

Extrait du MARSOUIN.ORG

<http://marsouin.telecom-bretagne.eu/spip.php?article173>

# Detailed presentation of the AUTOMATE project

- Publications / Projets de recherche - AUTOMATE -

Date de mise en ligne : Monday 3 January 2005

## **Description :**

Analyse des Usages en Télé-santé: Organisation d'un Réseau, Mesure de son Appropriation, Techniques d'Évaluation.

---

MARSOUIN.ORG

---

**The emergence of a large number of initiatives related to e-healthcare has marked the last years, especially with the implementation of specialized information networks (cancer, diabetes, cardiology, ...) or multidisciplinary information networks. However the real way these networks work and their socioeconomic repercussions (on the quality of life and the wellbeing of the patient in particular) have not been the subject of systematic analyses yet.**

**This project therefore aims to put forward a group of indicators and methods to assess the use of health informatics (statistical, sociological and economical assessments), and this, based on a particular study of the shared medical file. This will eventually lead to recommendations improving the comfort of the patients, to a better sharing of the information and of the knowledge among the healthcare professionals and to the reduction of the costs of these networks.**

### **Goals.**

The emergence of a large number of initiatives related to e-healthcare has marked the last years, especially with the implementation of specialized information networks (cancer, diabetes, cardiology, ...) or multidisciplinary information networks. However the real way these networks work and their socioeconomic repercussions (on the quality of life and the wellbeing of the patient in particular) have not been the subject of systematic analyses yet.

In this project, we look forward to tackling this question with a multidisciplinary analysis (sociology, operational statistics, economical evaluation).

*Our project aims to:*

- develop devices for the data processing of information systems and computerize them which will therefore lead to a macroscopic statistical analysis of the network, via the development of indicators permitting to analyze the uses of the information system and the resulting practices ;
- realize, in the same time, an sociological investigation in order to know the perception of the network users ;
- to propose, thanks to these indicators, a methodology of economic evaluation of these networks.

### **Economic evaluation**

This project therefore aims to reach a better sharing of the information and the knowledge between healthcare professionals and a decline of the costs made to implement these networks.

This project, which allows to analyze and evaluate the practises of cooperation between physicians and to define the conditions of their appropriation and their diffusion, stands like an innovating project and create the opportunity to show how much ICT takes part in individual and public healthcare.

The goal of the project is then to reach a better division of information and knowledge between the professionals of health and a fall of the costs of implementation of these networks.

### **Implementation and state of art.**

As for the statistics, a survey will be made through classic methods used in data analysis (factorial methods (Benzerc, 1979) and socio-organisational modellings (A.Degenne and M.Forsé, 1995)). As for sociology, a theoretical questioning will be reported to the analysis of the way informatics healthcare's participants see this tool: modification of its uses and reorganisation of its roles (Pennec, 2000).

Eventually, the methodologies of economic evaluation of healthcare informatics will be based on the ANAES's surveys (Agence Nationale d'Accreditation et d'Evaluation en Sante - National Agency of Accreditation and Evaluation in the domain of Healthcare). However, in addition to standard approaches of economic evaluation, comparing costs and advantages, developed in the healthcare industry (Drummond, 1997) [1], The estimation of the costs and the benefits will be increased, taking into account approaches related to the economics of organisation, in particular the agency theory and the science of interaction, so that external effects, such as learning effects in particular, can be emphasized and the results of statistical and economical surveys can be profitably used.

### **Social request.**

The control of an healthcare system, which has to allow not only the development of treatments of quality offered to the patients, but also a permanent evaluation of the activity, has to go through a performing informatization of healthcare's processes. The organisations in networks have testified for a couple of years on the emergence of processes of quality in the medical approach and healthcare networks' systems, through the sharing of the medical information among all the participants concerned, take part in the reconfiguration of healthcare's offers and in the improvement of the quality with which people are treated.

It therefore becomes very important to bring indicators that allow to understand how the existing networks work socio-technically speaking. This could permit to optimise the way it works and to highlight the conditions of appropriation of the network by its users.

### **Protocol of experimentation.**

The evaluation of healthcare networks has today been limited to the medico-economic evaluation of the networks. It also didn't take into account the evaluation of informational systems in its contribution to informational systems in the service of collaboration. The experimentation will be made on two existing networks which have each a different configuration and on which the methods of analysis produced in the project would have been, on the one hand, implemented and the usages noticed by the users would have been, on the other hand, extracted.

### **Organization of the project.**

*The project is separated in four sub-projects:*

**SP1:** extraction of the data provided by Tele-medicine networks and developed by Uni-Medecine.

Determination of the different indicators to remember; preparation of "logs" files to make anonymous the different data and extraction of the main types of users of the network from the "logs" files. Sub-project led by Uni-Medecine M@rsouin will help determine the indicators to remember and testing the product files. Duration: 6 months (from T0 to T0+6).

**SP2:** study of the global functioning of healthcare informatics (macro-analysis). Three analyses: research of stable groups (typology of the persons who connect themselves to the EPR), research of prototypic procedures and comparison of real procedures to typical procedures. In parallel, a sociological study will be made among healthcare professionals who have access to EPR within healthcare informatics and a cost-advantage analysis of the e-healthcare's networks will be made. Confrontation of all the results provided by the statistical and sociological analyses. Duration: 8 months (from T0+4 to T0+12)

**SP3:** analysis centered on the EPR (micro-analysis). Study centered on the access and the use of some EPR. Duration: 12 months (from T0+8 to T0+20)

**SP4:** coordination and diffusion of the results. SUIVI of the project and arrangement of meetings. Diffusion of the results found so that they can be useful to improve the methodology of analysis of healthcare networks. Duration: 20 months (from T0 to T0+20)

### **Fallouts of the project.**

This project will provide an analysis and criteria for the evaluation of the practises of cooperation between privileged MEDECINS by the information systems and the development of telemedicine, those dedicated to the EPR in particular. This innovating project gives the opportunity to show how much ICT takes part in individual and public healthcare. The results (indicators, methodology, etc...) will be published and it will be possible to diffuse them via CATEL [2].