

Health & Med. Info. for Education -

INFORMATION SCIENCE AND MEDICAL EDUCATION (IMIA WG 1)

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1. Introduction

Health and medical informatics (HMI) education has become an integral part of education and training, e.g. for physicians, nurses and for administrators in the field of healthcare in a variety of countries all over the world. In addition, there exist HMI courses for informatics students and even dedicated programs for specialists in HMI.

In accordance with the aims of IMIA, its Working Group 1 (WG 1) seeks to advance the knowledge of:

- how informatics is taught in the education of healthcare professionals around the world;
- how in particular health and medical informatics is taught to students of computer science/informatics;
- how it is taught within dedicated curricular in health and medical informatics.

In 1995, Denis Protti, Canada completed the second successful term as chair of WG 1 and handed over the chair to Reinhold Haux for the term 1996 to 1999.

2. Past International Meetings / Working Conferences

IMIA WG 1 and its predecessor IFIP WG 4 (IFIP-International Federation of Information Processing), were at an early stage perceptive to the need of education in the then new field of health and medical informatics. Basic responses to this need were published in 1974 on the basis of the first IMIA working conference on education held in Lyon in 1970.

Meanwhile five working conference have been organised by IMIA WG 1:

1. Lyon, France - 1970
2. Chamonix, France - 1983
3. Victoria, Canada - 1989

4. Prague, Czech Rep. - 1990
5. Heidelberg, Germany - 1992

Many other meetings, sessions and workshops have also been organised by members of the Working Groups, e.g. during MEDINFO 95 at Vancouver, a workshop panel entitled "Political, Philosophical and Pragmatic Issues in Health/Medical Informatics Education" was presented.

3. Future International Working Conferences/ Other Activities
At its meeting in Vancouver during MEDINFO 95, WG 1 members discussed future plans for WG 1 to be accomplished during 1995-1998. Four aims were presented: 1) to disseminate and exchange information on HMI programs and courses; 2) to promote the IMIA WG 1 database at the University of Maryland at Baltimore; 3) to produce international recommendations on HMI programs and courses; 4) to support HMI courses and exchange of students and teachers.

WG 1 members agreed to set their priorities as follows:

AIM 1: HMI programs will include all physicians, nurses and hospital curricula and courses in health/medical informatics.

AIM 2: The goal is to provide an up-to-date database that is tied to a WWW server. This aim was perceived as the priority for WG 1.

AIM 3: Most members felt that although international recommendations would be helpful, it would be difficult to achieve. This aim was not seen as an immediate priority for WG 1.

AIM 4: Some members spoke in favour of supporting the development of HMI courses through the exchange of students and teachers.

There will be a meeting of WG 1 during MIE 96 in Copenhagen. Also during MIE 96 there will be a workshop on health and medical informatics education, organised together with EFMI WG 6.

There are also initial plans to organise the 6th working conference of IMIA WG 1 in August 1997 as a satellite conference of HIC 97 / APAMI 97 in Australia.

Other Activities

The future of the database on Health and Medical Informatics Programs and Courses was discussed during MEDINFO 95. Until 1995 it was housed at the University of Maryland at

Baltimore. In January 1996 the database was installed at the University of Heidelberg and will now be part of the IMIA WG 1 world-wide web server. The structure, evolution and use of the database will be discussed further in future WG 1 meetings.

Information on HMI programs, courses and mailing list can be obtained on URL: <http://ix.urz.uni-heidelberg.de/-d16/>

To subscribe to the IMIA WG 1 mailing list send mail to:
LISTSERV@LISTSERV.NET with the body of the message reading
SUBSCRIBE IMIA-WG1.

4. Proceedings and Publications (WG 1)

Anderson J, Grémy F, Pagès JC. eds. Education in Informatics of Health Personnel. IFIP Medical Informatics Monograph Series 1. Amsterdam: New York, Oxford: North Holland, 1974.

Pagès JC, Levy AH, Grémy F, Anderson J. eds. Meeting the Challenge: Informatics and Medical Education. Amsterdam: North Holland, 1983.

Salamon R, Moehr JR, Protti DJ. eds. Medical Informatics and Education. Victoria: (Canada) Univ. of Victoria Press, 1989.

Van Bemmel JH, Zvarova J, eds. Knowledge, Information and Medical Education. Amsterdam: North-Holland, 1991.

