Grant Agreement Number ECP-2006-EDU-410030

Market research data on acceptance of eViP product and options appraisal for exit and sustainability business models

Deliverable number	*D4.5*
Dissemination level	*Public*
Delivery date	*28th September 2009*
Status	*Final*
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e*Content*plus

This project is funded under the *e*Content*plus* programme[1],
a multiannual Community programme to make digital content in Europe more accessible, usable and exploitable.

[1] OJ L 79, 24.3.2005, p. 1.

A. Introduction

An important decision has been taken to make access to all 320 eViP repurposed virtual patients free of charge. This bold business model reflects a pragmatic view that access to content should be free. Where costs are incurred by sustaining access to the bank of repurposed virtual patients, a new business model is needed to meet these costs. If access to content is free, then how can income be generated? The eViP team have devised a number of value added services that may potentially be attractive to users of virtual patients, and in turn might generate revenue. A survey has been created to gather data on current on user acceptance of these vale added services.

B. Structure of the survey

A survey was constructed in Survey Monkey[2], a commercial survey and data analysis service. A paper version of the survey was also created for manual distribution and completion at the AMEE 2009 conference in Malaga[3].

The online survey was publicised via the MedBiquitous virtual patient working group[4] mailing list, the AMEE conference mailing list, the UK higher education academy mailing list[5] and through various other local networks across partner countries.

The survey was constructed to fit on a single page of A4, with an introduction and 4 questions. Appendix 1 contains a PDF copy of the complete survey.

C. Survey responses

As of the 18th of September 2009, a total of 41 survey responses were collected both online and in paper with 100% completion rate. Paper-based responses were transcribed into the Survey Monkey analysis system so that all responses could be analysed together.

Analysis and commentary on individual questions

1. Ranking of value added services. (41 responses, 0 respondents skipped)

Respondents were asked to rank the following value added services in terms of value, selecting either highly valuable, somewhat valuable, neutral, not very valuable, and not at all valuable:

- Embedding VPs in my curriculum
- Training to create new or repurpose existing VPs
- Integrating VPs with my course's learning outcomes
- Integrating VPs with assessment
- Local hosting of a VP system
- Remote hosting of a VP system
- Integrating VPs with local e-learning system
- Introducing VPs as a new teaching method

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[2] http://www.surveymonkey.com/

