

## Trust heritage in a Quality-Controlled Health Gateway

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*To continually assess the quality of health information on the Internet, the CISMef health gateway became a contributor to the MedCIRCLE project to evaluate 270 information providers. Trust heritage consists in using the evaluation made for providers that are referenced in the CISMef catalogue to evaluate the documents they publish, thus passing on the trust label from the publishers to their documents. Each site rated in CISMef has a record in the CISMef database that generates an RDF into HTML file. The search tool displays information originating from each publisher that have been evaluated with a specific MedCIRCLE button linked to the MedCIRCLE central repository. The 270 websites led to 6480 evaluated resources in CISMef (49.8% of the CISMef resources). With the MedCIRCLE project and trust heritage, CISMef became an explicit third party.*

As of today, access to accurate and trust health information on the Internet is not an easy task; therefore, there are a great number of directories and search engines available in this new media. CISMef has been initiated in 1995 (acronym of Catalogue and Index of health resources in French) to describe and index the main health resources in French to assist health professionals, students and consumers in their search for electronic information. In 2002, CISMef became a contributor to the MedCIRCLE project which aims at establishing a global Web of trust for networked health information and to increase the accessibility and findability of trust health websites using “Semantic Web” approaches. As a result the HIDDEL metadata language and ontology has been developed. It enables the expression of descriptive and evaluative annotations in XML/RDF. As a quality-controlled subject gateway, CISMef uses HIDDEL only as a third-party. The interoperability process consists of an exchange of RDF files, containing experts’ annotations written in HIDDEL. The semantic-based Archer Annotation System deals with RDF annotations reception. On another ground, through its search engine Doc’CISMef, CISMef provides, external links to Archer backend servlets, and internal links to rated sites disclosure. Interoperability relies on a 3 steps process: (1) RDF files generation according to MedCIRCLE RDF Schema of

annotations; (2) RDF files export using HTTP Post; (3) Reception and ID allocation used to access the exported metadata. The CISMef team in the MedCIRCLE consortium has evaluated and annotated the main health information providers included in the CISMef database: national agencies, medical societies, universities and hospitals. CISMef used HIDDEL to select and evaluate the 270 health publishers most represented in CISMef and made the results of their evaluations explicit and accessible using RDF metadata. These were exported into the searchable MedCIRCLE Open Directory. Each site rated in CISMef has a record in the CISMef database that generates an RDF into HTML file. The CISMef search tool displays evaluated information with a link to the MedCIRCLE central repository. MedCIRCLE is not a “quality seal”. It is only allowing health professionals and consumers to access meta-information. Because CISMef catalogues and indexes not only Web sites but also and mainly quality-controlled documents from health publishers, we introduced the idea of “trust transitivity” or “trust heritage”. It consists in applying to documents the evaluation performed for their publishers. Departing from 270 websites, the translation from CISMef metadata to HIDDEL, led to 6480 evaluated resources in CISMef in September 2003 (49.8% of the 13,012 resources included in CISMef). In the MedCIRCLE repository, users can access an aggregate view of what people say about a certain Web site by clicking: the CISMef gateway is one of many possible producers of trust metadata. Metadata from the Open Directory can also be fed into search engines and other gateways. As the number of health related Web sites worldwide has been estimated as being around 100,000, complete coverage by a single third party evaluation body is impossible. Instead, a collaborative approach has to be promoted, whereby different rating services or organizations use comparable standards and a common metadata language. While using Net Scoring, CISMef was acting as an *implicit* third party. One of the main results of the MedCIRCLE project, from CISMef’s point of view, is that CISMef proceeded from being an implicit to being an *explicit* third party thanks to the creation of the MedCIRCLE button now used for 270 publishers. The feasibility of this approach has been already demonstrated by CISMef but also by the German (AQuMed) and Spanish partners (COMB).