing similar systems, and the NLM also continually upgraded the MEDLARS system.

These upgrades led to the 1971 release of MEDLINE, which was an 'online' version of MEDLARS. MEDLINE allowed users to access MEDLARS by connecting their computer to the system via a telephone.

Research

In 1968, Donnelly visited the NLM and eleven other overseas centres (mainly MEDLARS centres) in the US, Europe and UK. The goal of this trip was to prepare details of a computer program to be implemented in Australia.

Australia's MEDLARS system became fully operational during the second half of 1969. The Australian Government Department of Health provided the machine facilities and programming expertise required to develop, implement and maintain Australia's MEDLARS computing systems.

Translation

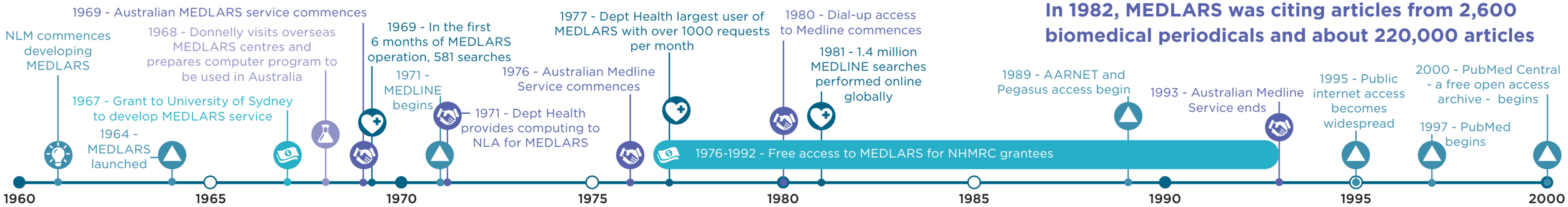
MEDLARS was a significant advance over the paper-based information that preceded it. While the latter could only use one specific entry for a particular reference, MEDLARS could use 20-30 including such tags as geographical headings, sex and age of patients, and key details of the clinical or experimental research. Departmental medical officers and NHMRC grantees could use the service without charge.

In 1976-77, the Department of Health was the largest single user of MEDLARS, with more than 1000 requests processed monthly.

Impact

MEDLARS was an important tool to improve health. A 1975 survey found that 41 percent of MEDLARS end users were physicians and 19 percent were nonphysician scientists. More than one-half of search requests were from nonphysician health providers, including nurses, ancillary service providers and administrators.

A 1981 study found that hospitals and medical schools were the biggest users of MEDLARS, respectively with 32% and 21% of searches requested.



In 1982, MEDLARS was citing articles from 2,600 biomedical periodicals and about 220,000 articles

Researchers

Prof John Bennett AO
Mr Robert B Donnelly

Staff

Australian access to MEDLARS was jointly provided by the National Library of Australia and the Australian Government Department of Health

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