

Notes on HL7 meeting, San Antonio USA 12-18th Jan 2003

Sam Heard

Sunday 12th Jan (Q1-4)

There are a number of issues that were addressed when Woody Bealer was present:

- Data types do not have universal support
- There needs to be stability at the level of the RIM and the Tool set – version control, fixes etc. This is particularly an issue in the UK where they have an advanced message under development
- There needs to be proper tool development and support centrally for people using the tools

I presented the paper put together from Thomas Beale with a mixed reception. There remains a view at HL7 that the models can be implemented with restrictions of data types as required in that environment.

Gerard Freriks presented the relationship between CEN, HL7 and ISO – everyone agreed there were some serious issues here that need to be resolved in Europe.

Web site access for affiliate members – this is managed by a link for guest access from the affiliate site as a link. Other sites should implement this ASAP – including Australia – but there does need to be a ‘members only’ space on the affiliate’s website.

Monday 13th Jan

Q1 & Q2 – Joint Meeting with SD, Templates, DS, Vocab

I lead a joint meeting of EHR SIG, Structured documents, Templates, Vocabulary and Decision support to consider the EHR as a key development paradigm for HL7 – and specifically to consider the possibility of developing a shared approach to archetypes. Angelo Rossi Mori began by setting the scene from a European perspective – it was useful to hear how inline with openEHR he was! Ken Rubin then discussed the information and computational requirements for interoperability.

I then presented Tom Beale’s and my proposal for a shared archetype repository – which led to a very lively debate and discussion and was very well received. The Version 2 CDA is now able to share archetypes to level 2 described in the paper on the basis of their discussion to go for:

- A single schema
- Section components
- Entry components

I implicated the need for ‘gnomes’ to deal with the context propagation that is proposed in version 2 – and Neill Jones from the UK drew attention to the

inappropriate use of Author to deal with participations that could not be considered to be authorship.

It was agreed to:

- Form a group to look at the CDA and openEHR context models and ensure they are compatible (to be agreed at the Std Documents Q4)
- Form a group to begin to work on archetypes that can be used in CDA and openEHR. I have explained that the same level of harmonisation will not extend to messages (to be agreed in Q3 on Tuesday)

Q3 – Controlled Query

We met to discuss the problem of data types – Graeme presented the issues and Heath brought up other issues. The conversation was lead by Mark Schafferman and Gunter Shadow took part. It was agreed:

- The Australian delegation would get a group who are interested in developing ‘clones’ of the HL7 data types suitable for use within systems and which relate to openEHR data types.
- To report to Mark Schafferman on progress and post to CQ list.
- To aim for a single standard for health information data types in the long term.

Q4 – Structured documents

I listened to presentation of CDA version 2. The committee will discuss the issues of context that I raised in Q3 tomorrow! I can't be there. We need to have someone from the EHR SIG present!

Technical Committee meeting

It is clear that the tooling issues at HL7 are critical with very few people able to contribute and a lot of dependency on as few as 2 people. There will be 2 ballots of version three before the end of the summer.

Ken Rubin is working on improvement of processes within HL7. The following issues are the most important:

- Decision making processes – a quorum is not always present, decision making times are not advertised
- Ballot processes – often committees work in isolation
- Workload distribution – high attrition rate, sharing workload

IHE was presented – an initiative of HIMMS and the Radiological Society to increase the uptake of standards. It is apparently active in Asia (not Australia) and Europe as well.

Tuesday 14th January

Q1-Q4 EHR SIG

See minutes.

Wednesday 15th January

Q1 – Templates

The templates group met with as many as seven members of EHR SIG present.

Views:

- Majority unregistered
- Different authority approaches...
- Not only one way to look at knowledge representation...
- Difficulties of the ontology disparity ...
- Iterative evolution of templates...
- Will have standards in the end...
- Different functions, uses, sites...
- Need scope, purpose, use model for HL7 templates...
- The best paradigm is the open source...

Angelo raised the issue that we are working in a standards organisation and are not a college for clinicians or IT specialists. Templates need to be a standard – a lower case standard – and the register needs to be delegated to an uncertain number of standards organisations – national etc. (Angelo Rossi Mori – ppt).

Peter Elkin – why we need templates?

- Version 3 is syntactic and not semantic – we need a means of expressing semantics
- We need a means of extensibility that does not require balloting
- There are information constructs out there – bundles that are very useful and widely shared – that need to be built and used easily.

There are two views – the US members believe that there should be no standards in the template world – none balloted. This is the message level view in my opinion and is an HL7 context.

Full semantic model:

- Information model – templates – vocabulary

I raised the point that there is contextual information that we want to share that must remain in the information model – medico-legal, workflow etc.

Q2 - Templates

Peter Elkin demonstrated NIST and Mayo's ebXML Template registry. The information model is RIM fragments and the constraint language is OWL – and uses the ebXML registrar. There is a specific client browser which is written in Java. A thin client is probably required.

Metadata description in the HL7 registry: Id, fragment id, core code, title, description, title, description, format, submitting entity, submitting contact, email, phone, fax, address, for more information, content (contact, email, ...) use, free search, date revised(*), date will expire, modification history, publication state (draft, final, information, normative), resources state, version resource, version metadata, relation(*), relation.references(*), package, clinical category(?), language, language,

subject.key word, attribute list (list of leaf values and nodes), intellectual property claim.

Q3 - Templates

Process

- Take an RMIM – take a fragment of the RMIM ‘which is legitimate’.
- Represent this fragment in OWL
- Build a template
- Validate against RIMM fragment as OWL

I have raised the point that OWL is not a language that is designed to represent information models and that this could be problematic.

There was an interest in our developments and I showed the ontology and archetype editor. Angelo is very interested in how we implant the ontology tools in the archetype editor.

I have agreed to take on the term definitions:

- Template to map to real world transferred data – documents, messages and transactions, extracts, EHRs.
- Contracts
- Archetypes to map to the whole and distinct concepts that are required for interoperability.
- Ontology

Q4 – Decision support

‘Gello’ is a query and constraint expression language suitable for electronic health information which uses an object oriented data model that is a superset of vMR data model.

The query language was presented – obviously with a lot of pressure to express every internal construct in terms of the RIM. There were many problems with the proposal and I do not consider this an important piece of work at the moment.

Thursday, January 15th

Q1 – Clinical Guidelines

Samson has made an analysis of workflow and process management standards (WfMC and Petri net) for use in clinical guidelines – not all guidelines are process oriented. He felt that the best approach will be to divide the work into:

- Decision map
 - decision points (with context), decision step, action map
 - transition condition

There is a clear idea of context for decision support that is a mixture of EHR ‘context’ (date, time, data_subject) and ‘content’ (medication, problem list etc). This is derived from the EHR but also from the ‘present’.

There are implications for the EHR, particularly around instruction definition, of the requirements for expressing care processes in guidelines.

I will send the state model from the EHR to Samson.

Q2 – Modelling & Methodology

Lloyd presented the new schemata for all HL7 artefacts.

Q3 – Structured Documents

Angelo presented Template issues to CDA – which was very helpful. The major issues that arose are largely addressed by a paper I have written and have circulated prior to distributing it to the Templates group (I was invited to do so).

Q4 – Structured Documents

I presented the bones of the paper I have written to CDA proposing the use of the words ‘archetypes’ and ‘templates’ for different things. We then talked about the ‘human readable’ issues and the current CDA approach which appears to be suitable. This complexity will work against the acceptance of CDA as an internal document type – Bob Dolan feels it is unlikely that it will ever be used for that!