Project no: 022936
Project acronym: Beneris
Project title: Benefit-risk assessment for food: an iterative value-of-information approach

Instrument: STP-Specific Targeted Project

Deliverable 46:

End-user evaluation

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Organisation name of the lead contractor for this deliverable: **THL**

End-user evaluation (D46)

This deliverable consists of several parts:

1) End user evaluation by FSAI
2) User statistics of Beneris website
3) User statistics of Opasnet website
4) End user evaluation questionnaire about Opasnet and open assessment

Appendix 1: Psychological view of Opasnet as a consumer dissemination tool
Appendix 2: End user experience about Opasnet from a research project
Appendix 3: User statistics about the BENERIS project website
Appendix 4: User statistics of the Opasnet webpages

1) End user evaluation by FSAI

In WP5 (Dissemination), an objective is to carry out end-user evaluations of the methodological and substantive work packages emerging from Beneris, in particular the methodology for BRA. FSAI is one such end-user. However a key task for FSAI in the Beneris project was to evaluate the methodology for benefit:risk assessment (BRA) developed under WP 1 from the perspective of a food safety authority involved in risk assessment (D45), and FSAI identifies that there is an overlap between the evaluations to be carried out for each of these work packages. The report that follows relates to the end-user evaluation D46, but further information can be found in the report on D45.

The end user evaluation is part of Beneris WP5, dissemination. The dissemination strategy included a number of objectives, (1) to develop an internet interface for publishing risk assessment results, (2) to enhance the availability of existing databases through this interface; (3) to develop a method to publish entire benefit-risk models over the Internet using XML; (4) to develop methods to collect feedback from end-users about benefit-risk analyses; 5) to disseminate the results and to evaluate the relevance and usefulness of the work done in the project from the perspective of an end-user / authority. The first three objectives are reflected in deliverables D2, D4, D17, D37, D42, which are reported elsewhere, as is D43, consumer reactions. This part of this report covers FSAI's involvement in D46.

As reported in the FSAI P2 activity report, while FSAI was nominally leader for W5, following the mid-term meeting in November 2007, the main responsibility for this transferred to THL. This decision was communicated to the overall project leader in writing, and was taken on the basis that FSAI had significant problems at that stage understanding the methodological approach being developed to the risk assessment aspects of the project and the relationship of the BRA case study on fish to the open risk assessment approach (ORA). We did not therefore consider it appropriate to be responsible for overall dissemination of the achievements of the project, and we requested that this role should be assumed by THL, who had the knowledge and understanding of the methodology required for effective dissemination. FSAI has however contributed to the end-user evaluation at an individual level.

THL has developed an end-user evaluation questionnaire regarding the Opasnet Website, Opasnet and the methodology of ORA and other issues, and FSAI has completed this

questionnaire. Analysis of the results of the end-user evaluation will be carried out and reported by THL. In addition, FSAI has specifically requested its collaborator, Dr Jim Flynn, psychologist, of the NLP Group, Ireland, to evaluate both the Opasnet Website and the Opasnet methodology as a potential end-user, coming from the psychological viewpoint. The results of Dr Flynn's evaluation are attached as an Appendix to this report.

The specific objective (5) given above, to evaluate the relevance and usefulness of the work done in the project from the perspective of an end-user / authority, as a tool to develop enhanced risk communication, relates more specifically to the framework for handling benefit-risk situations as developed under WP1. The FSAI has therefore in the main reported on the outcome of this evaluation under the heading of "Application of benefit:risk assessment to a food safety agency (D45).

It has to be recognised, however, that our ability to evaluate the relevance and usefulness of the work done under the Beneris project was hampered by a number of issues:

1. the continually evolving nature of the project methodology , initially focussed on the Beneris website but gradually moving towards the Opasnet platform and Open Assessment as the key methodology;

2. the non availability of a mature case study using the project methodology, namely the BRA for fish consumption, until the very end of the project;

3. our lack of understanding of what the project leader was trying to achieve, which was compounded by the lack of regular contact between the project partners;

4. lack of resources at FSAI, in part due to the part-time working pattern of the FSAI lead contact (who officially has retired status). FSAI could/should have compensated for this by employment of additional resource, but by the time this was realised there was no clear indication of what FSAI's role in the project should be, due to the factors outlined above.

2) User statistics of the Beneris project website

Statistics of BENERIS site usage was gathered during the time period July 2nd – October 17th, 2009. BENERIS-wiki site is a password protected. Therefore active countries include countries within the project. The other contributing countries are probably just visits of the project partners accessing the webpage from a foreign country. Table 1 shows the site usage with approximately six hundred visits on this particular time period, mostly from Finland and the Netherlands. Table 2 presents what pages were under traffic. Pages were viewed more than 3300 times during the time period. The full statistical analysis of BENERS web pages can be found from appendix 3.

Table 1. Site usage of the BENERIS website.

Site Usage

Visits	Pages/Visit	Avg. Time on Site	% New Visits	Bounce Rate
599 % of Site Total: 100.00%	5.57 Site Avg: 5.57 (0.00%)	00:04:29 Site Avg: 00:04:29 (0.00%)	18.36% Site Avg: 18.53% (-0.90%)	39.07% Site Avg: 39.07% (0.00%)

Country/Territory	Visits	Pages/Visit	Avg. Time on Site	% New Visits	Bounce Rate
Finland	319	7.01	00:05:49	9.72%	26.65%
Netherlands	237	2.89	00:02:20	28.69%	57.81%
Ireland	17	14.06	00:09:59	23.53%	23.53%
Spain	15	9.13	00:05:48	26.67%	26.67%
Hungary	4	3.00	00:03:16	25.00%	75.00%
Italy	3	4.67	00:01:21	33.33%	33.33%
United States	2	5.00	00:01:42	50.00%	0.00%
Germany	2	3.00	00:00:39	0.00%	0.00%

1 - 8 of 8

Table 2. Visits to pages

Pages	Pageviews	% Pageviews
/beneris/index.php/Main_Page	533	15.97%
/beneris/index.php/Special:Recentchanges	204	6.11%
/beneris/index.php/Beneris:Project_information	162	4.85%
/beneris/index.php/Special:Allpages	88	2.64%
/beneris/index.php/Special:Upload	87	2.61%

3) User statistics of the Opasnet website

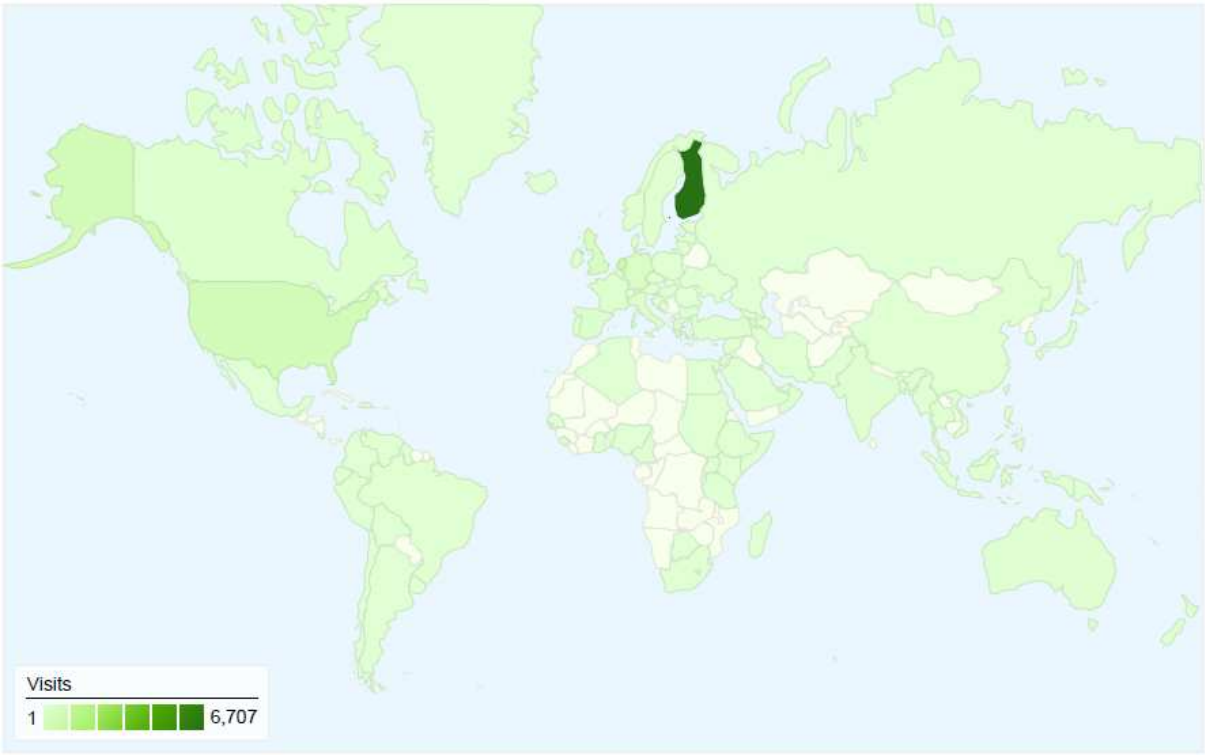
The follow up time for the study was July 2nd – October 18th, 2009. There were over ten thousand visits from 108 countries (see picture 2). This proves that Opasnet really reaches out for almost every corner of the World. The most active countries are described in table 3. Approximately half of the visitors arrived to the site from a referring site, one quarter using a direct link, and another quarter using search engines. Opasnet pages were viewed more than 74000 times during the time period. The full statistical analysis of Opasenet web pages can be found from appendix 4.

