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Contents

- 1. Introduction..... 3
- 2. Descriptions by each partner on how they intend to utilize the YOSCIWEB results 3
 - Bulgaria – Forum Democrit 3
 - Estonia – YSBF 3
 - France – CG91 4
 - Iceland – IWS 4
 - The Netherlands – VUA 5
 - Spain - CIREM 5
 - UK – GCU 6
- 3. Descriptions of future actions based on YOSCIWEB. 6
 - Bulgaria – Forum Democrit 6
 - Estonia – YSBF 6
 - France – CG91 7
 - Iceland – IWS 7
 - The Netherlands - VUA 7
 - Spain – CIREM..... 8
 - UK – GCU 8
- 4. Critical Analysis of the Project..... 9
 - Further research..... 9
 - Learning outcomes 10
- 5. YOSCIWEB database 10
- 6. Concluding Words 11

1. Introduction

This deliverable describes the future actions of the YOSCIWEB partners regarding the dissemination and use of the YOSCIWEB project results and how they can sustain the activities developed during the project. Particular focus points are the future of the YOSCIWEB website and the possibility of building a network or panel of partners involved in dissemination of science, and how the results can be used to enhance the image of science and scientists.

2. Descriptions by each partner on how they intend to utilize the YOSCIWEB results

Each partner described how they intended to use the information gained from the YOSCIWEB project in relation to improving the image of science and scientists among young people and explained how the information has and will be useful for them in their work (as web developers, social scientists etc.).

Bulgaria – Forum Democrit

The information gained from the YOSCIWEB project will be used in different aspects by the Bulgarian partner. They will use the outcomes of the project (mainly The Guide and the feedback from the focus groups) to improve the website of Democrit.

They also plan to create and distribute information for media summarizing the outcomes of the project and brief information on how to improve their online presentation as well as best practices from the partners' experience will be placed in an official letter to all Bulgarian websites that are relevant for science and young people.

The Guide will also be made available for free download on Democrit's websites and will have a conspicuous place on the websites.

A special report summarising the YOSCIWEB results will also be prepared and distributed among scientists and scientific organisations in Bulgaria, using SIS NCP Network and Democrit's networks.

Estonia – YSBF

The Estonian partner believes that the information gathered during the YOSCIWEB project has given them an interesting view of young peoples' perceptions regarding science and scientists. They believe that it has also led us closer to understanding, what young people consider to be good quality websites and if the perception is different to the perception of adults and experts in science communication.

Moreover, they believe that the information gathered is easily comparable between different countries. The results of the project have highlighted differences in opinion and perception of young people in different European countries. They consider that this body of information has shown them clearly the potential fields of improvement in promoting science among young people in Estonia.

As a result of the YOSCIWEB project Estonian web developers now have background information about young peoples' perceptions of good websites. The Estonian partner intends to distribute the information of the YOSCIWEB project among web developers and other interested parties so that web developers can adjust their design practices based on the findings of the YOSCIWEB project. Other stakeholders, such as social scientists and science communicators, can use the results of the YOSCIWEB project to better target their information and presentation to areas which are problematic in Estonia compared to other European countries.

France - CG91

The French partner plans to use the results from the YOSCIWEB project to renew and enhance the space dedicated to young people on their website the Banque des savoirs with regards to its content, visual appearance and functionality.

They also plan to improve the link between the content they produce and the curriculum of the young people.

The French partner will also try to increase the visibility of the CG91 policy with regards to young people, science and the internet and European projects.

Iceland - IWS

During the course of 2010 and 2011 the Icelandic partner will undergo changes and enhancements on its website, the Icelandic Web of Science, using the findings of the YOSCIWEB project and The Guide as the main point of reference. As a web developer and science communicator the Icelandic partner finds the information gathered during the course of the YOSCIWEB project to be extremely important to their work, both enhancing the understanding of their largest user group as well as providing them with the tools on how to improve their communication strategies.

The Icelandic partner believes that an important result of the YOSCIWEB project is the close link young people are shown to place between school and science. Based on these results the Icelandic partner tends to continue their collaboration projects with schools and to elaborate further on these projects, making them a more intricate part of their work.

