CEN/ISO 13606 Implementation and Communication of Health Information

David MONER, Gerard FRERIKS, José Alberto MALDONADO, René SCHIPPERS, Montserrat ROBLES

Chair of the Education Work Group, EN 13606 Association, Valencia, Spain

Board, EN 13606 Association, Amsterdam, The Netherlands

Universitat Politècnica de València, Valencia, Spain

Abstract. This workshop will introduce the CEN/ISO 13606 standard to the audience, describing its key aspects and benefits to enable semantic interoperability of the electronic health record. This approach, based on the use of archetypes for formal definition of detailed clinical models, will be shown in a working environment and following the epSOS patient summary specifications. Existing tools will be used to show the complete development process of a CEN/ISO 13606 solution, from the definition of the archetypes to the generation of valid XML EHR extracts.

Keywords. CEN/ISO 13606, archetype, patient summary, epSOS

1. Introduction

The CEN/ISO 13606 norm for the Communication of the Electronic Health Record [1] has been designed to enable the representation and semantic interoperability of health information.

It follows an innovative approach based on the separated representation of information (the health data we want to communicate) and knowledge (the definition of the concepts that describe those data). Thus, CEN/ISO 13606 defines a generic reference model that is able of representing any information of an electronic health record, including the pure clinical data, context data and demographic data. Once approved as a European and international standard, several experiences and developments have started to be implemented [2]. Moreover, a new organization under the name of EN 13606 Association has been created to guide and help with the adoption of this standard.

2. Goal of the workshop

The general goal of the workshop is to introduce the basic concepts of the CEN/ISO 13606 standard to the audience and to show examples of its implementation in real scenarios. In particular, it will demonstrate how this standard can be used for the gen-

1 David Moner: Instituto ITACA, Universitat Politècnica de València, Camino de Vera S/N, Edificio 8G, Acceso B, 3ª planta, 46022 Valencia, Spain. E-mail: damoca@upv.es
eration and communication of patient summaries following the European epSOS project specifications.

The specific learning objectives of the workshop are:

- To understand the basic methodology of the CEN/ISO 13606 standard based on the use of a dual model approach and archetypes.
- To learn about tools and implemented solutions already available.
- To see a working system using the CEN/ISO 13606 standard.

Questions addressed during the workshop include:

- What does the CEN/ISO 13606 provides to me or to my organization?
- How can I use or implement this standard?
- Which tools exist to work with this standard?
- Where can I get more information and training about this standard?

3. Format and speakers

The workshop has been divided in two parts. The first one, taking approximately 25 minutes is an introduction to the CEN/ISO 13606 norm.

The second part presents a simplified scenario of the problematic: two data sources, with different non-standard data schemas and language. They want to share a standardized patient summary document among them. It will be shown how the data set to be shared is defined with a 13606 archetype, how it can be mapped to both data sources and, finally, how can they share normalized information to be viewed seamlessly by a clinician.

Finally, it is expected to raise a short discussion with the attendants around the topics covered during the workshop.

1. The EN 13606 Association (5 min, G. Freriks)
2. Introduction to CEN/ISO 13606 norm (20 min, G. Freriks)
3. CEN/ISO 13606 in use
   a. Introduction to the epSOS project (5 min, D. Moner)
   b. The LinkEHR Normalization Platform (10 min, D. Moner)
   c. CEN/ISO 13606 Patient Summary archetype (10 min, D. Moner)
   d. Mapping to terminologies (10 min, D. Moner)
   e. Mapping to the data sources (10 min, D. Moner)
   f. Generation of normalized 13606 data instances (5 min, D. Moner)
   g. Sharing and visualization of the patient summary (5 min, D. Moner)
4. Discussions (10 min, G. Freriks, D. Moner)

Speakers:

Gerard Freriks, Board member of the EN 13606 Association; former Chair of CEN/TC251 Wg1; industry participant at the epSOS project.

David Moner, Chair of the Education Work Group at the EN 13606 Association; health informatics researcher at the Technical University of Valencia (Spain); CDA and RIM certified specialist; participant at the epSOS project. He has worked in implementing tools, systems and solution based on the CEN/ISO 13606 standard, including deployments at health organizations, for the last six years and has performed several CEN/ISO 13606 formative courses during the last four years.
Methodology:

- An introduction to the CEN/ISO 13606 norm and the epSOS example will be done through slides and oral explanations of the presenters.
- Existing tools [3] for the edition of archetypes and the generation of CEN/ISO 13606 instances will be used together with the epSOS patient summary specifications in a live environment.
- A summary of the workshop, including the questions and answers raised, will be published at the www.en13606.org website, together with the materials used during the workshop.
- The workshop will seek for participation and interaction of attendants at every moment, being open to solve questions or specific problems.

4. Expected achievements and outcomes

The expected achievements of the workshop are:

- Spread the knowledge about the CEN/ISO 13606 standard
- Show the archetype methodology and working examples of it following the epSOS project specifications.
- Show how the standard can help to achieve semantic interoperability.
- Introduce publicly the EN 13606 Association and its activities.

Statement of participation: This workshop is supported by the EN 13606 Association. The following members wish to show their commitment to the development of the workshop to take place at the MIE 2011. David Moner, as Chair of the Education Work Group of the Association. Gerard Freriks, as Board Member of the Association.

References