Representation of Medical Informatics in the Wikipedia and its Perspectives

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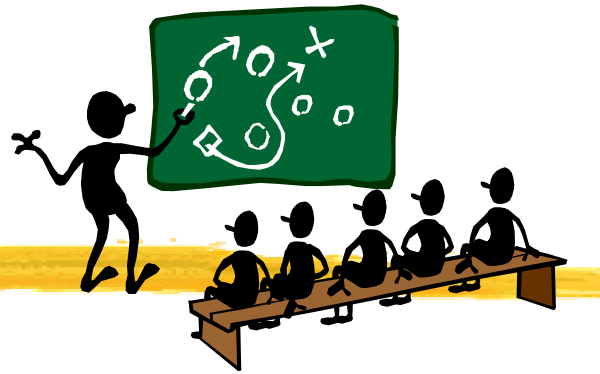
Motivation



- „Daddy, what are you doing at work?“
- Questions from laymen regarding „oncology“ and „cancer registry“ topics
  - How can we transfer knowledge about our specialty to the public or specialists we are cooperating with (e.g. physicians)?
- Overwhelming results from internet searches
  => much information but often few knowledge
- Textbooks often cannot reflect new projects
  - How can we as members of a specialty (easily) get up to date information about off topics

Wikipedia – a possible solution?

- Wikipedia – free online encyclopedia
- Centralised ressource with knowledge („versus" scattered information as result from internet searches)
- Start January 2001
- 437086 entries in January 2005 (687,752 in August 2005)

Wiki

- Definition from the Wikipedia
  - A wiki is a web application that allows users to add content, as on an Internet forum, but also allows anyone to edit the content.
  - The name is based on the Hawaiian term wiki wiki, meaning “quick” or “informal”.
- Wikis gain increasing popularity
  - as tools for collaborative work

The Ideas Behind the Wikipedia

- "**free encyclopedia that *anyone* can edit**"
  - „easy low cost access to free knowledge to empower them [every single person] to do whatever it is that they want to do"
  - Collaboration of authors (including some kind of peer review)
  - Continuous improvement of articles
- Editing is simple and can easily be learnt
- Content available under the **GNU Free Documentation License**

Medical informatics

From Wikipedia, the free encyclopedia.

Medical Informatics is the name given to the application of information technology to healthcare. It is the:

> "understanding, skills and tools that enable the sharing and use of information to deliver healthcare and promote health" *(British Medical Informatics Society)*.

Medical informatics is often called *healthcare informatics* or *biomedical informatics*, and forms part of the wider domain of *eHealth*. These later-generation terms reflect the substantive contribution of the citizen & non-medical professions to the generation and usage of healthcare data and related information. Additionally, medical informaticians are active in bioinformatics and other fields not strictly defined as health care.

Electronic patient chart of a HIS

Contents [hide]

1 Aspects of the field
2 History
3 See also
4 External links

Medical informatics - Wikipedia, the free encyclopedia - Mozilla Firefox

Datei Bearbeiten Ansicht Gehe Lesezeichen Extras Hilfe

http://en.wikipedia.org/wiki/Medical_informatics

Links anpassen Windows Media Windows

WIKIPEDIA
The Free Encyclopedia

navigation

- Main Page
- Community portal
- Current events
- Recent changes
- Random article
- Help
- Contact us
- Donations

search

Go Search

toolbox

- What links here
- Related changes
- Upload file
- Special pages
- Printable version

