

LT-INNOVATE SUMMIT 2012

Daedalus at iHealth

June 2012

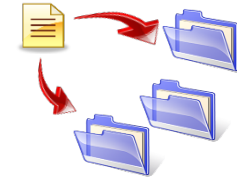
Brussels, 19 June 2012



What innovations do you foresee for iHealth using language technology?

- Language Technology (LT) is not widely used in health systems but LT could be useful in many ways:

- Providing automatic **annotation** and **classification** of medical files. For example, according to ICD-9.



- Automatic **anonymization** of medical files.

- Making **information search** easier over text, audio or video.



What barriers are there to achieving these innovations and how can these barriers be overcome through cooperation?



- In some countries, health issues are managed by Public Institutions, hardly accessible by small companies.
- Severe legal restrictions (related with company size, experience, tests performed to the systems to provide) are applied for companies providing services to Public Institutions.



- Is it possible to reach agreements with existing IT systems providers to introduce LT?

Technology available at Daedalus (I)

Annotation of medical texts
according to thesaurus such
as UMLS



Information extraction from texts



Automatic classification
according to predefined classes

Anonymization of forms
and documents

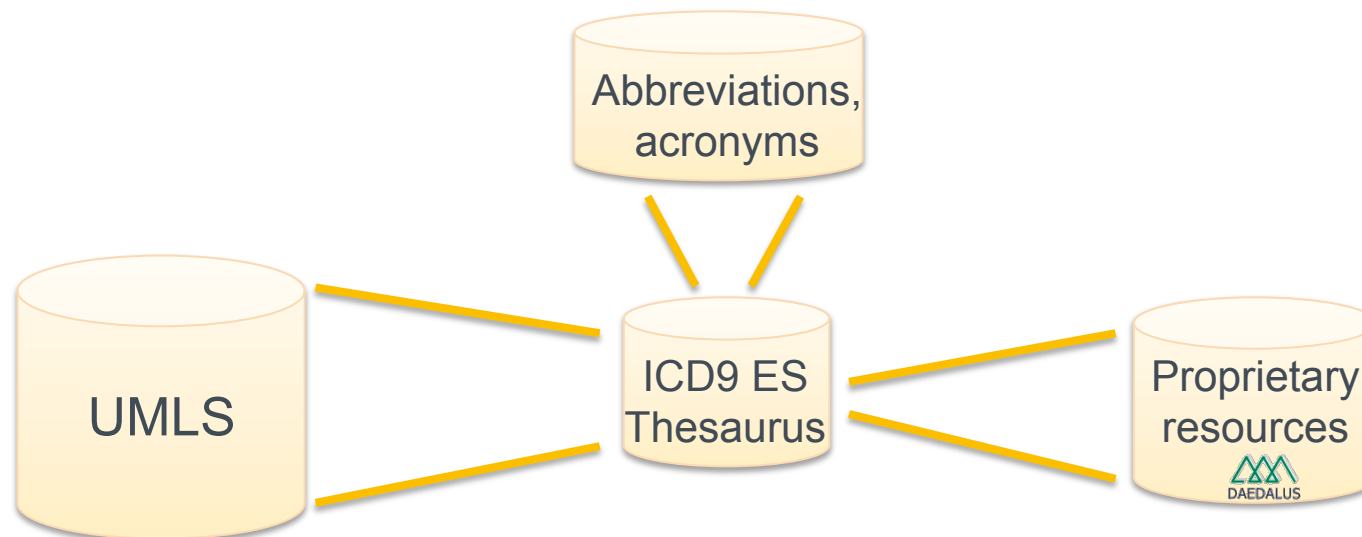


Multilingual + Multimedia Environments

Technology available at Daedalus (II)

ICD-9 AUTOMATIC TAGGING OF MEDICAL DIAGNOSTICS

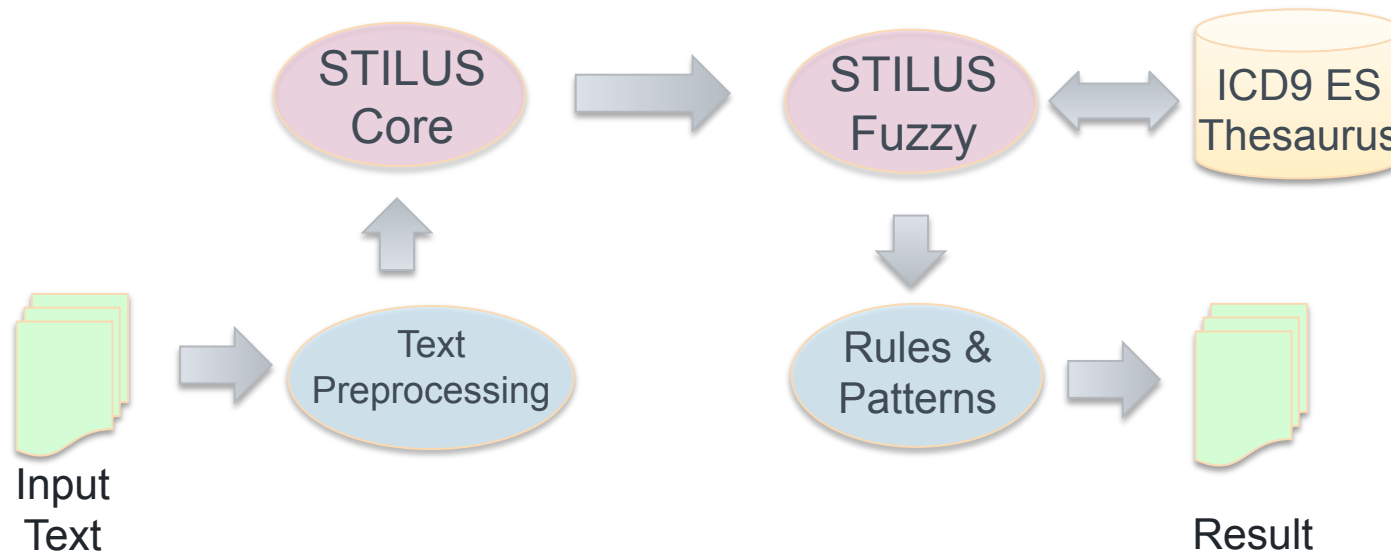
- A tool combining: thesaurus in the medical domain and proprietary linguistic processing.