The Icelandic partner further intends to continue to gather interest about the YOSCIWEB project and its results as well as to continue to promote the YOSCIWEB website. This will be

done both on the partner's website, during seminars and participation in conferences and through the media, with the hope that by circulating the results as widely as possible, for example to web developers, science educators and policy makers, they will be used by science communicators and interested parties from different fields to improve their communication strategies and enhance the image of science and scientists.

As a part of this strategy the Icelandic partner held its final event on January 29th 2010 in the form of a symposium focusing on science communication, where speakers from different areas of the field gave talks and a special section was devoted to YOSCIWEB and the image of science and scientists among young people. The event gathered attention from a variety of interested parties and got good media coverage. The Icelandic partner intends to further build on the interest gathered during the event in promoting the YOSCIWEB project and in particular the results presented in the Guide.

The Netherlands – VUA

Firstly, the Dutch partner intends to provide advice to people who are working in the field of science communication (SC). In some cases, people working in the SC field will come up with questions that can be answered based on the results of YOSCIWEB, whereas in other cases findings of the project can be presented in workshops, meetings, conferences, and (scientific/popular) outlets such as magazines.

The Dutch partner believes that an important part of furthering the YOSCIWEB project is to maintain (and possibly further develop) the YOSCIWEB website for future use and availability to all who are interested in the issue of images of science and scientists and the presentation of scientific material on websites.

The Dutch partner also plans to develop presentations for different target groups in the public such as children, adolescents, and adults.

Spain - CIREM

As a social research organisation, CIREM specialises in gender and science. This subject is included in the same FP7 knowledge area as YOSCIWEB, Science in Society, so synergies between results of different projects can arise. The Spanish partner believes that for them the most important and useful results obtained from the YOSCIWEB project are the images of science and scientists that the young people expressed. We assume that these images can be generalised to the majority of society. The masculine image that was evident from those results could, among other features, be one of the reasons for why there are fewer women in science, especially in the natural and technological sciences. The YOSCIWEB results are therefore valuable for other research projects that CIREM is undertaking.

UK – GCU

The main way in which the UK partner intends to utilise the YOSCIWEB results and improve the image of science and scientists will be through their dissemination activities. They perceive the Guide and the main dissemination events as being the heart of the dissemination activities and the distribution of the ‘best practice and recommendation guide’ as being a way to reach practitioners, website owners and scientific establishments. They have produced the ‘best practice guide’ in a shortened form as a direct result of consultations with designers who said that anything more than a few pages will be shelved and unread.

For the dissemination event the UK partner held on November 30th 2009 they outlined the work of the project and its conclusions. They had a key note speaker discussing the importance of science communication and the need to attract the public and young scientists, an example of a popular science website in action as well as workshop sessions aimed at providing examples of good practices regarding science communication, and a Scottish Intranet service for schools in the country.

Upon the publication of the guides, the partner’s next step will be to distribute them to as many interested parties as they can identify. Locally they intend to present a seminar outlining the project, its aims, methodology, successes and outcomes.

3. Descriptions of future actions based on YOSCIWEB.

Each partner described how they intended to further the YOSCIWEB project and build on its foundations, for example through other research projects, funding applications etc.

Bulgaria – Forum Democrit

The Bulgarian partner suggests that future actions based on YOSCIWEB could include:

- A book based on the Guide and other results from the project, directed toward web agencies and web masters; the book could be translated to all project languages.
- Development of a special website on science for children between 6 and 12 years old, as such a website is missing in Bulgaria.
- Initiating and developing a European multilingual portal for young people regarding science.

Estonia – YSBF

The YOSCIWEB project has created a range of opportunities for the Estonian partner to take part in projects both within Estonia as well as internationally.

The projects within Estonia would relate to the popularization of science based on the information gathered within YOSCIWEB project.

The Estonian partner plans to provide consultancy and advice to Estonian popular scientific websites regarding the content, set-up and design of their popular scientific websites based on the knowledge gathered within YOSCIWEB project.

The Estonian partner suggests that further international projects could focus for example on:

- Investigating the image of science and scientists among different age groups using the YOSCIWEB methodology
- Investigating further the different aspects of successful science communication (e.g. by preparing template web-sites and using these as tools in focus groups)
- Involving educators (teachers) more actively in distributing information about popular scientific websites.
- Involving young people in rating and creating content to popular scientific websites.