in other languages

- Deutsch

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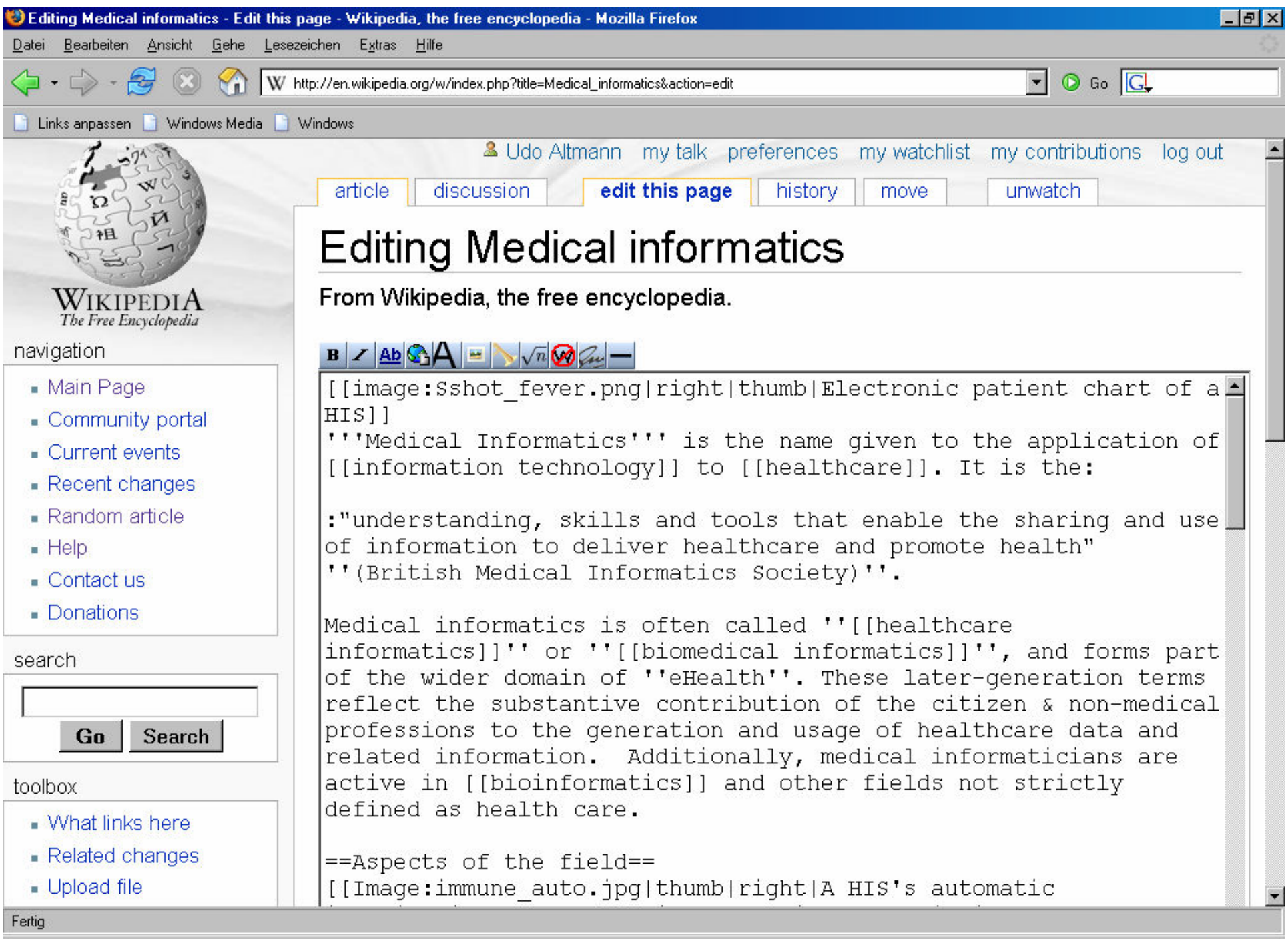
Aspects of the field

[edit]

These include:

- architectures for electronic medical records and other health information systems used for billing, scheduling or research.
- decision support systems in healthcare
- messaging standards for the exchange of information between health care information systems (e.g. through the use of the HL7 data exchange standard) - these specifically define the *means* to exchange data, not the content
- controlled medical vocabularies such as the Standardized Nomenclature of Medicine, Clinical Terms

Fertig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Random article
Help
Contact us
Donations
search
Go Search
toolbox
What links here
Related changes
Upload file
[[image:Sshot_fever.png|right|thumb|Electronic patient chart of a HIS]]
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==Aspects of the field==
[[Image:immune_auto.jpg|thumb|right|A HIS's automatic
Fertig

