

THE WORLD WIDE WEB AND ITS CONTRIBUTION TO FOREIGN LANGUAGE LEARNING

An evaluation of the use of the *Web* by teachers and students

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Summary

This report describes a SIMA (Support Initiative for Multimedia Applications) funded project to evaluate use of the World Wide Web by language learners and teachers at the University of Southampton. Using an evaluation model designed by Laurillard (1994) for a Modern Languages TLTP (Teaching and Learning Technology Programme) consortium, qualitative data was gathered during a series of observation sessions (11) and semi-structured interviews (14) while more quantitative data was gathered from questionnaires returned by language learners (92) and staff (9). There was evidence that most learners and staff particularly appreciated the topicality of the target language resources the Web has to offer. Most students, however, tended to use it as no more than an on-line library, and lacked the technical, research and linguistic skills and also the appropriate learning strategies to make full use of its potential for language learning. The report concludes with suggestions as to how this potential might be realised.

1. INTRODUCTION

The Language Centre at the University of Southampton provides open learning resources for language learners from all parts of the University—specialist linguists from the School of Modern Languages, non-specialist linguists from many other departments, and staff or students wishing to brush up on their competence in a particular language. The Centre's multiple media (audio, video, satellite TV and print) and computer-based materials are integrated into the learning and teaching process in a number of ways (Mar-Molinero and Wright 1993) and have recently been supplemented by access to the *World Wide Web*. This holds out the promise of being an exciting source of material for language study. It makes it possible to research the contemporary life, work and culture of the countries whose languages are being learned, and, through the use of foreign language pages, foreign language discussion groups and dedicated language learning sites, to stimulate language practice and use. It was a desire to focus on learners using this new self-access resource which led to the design of the current project.

The study itself comprised two parts: firstly, the detailed observation of a number of learners using the *Web*, followed by a series of semi-structured interviews, and secondly, a questionnaire survey aimed at all seven hundred or so learners registered for a language degree in the School of Modern Languages.

This report will briefly outline the learning context and describe the training and support of self-access language learners at Southampton, all of which are likely to have a significant

influence on learning outcomes (e.g. Taylor 1996). It will then focus on three main areas of interest thrown up by the study:

- the individual learning objectives which learners set for themselves, or which are set for them when they use the *World Wide Web*;
- the strategies learners employ to achieve their aims;
- an evaluation of the *Web* as a learning resource.

It will also present the views and practices of some of the Southampton teaching staff as these relate to the opportunities offered by the *Web*.

2. BACKGROUND

2.1 The learning context

Nearly all the Modern Languages students who use the Southampton Language Centre are taking a language as part of their degree, either as Single or Combined Honours in Modern Languages or as non-specialist linguists whose course is oriented towards their home discipline area. They are all encouraged to use the facilities and resources as an important part of the study process, and many have timetabled self-access sessions when a class teacher is present to advise and supervise. Many members of staff also integrate self-access work into teaching modules and students carry out this work in their own time. Some of the work specified, such as listening comprehension or CALL (Computer Assisted Language Learning) exercises, is itemised and completed by individuals working on their own. Other work is more open-ended and aims to promote general language competence rather than specific skills. An example is work relating to a particular topic (see 3.1), where learners are more likely to operate in small groups, carrying out research, discussing findings and preparing presentations. It is for this kind of topic-based research that staff have become aware of the potential of the *Internet* and the *World Wide Web* (see 5.4).

2.2 Training and support

Training and support is crucial if language learning is to be effective in a self-access environment. All first-year and new learners are given a general introductory tour of the Language Centre while more focused sessions on, for example, the use of CALL or the *Web*, are arranged for classes as requested. Study guides suggesting best use of a particular facility, a resources assistant to help with technical problems and suggest relevant materials, and an evening language advisory service all aim to support both staff and students. Staff development seminars and newsletters are also used to disseminate information and encourage the necessary new skills.

It was in this context of supported self-access that the *World Wide Web* was first made available to users of the Language Centre during the academic year 1994-1995. While very few students arrived acquainted with its existence or potential, academic staff showed generally more awareness and came to training seminars to explore possibilities for learning

and research. Several class teachers arranged *Web* training sessions for their classes; one of these being the teacher of French whose class is described in the study (see 3.1).