France – CG91

The French partner plans to exchange information regarding methodology with other websites editors as well as exchange content with them. They also plan to answer other European calls in the same field where they can build on the foundation and legacy of the YOSCIWEB project.

The French partner also plans to utilise the methodology devised for the focus group analysis to test other groups, such as teachers and webmasters.

Iceland – IWS

The Icelandic partner intends to apply for more European projects, mainly in area of science in society, that relate to the same or similar issues as the YOSCIWEB project. With this they wish to utilise the information gathered during the course of the YOSCIWEB project and further add to that body of work. The Icelandic partner also hopes to collaborate with domestic partners for further research in this field regarding mainly domestic issues pointed out by the YOSCIWEB results.

The Icelandic partner also intends to use the methodology devised for the website and focus group analysis to gather more information regarding their other user groups, thereby adding to the information gathered through the YOSCIWEB project.

The Netherlands - VUA

The Dutch partner intends to develop new studies regarding the same issues as YOSCIWEB (the image of science on websites) among other target groups such as primary school children (8- through 12-year olds) and adults. In addition, the idea is to develop new studies related to the issue: Are there differences/similarities in which other media, such as books, magazines, movies, and television programs, portray science and scientists? Are perceptions

of images of science and scientists influenced by interpersonal communication, such as when people know scientists in their family or when people follow courses on science?

Another study may be on the (sociological and cultural) question of why, in some cases, there is such a wide gap between the perception of scientists and lay people and/or why there is a gap between the perception of science activities and information-processing activities? In their view, “wanting to know things” and even “doing research” are core activities among people, especially children and young people. It is a challenge to find out where and why a transition takes place going from these basic activities to “doing science”.

Spain – CIREM

The Spanish partner believes that dissemination is one of the main objectives in FP7 projects, especially in the Science and Society knowledge area, and they believe the main focus should be put there.

It would be very interesting to build a European network with key actors all over Europe related with science dissemination. We believe that education at schools and communication in society are key tools and contexts where it is important to act in order to bring science closer to people and vice versa.

A powerful educative network could be set up, with representatives of national networks of educative centres, with public administrations related to education, with educative material editors, so that a collaborative context could be developed. Sharing materials could be one of the results of the network functions.

As well, a strong communication network could be developed, with science museums, cultural centres, public administration, TV content editors, media, ... in order to share and, why not, develop together new conceptions for communicating science. A rotation of exhibitions in museums around Europe could be one of the results of the network building.

UK – GCU

For the UK partner the future actions resulting from YOSCIWEB, have until now been limited to 2 possible projects but sadly, to date, only one of these has materialised. The one that has materialised is using the Arts as a means to encourage greater participation through exploring the interactivity and creativity of artists, scientists and young people.

The second avenue which was pursued by the UK partner was that of extending the work on the theme of networking. Some YOSCIWEB partners already have access to an extended network and others, like GCU, are not part of one. This theme was identified as a good means to take forward the principles of science engagement by the partners, and it is one that the UK partner hope to pursue for a further call and establishing the local network will be a priority.

The UK partner is pursuing two local initiatives as a direct result of the YOSCIWEB activities. One is that of psychology as a key element on studies and learning strategies for science and the second is engineering postgraduates and that of undergraduates in relation to student support system within the Engineering school of Glasgow Caledonian University.

4. Critical Analysis of the Project

Each partner identified the future research they believe is needed in the field, what they would like to research further based on YOSCIWEB and ideas on what could be done further collectively. Each partner set forth their ideas to this effect, emphasising what they considered to be the most important issues identified by the YOSCIWEB project.

The partners also gave a description of the learning outcomes of YOSCIWEB, i.e. what they felt was the most important lessons learned regarding the project itself and its implementation.

Further research

There is clear evidence that there is little research commissioned into the interaction between the web, science and young people. Our study just scratched the surface of this very deep topic and there is a great need to continue this work, particularly when supported by evidence based research using young persons and psychological analysis.

To improve the content of popular science websites, tools and methods that help us identify the needs and uses of the websites for their target audience can be developed using the results from this project. As good communication between the web editors and the users of the science websites has proven to be important, tools or processes to facilitate communication and co-creation of material can also be developed.