Key Questions

- General: Quality
  - => Completeness
  - => Correctness
  - => Protection against vandalism / spam
  - => Language: Understandability / neutral point of view
- Specific: Medical Informatics
  - => Coverage and quality of articles
  - => Audience (laymen, specialists)

Methods

- Focus on coverage of topics
  - Sample (size: 57) of terms mainly from the table of contents of the "Handbook of Medical Informatics"
    - Search on two days (October 17th, 2004 and January 2nd, 2005)
    - Existence / date of entry
    - Date of last Change
    - Number of Changes
    - Intensity of changes as index:
      number of changes / (last change – date entered + 1)
  - not representative (what could be representive?)
    - General „informatics" topics
    - Specific „medical informatics" topics
- Introduction of new articles / modification of existing
  - What happens with new articles (improvements, vandalism, …)?

Results I

- General "informatics" topics covered well
- Important rather specific "Medical Informatics" terms not found on first visit
  - *Nursing Informatics***
  - *Hospital Information System**, Clinical Information System
  - ICD-O, ICPM (=> *Medical Classification**)
  - Biosignal
  - Arden Syntax, Guideline (Medical Guideline Dec 18th, 2004)
  - Health Telematics
  - *Cancer Registry**
  - *: *entered by the author*
  - **: *entered + significant changes by other authors*

Results II

- Frequence of changes
  - Average one change / twenty days
  - High frequency on „Medical record”
- Quality of entries
  - Not the focus of this work
  - Sometimes too technical writing
  - No vandalism in this area (but observed in other areas)
  - Some attempts to introduce advertisements (Electronic Medical Record)

Discussion I

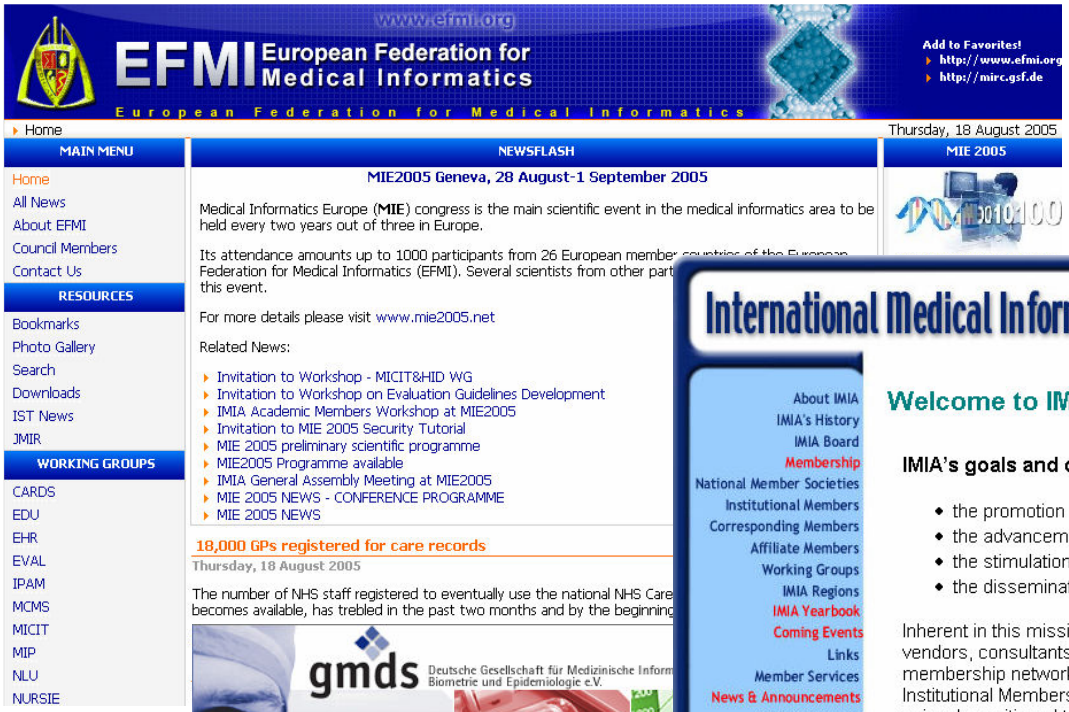
- Wikipedia general
  - Test by computer magazine (c't, Oct. 04)
    - Overall comparable quality with respect to commercial products
      (Microsoft Encarta Pro and Brockhaus, German version)
  - „Wikipedia might be completed in 10 years"
    - Founder Jimmy Wales cited in a German newspaper
      (Frankfurter Rundschau Aug. 06, 05)
- => The „Wikipedia"-idea works well

