

# 2013-10-07

## Meeting Information

<b>Date:</b>	October 7, 2013
<b>Time:</b>	1 PM EDT/6 PM BST/7 PM CEST

Attending: Nabil Zary, co-chair; Susan Albright, Andrzej Kononowicz, Valerie Smothers, Michael Steele, Luke Woodham.

## SYNOPSIS

Susan and Andrzej are both working on reviews of virtual patients that could inform use cases; Susan is doing an informal review of AMEE abstracts, Andrzej is doing a formal review on the many types of virtual patients. Susan is also submitting a survey to the AAMC Group on Information resources for feedback.

The group discussed whether there was value in focusing on the activity around the virtual patient (learning experience and simulation context) rather than expanding the data specification. Michael urged the group to think about the bigger picture of data capture using the Experience API. Valerie explained that the process for starting new work involves submitting a proposal to the Executive Committee for approval. The group emphasized the need to coordinate with other MedBiquitous working groups working in this space. There may also be value in capturing experiences of mannequin based simulation.

## Agenda Items

### 1 Review [minutes](#)

The minutes were approved.

### 2 Discuss use case ideas from

*a AMEE analysis (Susan)*

Susan commented that this was a large task. She started with 2012, searching for virtual patient in AMEE abstracts. Sometimes it is not in the title but in the body of the abstract. It's time consuming. What would make this most useful? How much info do we want beyond the title?

Nabil asked what the potential outcome might be.

Susan replied that since looking at the usecases, she sees progression in frequency of appearance of the term virtual patient. What people are doing with it has also progressed. That might be an interesting paper.

Nabil commented there are two levels. One is a general analysis of where we are, who is publishing and implementation. The second is a more systematic review. He recommended summarizing the main author, institution, and short summary of the use case.

Andrzej asked what do we mean by use cases.

Luke added it would be useful to consider what we mean by those contexts or uses. It could be context in which they are used, lectures. PBL, undergrad, post grad, linear, branched, something else, platform, mobile, etc.

Nabil commented we can limit the scope before going further with analysis. If Susan can collect, that will give us a list to start with. We can revisit and analyze.

Susan offered to do this for the next meeting.

*b Andrzej's review of virtual patient uses (Andrzej)*

Andrzej commented this is still a work in progress. It's actually not review of uses but of different aspects of VPs. He went through 650 papers on VPs. There are islands of research on VPs.

Our review is on qualitative aspects of virtual patients, but it is too early yet to report on the final "synthesis" but will be informed about tangible progress. So far we went through 650 papers. The five general VP categories we could spot are:

a) eViP like VP: linear/branched/global-templates. Emphasis on easy authoring by staff without technical background. Highest measure of success is a good implementation into curriculum. Highly scalable approach with hundreds (or even thousands) of developed cases. From the technical perspective: very simple. Relatively well covered by the MedBiq VP data specification.

b) (patho-)physiological VP: high fidelity simulation of the bio-physical and bio-chemical process in the human body. Used so far mainly in basic sciences (physiology classes), in specialist simulations as e.g. anaesthesiology and intensive care (GasMan, Laerdal Microsim) and for research purposes (as. Virtual physiological human).

c) games like virtual patients (first-person shooter perspectives), where the VP and students are like a character in a game. Examples are VPs in Second Life (London: SGUL, Imperial College) and dedicated platforms as e.g. CliniSpace. Interesting new development in this category are tabletops VPs. These VPs are without much successes in implementing into regular teaching so far (just pilots).

d) conversational agents to practice interpersonal skills - most successful Benjamin Lok team in Florida and Kenny&Rizzo in California. Time consuming to develop and update. Very early attempts of integration into curricula as preparing for conversations with standardized patients (history taking; practice dealing with sensitive, personal issues; practice of convincing treatment recommendation) .

e) VP with physical components - connected with mannequins, artificial drilling machines or endoscopy simulators. Used for specific manual skills and procedures.

The current standard is targeting a narrow type of virtual patient. Should we stick with that narrow piece going forward to expand the use cases?

Nabil asked if the MedBiquitous data set could serve as a back end for these types of virtual patients. Andrzej replied that the focus is no longer on exchange but on putting services online and letting them communicate.