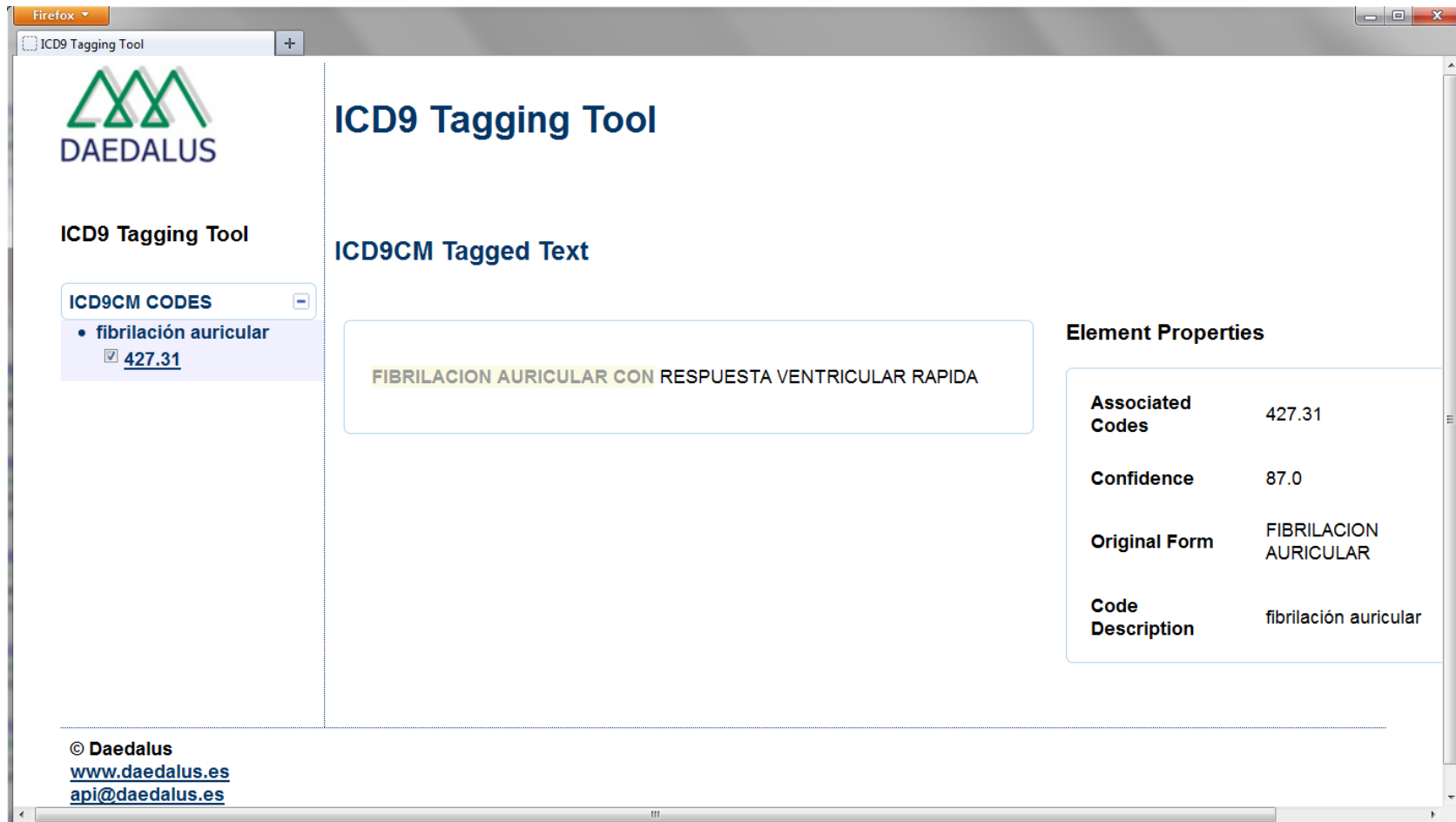
Technology available at Daedalus (III)

ICD-9 AUTOMATIC TAGGING OF MEDICAL DIAGNOSTICS

- Input text is analyzed and parsed. For each segment, possible ICD-9 codes are assigned.



ICD9 Tagging Tool - Example



The screenshot shows a web browser window titled "ICD9 Tagging Tool". The interface includes a sidebar with the DAEDALUS logo and a list of ICD9CM codes. The main area displays the "ICD9CM Tagged Text" as "FIBRILACION AURICULAR CON RESPUESTA VENTRICULAR RAPIDA". A right-hand panel shows "Element Properties" for the selected code.

ICD9CM CODES

- fibrilación auricular
 - 427.31

ICD9CM Tagged Text

FIBRILACION AURICULAR CON RESPUESTA VENTRICULAR RAPIDA

Element Properties

Associated Codes	427.31
Confidence	87.0
Original Form	FIBRILACION AURICULAR
Code Description	fibrilación auricular

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THANK YOU!



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