Given the results of the project, further research can include how different mediums, e.g. television and cinema, affect the image of science and scientists. It could be valuable to look into whether the image of science and scientists in these mediums is similar to the image portrayed on the Internet. Further research could also shed some light on how influential these different mediums are on the image of science and scientists.

The predominant reliance of young people on Google and Wikipedia to find scientific information is an important outcome of the project. It would therefore be useful to research how science websites can optimise their content for search engines and how they can use Wikipedia content for science education and promotion. The importance of social networking is also grounds for more research on how the use of novel communication channels could bring science and scientists closer to young people.

Another interesting question is whether the results of the YOSCIWEB project, especially the target group results, can be expanded to other groups, i.e. generalized and broadened. By using the YOSCIWEB methodology it would be very interesting to explore how different

groups, such as science educators, perceive science websites. All partners also recognise the importance of looking into other age groups, such as younger children. Such research could easily be based on the YOSCIWEB methodology and experience.

Further analysis of the statistical data gathered by the YOSCIWEB project should also be done as the project has produced a wealth of data.

Learning outcomes

Partners think that the complexity of a multinational project like this is more than expected at first. It can also be difficult to anticipate how the different phases of the project are eventually going to pan out, 2-3 years in advance.

With YOSCIWEB being a new project in a field that has not been researched deeply, it would have benefited from more time.

Some partners were surprised by how much influence the school curriculum had on the image of science and scientists. It might even be possible to say that children look at the world of science as sort of an encyclopaedia that is only useful for schoolwork. The partners believe that it would be advisable to capitalise on this close link that young people make between science and school.

The background of the partners in projects such as YOSCIWEB is very important. When project members are of different scientific disciplines, it is wise to appoint different tasks according to expertise. It is also important to have a multi-disciplined team, to have the advantage that people with different experiences and capabilities may develop new insights in science communication that perhaps mono-disciplined teams would not.

5. YOSCIWEB database

Each partner set forth their ideas on how we could continue to make the YOSCIWEB information available to the public or other researchers, as well as give their ideas on how to continue the use of the YOSCIWEB website.

Partners expressed their opinion on how or whether it would be a viable option to build a European database based on the YOSCIWEB project and the YOSCIWEB website, by creating a panel of experts, i.e. webmasters, researchers, or/and a network of websites.

Partners agree that the project website, <http://yosciweb.eu>, should be open and maintained for at least a few years after the project has ended. The website could be expanded to allow website editors and journalists to meet and exchange ideas and knowledge, perhaps by using a forum. The website could also include a list of individuals with expertise in the field, a list of the websites evaluated by the project and links to other similar projects or studies, both past, present and later ones.

All partners will also display some of the project material on their own websites as well as a link to the YOSCIWEB site.

The project website should however not be the only method of getting the results of the project to those who can benefit from them. The partners believe that a European panel of experts could be created, which would include webmasters, researchers and a network of science websites. This panel could begin by further analysing the statistical data gathered by the project.

A European Network Database could be formed that will bring together and further explore such studies as the YOSCIWEB project and thereby maximising the benefits that can be gained from the sharing and combining of such 'stand-alone' studies as the YOSCIWEB project.

The YOSCIWEB partners agree that both end results and raw data should be made available for other researchers, providing them with an opportunity to further utilise and analysing the data, thereby aiding them in continuing studies on the image of science and scientists.

The partners plan to present the project documents pro-actively, e.g. among scientists and universities in different countries as well as to scientific forums, at conferences and so forth. The partners feel that the results of the study should however not only be presented to other researchers but, not less importantly, to web designers and educators. By utilising the results of the project in their work they will ensure the maximum benefit of the project and take it beyond being just another academic exercise.

6. Concluding Words

At the final meeting in Paris on March 11th 2010 the partners will make final arrangements regarding the YOSCIWEB website and future dissemination of the project results, based on the concepts presented in this deliverable. The partners all feel strongly about continuing the work of the YOSCIWEB project and how important it is to utilise the results of the project so as to maximise the benefits derived from the project outcomes.

During the course of the project many ideas and new research areas have also opened up to the partners that they wish to pursue both individually and given the opportunity collectively. The partners all agree that the image of science and scientists towards young people is a poorly studied field that needs to be explored further from different angles.