Table 3. Opasnet wikipage activity by country

Site Usage

Visits	Pages/Visit	Avg. Time on Site	% New Visits	Bounce Rate
10,211	7.31	00:08:35	34.26%	38.38%
% of Site Total: 100.00%	Site Avg: 7.31 (0.00%)	Site Avg: 00:08:35 (0.00%)	Site Avg: 34.22% (0.11%)	Site Avg: 38.38% (0.00%)

Country/Territory	Visits	Pages/Visit	Avg. Time on Site	% New Visits	Bounce Rate
Finland	6,707	9.14	00:11:13	16.86%	28.46%
Netherlands	734	7.19	00:07:11	41.28%	21.25%
United States	513	2.33	00:01:23	84.80%	78.95%
United Kingdom	308	2.52	00:01:54	74.68%	63.31%
Germany	303	3.69	00:03:43	46.53%	50.17%
Italy	135	3.93	00:03:07	65.19%	52.59%
Spain	117	5.36	00:05:08	47.01%	47.01%
France	108	2.70	00:02:31	77.78%	65.74%
Canada	85	1.80	00:00:42	92.94%	78.82%



4) End user questionnaire about Opasnet and open assessment

This section summarizes the results of the end user evaluation questionnaire (see appendix 3 for more detailed information).

The questionnaire is located at: http://en.opasnet.org/w/End_user_evaluation

There were 37 questions in the questionnaire, with their types and contents as follows:

- 9 multiple-choice claims and 3 open-field questions about Opasnet website
- 8 multiple-choice claims and 3 open-field questions about about open assessment method
- 6 multiple-choice claims and 3 open-field questions about about a case study (these results are also addressed in D43 "Consumer reactions")
- 5 multiple-choice questions about the respondent.

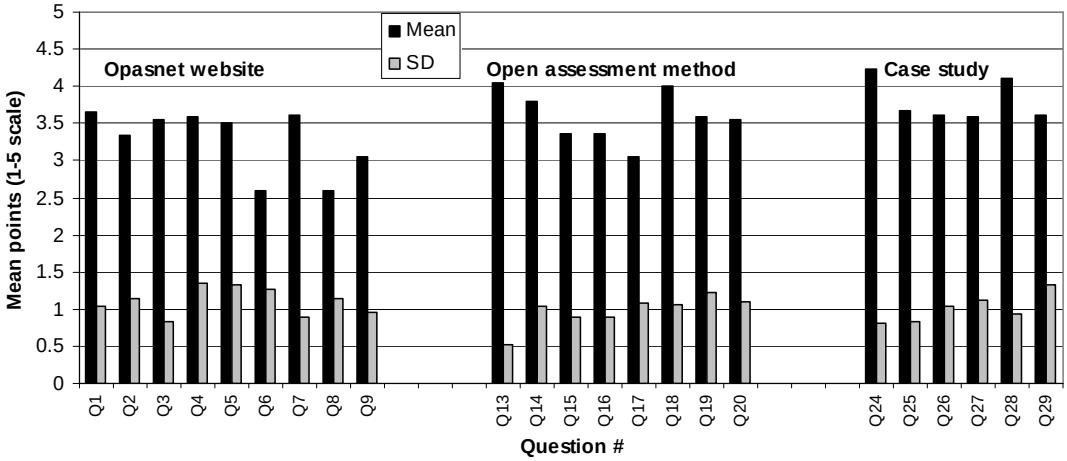
The scale for the answers was as follows:

1=strongly disagree
2=disagree
3=don't know
4=somewhat agree
5=strongly agree.

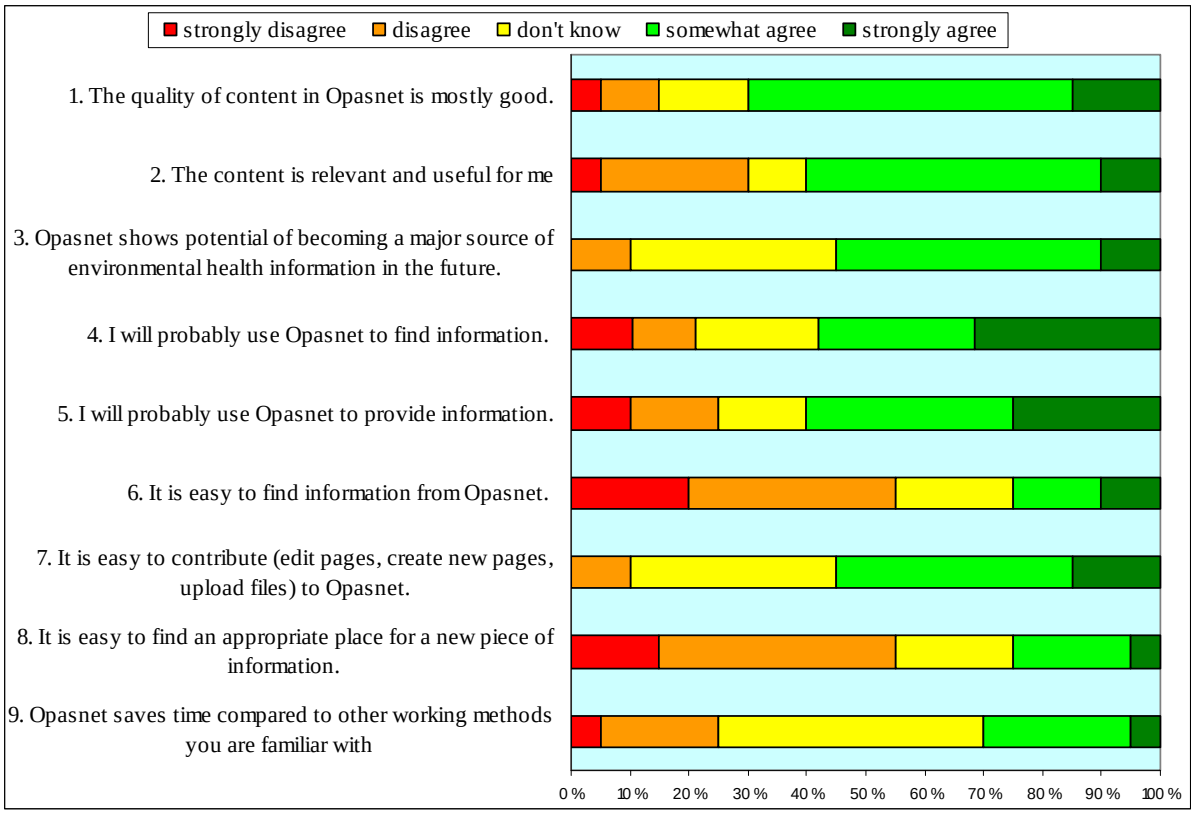
Multiple-choice questions

Table 1 shows the descriptive statistics about the questionnaire results (N=20). In particular, claims with low agreement scores are interesting, since they reveal a potential direction for developing the method. In average, the group of Opasnet website-related claims received the lowest scores (3.27), with claims 6 (“It is easy to find information from Opasnet “) and 8 (“It is easy to find an appropriate place for a new piece of information”) giving the lowest scores (2.6). This can be interpreted as an inconveniency with "orienteering" within the Opasnet pages. Open assessment-related claims received an average score of 3.60 points, while the highest scores were received by claims about the case study (3.80). Variation between respondents was largest for Opasnet website-related claims. This could be an indication of unfamiliarity with either wikipages in general or with the structure of the Opasnet pages. In general, the case study-related claims received consistently higher agreement scores, indicating that the content of the case study was acceptable to the respondents. The method of open assessment seemed to be considered as a promising tool, while its implementation could be improved.