In the current academic year 1995-1996 most learners now have some appreciation of the existence and the extent of the *Internet* (a number of learners in the interview study referred to the 'media hype' surrounding the *Web*, a situation which seems to have significantly raised its profile) and it has become generally more available at public workstations across the campus. In the Language Centre, study guides posted next to workstations, advertised training sessions and School of Modern Languages' *Home Pages* with lists of 'clickable' starting points for a number of languages (Dutch, English as a Foreign Language, French, German, Spanish, Catalan, Portuguese) point the novice user in the right direction, in the latter case using *Netscape*, the Language Centre's *Web* browser. Some staff also run introductory sessions and suggest useful *Web* addresses.

3. THE STUDY

Data for this project was collected over a five-month period lasting from November 1995 to April 1996. These consist of qualitative data gathered from a detailed observation study followed by a series of semi-structured interviews, and more quantitative data gathered from a questionnaire survey of *Web* use amongst language learners. A staff questionnaire survey was also carried out to assess general awareness of the learning potential of the *Web*.

3.1 The subjects

The original intention was to focus the observation study on two classes who had been asked to use the *World Wide Web* as an integral part of their course work.

The first, a final-year Spanish class for Modern Languages students, was asked through their course documentation "to make full use of the enormous potential for self-access learning afforded by the resources provided in the Language Centre" in order to "maximise active learning," and "to spend a large part of the week actively engaged in critically reading, listening to and viewing reports of, and commentaries on, current events in Spanish". Learners were asked to work in groups of five and six, to agree a current affairs topic covered by the Spanish and/or Latin American media and then to plan their research over a four week period. The final detailed reports, which should include both a focus on language (style, vocabulary, grammar etc.) and content (a critical analysis of treatment by different media, etc.) were to be written in Spanish. With his encouragement, the member of staff responsible for the class fully expected that the *World Wide Web* would be used extensively as a topical information source by all the students. This did not turn out to be the case, learners preferring to use more familiar sources, probably for all the reasons of inexperience on the part of the users that the survey and observation study uncovered and because of its current technical limitations (see 4.2.2 and 5.5).

The second class, a small group of third-year students taking the Master in Engineering with European Studies, had been asked to gather information on the region and the universities where they would be located during their forthcoming year abroad. They were asked to gather information for an oral presentation in French and were particularly recommended to use the *Web*. It was seen both as a good source of up-to-date information and a likely source of

useful email addresses (through, for example, departmental *Home Pages* and on-line student magazines) from which contact could be made with staff and students at the destination university. Again, the teacher concerned expected that a large number of learners would make use of the *Web*, and was disappointed to find that only a small number actually did so.

Given the limited take-up from these two classes, the study was therefore widened to include a number of other learners using the *Web* in the Language Centre, making fourteen in total.

3.2 The observation study

The observation study was based on an evaluation procedure designed by Professor Diana Laurillard (1994) of the Institute of Educational Technology at the Open University for *TELL*, a TLTP (Teaching and Learning Technology Programme) Modern Languages consortium. The procedure, involving questionnaires, an observation schedule and an interview schedule, derives from a model based on a view of the teaching/learning process which emphasises four iterative elements—discussion, interaction, adaptation, reflection—and the way in which these relate conversation, cognition and learning (Laurillard 1993). The model is discussed in more detail in Piper, Watson and Wright (forthcoming).

Eleven language learners were observed using the *World Wide Web* and fourteen post-use semi-structured interviews were carried out. Several of the interviewees had been observed beforehand, others had not, but all had just completed a *Web* session in the Language Centre. It was planned that learners would work in pairs, or in their work-groups of three, so that the observer would have some insight into typical shared learning experiences. Learners working on their own were asked to talk the observer through what they were doing. This use of talk as contributing to the data is based on claims (e.g. Fisher 1993) that talk at the computer does not just reflect what is taking place but actually enhances it.

Before each observation session, users were asked to complete a pre-use questionnaire, which asked them to note down their learning objectives and then to use the *Web* for their own purposes. While they were working, the researcher noted the way learners used the *Netscape* software (the Language Centre *Web* browser), the routes they took and the steps they followed, any relevant dialogue or comments, and any technical difficulties. After the observation period (30-40 minutes), users were invited to fill in a post-use questionnaire stating what they had learnt and giving their opinion of the *Web*, and then to ask any questions they wished. The semi-structured interviews which followed were designed to expand on answers given in the post-use questionnaire and on any significant points which had been noted during the observations.