Haux R, Leven FJ, Moehr JR, Protti DJ. eds. Special issue (3/94) on Health and Medical Informatics Education. Meth Inform Med 33 1994; 246-331.

Besides these publications papers on health and medical informatics education appeared in many conference proceedings, e.g. in those of MEDINFO.

5. List of Members

Can be obtained directly from WG 1 Chair, or via internet IMIA WG 1 WWW Server.

Information Science and Medical Education (IMIA WG 1)

Chair:

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Update for IMIA General Assembly on August 1996 at Copenhagen

- A proposal for the 6th WG1 conference has been prepared.
- The WG1 members have been updated, communication can now be done by email.
- A workshop on MIE 96 of EFMI WG6 and IMIA WG1 has been prepared
- The WG1 WWW server has been maintained, the database on health and medical informatics programs and courses is now ready to be filled.
- The WG1 list server has been maintained.

1 Objectives

Health and medical informatics (HMI) education has become an integral part of education and training, e.g. for physicians, nurses and for administrators in the field of health care in a variety of countries all over the world. In addition there exist HMI courses for informatics students and even dedicated programs for specialists in HMI.

In accordance with the aims of IMIA, its working group 1 (WG1) seeks to advance the knowledge of

- how informatics is taught in the education of health care professionals around the world,
- how in particular health and medical informatics is taught to students of computer science / informatics and
- how it is taught within dedicated curricula in health and medical informatics.

2 Past Activities, Meetings and Working Conferences

IMIA WG1 and its predecessor WG4, of the International Federation of Information Processing (IFIP), were at an early stage perceptive to the need of education in the then new field of health and medical informatics. Basic responses to this need were published in 1974 on the basis of the first IMIA working conference on education held in Lyon in 1976.

Meanwhile 5 working conferences have been organised by WG1:

1	Lyon, France	1974
2	Chamonix, France	1983
3	Victoria, Canada	1989
4	Prague, Czech Republic	1990
5	Heidelberg/Heilbronn, Germany	1992

Many other meetings, sessions and workshops have also been organised by members of the working group, e.g., during MEDINFO 95 at Vancouver, a workshop panel titled "Political, Philosophical, and Pragmatic Issues in Health/Medical Informatics Education" was presented.

3 Proceedings and Publications

Results of the five IMIA WG1 working conferences have been published in the following proceedings and special issues:

- 1 Anderson J, Grémy F, Pagès JC, eds: *Education in Informatics of Health Personnel*. Amsterdam: North Holland Publ Comp, 1974.
- 2 Pagès JC, Levy A H, Grémy F, Anderson J, eds: *Meeting the Challenge: Informatics and Medical Education*. Amsterdam: North Holland Publ Comp, 1983.
- 3 Salamon R, Moehr JR, Prott DJ, eds. *Medical Informatics & Education*. Victoria: University of Victoria Press, 1989.
- 4 Van Bemmel JH, Zvarova J, eds: *Knowledge, Information and Medical Education*. Amsterdam: North Holland Publ Comp, 1991.
- 5 Haux R, Leven FJ, Moehr JR, Prott DJ, eds: Special Issue (3/94) on Health and Medical Informatics Education. *Meth Inform Med* 33 (1994) 246-331.

Besides these publications papers on health and medical informatics education did appear in conference proceedings, e.g. in those of MEDINFO.

4 Future Activities, Meetings and Working Conferences

Activities

At its meeting in Vancouver during MEDINFO 95, WG1 members discussed future plans for WG1 to be accomplished during 1995-1998. Four aims were presented (see attached proposal):

- 1 Disseminate and exchange information on HMI programs and courses.
- 2 Promotion of the IMIA WG1 database at the University of Maryland.
- 3 International recommendations on HMI programs and courses.
- 4 Support HMI courses and exchange of students and teachers.

WG1 members agreed to set their priorities as follows:

- Aim 1: HMI programs will include all physician, nurse and hospital curricula and courses in health/medical informatics.
- Aim 2: The goal is to provide an up-to-date database that is tied to a WWW server. This aim was perceived as the priority for WG1.
- Aim 3: Most members felt that although international recommendations would be helpful, it would be difficult to achieve. This aim was not seen as an immediate priority for WG1.

- Aim 4: Some members spoke in favour of supporting the development of HMI courses through the exchange of students and teachers.

Meetings

There will be a meeting of WG1 during MIE 96 at Copenhagen. Also during MIE 96 there will be a workshop on health and medical informatics education, organised together with EFMI WG 6.