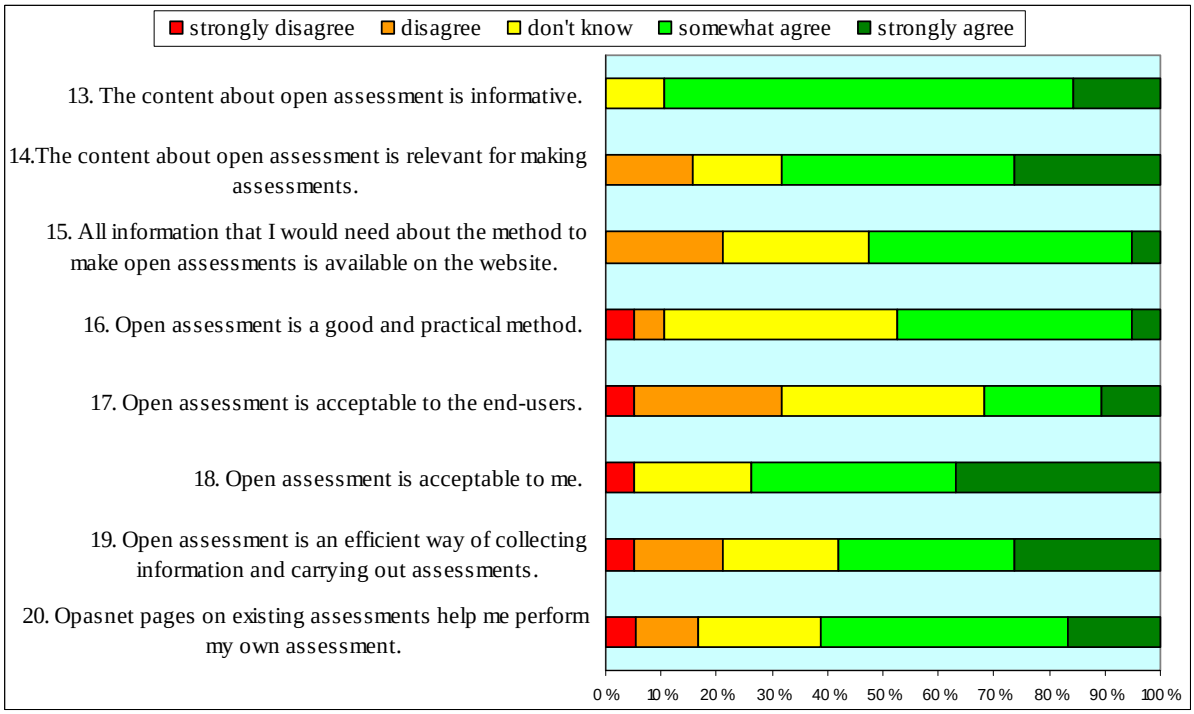
Table 1. Descriptive statistics of the results



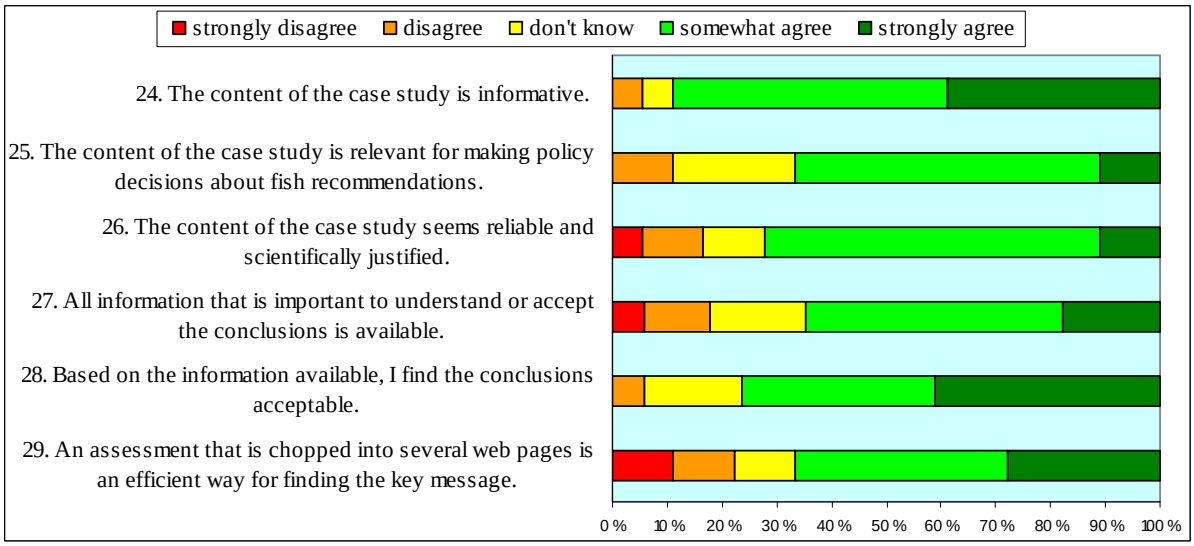
Questions about the Opasnet website:



Questions about the open assessment method:



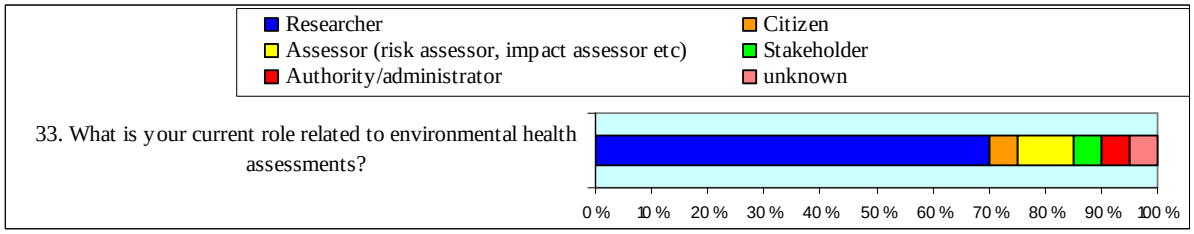
Questions about a case study:

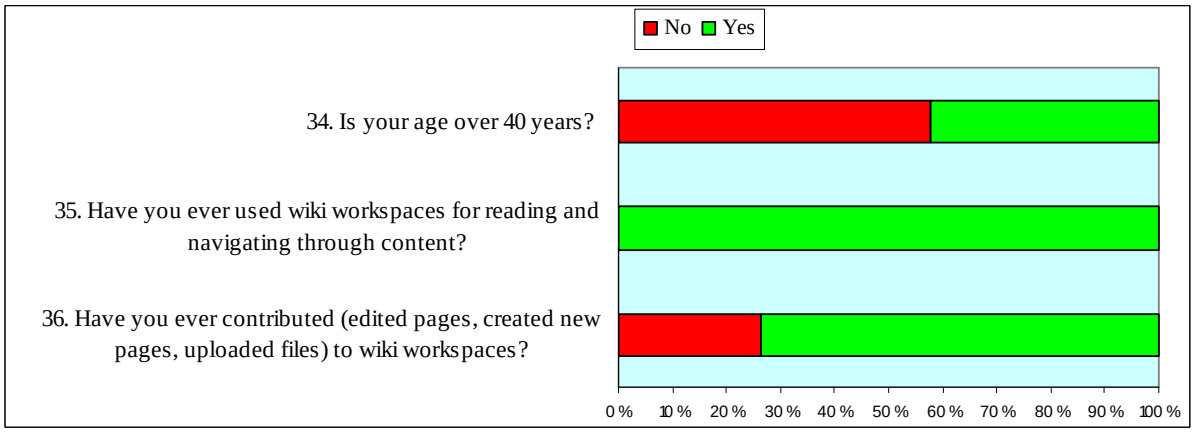


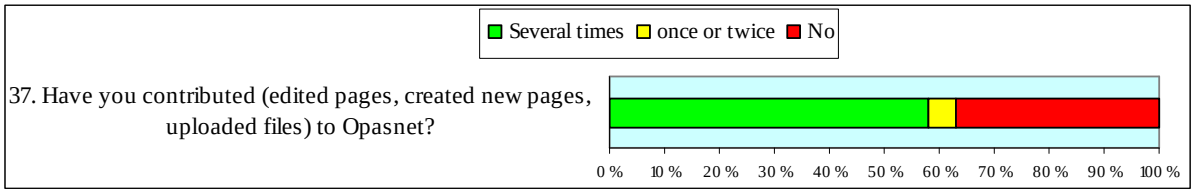
Questions about the respondents

These questions collect information about the respondent to see if there clearly is difference in what kind of people have answered the end user evaluation. A typical respondent was a young (60% younger than 40) researcher (70% of the respondents), others with very low percentages (less than 10% each) were assessor, stakeholder, citizen, authority, and one unknown. The respondents were quite well familiar with wiki workspaces (70%), and 55% had contributed to Opasnet.

Questions about the respondents:







Open questions

While not producing quantitative data, the open questions guide us forward to tackle issues that raise concerns among the respondents. Some examples of their responses are given below.

General feedback about Opasnet:
"Opasnet has become much better since the beginning!"
"Opasnet is somewhat confused in structure and not easy to locate information"

Idea of some kind of Opasnet tutorial was raised with several respondents, also more visual help on the pages would have been appreciated. The first step for using Opasnet was found to be somewhat troublesome.

General feedback about open assessment:
The potential of the open assessment was mentioned in several places. However, respondents were doubtful:

"Despite OA already being quite a comprehensive and coherent idealized theoretical construct, it still remains unknown how to change the knowledge practices of people so that they would see and understand the benefits of openness and what is required to make it work.

General feedback about case study:
Idea of the case study to be expanded to a tutorial was raised. This would promote the site and making it easier for the beginners to understand how the things are arranged in Opasnet.
Dividing questions to form of subquestions, variables, was not totally approved:

"variable structure… is not necessarily very easy to read"

Also the study question in the case study was challenged.
"The main question should have been formulated differently: i.e. what is the overall net health effect of eating fish, as compared to a diet lacking fish"

Appendix 1

END USER REVIEW OF OPASNET

A psychological standpoint of Opasnet capability to dissiminate Benefit Risk Analysis to the consumer

Prepared by James Flynn, the Nlp group for the Food Safety Authority of Ireland

Having reviewed the Opasnet website from an end user point of view I would summarise as follows

Opasnet is a valuable step forward as a Knowledge Management point of view if used for a specific Community of Practice. It allows for a form of 'open' risk assessment within a specific community of practioners who are equipped with the necessary knowledge, motivation and resources to extract value from it. While every system of knowledge sharing has its drawbacks Opasnet is no different. There are risks that without significant resources to police and maintain the system it is open to abuse. However, given these limitations, should a professional community find it useful it may become a useful resource to a specific audiences like researchers, risk assessors and authorities.

Nevertheless it is highly unlikely that Opasnet will be a significant dissemination tool to the wider population. There may also be significant drawback in opening its use to NGO's, activists and the general public There are a number of reasons for this:

1. The news and print media is by no means a benign actor in commutating BRA models to the public. In providing access to the media, to the Opasnet website, highly selective messages may be published completely out of context. A resultant consumer over reaction to a perceived treat may be to the detriment of public health. If the media were to report that such research was on an EU website it could further increase the messages' perceived creditability.

2. Consumers do not tend to research and inform their choice based on scientific based websites. Instead they tend to use heuristics (rules of thumb) to inform their choices. Tradition Sender Message Receiver (SMR) models of communicating with consumers have been proven ineffective and have been largely abandoned by all consumer-focused organisations. In order to communicate in a meaningful way with consumers it is first necessary to develop a deep understanding of how they think and feel about a subject and then craft an appropriate message.

3. Delivering that message in a way that is useful and through a media that the consumer already uses is also essential. An example of a highly successful heuristic for consumers is ***'5 a day'***. It is proposed that in order to communicate successfully with consumers about BRA then similar messages to '5 a day' will need to be developed

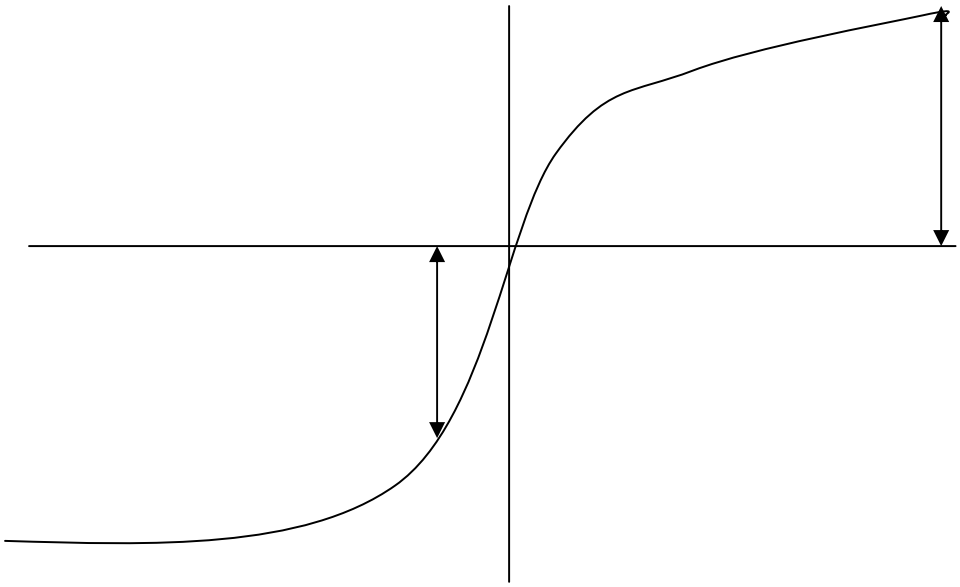
4. Communicating risk directly to consumers can have substantial unanticipated consequences (Nesheim and Yaktine, 2007). Risk information intended for specific target groups have led the population in general to believe they are at risk. Consumers can, for example, categorise all species of fish as one and fail to make an informed

choice as a result. These overreactions are an unintended side effect and could well be to the detriment of the public.

5. In a post modern society where the public are bombarded with a wide range of messages on an ongoing basis, it is unlikely that they will invest the time and resources needed to make detailed informed choices. Even if such information was widely available to them the public are not rational in how they choose as discussed briefly below, under "Risk, Reward and Prospect Theory".

Risk, Reward and Prospect Theory

Prospect Theory (Kahneman and Tversky, 1979) explains many of the phenomena that cannot be accounted for by rational choice models. Decisions can be graphed according to how they represent risks (losses) or gains according to the graph below (Fig 2). As we can see small risks are given a much larger weighting than they deserve and large gains are conversely given a smaller weighting. In short people feel losses much more than equivalent gains;



6. How messages are framed on the Opasnet site could prove of critical importance to the impact it has. Framing effects show how the ***exact same*** information can be presented to the public with significantly differing results. Gains and losses are determined by application of a reference point. Here is an example;

Tversky and Kahneman (1981) (quoted in Brainsby and Gellatly, 2005), asked respondents to imagine that the USA was preparing for the outbreak of an unusual disease expected to kill 600 people. Two alternative programmes had been proposed to combat the disease.