3.3 The questionnaire study

To gain a picture of the extent of *Web* use amongst language learners in general, it was decided to complement the observation study with a questionnaire survey of all students enrolled for a language class at Southampton; the questionnaire used (see Appendix 1) was based on those used with the observation study students and sought to gather information on learning objectives, learning strategies and views of the *Web* as a learning resource compared with other teaching and learning contexts. Staff views on the usefulness of the *Web* were also sought via a short questionnaire (see Appendix 2).

Teachers of both specialist and non-specialist linguists were asked to distribute questionnaires in class. Only ninety-two questionnaires were returned out of a possible seven hundred, the low response rate possibly reflecting pressures of work before the end of a semester together with a surfeit of course evaluation questionnaires. The response rate from staff was no better, with nine questionnaires returned out of a possible seventy members of part-time and full-time staff.

Despite the low response rate, the number of questionnaires returned was sufficient to give an interesting snapshot of how the *Web* is currently used in the Language Centre.

4. FINDINGS

Findings from both studies are presented here under the headings of learning objectives and learning strategies.

4.1 Learning objectives

Most learners had views on the potential of the *Web* and most had specific learning objectives when they came to use it.

4.1.1 General use of the Web

The *Web* is used for a variety of purposes. Out of the ninety-two questionnaire respondents, forty-four had used it at some time. Thirty of these had used it for leisure and general interest, twenty-two had used it to find out more about the culture and related areas of the countries whose languages they were studying, while a similar number had used it for developing foreign language competence (19). Nineteen had used it for study purposes not related to language learning and six had used it for other non-specified purposes.

Learners cited a number of reasons as to why they had started using the *Web* initially. Fifteen started through “interest” or “curiosity”—four specifically referring to “the hype” surrounding it, one calling it “a new toy”—ten needed to carry out research for essay, project or course work, four said it was recommended by friends, two said it was recommended by staff, and two needed to access course notes delivered on the *Web*.

Learners also claimed to use the *Web* with varying levels of frequency. Nineteen used it less than once a week and seventeen used it once or twice a week. Five used it as many as four times a week, with four claiming to use it at least once a day. Most *Web* sessions, according to twenty-one questionnaire respondents, last between one and two hours, while eighteen suggested that they lasted thirty minutes or less. Eight others said timing varied, especially when *Web* delivery is “slow”. The questionnaire did not ask how long respondents had been using the *Web*, but most learners in the interview study had only been using it for up to nine months.

4.1.2 The potential of the Web: the learners’ view

Over half of all student questionnaire respondents (47/92), both users and non-users of the *Web*, had views on the potential it offers language learners. Thirteen identified particular language skills and subskills on which the resources of the *Web* could help them focus. Seven respondents saw it as a useful source of reading practice, others referred to general language practice (3), vocabulary development (1) and grammar (1). Ten mentioned the existence of

on-line courses. One learner saw the use of bulletin boards and foreign language on-line discussion groups such as *Webchat* as a ‘chance to improve writing’. One learner in the observation group mentioned the usefulness of bilingual sites where documents exist in both the target language and English. The learner concerned thought this might be an interesting source of translation practice but was too often tempted to use the English version as “it is faster to read and easier to understand.”

Most learners, however, seem to view the main value of the *Web* as a source of information about the countries whose languages they are studying (seventy-one different examples were given). Thirteen specifically mentioned the value of up-to date materials, while three suggested that some sources on the *Web* would not be available elsewhere. Certain information is thus being made far more accessible than it would otherwise be.

4.1.3 Specific learning objectives

Learners when they sit down to use a resource necessarily have either some short-term learning objective in mind (e.g. to find out the semester dates for the new academic year at Potsdam University) or else a longer term learning objective, such as “improve my writing”, which they then, if they are using appropriate learning strategies, break down into smaller more manageable tasks. Although we might expect that the *Internet* as a new resource might encourage a merely browsing or ‘*Web* surfing’ mentality, the learners who filled in pre-observation questionnaires wanted to achieve a range of objectives. Several mentioned wanting to learn how to do things better—“to learn how to find relevant pages quickly”, to develop “better search strategies”—while others wanted to locate information in order to write essays or prepare for an oral presentation. Several non-specialist linguists mentioned searching for technical vocabulary, presumably to increase their specific expertise in this area.