Working Conferences

There are initial plans to organise the 6th working conference of IMIA WG1 in August 1997 as satellite conference of HIC 97 / APAMI 97 in Australia.

Database on Health and Medical Informatics Programs and Courses

At MEDINFO 95 the future of the database on HMI programs, until 1995 housed at the University of Maryland at Baltimore, was discussed. The database will be part of an IMIA WG1 world wide web server, installed at the University of Heidelberg. The structure and use of the database will be discussed further in future WG1 meetings.

WWW Server and Mailing List

In order to disseminate and exchange information on HMI programs and courses an IMIA WG1 world wide web server and a mailing list was installed in January 1996 at the University of Heidelberg. The URL of the WWW server:

<http://ix.urz.uni-heidelberg.de/~d16/>

To subscribe to the IMIA WG1 mailing list, send mail to LISTSERV@LISTSERV.NET with the body of the message reading

SUBSCRIBE IMIA-WG1

5 New Chairperson

In 1995, Prof. Denis Prott, Canada, completed the second successful term as chair of WG1. As he suggested to see another individual serve in the chair capacity, Reinhold Haux, Germany, was appointed and is serving as chairperson from 1996 to 1999.

6 List of Members

Can be obtained directly from the WG1 chairperson or via internet through the IMIA WG 1 WWW server.

The IMIA WG1 Database on Health/Medical Informatics Programs and Courses : A Call for Participation

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Abstract: Working Group 1 of the International Medical Informatics Association (IMIA) has established a WWW site (<http://ix.urz.uni-heidelberg.de/~d16>) to provide up to date information about its work. The core of the site is an underlying database providing information on health/medical informatics (HMI) programs and courses worldwide. In addition a mailing list was installed to facilitate communication between all persons interested in HMI education (IMIA-WG1 at listserv@listserv.net). To be able to have a database of high quality and value we encourage all teachers and institutions to submit information about courses and programs on HMI education offered and to set pointers to their own WWW sites.

Keywords: Medical Informatics, Health Informatics, Education, World-Wide Web, Mailing List

Introduction

Working Group 1 (WG 1) of the International Medical Informatics Association (IMIA) deals with education in health/medical informatics [1]. In its meeting during Medinfo 95 in Vancouver the members of WG1 decided to establish a database providing information about programs and courses in Health/Medical Informatics (HMI) worldwide which should be concise and easily accessible. Basically its purpose is to serve teachers and students searching for information about programs and courses in HMI.

World-wide web site

In previous work carried out at University of Maryland at Baltimore and University of Victoria a database accessible through Gopher was established and some data collected [2]. Most of the data is now outdated or has been replaced by links to Gopher sites of the respective programs, i.e. are not available in a structured way in a database.

As the world-wide web is establishing itself as the prime medium for dissemination and exchange of information IMIA WG1 decided to establish its own WWW site at University of Heidelberg. The main goal was to give easy access to a new version of the database but also to provide information about results and ongoing activities of the working group as well as information about the group's members. The IMIA WG1 WWW site can be accessed through the URL

<http://ix.urz.uni-heidelberg.de/~d16>

Structure of the Database

Acknowledging the diversity of programs and courses in existence a simple database scheme was developed (see fig. 1) which hopefully is sufficient to accommodate the programs and courses encountered in practice. The attributes of the three components of the database are listed in tables 1 through 3.

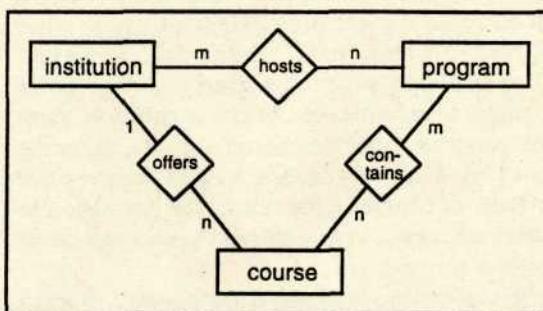


Figure 1: Structure of the IMIA WG1 database on HMI programs and courses.

Institution
Name of Institution
Faculty/School
Department
Contact Person
Street
City
State
Postal code
Country
Phone number
Fax number
E-Mail address
WWW address

Table 1: Database attributes for an institution.