- *If Programme A is adopted, 200 people will be saved.*
- *If Programme B is adopted, there is a one-third probability that 600 people will be saved and a two-thirds chance that no people will be saved.*

.

It should be noted that the options are described in terms of gains – the number of lives that might be saved. Of the respondents, 72 per cent chose Programme A and 28 per cent chose Programme B – definitely saving 200 lives is seen as more attractive than a one-third chance of saving 600 lives. For gains, people are risk averse – as a result, gains that are certain are more attractive than a gamble of equal expected value.

A second group of respondents was presented with a different description of the two programmes.

- *If Programme C is adopted, 400 people will die.*
- *If Programme D is adopted, there is a one-third probability that nobody will die and a two-thirds chance that 600 people will die.*

In this case, only 22 per cent of respondents chose Programme C while 78 per cent chose Programme D. Of course, Programmes C and D are identical to Programmes A and B except that now the outcomes are 'framed' in terms of the numbers of lives that might be lost. Framed as a loss, the same risky option becomes more popular than the riskless option (a clear violation of the invariance axiom that you met earlier). The reversal of preference can be explained by the change of the reference point in conjunction with the shape of the value function. With gains, the reference point is defined by what will happen if nothing is done: 600 dead. Programme A looks attractive as it definitely saves 200 while Programme B risks a two-thirds chance of saving nobody. The relative overweighting of certainty will also contribute to the relative attractiveness of the sure gain of Programme A. In the domain of loss, the reference point is defined by the present: nobody has yet died. Programme D is more attractive as 600 deaths are not substantially worse than 400, and it offers a chance that nobody will die.

As we can see from this research how information is presented to consumers is very important.

7. While the wiki format maybe ideal for an interested and informed group it seems unlikely that it will be used to inform the public directly. The top ten most visited on Wikipedia are as follows;

    a. Main Page [30,090,900]

    b. Wiki [904,800]

    c. Harry Potter and the Deathly Hallows [413,400]

    d. Naruto [401,400]

    e. Guitar Hero III: Legends of Rock [396,000]

f. United States [330,000]

g. Wikipedia [329,400]

h. Deaths in 2007 [321,300]

i. Heroes (TV series) [307,500]

j. Transformers (film) [303,600]

As we can see even the main Wikipedia site is used by the public, not to develop knowledge but investigate leisure pursuits.

Conclusion

Opasnet may well be a valuable resource in communicating BRA and certainly would seem to form part of the picture. However further communication research is necessary in order to best protect consumer health. The following next steps are recommended:

- Develop a robust, simple and concise message that best reflects the scientific findings in relation to BRA

- Identify and develop a deep understanding of the thoughts and feelings of the target group of consumers. (Using the ZMET technique for example)

- Utilise this understanding and combine it with other research including the Framing effect and loss aversion to build heuristic models for the consumer

- Communicate these newly developed heuristics using channels that the consumer has widespread interaction with and through third parties

Appendix 2

Obstacles and drawbacks hampering the use of open assessment

This page is a collection of reasons (methodological, technical, practical, psychological, and so on) that from experience are known/deemed to hamper the use of open assessment (OA).

GOAL: By expressing the problems and recognizing the most urgent ones, this collection should be useful for aiding the further development of OA and its wider acceptance and usage.

Suggestions for solutions will also be presented on this page.

Classification of obstacles

The various problems can be characterized using at least three important dimensions. Analyzing each problem in terms of these dimensions should make it easier to find suitable remedies.

Main axis: Degree of experience

Problem: ***Assumed*** **difficulties/drawbacks (without first hand experience)**

Remedies:

- identify false prejudices and misconceptions on OA → correct them
- identify lack of information on OA → provide more information
- provide possibilites for easily testing OA in practice
- demonstrate the usefulness of OA using a real case

Problem: ***Known*** **difficulties/drawbacks (shown by experience)**

Remedies:

- identify the difficulties/drawbacks → try to develop OA further

Axis: Underlying principles vs technical implementation

Problem: **Disagreement on the underlying *principles***

E.g. the benefits of open participation; theoretical possibilities for dispute resolution; etc.

Remedies:

- identify, discuss, and analyze the issues → justify OA on a scientifically sound basis

Problem: ***Practical*** **difficulties/drawbacks associated with the implementation or application of the OA method**

Remedies:

- identify the difficulties/drawbacks → try to develop OA further

Axis: Cognitive vs emotional

Cognitive component dominating

Problems:

1. disagreements of essentially theoretical nature

2. more technical problems

Remedies:

1. identify, analyze, and discuss the issue → try to convince the opponents
2. identify → solve

Emotional component dominating

Problem: ***Fears* of potential losses**

- plagiarism
- loss of scientific advantage (due to revealing one's information/knowledge; due to the time invested into OA)
- loss of authority/credibility (presenting preliminary/erroneous information; learning new computer tools)
- decrease of control (due to open participation)
- losses of time/money/effort (due to the time & effort needed by an OA)

Remedies:

- identify the fears
- refute ungrounded fears
- for justified fears, assess the realistic magnitude of the consequences
- emphasize the advantages of OA (for a balance)

Problem: ***Inertia***

- i.e. the reluctancy to change the prevailing practices (due to the actual effort needed)

Remedies:

- as an incentive, need to demonstrate the gains of OA by a real case

Experiences from the Helsinki CCZ case

Helsinki CCZ is a case study about congestion charge zones in Helsinki. It was performed in Intarese project. We have used this experience in an end user evaluation in Beneris project, because many of the issues dealt with here are not specific to the actual topic.

Practical inconvenience and additional work due to breaking apart an assessment into separate wikipages

At the starting point, the Helsinki workplan was a single contiguous (bulleted) text, making it easy to scroll and edit, to print/export the text for reports, to get a quick overview of the extent and stage of work, and to see the entire hierarchy of titles and subtitles (in the automatic contents).

Breaking the text apart into separate variables (wikipages) will complicate/prevent the above tasks, especially:

1. creating a need to jump back and forth between many wikipages
2. requiring additional work for printing/exporting the separate pages for reports
3. making it more laborious to estimate the stage of completion

Alleviation to #1: The "Use breadcrumbs" option in the wiki-user preferences makes it easy to return to previous pages.

Concerns about publication rights and authorship

Insofar as scientific publications are planned to be written about (or based on) this impact assessment (IA), open participation creates some worries/concerns about publication rights:

- who will be the authors of the publication(s), if a large number of persons will contribute to the IA, but with greatly differing levels of contribution?
- can one be confident that parts of the unpublished work (e.g. methods, structure, ideas, etc.) will not become subject to plagiarism, because of the open participation? (even when the participation is restricted, the information might spread further)

Reluctance for revealing erroneous/preliminary work to other researchers

Due to the extent of the Helsinki IA, the novelty of most of the contents for the main author, and the limitations of time, some of the (early) contents is bound to be erroneous or poorly thought-of, making it somewhat unpleasant to reveal the contents to fellow researchers.

Partial solution: All participants need to be prepared to take a fruitful attitude for making IAs. New IAs are never complete from the start. When inviting new participants to join an IA, one must inform them about the gradually evolving nature of the work, as well as of the resource constraints. In early stages of the assessment, the presence (and even predominance) of gaps, inaccuracy, and errors should not be viewed as demerits, but rather as the natural starting point for joint elaboration. After all, this is a key argument for open participation. Furthermore, due to the interlinked requirements for data and sub-models, and the many practical uncertainties (such as the availability of data of various quality levels and from various sources), IAs often also exhibit an iterative character, which may require several rounds of revision and re-definition for some parts of the assessment. Thus, preliminary and temporary choices will likely be necessary, especially in the early stages of the assessment.

How would the formal argumentation method work in practice?