In the questionnaire study, nineteen learners gave examples of recent search aims. These varied widely but without exception were all topic focused. One explanation for this response is that a large number of courses now require or recommend the use of the *Web*, a total of fifteen courses being mentioned. Information being searched for included:

ecology in the third world	French rugby
telecommunications in Europe	Freud
French universities	hydrofoils
French phonology	the beret
the Spanish constitution of 1978	chemistry
the Spanish elections	TV ratings in Germany
the cities of Hamburg and Berlin	

These searches, it seems, had a varying degree of success. However, not all learners claimed to know where they are going and what they are looking for. As one learner commented, “I don’t know what I’m doing—I just click on what looks useful and play around”.

4.2 The strategies learners employ to achieve their aims

The data described below seem to suggest that *Web* users have to be confident in a number of areas if they are to succeed in their aims. Technical, research and linguistic skills, together with the appropriate language learning strategies, would all seem to be vital components for the successful self-access language learner using new electronic media.

4.2.1 Technical skills

Learners need to be confident in a learning environment if they are to operate effectively. Figure 1 shows that the majority of learners in the questionnaire survey are not very confident computer users. A study carried out by Jamieson and Chesters (1995) has also revealed “surprisingly widespread unfamiliarity with computers” amongst language students. The learners in the present survey obviously feel that they can operate basic resources such as email and language learning software in the Language Centre but are not at all confident with the *World Wide Web*.

Figure 1
User confidence with computer-based resources

	very confident	quite confident	not at all confident
using computers	30	46	14
using a mouse	55	32	3
using <i>Windows</i>	40	39	11
using email	42	34	14
using computer-based language resources	28	34	28
using <i>World Wide Web</i>	12	29	49

Total = 90 (several of the 92 respondents did not answer every question.)

Despite, this lack of confidence in their technical skills, the observation study revealed (see 4.2.2) that some learners were able to use the basic facilities of *Netscape* such as ‘bookmarks’ and the ‘Netsearch’ button in order to navigate, although not all users were aware of the print facilities. Only one or two of the more proficient *Web* users had developed skills to reduce the waiting time for documents to download by, for example, switching off the images, or to minimise printing out time by cutting and pasting from multiple information sources into a single *Word* or *Notepad* document before printing.

4.2.2 Study and research skills

As the *Web* seems to be mainly used as a source of topical documents, it is important that learners have the necessary search skills to locate such material. In general, however, this does not seem to be the case, and most searches monitored in the observation study or described in the questionnaire study lacked in sophistication (see also Oliver and Oliver 1996).

Keyword searches seemed to be the most common starting point. The *Webcrawler* and the *Netsearch* button provided the normal entry route rather than the use of a known *Web* site address. In the observation study, seven out of the eleven users accessed resources in this way. Others used known *Web* site addresses: addresses ‘bookmarked’ by tutors; topic buttons on *Netsearch* (e.g. ‘sport’ to search for information on rugby in France); ‘homepage’ directories of commonly used *Web* sites; registered-user access to online foreign language journals with their own search facilities.

A fairly typical example of a search pattern and the steps it involved was given by a Spanish language student seeking information on the Spanish election results:

Go to *Webcrawler* - type in keywords *Spanish* and *elections* - check all finds - return to 'Webcrawler' - amend search by translating keywords into Spanish.

Both the questionnaires and the observation study revealed that search terms chosen were sometimes very broad in the first instance, suggesting that users had little perception of how vast the amount of material available on the *Web* was. Some frustration was evident during observations and from questionnaire comments indicating that the time-consuming and laborious process of checking through endless lists of 'finds' did always not turn up the kind of information users were seeking. The idea of regularly reviewing and amending search terms, particularly during the initial stages of a search, did not always seem to occur to users.

Of the nineteen users who completed Question Five of the questionnaire (eliciting an example of the various steps involved in a typical search they had undertaken), only five mentioned amending their initial search procedure by broadening, narrowing or changing the keywords they used. An equal number of users concluded by indicating that the amount of unsolicited information that their searches had produced meant that they could not locate the information they were seeking. One user reported that they had abandoned their search for information on "natural resources and ecology in the third world" after typing in the keywords *ecology*, *pollution*, *earthquakes* which produced "too many finds" and "sources (that were) too complicated".