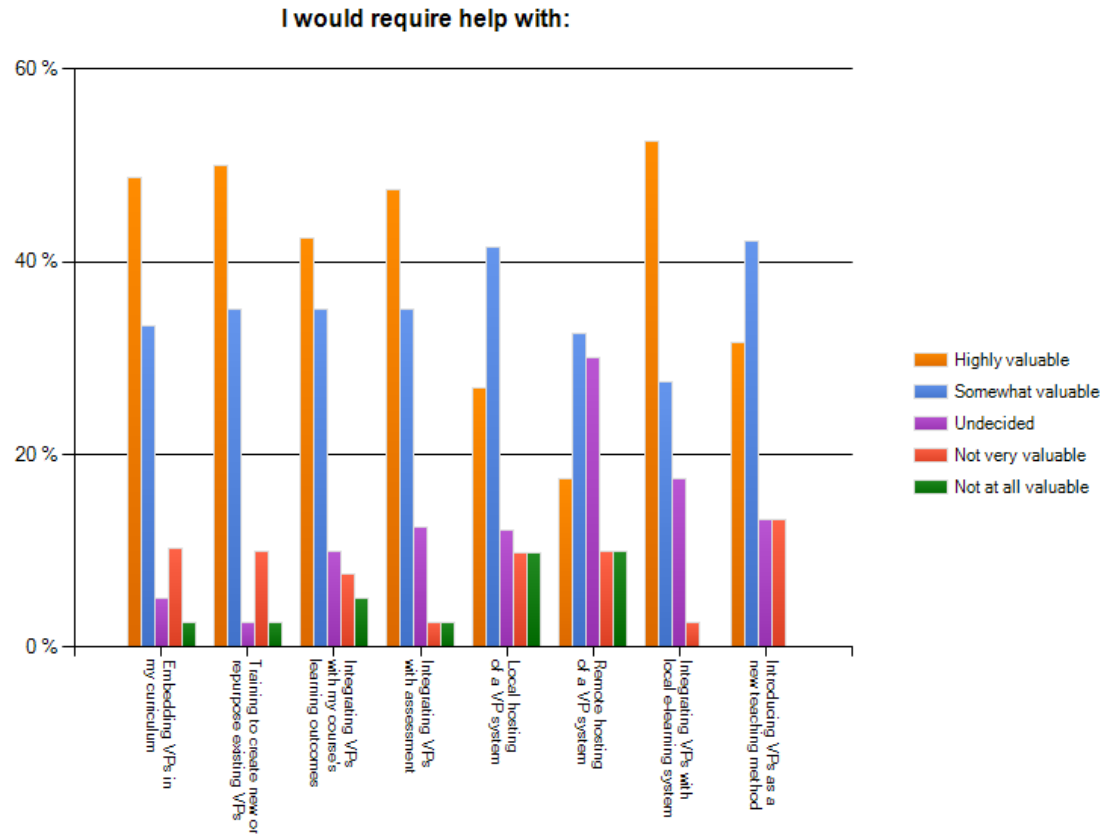
[3] http://www.amee.org/

[4] http://www.medbiq.org/working_groups/virtual_patient/index.html

[5] http://www.medev.ac.uk/resources/news/display_single?newsindex=4018

The responses were as follows. The most popular response for each value added service is highlighted in dark grey.

	Highly valuable	Somewhat valuable	Undecided	Not very valuable	Not at all valuable	Rating Average	Response Count
Embedding VPs in my curriculum	**48.7% (19)**	33.3% (13)	5.1% (2)	10.3% (4)	2.6% (1)	1.85	39
Training to create new or repurpose existing VPs	**50.0% (20)**	35.0% (14)	2.5% (1)	10.0% (4)	2.5% (1)	1.80	40
Integrating VPs with my course's learning outcomes	**42.5% (17)**	35.0% (14)	10.0% (4)	7.5% (3)	5.0% (2)	1.98	40
Integrating VPs with assessment	**47.5% (19)**	35.0% (14)	12.5% (5)	2.5% (1)	2.5% (1)	1.78	40
Local hosting of a VP system	26.8% (11)	**41.5% (17)**	12.2% (5)	9.8% (4)	9.8% (4)	2.34	41
Remote hosting of a VP system	17.5% (7)	**32.5% (13)**	30.0% (12)	10.0% (4)	10.0% (4)	2.63	40
Integrating VPs with local e-learning system	**52.5% (21)**	27.5% (11)	17.5% (7)	2.5% (1)	0.0% (0)	1.70	40
Introducing VPs as a new teaching method	31.6% (12)	**42.1% (16)**	13.2% (5)	13.2% (5)	0.0% (0)	2.08	38
					answered question		**41**
					skipped question		**0**



All of the proposed value added services were rated as being valuable, most highly so. This is reassuring for eViP as it confirms that the community has confirmed the value added services we have proposed.

But have we missed any potentially valuable services? We asked our respondents.

2. Please list any other services you value highly. (13 responses)

The following are the raw responses by respondents.