Discussion II

- Wikipedia and Medical Informatics
  - Not well represented
  - Possible reasons
    - low awareness of / few knowledge about the Wikipedia project in the Medical Informatics "community"
    - no resources to contribute to the project
    - Wikipedia not estimated as a possibility to transfer knowledge about Medical Informatics to the public

Discussion III

- Should Medical Informatics be presented in the Wikipedia?
- Yes
  - Public representation is an obligation of each „living" science
  - Existing official MI websites are not suitable for broad public
  - Numerous sites are focused on specific projects
  - Search engines generally only assist with specific searches with some user knowledge about a topic
  - Wikipedia seems to evolve into THE central ressource for knowledge search


www.efmi.org
EFMI European Federation for Medical Informatics
European Federation for Medical Informatics
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Thursday, 18 August 2005
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EHR
EVAL
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MCMS
MICIT
MIP
NLU
NURSIE
NEWSFLASH
MIE2005 Geneva, 28 August-1 September 2005
Medical Informatics Europe (MIE) congress is the main scientific event in the medical informatics area to be held every two years out of three in Europe.
Its attendance amounts up to 1000 participants from 26 European member
Federation for Medical Informatics (EFMI). Several scientists from other part
this event.
For more details please visit www.mie2005.net
Related News:
Invitation to Workshop - MICIT&HID WG
Invitation to Workshop on Evaluation Guidelines Development
IMIA Academic Members Workshop at MIE2005
Invitation to MIE 2005 Security Tutorial
MIE 2005 preliminary scientific programme
MIE2005 Programme available
IMIA General Assembly Meeting at MIE2005
MIE 2005 NEWS - CONFERENCE PROGRAMME
MIE 2005 NEWS
MIE 2005
18,000 GPs registered for care records
Thursday, 18 August 2005
The number of NHS staff registered to eventually use the national NHS Care
becomes available, has trebled in the past two months and by the beginning
gmds
Deutsche Gesellschaft für Medizinische Inform
Biometrie und Epidemiologie e.V.
* Gesellschaft GMDS e.V.
* Med. Informatik
Donnerstag, den 18. August 20
» Organisation
» Fachbereiche
» Sektionen
» Publikationen und Stellungnahmen
» Aktuell
» Veranstaltungen
» Aus-/Weiterbildung
» Mitglied werden
» Service/Links
» Stellenbörse
» Intranet
» Kontakt/Anfahrt
Deutsche Gesellschaft f
(GMDS)
Die GMDS hat es sich zum Z
einschließlich der Medizinisc
Biometrie und die Epidemiol
Forschung und Lehre zu förd
Die Internet-Präsentation de
Informationen über die GMD
als zeitnahes Informationsm
sonstigen Interessenten Hinweise zum Geschehen in der Medizinischen Informatik, der Biometrie und der Epidemiologie zu geben.
GMDS Aktuell
11. August 2005
Ergebnis der GMDS-Wahl 2005
Die Auszählung der GMDS-Wahl ist erfolgt.
[mehr...]
27. Juni 2005
Aktuelle Mitteilungsseiten
Die Mitteilungsseiten vom Monat Juni stehen ab sofort für Sie bereit.
[mehr...]
27. Juni 2005
Issue 2 von MIBE online verfügbar
Die zweite Ausgabe des GMDS eJournals "Medizinische Informatik, Biometrie und Epidemiologie" (MIBE) steht ab sofort online zur Verfügung.
[mehr...]
» GMDS Intranet
Hier finden Sie interne Informationen für Mitglieder.
Name:
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Paßwort vergessen?
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GMDS e.V.
Schedestrasse 9
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» Publikationen
Fachbereich Medizinische Dokumentation
Empfehlungen für den Einsatz von Dokumentaren im DRG-Umfeld
[mehr...]
» Stellenbörse
leiter IT /Datenmanagement (w/m)
KKS des FB Medizin der Universität Mainz, Mainz
[mehr...]
Letzte Aktualisierung am: Mittwoch, 23.03.2005
International Medical Informatics Association
About IMIA
IMIA's History
IMIA Board
Membership
National Member Societies
Institutional Members
Corresponding Members
Affiliate Members
Working Groups
IMIA Regions
IMIA Yearbook
Coming Events
Links
Member Services
News & Announcements
Books & Journals
IMIA Meetings
IMIA Endorsed Documents
IMIA/UMIT Award of Excellence
MedInfo 2004
Administration
Code of Ethics
IMIA
5782 - 172 Street
Edmonton, AB
T6M 1B4 Canada
Tel: +1 780.489.4531
Fax: +1 780.489.3290
Info@imia.org
Welcome to IMIA!
IMIA's goals and objectives include
the promotion of informatics in health care and biomedical research
the advancement of international cooperation
the stimulation of research, development and education
the dissemination and exchange of information
Inherent in this mission is to bring together, from a global perspective, scientists, researchers, vendors, consultants and suppliers in an environment of cooperation and sharing. The international membership network of National Member Societies, IMIA Regions, Corporate and Academic Institutional Members, and our Working and Special Interest Groups that constitute the "IMIA family" is uniquely positioned to achieve these goals.
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MEDinfo 2007
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MIE 2005
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August 28 - 31, 2005
June 11 - 14, 2006
Seoul, Korea
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Verify here
Get Acrobat Reader