When users did amend their choice of search words, they sometimes made their searches unrealistically narrow and predictably received no results, or they employed the opposite strategy which resulted in an equally unsuccessful outcome. This was exemplified during one of the observations when a user, seeking information relating for his year abroad in a French university, first typed in the full name of the institution in France. When this failed to produce any finds, he amended the keywords to the type of institution (*École Polytechnique*) which produced possibly the entire list (100) of such institutions in France. Later still he broadened the search terms to *Éducation + Paris* (where his institution was located) which resulted in an even greater number of finds (698).

Needless to say, this rather hit-and-miss unskilled approach to searching seemed to be the source of at least some of the frustration experienced by many *Web* users. On the other hand, some users admitted to making extremely useful finds more by luck than design. Those who may have benefited most from this kind of *Web* searching pattern could well have been users whose learning objectives were less clearly defined. For example, a student with a concept around which she wanted to write her essay (values of the French Revolution and their relation to contemporary French politics) but without a precisely formulated essay title, was able to use the range of vaguely related material she had found on the *Web* as a stimulus to provide her with different perspectives on the topic and to move towards focusing in on a possible essay title. A rather unfocused style of searching even when there is a specific study-related aim involved, can have some benefits in this respect, helping you, as one user put it, to "get on to topics more interesting than the one you're supposed to be learning".

4.2.3 Language skills

In both studies, little forethought was given to the language of the search terms in a keyword search and how this might influence the scope and quality of the finds, particularly if, as in one case, a user was looking for the latest information on the Spanish election results and the information did not prove to be available in English. In another case, a learner had established that the home pages of Potsdam University were in German, but when searching for information on the start of the new semester he still used the keywords *Potsdam University term dates*. This hesitation to use the target language may well reflect the lack of confidence learners have in their own language competence and inappropriate general and language learning strategies.

4.2.4 Language learning strategies

In the observation study, several learners showed little awareness of how the foreign language documents of the *Web* can be exploited for language learning purposes and, although they may work with a dictionary looking up keywords that they do not understand and making notes of words they want to remember, they did not immediately perceive this as a language learning strategy. As the researcher interviewed *Web* users, however, and pushed them to identify their own learning strategies, it became obvious that some learners may have evolved a number of low-level strategies which help them learn, but that they are thinking little about the learning process itself and how to make further progress as independent learners. It may be that a computer-based learning environment discourages a reflective and adaptive attitude to learning (Laurillard and Taylor 1995) in some learners, or, as a previous learner-diary study in the Language Centre has shown (Piper 1994) it may be symptomatic of many learners working alone and unequipped with the necessary study skills. This whole area would benefit from further investigation.

4.2.5 The influence of the teacher

It is apparent that teachers have significant influence over students' use of particular learning resources. A total of 23 specific references were made by questionnaire respondents either to named French, German and Spanish lecturers who had directed students to the *Web* or to specific courses, of which 15 different ones were mentioned. Half of the learners in the semi-structured interviews had also received general encouragement from their lecturers to investigate the foreign language resources on the *Web* and to make use of them in their studies.

5. EVALUATION

The study has raised a number of issues about the suitability of new media for teaching and learning and about the skills that are needed if the learner is to hope to operate effectively. This section describes learners' and teachers' views of the *Web* as a learning resource compared to more traditional media, and makes a preliminary evaluation of learning outcomes.

5.1 The *Web* compared with classes and lectures

Most questionnaire respondents felt that while the *Web* could serve as a good complement or addition to classes and lectures, the absence of several of the key features of a traditional learning environment meant that it would have some significant weaknesses if it were to replace the classroom. It was pointed out that, unlike the *Web*, classes and lectures were "structured", give "feedback" and provide opportunities for real "interaction". The key

element missing from the *Web* was the presence of the teacher and his/her associated role in the teaching/learning process. As one respondent expressed it, the *Web* “doesn't teach you the language as such”, although as several observed, it may be a good way of reinforcing classwork as well as providing a source of stimulating ideas. Only one or two respondents allowed for the possibility that the *Web* could operate as a valuable learning tool in any independent capacity. It was seen to have the advantage over classes and lectures that it was accessible at any time and allowed for “individual learning”.