VPs in examination methods
we are currently using VPs and thus most of question #1 is not applicable
Coaching on how to access relevant VPs - e.g. is there a repository with searchable metadata?
VP's as a support for PBL and case based learning
Vp's as a support for decision making
set up by year of medical education. progressively more involved cases.
Embedding VPs in curriculum
The above that I rated as Not Very Valuable is because I already have the tools etc to do this.
What would be helpful would be tips on where to find good multimedia resources to supplement the cases. Many licensing schemes prohibit use in open access cases.
- free access and use of eVIPs (including the player / programme)!
- a forum, where experiences with certain eVIPs can be exchanged and discussed, so that the eVIPs and integration of them can be developed further
- a platform for peer review of eVIPs
VPs are critically important as we move toward patient-centric educational models
Network for sharing experiences
Educational design and authoring of VPs
VPs in combination with simulation
The creation of an open source consortia for development on a shared tool (i.e. taking Open Labyrinth to the next level)
one service left out might be maintainace of VPs (content and technical support)

When categorised, and leaving out services already listed in question 1 repeated by respondents in this question, the following value added services not yet anticipated emerge:

- Use of virtual patients to support PBL and case-based learning
- Access to multimedia content to enrich virtual patients

- Access to a player
- Peer review of virtual patients
- A community of practice for sharing ideas
- Use of virtual patients in simulation

3. Of these services, which would be most valuable to you? (19 responses)

The raw responses were as follows:

see above - assessment on the base of virtual patients
Introducting VPs as a new teaching method.
Intergrating VP with local e-learning system
Training to create/repurpose
VP's as a support for PBL and case based learning
Integrating VPs with assessment
curriculum integration.
Repurposing VPs
Embedding VPs in my curriculum
Assessment
- free access and use of eVIPs (including the player / programme) with the possibility to adjust the eVIPs to my needs
Integrating VP's with local-learning system
the availability of cases and oppportunity to contribute cases is particularly helpful-- it would also be helpful to have them identified with competencies and standards of care for specific patient populations
It is the combination of services that gives added value
Local hosting of a VP system
Boadening existing programmes especially with experiences from other sites and cultures
Remote or local hosting of a VP solution
Integrating VPs within a local e-learning system.
embedding VPs in my curriculum

When categorised into themes, the following priorities emerge:

Category	Responses
Curriculum integration	5
Technical integration	5
Assessment	3
Repurposing	2
Training	2
Combined services	1
Competencies	1

Curriculum integration and integration with local technical/e-learning systems seems to be the priority.

4. Would you be prepared to pay for this service, and if so how much (please state in either Euros or US Dollars) (31 responses)

The raw responses are:

no
yes, how much is depending what I get out of it
Not sure if my organization would pay, the organization would need to see a value for their cost.
no as we do not have a budget in this economy
Not at present.
At this time our institution won't pay for this service
Prepared to pay, but not sure how much. Maybe $30-40/hr for a consultant.
pricing would depend on educational value to be determined by other individuals.
unknown
No.
yes /1000E/year
no
no
I'm afraid that, at present, the funds we have do not allow for such expenses.
Possibly. hard to say how much - depends what service was offered.
Being employed I would not pay personal money to enable my students to use eVIPs, our department doens't have the fund for that - and our university is very restrictive regarding anything that const money :-(

We are a not for profit organization, so would prefer not to have to pay!
$100 US/case
I would also think that some "credits" or payment for case submission is reasonable
I would guess something in the range of $300-$700 to be paid my institution.
Have to ask my Chair of dept.
Yes. Fee for web based course.
yes, how much is difficult to say, that really depends on the service provided and whether it´s a kind of licence model or a one time service
5000 Euro/y
No budget available
Not for the cases itself. I believe in sharing.
yes 200 €
not in money but in exchange of Vps
not at present, but we can exchange cases
Depends on the depth of the services. If it could meet our school's VP needs it would be worth well over $10,000 USD per year.
Possibly.
€100

These results are fascinating because respondents appear to be fairly evenly split between paying and not paying for services. 45% would not expect to pay, 42% would be prepared to pay (prices ranged from €100 to over $10,000 with no real consistency), and 13% did not know whether they would pay or not.

The current economic climate was invoked as one reason for not paying, while other respondents suggested they would rather exchange virtual patients rather than pay. A number of those who suggested they might pay were reluctant to suggest a price until what was on offer was known in more detail.