Most risk assessments of practical value are subject to a huge number of potential matters of dispute. This raises the worry about many practical problems:

- simply due to the lack of time, many disputes may even remain totally unaddressed (apart from the participant that first raised the dispute)
- the number of disputes may become so high that no single researcher may address all of the disputes
  - *--' Practical suggestion: is there a tool reporting all open disputes of a given IA?* **'--Erkki Kuusisto 16:46, 18 January 2008 (EET)**
- even when a dispute has been addressed by several participants, it may fail to be properly settled because of:
  - a persistent disagreement between two or more opinions (possibly manifest as an "edit war") → how should one deal with situations like this?
  - lacking resources, resulting in disputes being dropped/forgotten/left open
- some disputes may ***seem*** to be settled (due to "authority opinion"), but actually remain unsettled. This situation may result if the dispute involves known authorities/specialists in the field, possibly deterring some participants from expressing their discrepant opinion, however well thought-of.

A major weakness of the formal argumentation method may be that it relies on rational thinking, and written explication of the problem.

- While rational thinking and explication are useful methods for many purposes, they are also tremendously slow as compared to the "intuition-supported decision-making". The latter is the method being used in the overwhelming majority of practical decision situations - even most of those taken by an expert. "Intuitive thinking" can rapidly incorporate vast amounts of multidimensional information, without an explicit analysis of the internal workings of this information.
- In contrast, the formal argumentation necessitates "writing open" the justification of the opinion, which may amount to writing large amounts of text - taking a lot of time. → The worry is that people may therefore prefer not to be involved in disputes, even if they would have the best opinion (and would know how to justify it).

How do computer sub-models fit into the OA variable structure?

Before starting the conversion to OA structure, my impression is that the variable structure, especially the

"Definition" attribute, is mostly oriented towards fitting relatively simple mathematical functions.

It is not immediately clear how useful this structure is for large, dedicated (often commercial) computer models, such as a traffic model and dispersion models. However, such models constitute the major part of the Helsinki-case model chain.

Conclusion: Need to test this.

Retrieved from "http://www.opasnet.org/beneris/index.php/End_user_evaluation_of_Opasnet_in_Beneris"

Categories: (none)

Add to category

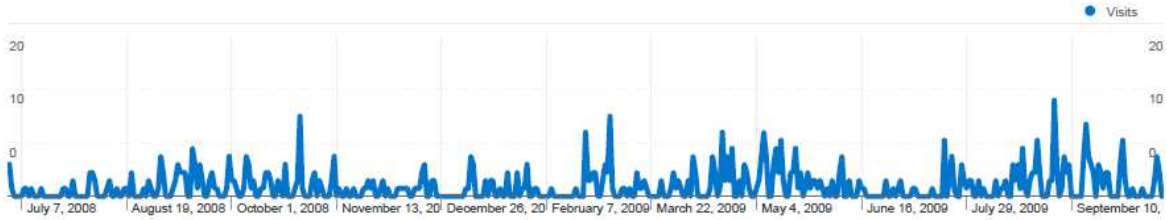
- This page was last modified on 5 November 2009, at 12:11.

Appendix 3

User statistics about the BENERIS project website

Beneris
Dashboard

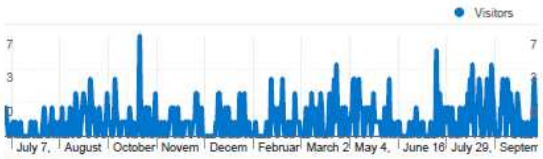
Jul 2, 2008 - Oct 17, 2009
Comparing to: Site



Site Usage

599 Visits	**39.07%** Bounce Rate
3,338 Pageviews	**00:04:29** Avg. Time on Site
5.57 Pages/Visit	**18.53%** % New Visits

Visitors Overview



Visitors
111

Map Overlay world

Traffic Sources Overview

Direct Traffic
308.00 (51.42%)
Referring Sites
291.00 (48.58%)

Content Overview

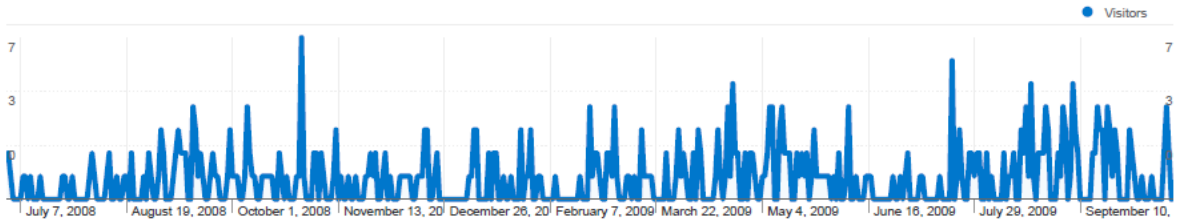
Pages	Pageviews	% Pageviews
/beneris/index.php/Main_Page	533	15.97%
/beneris/index.php/Special:Rec	204	6.11%
/beneris/index.php/Beneris:Proj	162	4.85%
/beneris/index.php/Special:Allp	88	2.64%
/beneris/index.php/Special:Uplo	87	2.61%

Beneris

Visitors Overview

Jul 2, 2008 - Oct 17, 2009

Comparing to: Site



111 people visited this site

599 Visits

111 Absolute Unique Visitors

3,338 Pageviews

5.57 Average Pageviews

00:04:29 Time on Site

39.07% Bounce Rate

18.53% New Visits

Technical Profile

Browser	Visits	% visits
Firefox	553	92.32%
Internet Explorer	46	7.68%

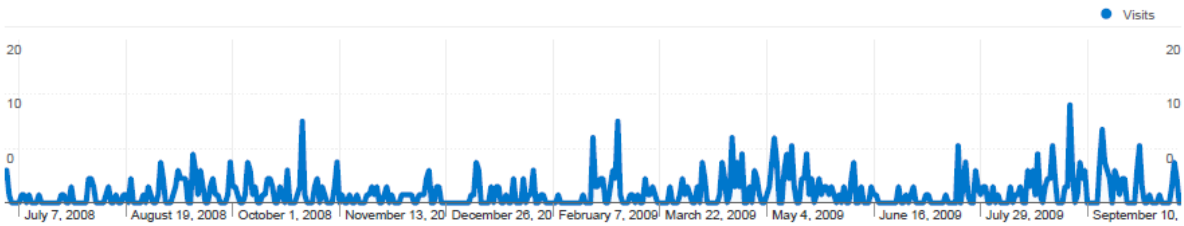
Connection Speed	Visits	% visits
Dialup	299	49.92%
T1	181	30.22%
Unknown	99	16.53%
DSL	18	3.01%
Cable	2	0.33%