Program
Name of Program
Institution(s)
Type of Program
Duration of Program (years)
Degree/Qualification awarded
Year created
Language of Instruction
of Full-time Faculty
of Part-time Faculty
Application Requirements
Application deadline(s)
Enrollment/year
of Students (m/n) currently enrolled
of Graduates
Program Description / Remarks

Table 2: Database attributes for a program.

Course
Name of Course
Course Number
Institution
Program
Credit Hours
Level
Instructor
E-Mail address of Instructor
WWW address
Course Description / Syllabus

Table 3: Database attributes for a course.

Usually a certain institution will offer certain courses on HMI, e.g. for physicians, nurses or other health care professionals. There are, however, several specialized programs granting degrees in health/medical informatics. At one institution more than one program may be offered, e.g. one granting a M.S. and another one granting a Ph.D., and require different sets of courses to be taken. We have tried to cover these situations encountered in practice within the database scheme.

The attributes of the database were selected to form a minimum data set, especially providing key information relevant for searching for a course or program. More detailed information may be provided in the database links to WWW pages of the respective course or program.

Operations of the Database

One of the main problems with a database like this is being up-to-date and its content being controlled to assure a high quality of information. We therefore decided to proceed as follows:

The database is operated in a monitored mode. Information submitted to the database will be available for retrieval immediately but will also be checked for completeness and consistency during regular maintenance of the database. In case of problems we will try to get corrected information from the institution hosting the course resp. offering the program. Obviously nonsense data will be deleted from the database without notification. We will not allow the users to modify existing data through the WWW. Changes should be re-entered into the database with a note to the administrator to delete the old entries.

During the initial phase establishing the database we will scan the information offered by the Maryland database and actively seek information from the institutions represented there. In the routine stage - to ensure that the information offered is up-to-date - we will provide regular reminders for the people responsible for a respective program or course to review their entries in the database and possibly update them.

Searching for Information in the Database

Currently we allow searches in the database by keyword, country, language and program type. We will provide a more sophisticated means for searching, soon. However in most cases the options offered currently should suffice.

Mailing List

To provide a means for fast and easy communication between all persons interested in HMI education an unmoderated mailing list has been installed at the University of Heidelberg. For subscription a message has to be sent to

listserv@listserv.net

The body of the message should read

SUBSCRIBE IMIA-WG1

The listserver will then reply with a notification that the subscription has been accepted and some more information about additional services offered. Should there be any problems with the list, e.g. not being able to subscribe, the administrator of the WG1 list should be contacted at

imia.wg1@urz.uni-heidelberg.de

Messages to the IMIA WG1 list have to be sent to

imia-wg1@urzinfo.urz.uni-heidelberg.de

Conclusions: Now it's up to YOU!

The IMIA WG1 database on courses and programs in health/medical informatics education is set up and running. It is obvious however that the database can only be useful if it is provided with sufficient input.

Now it is up to all people responsible for HMI programs and courses. We ask you to enter current information about your programs and courses. Add pointers to your own WWW sites! Keep the database alive!

REFERENCES

1. van Bemmel, JH, McCray, AT (Eds.). *Yearbook of Medical Informatics '96, Chapter about IMIA Working Groups*. 1996. Stuttgart: Schattauer.
2. Ball, MJ, Protti, DJ, Douglas, JV. An International Health/Medical Informatics Programs Database. *Meth Inform Med* 1994; 33:327-9.

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HEALNET Education and Knowledge Transfer Program

EKTP

The HEALNet (Health Evidence Linkage and Application Network of Centres of Excellence) mandate is to bring together the academic, public and private sector resources to provide tools for better decision making in order to improve the health of Canadians. The EKTP mission is to meet the present and future education and training needs of health care decision makers.

The following activities are in priority development :

- Innovative education programs and activities for the training of highly qualified personnel including a distance learning HEALNet curriculum and a HEALNet certificate program ;
- Opportunities for existing and future personnel to gather multi-sector experiences including a student exchange program, and a program for industrial and workplace experience ;
- The provision of an Infocentre on the web which will display all education activities. The Infocentre will permit people to register for activities and programs and will provide a career opportunity services ;
- Conferences, seminars and workshops.

The education program is administered by a director Andrew Grant MD PhD and a coordinator Karine Tremblay along with the EKTP committee which has theme and sector representatives. The office is located at the Sherbrooke University St. Jean campus at St Jean sur Richelieu, Quebec.

For more information contact Karine Tremblay at (1) 514 358 6500 ext. 5671, or e-mail a.grant@courrier.usherb.ca or tremblayk@cmr.ca