These results present some challenges for eViP. There is clearly a dominant culture of not wanting to pay for either content or services. Yet it is clear that to sustain access to virtual patients beyond the end of the eViP programme is going to cost money. It is possible that many or most institutions would be prepared to accept virtual patients free of charge but not go as far as to pay for value added services. A smaller number of institutions might be prepared however to pay, perhaps even considerably for customised services such as local contextualization of virtual patients, and hosting. Some more thought needs to go into WP6 Exit & sustainability before this issue is clarified.

5. Any comments about value added services, or virtual patients in general (12 responses)

The raw responses are:

I'm prepared to share my VPs and have already done so. would like to have access to more.
Good quality, interactive VP's, players simply & friendly to use, esay to repurpose and to ajust to specific educational needs, with real time feedback.
Would think it may have application as a pre-test for medical students. Fee based tests with immediate feed back of results on line.
I feel we could support ourselves in many of the services listed above.
Maybe it would be a good idea to sell the virtual cases, once we are able to produce evidence that they are really helpful in improving students' proficiency.
The examples could make use of video. Easy to get lost in LIME but linear examples are restrictive. Open Labyrinth is good but could make greater use of media.
I like the idea of open access and sharing - we'll gain more than we lose.
eVIPs are a great chance for learning!
(One year a third of my students "killed" one of my eVIPs - when I told the real patient behind the eVIP about that, she was happy, that the students didn't get hold of her in reality!)
.. and I have a problem with the first question of this questionnaire: Do I personally need help with these items or do I regard it as valuable services? I answered it the latter way.
We would be delighted to access VP's relating to allergy and clinical immunology and link them in with our on-line educational offerings.
Please include Ophthalmological cases.
A broker service or marketplace repository based on a creative commons philosophy would be highly valued.
really depends on the faculty's starting situation, where its main demand lies and what resources and knowhow they have themselves. the price then of course depends on the services required.

There are some useful comments here that will feed into WP6 Exit & sustainability discussion, as well as general planning for the remaining eViP programme year.

D. Conclusions and recommendations

The overall conclusion is that this survey has collected some important evidence about important exit & sustainability issues. There is acceptance that virtual patients themselves should be free, but the business case for value added services has yet to be made. We can infer form data collected here that many users or institutions would be satisfied by simply accessing virtual patient cases and not taking advantage of value added services. This might reflect the relative state of maturity of an institution in terms of curriculum or technical development. One respondent for example stated that *"I feel we could support ourselves in many of the services"*. Perhaps given the number of responses, there are still many institutions willing to pay for value added services. indeed of those respondents that suggested a price, one suggested that *"If it could meet our school's VP needs it would be worth well over $10,000 USD per year"*. A small number of institutions with that approach could generate enough income to sustain access to eViP virtual patients for the foreseeable future. Perhaps this should be part of the strategy, to seek out and target a small number of institutions willing to make a substantial investment in virtual patients, perhaps as part of a new curriculum or major curriculum review. Institutions in the developing world for example could be good candidates.

Other respondents have made valuable suggestions for services that eViP could easily accommodate given the experience of partners. For example, help with PBL and case-based learning, faculty development and technical support. A number of respondents suggested trying to build a community of practice around virtual patients. This is a key opportunity for eViP.

On the basis of the evidence gathered here, the recommendations are that:

- WP6 leads consider the business issues raised in this survey, specifically a response to the value added services suggested by survey respondents.
- Consideration be given at eViP Steering Group meetings to how eViP can facilitate a community of practice around virtual patients.
- Members of the eViP project should continue to raise awareness of the project and its deliverables. This will be most effectively done in the final year by the forthcoming International Conference on Virtual Patients[6] in April 2010, as well as publishing scholarly articles.
- Survey results should be shared with respondents and all stakeholders.
- A repeat of the September 2008 D4.3 survey be compiled for the April 2010 meeting to get an updated picture of the current use of virtual patients across Europe.

[6] http://www.medbiq.org/events/conferences/2010/index.html