5.2 The *Web* compared with separate media resources

Views on how the *Web* compared with separate media resources such as reference books, topic related materials, satellite TV, videos and so on were diverse. In general, the *Web* was seen to be inferior due to its lack of structuring and superior in terms of the up-to-dateness of the information it could provide. Individual preferences seemed to play a significant part in influencing users' responses to this question. For example, one user found the *Web* to hold information that was too diverse to be “really useful, unlike a collection of individual related resources e.g. newspapers, videos etc”; another believed that it “ranks equally with separate media resources—it combines all the elements” as it allows the user to “research material that is written, pictorial or audio”. One user found that the *Web* could be “faster than wading through books”, in contrast to another who stated that it was “easier to find information in books”. Despite clear differences of opinion on some points, individual audio and video resources were agreed by those who referred to them specifically to be superior for language learning to the *Web*, at least until all *Web* sites are equipped with a similar capacity. One notable advantage of the *Web* noted above (and perhaps reflecting the increasing student reliance on fewer resources) was the fact that the *Web* is accessible to any number of enquirers at the same time, and at “inconvenient times”.

5.3 The *Web* compared with other electronic media

The *Web* was seen by many questionnaire respondents to compare favourably with other electronic media, such as newspapers on CD ROM or specific language learning software, because of its capacity to link users to up-to-date information. One user found the *Web* “better in general because it is more flexible”, because, for example, it allows “links to related topics, unlike newspapers (on CD ROM)”. In contrast the fact that the information located may not always be relevant to the searcher's aim meant that for some respondents it was faster to use than other dedicated electronic media. In general, respondents varied in their feelings towards the *Web* as compared to other electronic media, showing evidence that personal preferences and experience form the basis of most of their reactions towards different media and their effectiveness for language study purposes.

5.4 Evaluation of the *Web* by teaching staff

Of the nine members of staff who returned their questionnaires, five were *Web* users while four were not. All but two of the respondents, however, (one user and one non-user) had recommended it to their students. Those who had done so had recommended specific sites (3) or the use of the *Web* in relation to a taught course or to a specific course module (4). Respondents were uncertain (1), negative (1), or uninformative (4) about the degree to which their students made use of the *Web*. An additional response was that, “so far only enthusiasts (among his students) have made use of WWW”.

Staff views on how the resources of the *Web* compare with more conventional learning models and media were noticeably mixed. While perceived weaknesses of the resources of the *Web* in relation to other resources were similar to those observed by student respondents (i.e. searching for information is “a haphazard and time-consuming business” and student use of *Web* resources requires a lot of “teacher preparation”), staff were clear and specific about more of its potential benefits. These included the extent of target culture related material and the range of document types offering sources of diverse and specialised vocabulary in the target language. They observed that it “might make a better vehicle for the delivery of some materials, especially texts which are in high demand”, a point also noted by student respondents. They also commented on its “interactive” nature (“more user-driven than TV or audio”), and its capacity to provide access to “more up-to-date” as well as “more real” (authentic) materials.

Staff also referred more than students to the perceived limitations of conventional resources, observing that CD ROM newspapers could be “fault-ridden, prone to break down and difficult to work with”, and topic related collections need constant “expansion” and manual updating. Four of the respondents also called for more guided *Web* access for students (e.g. in the form of “a Beginner’s *Web* with useful ‘starter’ addresses”, more “links from the Language Centre homepage” to useful sites and “structured links to material we want to direct students to”) and “a push to put (course) material on the *Web*”.

5.5 Design and technical considerations

A number of student users seemed aware that some of their frustration derived from their limited skills in using the *Web*. They expressed a desire for clear instruction and guidance (3) or for ready-made lists of useful site addresses for foreign language study (5). One wondered whether people were really “as computer literate as they are generally supposed to be” and if they are “using it in a useful way”. Interestingly, however, there was a feeling amongst learners that the *Web* is probably a potentially valuable resource if only it can be harnessed effectively.