Beneris

Traffic Sources Overview

Jul 2, 2008 - Oct 17, 2009

Comparing to: Site

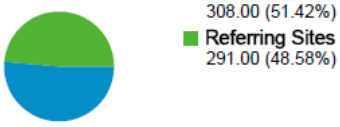


All traffic sources sent a total of 599 visits

51.42% Direct Traffic

48.58% Referring Sites

0.00% Search Engines



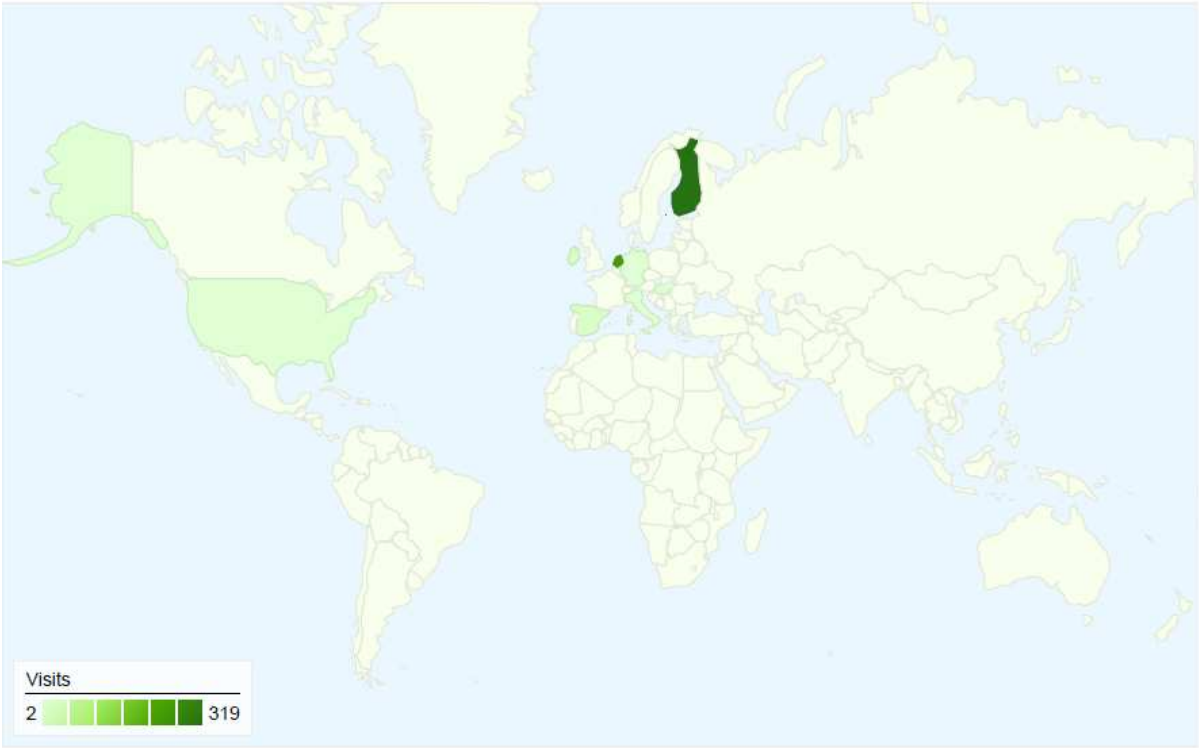
Top Traffic Sources

Sources	Visits	% visits
(direct) ((none))	308	51.42%
ytoswww.ktl.fi (referral)	182	30.38%
ytoswww (referral)	59	9.85%
en.opasnet.org (referral)	40	6.68%
heande.opasnet.org (referral)	5	0.83%

Keywords	Visits	% visits
There is no data for this view.		

Beneris
Map Overlay

Jul 2, 2008 - Oct 17, 2009
Comparing to: Site



599 visits came from 8 countries/territories

Site Usage

Visits	Pages/Visit	Avg. Time on Site	% New Visits	Bounce Rate
599 % of Site Total: **100.00%**	**5.57** Site Avg: **5.57** (0.00%)	**00:04:29** Site Avg: **00:04:29** (0.00%)	**18.36%** Site Avg: **18.53%** (-0.90%)	**39.07%** Site Avg: **39.07%** (0.00%)

Country/Territory	Visits	Pages/Visit	Avg. Time on Site	% New Visits	Bounce Rate
Finland	319	7.01	00:05:49	9.72%	26.65%
Netherlands	237	2.89	00:02:20	28.69%	57.81%
Ireland	17	14.06	00:09:59	23.53%	23.53%
Spain	15	9.13	00:05:48	26.67%	26.67%
Hungary	4	3.00	00:03:16	25.00%	75.00%
Italy	3	4.67	00:01:21	33.33%	33.33%
United States	2	5.00	00:01:42	50.00%	0.00%
Germany	2	3.00	00:00:39	0.00%	0.00%

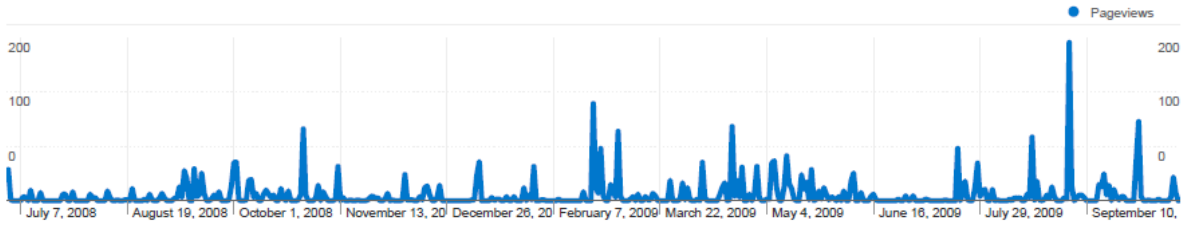
1 - 8 of 8

Beneris

Content Overview

Jul 2, 2008 - Oct 17, 2009

Comparing to: Site



Pages on this site were viewed a total of 3,338 times

3,338 Pageviews

2,186 Unique Views

39.07% Bounce Rate

Top Content

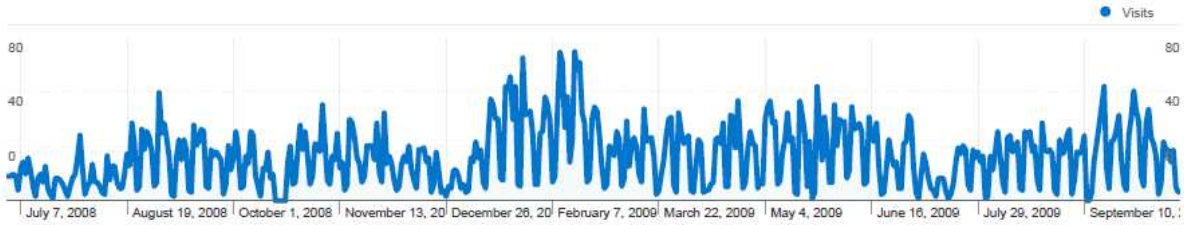
Pages	Pageviews	% Pageviews
/beneris/index.php/Main_Page	533	15.97%
/beneris/index.php/Special:Recentchanges	204	6.11%
/beneris/index.php/Beneris:Project_information	162	4.85%
/beneris/index.php/Special:Allpages	88	2.64%
/beneris/index.php/Special:Upload	87	2.61%

Appendix 4

User statistics of the Opasnet webpages

Opasnet EN
Dashboard

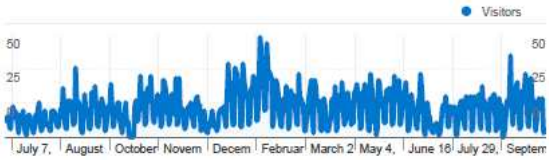
Jul 2, 2008 - Oct 18, 2009
Comparing to: Site



Site Usage

10,211 Visits	**38.38%** Bounce Rate
74,616 Pageviews	**00:08:35** Avg. Time on Site
7.31 Pages/Visit	**34.22%** % New Visits

Visitors Overview



Visitors
3,495

Map Overlay world

Traffic Sources Overview

- Referring Sites
  4,792.00 (46.93%)
- Direct Traffic
  2,771.00 (27.14%)
- Search Engines
  2,648.00 (25.93%)

Content Overview

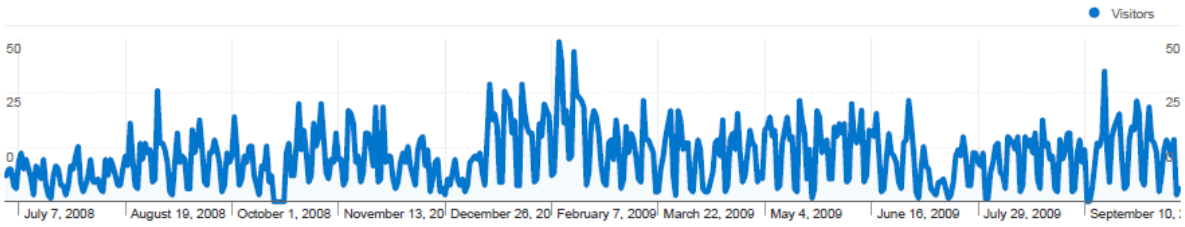
Pages	Pageviews	% Pageviews
/w/Main_Page	6,698	8.98%
/w/Special:Recentchanges	2,347	3.15%
/w/Open_assessment_worksho	1,534	2.06%
/w/Create_article	986	1.32%
/heande/index.php/Main_Page	916	1.23%