Discussion IV

- Which audience?
  - Laymen (general, understandable, few changes)
  - AND Specialists (more specific ...)
- Rule (from Wikipedia)
  - „When you do write articles, consider the audience in your writing. An article entitled "Use of chromatic scales in early Baroque music" is likely to be read by musicians, and so technical details and jargon are entirely appropriate. But an article entitled "Rap music" is likely to be read by laymen who want a brief and plainly written overview, with links to more detailed information if available.“

Discussion V

- How organise? Some ideas …
  - Wikipedia work is grass root work
    - => Raise awareness
  - Wikipedia work trains writing
    - => Let students do the work
  - Wikipedia work is practised collaboration
    - => that‘s we all talk about and that we need …
  - Wikipedia software (WikiMedia) offers mechanisms to
    - watch pages (e.g. track own contributions)
    - discuss contents
    - preserve history
    - => protection and evolution towards better quality

Aspects of the field [edit]

Is this all?

These include:

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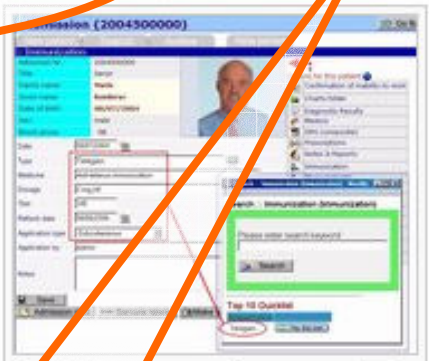
- use of hand-held or portable devices to assist providers with data entry and medical decision-making



A HIS's automatic immunization data entry in the patient's admission module.

So please, edit!

History [edit]

Medical informatics began in the 1950s with the rise of useable computation devices, computers.

Early names for medical informatics included medical computing, medical computer science, computer medicine, medical electronic data processing, medical automatic data processing, medical information processing, medical information science, medical software engineering and medical computer technology.

Editing Medical informatics (section)

From Wikipedia, the free encyclopedia.

```
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data entry/retrieval or medical decision-making
```

Conclusion

- Wiki is a technique for collaborative development of content
  - => easily to keep up-to-date
- Wikipedia is an online knowledge ressource with increasing importance
- Medical Informatics should be better represented in the Wikipedia
- Small contributions by a significant proportion of teachers and students of Medical Informatics could improve the representation