

**LEONARDO DA VINCI Project No (EL/01/BP LA 114443))**

**ORION: Development of Virtual Learning Environment in  
environmental science, with online re-usable interactive modules in  
marine pollution and ecology, with self-learning packages in English,  
Greek, Portuguese and Swedish**

**DISSEMINATION WORKPACKAGE**

**USER BEHAVIOUR STUDY (D 24)**

**WWW.ORIONNET.INFO**



# **User Behaviour**

## **on [www.orionnet.info](http://www.orionnet.info)**

**Deliverable D 24**

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### **1. Introduction**

Since the launch of the ORION Virtual Marine Science Department as an independent website on September 8 2003, the IMBC staff, along with the FEAP staff, have monitored the success of the web page by keeping a daily record of overall accesses and determining, where possible, the origination of those accesses.

### **2. Structure of User Behaviour database**

IMBC Crete created the database from which daily accesses were logged under a variety of different headings. This took quite a lot of developer time, because, although there are commercially available packages which can do this job, they are relatively expensive and do not give the kind of information that the Coordinator needs and wants. The present daily log of user behaviour (called from now on the web statistics) report on :

1. **Timing** , giving a monthly history which is a full report, and which will be delivered in this report in full, according to Day of Month, Day of Week and Hours.
2. **Visitors to site** under WHO, covering the countries of the visitor, the hosts, with IP address, giving both a full list of visits, but more importantly, giving a Last List, and updating on a two-hourly basis. This last is particularly useful as the Coordinator can see exactly what is happening, very soon after it has happened. (a very useful facility given that some users claim to have visited the website not knowing that it is in fact ascertainable whether or not they have done so). This facility is used mostly but not exclusively to monitor student accesses. A large number of these visitors are not identifiable to the casual observer, as they are shown by number only. However, the

IMBC staff have records of a number of users with identifiable numbers, as seen in Appendix 1<sup>1</sup>.

3. **Navigation**, allows us to see how long the visit lasted, but again, more importantly, the entry and exit points of the visit.

4. **Referrers**, ie, search engines are also logged, with the keywords that have been used as part of the visitor's search.

### **3. History of website**

The ORION website was under construction for a year before it opened under its own URL as [www.orionnet.info](http://www.orionnet.info), a domain name purchased by IMBC as part of its contribution. Before that, it had been open within the IMBC website, as a dedicated section where it was available for all partners to inspect the ideas, suggest changes, etc. Once there was consensus as to the format and content of the Virtual Marine Science Department, with appropriate designing and programming to contain in a user-friendly format, Levels 1 and 2 of the self-instructional language modules in English, Greek, Portuguese and Swedish, as well as a series of relational databases which held the bulk of the reference materials in the Library Resources Section, were inserted into the shell. All of these deliverables appeared fairly close to their projected timelines, in spite of the overall difficulties being experienced by the project which have been described elsewhere.

### **4. User Behaviour (official website) 2003**

The site was formally declared open on 8<sup>th</sup> September 2003 and was an instant success, as can be seen from the figures which follow below. From 8-30<sup>th</sup> September, there were 1526 visitors, of whom 1433 were what is termed "unique visitors". This means that quite a few came back more than once. During these visits, they accessed the astonishing number of 10186 pages.

Though the figures for visitors kept on rising until the end of the year, the pages accesses dropped. The reason for this anomalous behaviour seems to be that the initial interest came from a wide variety of users who "browsed" the site, looking at many different aspects and features.. The higher visitor figures combined with lower pages accesses indicate that users were now more aware of what they were looking for, and are probably accounted for by the developers and the partners. A casual view at the

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<sup>1</sup> Web accesses made by Greek NA-owned computers to [www.orionnet.info](http://www.orionnet.info), showing which pages were accessed, at which time of day, and total duration of visits

figures for December would indicate that the site was extremely successful during that month. But a closer look tells us that it was the developers who were making most of the hits, as they kept working on the pages that were being sent at the end of the year, in order to keep to the deadlines. Nevertheless, there were some interesting visitors in that first month, very many from Japan and Canada, but also visitors from Brazil, Hong Kong, Taiwan, Australia, New Zealand, United Kingdom, Canada, Finland, Denmark, France, Belgium, a number of American universities, including Harvard.

<b>2003</b>	<b>Visitors</b>	<b>Pages</b>	<b>Hits</b>
<b>Sept.</b>	1526	10186	19671
<b>Oct</b>	2111	3839	10943
<b>Nov</b>	2111	2738	13309
<b>Dec</b>	4190	6811	69630
<b>Total</b>	<b>9938</b>	<b>23574</b>	<b>113553</b>

## **5. User Behaviour (official website) 2004**

<b>2004</b>	<b>Visitors</b>	<b>Pages</b>	<b>Hits</b>
Jan	1122	1542	2330
Feb	394	1551	4898
Mar	317	1120	3635
April	204	777	1906
May	169	1885	4244
June	183	2356	5948
July	139	1314	4431

Aug	128	2872	5383
Sept.	240	9683	16498
Oct.	332	5435	13190
Nov.	439	7419	19967
Dec-13	230	3963	9355
<b>Total</b>	<b>3897</b>	<b>39917</b>	<b>91785</b>

The project history can be seen very clearly from this set of statistics. The year started off well – in January there were many new users, probably as a result of the large search engines trawling for new sites and new material on known sites. In February and March, the developers and the partners can be seen to be working very hard to fulfil deadlines and insert courses and materials, or update and improve those that had already been inserted. From April to September, testing, piloting and evaluations were being carried out, as can be seen from the proportion of users to pages accessed, as pilot users, evaluators and developers continued to bombard the site. This can clearly be seen highlighted in Appendix 2, with overall figures for March and April 2004. These webstats also reveal that FEAP's website, [www.aquamedia.org](http://www.aquamedia.org), which is the main vehicle for the ORION Newsletter, has successfully attracted several visitors to the ORION website, (also highlighted in Appendix 2). There is therefore no need to question the efficiency of the FEAP dissemination procedures – there is external statistical evidence to prove that it has been, is being, and probably will continue to be successful in this regard. This is backed up by FEAP's own webstats, which give the figure of 2500 hits for the first ORION Newsletter, thereafter an average of 1300-1500 for subsequent Newsletters.

Figures for July and August show a decline in external visitors, but the situation improved after the summer holiday period, when, predictably, most of the ORION target audience had been on summer vacation. From September, things began moving again, and there is now a healthy flow of visitors.

In the 13 days of December 2004, there have been visitors once again from throughout the globe: Turkey, United Kingdom, Netherlands, Belgium, Australia, France, Brazil, Chile Spain, Germany, United States, Vietnam and Morocco.

## **6. Future Development**

There has been a good deal of interest expressed from networks which are either implementing European Joint Masters degrees in Marine Science, or are contemplating the prospect. An FP6 Integrated Network (MARBEF) which is itself a Virtual Network, is considering utilizing the unique ORION share and re-use facility. More than one Greek university has expressed an interest.

Much will depend therefore on the final evaluation of this innovative ONLINE project which cannot be properly evaluated from the paper-based deliverables which have been insisted on.

## **7. Conclusions**

The need to be able to see and feel electronic deliverables is perhaps understandable, as few administrators are aware of the amount of work and complexity of programming detail that goes into the construction of an up-to-date website, let alone a complex site with many features, the most important of which consists of a distributed network capable of secure remote interrogation by several types of users.

It is because of this need to provide hard evidence that the entire list of users has been provided in the form of monthly access figures, forming the bulk of this report.

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