Opasnet EN

Visitors Overview

Jul 2, 2008 - Oct 18, 2009

Comparing to: Site



3,495 people visited this site

10,211 Visits

3,495 Absolute Unique Visitors

74,616 Pageviews

7.31 Average Pageviews

00:08:35 Time on Site

38.38% Bounce Rate

34.22% New Visits

Technical Profile

Browser	Visits	% visits
Firefox	7,396	72.43%
Internet Explorer	2,493	24.41%
Safari	165	1.62%
Opera	69	0.68%
Chrome	61	0.60%

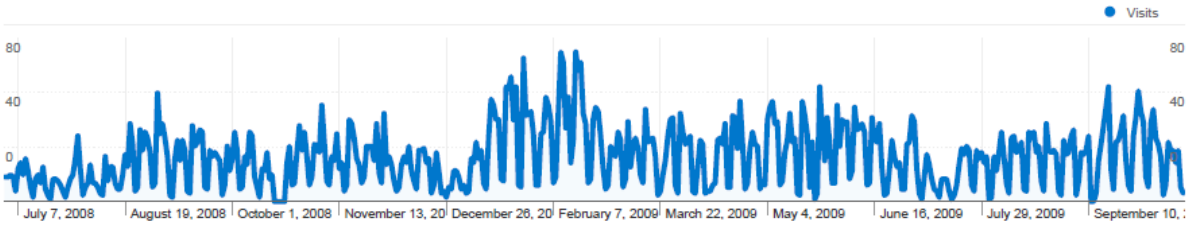
Connection Speed	Visits	% visits
Dialup	4,602	45.07%
Unknown	1,942	19.02%
DSL	1,585	15.52%
T1	1,582	15.49%
Cable	482	4.72%

Opasnet EN

Traffic Sources Overview

Jul 2, 2008 - Oct 18, 2009

Comparing to: Site

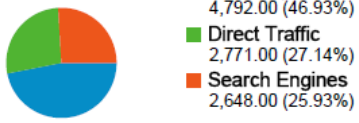


All traffic sources sent a total of 10,211 visits

27.13% Direct Traffic

46.92% Referring Sites

25.93% Search Engines



Top Traffic Sources

Sources	Visits	% visits
(direct) ((none))	2,771	27.13%
google (organic)	2,562	25.09%
ytoswww.ktl.fi (referral)	1,425	13.95%
fi.opasnet.org (referral)	812	7.95%
pyrkilo.fi (referral)	602	5.89%

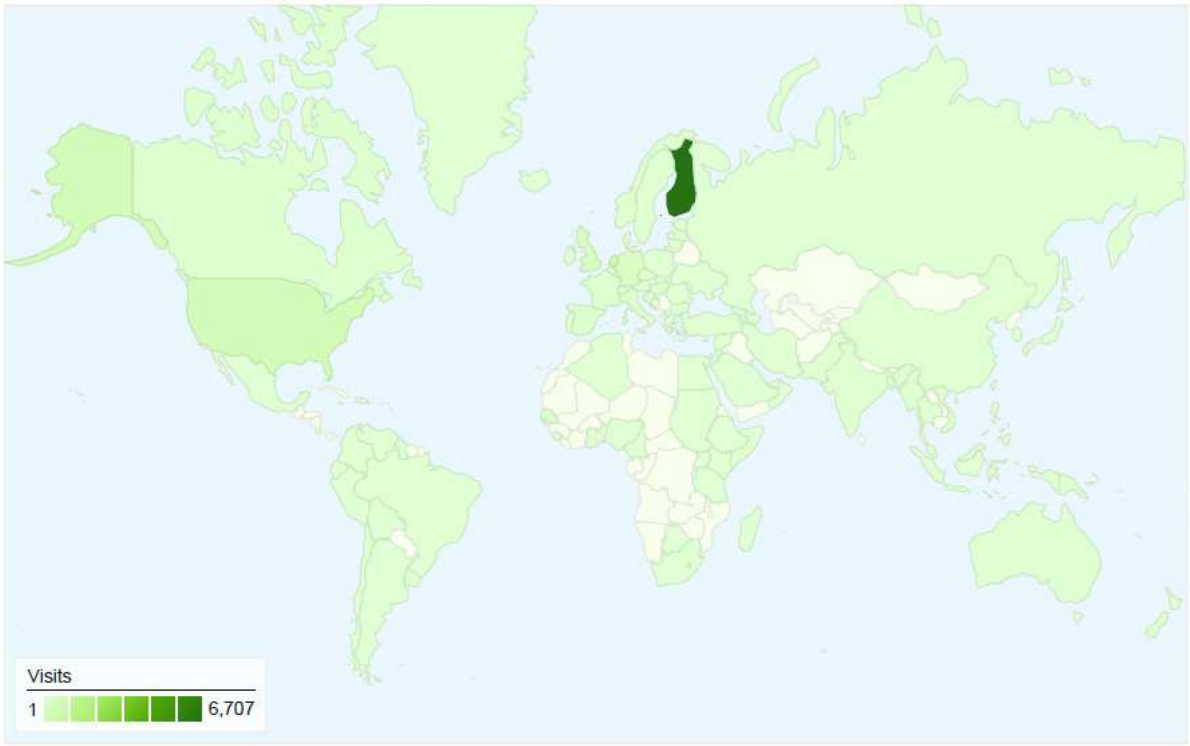
Keywords	Visits	% visits
en.opasnet.org	174	6.57%
heande	134	5.06%
bioher	105	3.96%
opasnet	103	3.89%
who population data	102	3.85%

Opasnet EN

Map Overlay

Jul 2, 2008 - Oct 18, 2009

Comparing to: Site



10,211 visits came from 108 countries/territories

Site Usage

Visits	Pages/Visit	Avg. Time on Site	% New Visits	Bounce Rate
10,211 % of Site Total: 100.00%	**7.31** Site Avg: 7.31 (0.00%)	**00:08:35** Site Avg: 00:08:35 (0.00%)	**34.26%** Site Avg: 34.22% (0.11%)	**38.38%** Site Avg: 38.38% (0.00%)

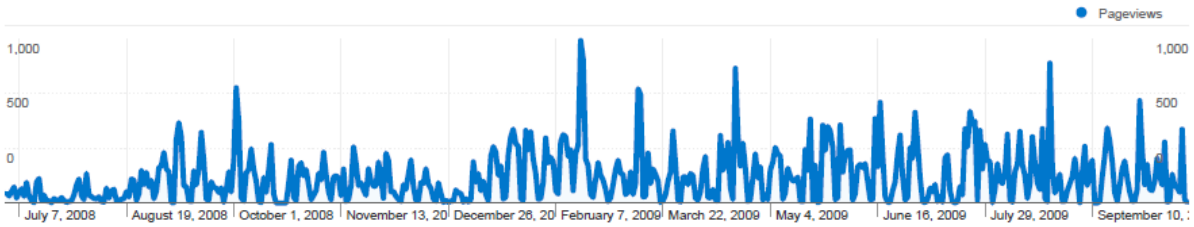
Country/Territory	Visits	Pages/Visit	Avg. Time on Site	% New Visits	Bounce Rate
Finland	6,707	9.14	00:11:13	16.86%	28.46%
Netherlands	734	7.19	00:07:11	41.28%	21.25%
United States	513	2.33	00:01:23	84.80%	78.95%
United Kingdom	308	2.52	00:01:54	74.68%	63.31%
Germany	303	3.69	00:03:43	46.53%	50.17%
Italy	135	3.93	00:03:07	65.19%	52.59%
Spain	117	5.36	00:05:08	47.01%	47.01%
France	108	2.70	00:02:31	77.78%	65.74%
Canada	85	1.80	00:00:42	92.94%	78.82%

Opasnet EN

Content Overview

Jul 2, 2008 - Oct 18, 2009

Comparing to: Site



Pages on this site were viewed a total of 74,616 times

74,616 Pageviews

47,461 Unique Views

38.38% Bounce Rate

Top Content

Pages	Pageviews	% Pageviews
/w/Main_Page	6,698	8.98%
/w/Special:Recentchanges	2,347	3.15%
/w/Open_assessment_workshop_2009	1,534	2.06%
/w/Create_article	986	1.32%
/heande/index.php/Main_Page	916	1.23%