Luke commented that although some elements of those activities could be encoded and stored, he wouldn't imagine many would choose to do so. We would need to add so much extra; one would lose a lot.

Valerie commented that you could capture experiences of those activities using the experience API.

Andrzej recommended thinking of Rachel's continuum of different simulation services. Connect them into a flow of learning experience and focus on what we regard as virtual patients.

Nabil commented that we should focus on the activity around the virtual patient rather than trying to expand the spec about the data. That could inform new use cases, what kind of info we should pick up. It's not about design, but what type of experience you could gain from it.

Andrzej agreed there would be great value in moving the data on the learning experience and simulation context.

Michael asked where will the output be realized. Andrzej replied he intends to publish his work in a journal.

Michael recommended looking at the bigger picture and educating our construction of verbs and activities within the experience API. He asked if this would be a new standard and what the process would be if so. He recommended thinking about how does it tie into the SCORM standard. Mannequin based training would also benefit from this. We will need to take these two different research efforts and glue them together. How does that inform the experience api?

Nabil summarized: should we improve current standard or shift towards the experience itself. It's a new kind of effort; gathering another type of data.

Valerie commented that from a process perspective new standards projects must be submitted as proposals to the MedBiquitous Executive Committee. They need to approve any new standards work that is on track to become an ANSI standard.

Luke agreed with the idea of submitting it as a new standards project. Experience API is looking at interfacing with other systems. It would be very different stance for the existing standard to take.

Michael commented you could take a myopic approach and do it just for the medbiq standard. Another group is likely involved in assessment data. They might be interested in driving. We would benefit from their experience. We want verbs and actions that fit a broader community of use cases. Maybe this would be a multi working group effort.

Valerie explained that the Educational Trajectory working group has been working on a specification for encoding competency data and other types of educational achievements, including assessment data. Michael commented that will be key to mashing data into useful information.

Nabil summarize the key questions. 1) is there a way to improve the current standard in terms of use cases.2) Should we focus on vp as a learning activity. That is a new type of work. 3) How to ensure the process forward is aligned with different MedBiquitous working groups.

Work that has been done before could be optimized. The current standard is a good way of storing VPs. If the group wants to work on a new line of work, we should send a proposal to the executive committee so they can put this in a bigger context. There are different use cases and different people potentially.

Michael asked when we can expect results of the reviews. Should we schedule time to go through that?

Nabil commented we need a better focus for the group.

Susan commented that the underlying philosophy of the original standard was sharing. How much sharing is happening? She added that you don't see much sharing in the US.

Luke commented that from his perspective, St George's moves cases between systems a lot. They use the standard a lot for that. It's not always seamless, but it's not possible at all without the standard. And the standard has informed the design of many systems. Anecdotally he hears a lot of evip cases being used. UWE's vice chancellor steered his daughter to the cases because she was applying to medical school

Valerie added that the value in supporting content interchange is that it allows the institution to preserve the investment it has made in its content.

*c Ankur's perspective on types of VBPs and data of interest to educators (Ankur)*

*d VP uses at Pitt and Decision Simulation customers (JB)*

*e Draft survey for AAMC GIR (Susan)*

Susan asked Morgan and Ethan if they would be willing to do a survey for us. And they are doing a short snippet. She's drafted questions for the survey.

Michael commented that details about the authoring tool would be valuable.

Susan added that smart sparrow has a case builder. They are Australian. She will send the survey off to AAMC next week.

*f Matt's use cases (see <http://groups.medbiq.org/medbiq/display/VPWG/Use+Cases>)*

### **3 Interpreting XAPI data (Matt)**

#### **4 Open discussion**

Michael commented that ODU just announced mannequin-based simulation tied to computer based simulation. He will send a link.

As this type of synergy becomes more prevalent, MedBiquitous might find a new use case in Mannequin based simulation as this example is very state driven. It also lends itself well to XAPI style assessment as the facilitator flags competency (albeit yes/no).

<http://healthysimulation.com/4545/modsim-labor-and-delivery-training-in-a-virtual-environment/#!>

Nabil asked Valerie to develop a synopsis saying where we are in the process as part of the minutes.

## **Decisions**

### **Action Items**

Susan will continue to work on the AMEE abstract analysis and GIR survey.