The lack of flexibility of the *Web* itself was held partly responsible for the frequent failure to obtain what was wanted. Some students, although sensing that the tool itself was not very user-friendly, seemed confused about how it could best be modified to suit their purposes. Some said there were too many “menus”, others that the list of results from a keyword search yielded insufficient information about the actual content of the suggested *Web* pages. But overall the lack of effective indexing was felt by many to be at the heart of the problem. There were frequent references to the need for a “better (system of) organisation—indexing” and the “sectioning of topic areas”, along with a reduction in the time taken for information to be transferred to the work site. These are two key areas which will have to be improved if the *Web* is to become an effective educational resource.

5.6 Learning outcomes

Laurillard’s (1993) conversational model of learning (c.f. 3.2) suggests that true reflective learning does not take place on-line (see also Laurillard and Taylor 1995) but is much more likely to happen in the interaction of the classroom. The data described above do nothing to disprove this hypothesis. The environment of the *Web*, and the use which the majority of our

learners make of it, make it currently more of a one-stop convenience store than a true learning environment. The whole vocabulary associated with the *World Wide Web* seems to encourage either a go-get attitude—you perform a ‘search’, you ‘navigate’, you ‘follow links’, you receive a certain number of ‘hits’—or a more aimless ‘browsing’. Documents are located and taken away (or notes made) and learning takes place elsewhere. Other on-going development and evaluation projects at Southampton, however, (Watson and Wright 1995; Wright 1995; Teremetz 1996) are showing that learners working with multimedia language learning materials in a supported open hypermedia environment (*Microcosm*) **are** able to make an intellectual leap away from the exercise or task in hand and move on to other concerns. These may involve drawing conclusions about the way in which language works, about the learning process, or even appraising the design of the learning materials. It may be that this high degree of reflection stems from the level of support contained within the materials, from the learners’ perceptions of their relevance or simply from their level of comfort with the interface and design of the package (Piper *et al* 1995).

6. CONCLUSIONS AND RECOMMENDATIONS

Learners in this study claimed to use the *World Wide Web* for a number of purposes related to language learning, but in practice the majority were simply using it as an up-to-date library for gathering information. Many lacked the necessary technical, research and linguistic skills, or appropriate learning strategies, either to explore its resources or to use these for language learning. There is therefore much to be done by both language teachers and researchers if we are to exploit the potential riches of computer-based resources like the *Web*.

Teachers need to work more closely with students in the computer laboratory or self-access centre, observing and supporting their activity, providing training, raising their awareness of strategic learning processes, and enabling them to become autonomous, competent and confident learners. To get them working efficiently, teachers need to provide more structured starting points on their local *Web* interface, such as lists of *Web* addresses organised into language or content-focused categories, or hints for refining searches. And they need to integrate the use of the *Web* more closely with taught courses and with the learning purposes of their students.

This pedagogical activity must be underpinned by research and theory. In our case, we have referred to a particular framework which involves the relationship between discussion, interaction, adaptation and reflection in effective learning (see 3.2). It is unclear, however, whether our students will be able to engage effectively with the *Web* in these terms. As regards this and other models, continuing careful investigation is needed of the interactions between the design of the resources, the learning activity and the learners’ behaviours. This report emphasises the importance of involving teachers in developing and understanding this kind of theoretical work, so that we can link language learning into the tremendous opportunities offered by networked access to multilingual information and learning resources worldwide.

Southampton
May 1996

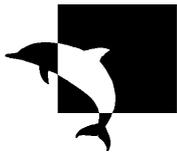
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WORLD WIDE WEB QUESTIONNAIRE

The Language Centre has been asked by the Higher Education Funding Council (under the Support Initiative for Multimedia Applications) to conduct a survey into the use of the *WORLD WIDE WEB (WWW)* by language learners. We would be very grateful if you could take a little time to fill in this questionnaire even if you have never used *WWW*.

Name:	Email address:
Language class(es):	
Year of study:	Date:
Degree:	Language tutor(s):

1. How confident do you feel about the following:

Please tick in the appropriate boxes.

	very confident	quite confident	not at all confident
using a computer			
using a mouse			
using <i>Windows</i>			
using email			
using computer-based language resources e.g newspapers on CD Rom, dedicated software, dictionaries, word-processors			
using <i>World Wide Web</i>			

Further comments:

2. The *World Wide Web* gives access to a range of resources around the world. In your opinion what possibilities does it offer language learners?

APPENDIX 1

3. Have you used the *World Wide Web* at all? yes no

• If “No”, please go straight to the notes at the end of this questionnaire.

