# Profile: 2. Human Patient Simulators, Mannequins & Task trainers

## Title

Version: xx

Date: xxxx yy, 20yy

Author: David Topps

Author email: xxx

Profile ID: (we should determine how to handle versioning with regards to the profile identifier. My guess is that we would either wait to assign or update whenever there is a substantive change.)

## Version History

| Version No. | Date | Changed By | Changes Made |
|---|---|---|---|
| 0.1 | | dt | Initial draft copied from VP Profile |
| | | | |

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(Note, Valerie will work with legal to develop a version that is not XML specific)

## Acknowledgements (placeholder for later – will list all working group members)

Introduction (explain the need the profile is meeting, it's scope, the relationship to xAPI, and the relationship to other profiles and or standards. Link to xAPI overview. We may want to reference any important publication tools the profile leverages, or that might be better in the verbs section.Cite the relationship between statement structure and what is possible with analytics.)

## DRAFT!

## Recipes

Can be categorized by situation type or by activity type, or whatever makes sense in context.

### Medbiquitous simulators and task trainers

#### Basics/Core Recommendations

- Most statements include an Agent with the user as the 'actor' property.
- Some statements may reference the System or Application as the 'actor' property where they system has updated a counter or made some other change.
- Most statements include the simulator Activity as the 'object'.
- All timestamps in statements must be compliant with ISO 8601 format. (this is part of the xAPI specification)
- Simulation Activity Definition includes the following:

    Has the 'type':http://adlnet.gov/expapi/activities/simulation

The Actor object will be defined by the simulator software. The Actor object for most statements with defined verbs will be of type "Agent" and MUST contain an account object.

An Example of usage in a statement:

## Statements

Verb usage:

### Initialized

User has opened a simulation or task. Sent when the simulation starts to play.

Verb IRI: http://adlnet.gov/expapi/verbs/initialized

Includes a timestamp and identifier of the simulation activity when playing was started. Most simulations will have a fixed starting point but this is not always true and is not a requirement for the statement to be true.

### Completed

User has completed the simulation. Reached a point designated by the simulation author as an endpoint. Does not indicate success or failure.

Verb IRI: http://adlnet.gov/expapi/verbs/completed

### Suspended

User has paused a simulation. Suspended a simulation with the possibility to resume later.

Verb IRI: http://adlnet.gov/expapi/verbs/suspended

### Resumed

User has restarted a simulation. Resumed a simulation that had been previously suspended.

Verb IRI: http://adlnet.gov/expapi/verbs/resumed

### Terminated

User has left a simulation and does not intend to resume. Consider how you will be able to differentiate this from 'abandoned', 'suspended' or 'completed' because the simulation software may not be able to determine whether the user is coming back again. However, the simulation instructor is likely to be aware and may have indicated this in the session recording.

Verb IRI: http://adlnet.gov/expapi/verbs/terminated

### Arrived

User has visited a key point, milestone or trigger within the simulation. Not necessarily same as 'read' or 'experienced' because an internal rule or trigger might immediately bounce them on to another key point. (See 'Launched'). So, while the user may have landed on that key point, if they are immediately redirected, they may not even see that point. Can be used for a physical or virtual location.

Verb IRI:  http://w3id.org/xapi/medbiq/verbs/arrived

### Experienced

User has read a document, page or paragraph. Similar to 'interacted' but used when the media is static or non-interactive

Verb IRI: http://adlnet.gov/expapi/verbs/experienced

## Responded

User has responded to a voiced question from the instructor or to a change in a mannequin parameter. (This is not quite the same as the verb 'answered', defined elsewhere, which implies that the answer is correct.)

Verb IRI: http://adlnet.gov/expapi/verbs/responded

## Interacted

User has interacted with or manipulated an object or a video or similar multimedia that provides some sort of interactivity. Similar to 'experienced' for when the media is dynamic, like a video. For more detailed reporting on videos, we instead recommend the use of the Video Recipe: http://id.tincanapi.com/recipe/video/base/1

Verb IRI: http://adlnet.gov/expapi/verbs/interacted

## Commented

User has verbalized or made a spoken commentary but not in response to a voiced question. Used when an actor adds to a group activity for a compound effect. This is slightly different from 'responded'.

Verb IRI: http://adlnet.gov/expapi/verbs/commented

## Ignored

User has ignored a flag or other simulation data. This is a flag or action sent by either an instructor or the simulation software to indicate that an action was expected by this point in time and had not occurred. Sometimes this is a good thing, and while absent, is not necessarily a negative aspect - for example, if there is a distractor in place that the actor is supposed to ignore as irrelevant.

Verb: http://w3id.org/xapi/medbiq/verbs/ignored

## Administered

(Indent this to match) User has administered a therapeutic action, agent or device, such as drugs, shocks, gas, compressions, intubations (of various types: endotracheal tube, Foley catheter, nasogastric tube, etc); should you also use this for things like sutures, incisions, clamps?

Verb: ??

## Measured

(Indent this to match) User has measured a vital sign or physiological parameter, such as heart rate, blood pressure, respiratory rate, temperature etc, or a dimension such as an nasogastric tube length.

Verb: ??

## Monitored

(Indent this to match) User has… how is this different from 'measured'? A continual series of measures - but would you then not use 'measured' with a log of each time it actually happened to be done? TBD

## Observed

(Indent this to match) User has observed a change in a physical sign, such as cyanosis, sweating, pallor, dilated pupils. These tend to be descriptors rather than values (which are 'measured'). So, the user might Observe sweating but Measure the temperature as 38.5C.

## Moved

(Indent this to match) User has moved an object, as in "limb", or "toward patient", whole patient, transported, transferred

## Removed

(Indent this to match) User has removed a foreign body, or an object that has been administered.

## Covered

(Indent this to match) User has covered or obscured an object, as in making something unavailable for observation. This may be accidental (a misplaced blanket) or deliberate (by instructor).

## Ordered

(Indent this to match) User has given a verbal instruction to cause an action. The indirect recipient and interpreter of such an Order would typically be the instructor or recorder who is creating entries in the software interface. The direct or intended recipient of such an Order would typically be a team member in the scenario. (We need to describe where in the xAPI statement object this is noted.)

## Asked

(Indent this to match) User has made a verbal request for more information, from patient, instructor, team member.

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For the following activity statements, the Actor is more likely to be the simulation software or an object within that simulation software:

### Updated

The simulation software has changed a counter value. This may be triggered by arrival at a particular key point or trigger, or by a rule within the simulation design created by the simulation author, or by a timer expiration point. Although the counter value may be regarded as a score, note that the ADL verb 'scored' is an overall score for the case or exam (http://adlnet.gov/expapi/verbs/scored), which is not the same thing.

Verb: http://w3id.org/xapi/medbiq/verbs/updated

### Launched

The simulation software has initiated an action such as redirecting the user to a new key point, or triggered some other activity, such as a new trend. This is not an action made by the user.

Verb IRI: http://adlnet.gov/expapi/verbs/launched

# Activities

To be used mainly if there are very specific activities being described by this profile. Otherwise, Activity types usually used instead.

# Linked Identifiers

| Name | Kind | Uri |
|------|------|-----|
| Initialized | Verb | http://adlnet.gov/expapi/verbs/initialized |
| Completed | Verb | http://adlnet.gov/expapi/verbs/completed |
| Suspended | Verb | http://adlnet.gov/expapi/verbs/suspended |
| Resumed | Verb | http://adlnet.gov/expapi/verbs/resumed |
| Terminated | Verb | http://adlnet.gov/expapi/verbs/terminated |
| Arrived | Verb | http://w3id.org/xapi/medbiq/verbs/arrived |
| Experienced | Verb | http://adlnet.gov/expapi/verbs/experienced |
| Responded | Verb | http://adlnet.gov/expapi/verbs/responded |
| Interacted | Verb | http://adlnet.gov/expapi/verbs/interacted |
| Commented | Verb | http://adlnet.gov/expapi/verbs/commented |
| Ignored | Verb | http://w3id.org/xapi/medbiq/verbs/ignored |
| Updated | Verb | http://w3id.org/xapi/medbiq/verbs/updated |
| Launched | Verb | http://adlnet.gov/expapi/verbs/launched |

| Virtual Patient | Activity type | ???? |