• If “Yes”, please indicate a) why you started using it, b) how often you use it, c) how long you usually spend on it, d) where you access it from, e) whether you discuss what you find on the WEB with other students or a lecturer and f) which lecturer or course has required you to use it.

a) b)

c) d)

e) f)

4. Which of the following do you use the *World Wide Web* for?

For each item you tick, please try and give examples of the resources or information you have found useful or interesting e.g. foreign language newspapers, games. Give as much detail as you can.

a) developing your foreign language competence
e.g.

b) finding out more about the culture (and related areas) of the countries whose language(s) you are studying
e.g.

c) for non-language study purposes
e.g.

d) for leisure or general interest
e.g.

APPENDIX 1

e) other
e.g.



5. We would like to know how you find information/resources on the *WEB*. Describe what search strategies have proved useful for you.

Please indicate the steps that you have taken in a recent search for information relating to your language studies.

<p>AIM <i>e.g. search for information on Andreotti trial for Italian essay</i></p>	<p>YOUR AIM:</p>
<p>STEP 1 <i>e.g. find Language Centre Home pages; use Webcrawler for keyword search (indicate original word/words used); enter WEB address given by tutor</i></p>	<p>YOUR STEP 1:</p>
<p>STEP 2 <i>e.g. follow link to articles in on-line Italian newspaper</i></p>	<p>YOUR STEP 2:</p>
<p>STEP 3 <i>e.g. check out all articles with the word Andreotti</i></p>	<p>YOUR STEP 3</p>
<p>FURTHER STEPS <i>e.g. return to keyword search results to follow up other links</i></p>	<p>YOUR FURTHER STEPS</p>

APPENDIX 1

Additional comments:

6. **The *World Wide Web* was originally conceived as a mechanism for data exchange between research institutions, not as a general learning resource. However, many claim that it offers vast educational potential.**

Could you comment on the way:

- a) it succeeds as a learning resource for language students**

*In your answer, i) give examples of what you have learnt ii) what you have **not** learnt that you hoped for
iii) anything you have learnt that was **unexpected**.*

i)

ii)

iii)

- b) it could be improved**

- c) it integrates with the rest of your language programme**

7. **The *World Wide Web* is a hypermedia resource with linked text, graphics, audio and video. Please comment on how it compares for language related purposes with:**

- a) classes and lectures**

- b) separate media resources**

e.g. reference and course books, topic boxes, satellite television, video, audio

APPENDIX 1

c) other electronic media

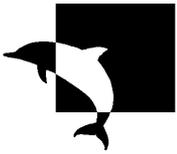
e.g. newspapers on CD ROM, dedicated language learning software, email etc.

Further comments:

NOTES

Thank you very much for taking time to complete this questionnaire and thank you also to those who have agreed to participate in the observation studies. We would welcome any further comments you have to make on your use of the WEB or on any other learning resources you use in connection with your language studies.

Your notes:



WORLD WIDE WEB QUESTIONNAIRE

Dear Colleague

The Language Centre is conducting a survey for the Higher Education Funding Council's Support Initiative for Multimedia Applications (SIMA) into the use of the *WORLD WIDE WEB (WWW)* by language learners. We would be very grateful if you could hand out a questionnaire to all students in your **language classes**. When they are completed, please pass them back to the Language Centre office.

Additional copies of the student questionnaire are available in both the SML and the Language Centre office

We are also interested in staff views on the potential (present and future) of the WEB in the context of language learning. Please take a little time to answer the following questions.

Many thanks

Vicky Wright, Julie Watson

NAME:

1. **The *World Wide Web* gives access to a range of resources around the world. In your opinion what possibilities does it offer language learners?**

2. **Have you used the *World Wide Web* yourself at all?**

3. **Do you recommend its use to your students or have you built it into your courses (either language or content) in any way? If so, please give details and indicate how well this has worked.**

APPENDIX 2

4. In your opinion what possibilities do the resources of the WEB offer your students compared with:

a) other electronic media

e.g. newspapers on CD ROM, dedicated language learning software, email etc.

b) separate media resources

e.g. reference and course books, topic boxes, satellite tv. video, audio etc.

c) classes and lectures

Further comments on the use of the WEB and other electronic resources: