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German as a foreign language

Online Learning Systems as Mediation between Cyberspace and Learner

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Hans Werner Hess, Hong Kong

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Why (and how) teachers (and not primarily students) should become 'autonomous'

Hans Werner Hess

Überlegungen zum Einsatz neuer Medien und insbesondere des WWW sind stark von neo-reformpädagogischen Schlagwörtern wie 'Autonomie" (des Lerners) und "Authentizität" (der Materialbasis) geprägt. Tatsächlich jedoch erfordert ein angemessener Gebrauch des WWW für den Grundstufenunterricht Deutsch sowohl im sprachlichen als auch landeskundlichen Bereich zwingend eine beträchtlichen Steuerung bzw. Didaktisierung. Lernangebote via WWW müssen strukturiert und auf die Feinziele paralleler Unterrichtsphasen abgestimmt werden, um für Studenten sinnvoll und akzeptabel zu sein. Der eigentliche Gewinn an "Autonomie' liegt dabei auf seiten der Lehrer, die durch Nutzung einfacher Software-Angebote heute selbst eine vermittelnde elektronische (WWW) Ebene zwischen das 'authentische' Internet und die spezifischen Bedürfnisse ihrer Lerner kreativ einziehen können. Der Artikel erläutert dies am Beispiel eines WWW-Lernsystems für Grundstufenlerner zum Thema 'Das politische System Deutschlands'.

Introduction

The WWW is believed to be an ideal medium for 'authentic' information retrieval. It is also said to be conducive to 'autonomous' and 'discovery learning', which, in turn, supposedly leads to the development of 'flexible, creative thinking' and 'process-driven learning' (e.g. Borkowski et al. 1996, Issing & Klimsa 1995 among many). However, as Rösler (2000) recently pointed out, the inflationary use of such *reformpädagogische Schlagwörter* may undermine a rational, differentiated discussion of the WWW's possible role in language learning and *Landeskunde*. This role lies, I believe, in small improvements of existing tuition schemes – an *added value* – rather than in bringing about a pedagogical revolution. Within our familiar learning ecology, 'the Web' can indeed enlarge the space for practising linguistic skills and enhancing knowledge – if and

when it is closely linked to syllabus and classroom. This implies, however, that teachers insert a *mediating level* between the 'authentic' cyberspace and the learner. If learners are to move through the Web independently (i.e. outside the classroom), the mediation should itself be web-based. This article will introduce one such attempt by presenting a (publicly accessible) WWW-based 'hypermedia' environment about the political system in Germany. The learning environment deals with an important aspect of *Landeskunde* and is compatible with *language learning activities* at the lower intermediate level.

The truth is that texts on the WWW are not inherently more 'authentic' than any other written/printed source. They were written with a purpose and according to the specifics of the medium, and can be as 'artificial' (or simplified) as any GFL textbook. Moreover, information retrieval on the WWW can be a very time-consuming and cumbersome process. Asking (registered, fee-paying) students to develop an 'autonomous' streak in learning may be seen as sheer negligence of a teacher's duty – which is, after all, expert guidance in a step-by-step approach into the realm of the foreign language. Why should I (an imaginary GFL student might ask) spend my time with *searching* for documents and articles on the WWW, if I could use it more fruitfully with actually *reading (and discussing)* the one already, and sensibly, provided by my teacher?

The clamour for 'autonomy' is certainly dysfunctional if the use of the WWW is embedded into a *language*-learning context on the elementary/lower intermediate level (which, after all, represents the majority of GFL situations). Little can be gained in terms of language proficiency or even declarative linguistic knowledge when such students randomly navigate through web sites. They will simply not understand enough to make sense of an 'authentic' source, not to mention an appreciation of its pragmatic context. In all likelihood, the grammar and vocabulary of the 'authentic' document will by far exceed anything students have so far come across. But precisely because such an endless variety of materials exist on the WWW, students can hardly be expected to focus on working through a single text thoroughly. If anything, the 'autonomy' principle simply encourages superficial *scanning* as the primary reading comprehension technique. My suspicion is that this does not much to increase either linguistic or factual knowledge (My point can be easily seen by opening the – random – example of "Links für Deutschlerner" of *Themen neu*, vol. 1, *Lektion* 6 (Aufderstraße et al. 1992–95). This lesson introduces

basic vocabulary about body and health. Students at this point have not learned past tense, passive voice or any type of complex sentence structure and word formation. The first link for this lesson points to the Deutsches Medizinforum, a special interest forum for medical practitioners. It is difficult to imagine what elementary level students can learn on pages such as 'Das Bauchaortenaneurysma' or 'Blasenentzündung').

The mere existence of a German cyberspace does not automatically stimulate 'autonomy'. At least two other factors are crucial here: (1) motivation on the part of the student (which has little to do with the medium once learners are familiar with the web), and (2) the existence of decipherable, legible sources to satisfy this motivation or curiosity. The motivation is first and foremost (although not exclusively) developed in the classroom (*if* it already existed prior to classroom stimulation, we would not have to think of web-supported 'autonomy' education anyway). Teachers should therefore speak of the 'role of new media' preferably in connection with objectives set in a syllabus or even as defined for a single teaching/learning unit. The media (or the material transmitted through them) then become one part of a 'global learning environment' (Barson & Debski 1996) where classroom activity, teacher/tutor, textbooks, native-speaker contact and other conceivable means are strategically 'arranged' around the learner to facilitate his/her overall goal: rapid knowledge gains and rapid language acquisition. It is not the medium's role to determine the goal, however – pedagogically or otherwise. In institutional contexts, technology-supported work is therefore an add-on to the classroom and the curriculum – and its relative merits are to be determined in relation to them. The web pages in the above example do not meet these conditions. Browsing through the *Deutsches Medizinforum* is quite unlikely to stimulate learner interest (unless we have a GFL group of medical doctors). The complexity of both content and language structures leaves students with just one possibility of 'learning' – the recognition of previously learned basic vocabulary without, however, understanding any text, nor indeed the nature of the *Forum*. I cannot imagine any learner developing her interest and her 'autonomy' by browsing incomprehensible material.

Further (I believe this to be very important), work with technological means should be pre-structured and carefully planned ('*didaktisiert*', as the German term goes). This implies not only the (partial or full) pre-selection of usable sources but in many cases the

actual *authoring* of materials commensurate with the students' acquisitional level. A glance at even the *Deutsches Medizinforum* might have been useful if only students were actually informed beforehand why this should be so, and what they could do (or look for) when accessing the pages.

The WWW and peripheral software tools in fact provide *teachers* with an enormous freedom ('autonomy'?) to create, modify and align learning/teaching programs, which by far exceed anything available to us even a few years ago. They allow us to tailor a learning environment to our students' real needs and preferences. This environment would, of course, include 'authentic' web material, and it would certainly give students a degree of 'autonomy' – or choice. But as a medium useful for learning, it needs to be purposefully *constructed* as an intermediary step between the students' level of attainment (and interest) and the 'authentic' Web. The lower the acquisitional level, the larger the degree of guidance to be provided by the teacher. In the early stages, this guidance will certainly have to emphasise the acquisition of linguistic means. It will therefore have to be 'artificial' rather than 'authentic'. But this very artificiality would guarantee its usability – as well as its usefulness. I would like to demonstrate these points by introducing an online learning project about the German political system, which was developed at the Hong Kong Baptist University.

Aims and Objectives

The context of this project is an undergraduate course, the BSocSc (Hons) in European Studies (see also Hess 1999). Its German stream teaches GFL *ab initio* during the first two of four years. As the third year is spent entirely in Europe, students need to reach a high level of competence in a relatively short time. Language tuition is therefore intensive, and supporting measures are essential. The course has an extensive system of online exercises and WWW-based references. These so-called Study Paths (*Lernwegweiser*) run parallel to the language syllabus and direct students at each step to adequate supplementary study material. Students are therefore familiar with web-supported tuition. They are simultaneously *guided* (by the Paths) and '*autonomous*' in that the system allows them ample choice according to interest and learner type. It is a

major R&D focus of the course to broaden the range of these supplementary online aids as much as possible (Hess 2000).

Landeskunde of the German-speaking countries is not confined to language classes but is also taught in a number of history, politics and area studies seminars, albeit originally in English, with a gradual transition to the target language. In the current textbook of the language component (*Themen neu*, Aufderstraße 1992–95), *Landeskunde* topics are treated in a rather short, concise manner, which is, of course, insufficient for a major in European Area Studies. *Lektion 8* of *Themen neu 2*, for example, briefly introduces the election system in Germany – without, however, discussing the underlying political system and its historical background (which renders the lesson texts rather incomprehensible to non-European (Asian) students). At roughly the same time (the beginning of the third semester), students must take an introductory political science subject Politics and Government of Germany, which provides just this basic information. The seminar, however, is taught in English; thereby creating a knowledge domain which cannot be adequately expressed in German. To bridge the gap between the GFL class and the political science subject, an electronic study system Das politische System der Bundesrepublik Deutschland was created, which pursues two aims in combination: (a) *language learning practice* and (b) *basic (but systematic) factual knowledge (in German) to supplement the political science classes*. The objectives for the WWW system were therefore:

(a) additional language practice commensurate to the level of acquisition at this particular point (*language training*),

(b) a systematic overview of the political institutions of Germany and an insight into the federal structure of the German political system (*knowledge acquisition*), and, in addition,

(c) an opportunity for students at later stages to either review the topic and/or practice language skills at an intermediate to advanced level (*language/knowledge review*).

The system was to be used parallel to but outside the classroom(s) proper – an area which is referred to as *'Freiarbeit/offenes Lernen'* (Ritter 1996:44). It had a tutorial function and was to describe the political system and its constituent components in its entirety. It had to build on existing (taught) vocabulary and grammatical structures – and expand them gradually. It was to train reading and listening comprehension on this basis. At the same time, it was to be designed as a 'hypermedia' structure (cf. Tergan 1995), i.e. a system combining several media, through which students could 'navigate' freely (even partially) according to need and interest. Multimedia material was to be used in order to stimulate interest in this rather dry subject matter. Particularly with advanced students in mind, we also wanted to incorporate pointers (links) to resources for further studies ('authentic' materials) – and keep open the option of updating information later on, whenever necessary.

Lastly (but significantly), the system had to be designed with very limited funding. Two staff members produced it alongside normal work duties. This factor was decisive for the choice of tools and the structure the project finally took on. The learning system thus does not represent the state of the art in information technology – but it shows what teachers can do under common circumstances and by using means available to anyone without special programming knowledge.

Production Tools and Method

The learning system was created for and on the WWW, using *Microsoft FrontPage* as the primary authoring tool. Photographs, icons and other graphics were drawn from 'free' or shareware sites and incorporated with the help of readily available software tools (*Adobe Photoshop*, *RealAudio Player* and *Real Producer*, *MS Media Player*, *IPIX* plug-in). Language learning exercises, including listening and reading comprehension were written with the well known Canadian Hot Potatoes software for language teachers, and other small programs obtainable in the U.K. (Creative Technologies). The *Quintessential Instructional Archive* (Quia.com), an American educational content provider, offered the possibility of creating instant multimedia vocabulary exercises. These exercises then reside permanently on the American server but are integrated into the system. Most of

these tools (except *FrontPage* and *Photoshop*) are low-cost or free; all of them can be easily handled by anyone who is familiar with normal word-processing.

It was necessary at first to draw a 'story board' or rather: an overview over the content structure (the political institutions), with indications of possible links and cross-references among them. One team member initially wrote texts, which were then checked for linguistic compatibility. The texts were enhanced with photographs, etc. In a second step, the texts (or HTM files) were linked to each other, and links were tested as to their logical flow within the system. The entire construction process thus incorporated a *continuous formative evaluation* – by the authors as well as students. Once the basic structure was established, the construction of language learning exercises for each content segment began. Eventually, the system was linked to external information sources ('authentic' WWW pages), whenever appropriate. In a final step, the already produced or otherwise available electronic segments were multiply cross-linked so as to allow predominantly content-oriented access *as well as* usage with a language learning focus (see below).

The finished product comprises nearly 1,600 files, which are internally connected by (currently) 5,261 hyperlinks. Among the files are 58 special reading texts, 36 digitised audio recordings, 94 interactive exercises and more than 800 graphic files, video clips, music recordings and three-dimensional walk-in photographs ('IPIX'). Five video clips and several music recordings further enhance the system. Not all of these multimedia materials were, of course, home-produced. They were taken from public WWW sites on the understanding that they belong to the 'public domain' and can be used as long as the original source is acknowledged. Home pages anywhere, however, can change quickly, and any change might have rendered the learning system partly inoperable if it simply points to other WWW sites (there are currently 914 of such external hyperlinks). Some of the original multimedia files drawn from the Web were therefore saved on our own server, thus securing continued usability. In order to speed up loading times, the learning system was burned onto CD-ROMs, but it was also put on the public WWW to allow remote access).

The Product

The WWW system is basically self-explanatory and allows 'intuitive' orientation to every user. Students can navigate through the system along a *content matrix* or a *language-learning matrix*.

The *content-oriented matrix* consists of five basic elements: (a) the constitutional bodies of the FRG (Staatsorgane), (b) the federal states (Bundesländer), (c) the Basic Law (Grundgesetz), (d) the political parties (Parteien) and (e) the election process (Wahlen), each of which is compiled as a folder of text, audio and graphic files. A second, 'deeper' layer leads to further subdivisions or cross-references. 'Staatsorgane', for example, contains six sub-segments: (a1) *Volk*, (a2) *Exekutive*, (a3) *Legislative*, (a4) *Judikative* plus (a5) *Bundespräsident* and (a6) *Bundesländer* (because of their role in constituting the *Bundesrat*). Further subdivisions occur. By cross-links on all levels of the matrix, the navigational structure takes account of the fact that all political institutions are inter-dependent through a system of checks and balances. The section Bundesländer can be accessed from several layers including the top navigation bar (see below). It is particularly extensive and includes a wealth of 'general' (non-political) information of interest to our (Chinese) students. This was done to 'liven up' the system – and to make it usable for *Landeskunde* purposes beyond politics.

Each content folder opens to a collection of *reading* material, *listening* texts and *graphics* from which students can choose various sub-topics. The segment about the federal president, for example addresses the following issues: (a) *Where does the president reside and work?* (b) *Tasks and functions of the federal presidency,* (c) *The president, the government and the federal parliament,* (d) *The presidential election,* and (e) *Federal presidents from 1949 until today*. Icons visualize the nature of the page or task 'behind' the links. These are texts, which can alternatively be (a) read, (b) read and listened to, or (c) only listened to. The three modes signal varying degrees of learning difficulty, and students can freely choose among them.

The *interactive reading and/or listening comprehension exercises* accompany each segment (the sample links here are from the segment about the *Bundespräsident*). For each text (here divided into two parts), new vocabulary is provided in a bilingual

glossary. Icons then lead to several types of exercises. The exercises are structured in three levels of ascending degree of difficulty (click on the icons of '*Was macht der Bundespräsident?*' here): (a) multiple choice or quiz-like exercises (Level 1), (b) text reconstruction (Level 2), (c) full text writing (complete cloze type, Level 3). All levels are multi-functional (reading and/or listening). Exercises of type (c) are mainly for advanced students, as are the links to 'authentic' WWW sites provided at the bottom of each page.

The same texts and accompanying exercises appear in parallel listings of listening and reading activities (Hörtexte, Textarbeit) as well as vocabulary reviews (Wörter). This *language-learning matrix* allows students to navigate by *selecting a learning mode* instead of following the primary content matrix. Switching between these modes remains possible at every point.

Both the content matrix and the language-learning matrix appear in a permanently visible *navigation bar* at the left-hand side of the screen (see here). This should guarantee orientation in the complex system at all times and (to use Conklin's well known phrase) prevent users from getting 'lost in cyberspace' (Conklin 1987). The navigation bar also leads to an introduction to working with the entire system and a number of links for further independent study with complementary WWW resources. Lastly, the navigation bar contains integrated indices of all topics and all multimedia resources.

Discussion

The production of such a system is technically rather easy – but (because of the content matter) also extremely time-consuming. It is to be recommended only if (a) the finished product is indeed tied to a syllabus (thereby guaranteeing or at least encouraging its repeated use) and (b) it can be used in successive runs of the same subject/class with the same or comparable content and textbook(s). The software tools indicated, however, are also very useful for much smaller ad hoc projects.

It might be argued that the learning system does not make full use of the WWW's characteristics – to lead students to original sites and to teach them to 'manage' large

amounts of target-language information. It inserts an 'artificial' filtering level between the learner and the genuine world of political institutions in Germany. But the incorporated texts are 'simplified' in no other way than government web sites themselves present 'simplified' descriptions of political processes for the benefit of the general reader (WWW user). The *didaktische Reduktion* was simply necessary to reach students with an as yet limited vocabulary and still in the process of acquiring basic GFL skills. The Web is used here as a transitory or mediating space for practicing these skills. It can, however, prepare students linguistically for later 'autonomous' activities, should they so wish.

For the same reasons, the system content remains entirely descriptive. It does not, for example, discuss the pros and cons of the German *Parteiendemokratie*, the *Verhältniswahlrecht*, the impact of the *Bundesrat* on political stability and consensus building, or even the historical evolution of the system. Topics like these should be critically assessed in a university seminar – but they do not belong in an introductory learning system on the lower intermediate level, nor should it be within the remit of the authors to introduce a political interpretation at this point. We do believe, however, that the delivery of factual, elementary knowledge may help a later discussion in the classroom.

In a related vein, it has been argued that the learning system subjects students to an inordinate amount of exterior 'control' due to its rigid structuring – whereas the genuine advantage of the 'new media' should be the 'freedom' it gives learners to pursue 'their own' path of learning. We tried to counter this criticism by (almost invisibly) incorporating the two matrices and constructing the system in a modular way. There is no need for students to work through all modules in 'linear' fashion. But the overall structure has to be as rigid – or clear – as the political system and its components itself. It is, in other words, determined by the subject matter as much as by the need to provide a clear and consistent design. Moreover, it is our experience from five years of web-supported learning that (paradoxically) the need to structure increases when students work 'independently'. In the classroom, discussions gone astray can easily be brought back 'to the point' – but not so in 'autonomous' phases of learning. An electronic hypermedia system must lead the learner in small, logical and self-explanatory steps, and

it must allow her to refer back to the initial point of reference at any time and part of the learning activity. Far more quickly than in the classroom, students tend to give up 'independent' study if they loose their orientation and/or do not see 'the point' of a particular segment.

Our computer-savvy students in Hong Kong at least are not fascinated (or motivationally boosted) by cyberspace. 'The Net' is already a common feature of everyday life, and it is used only to the extent that it provides relevant information/activities quickly and 'efficiently'. This means in practice that they appreciate web support (or any 'new media') only *if it is convincingly and demonstrably linked to learning/tutoring goals*. This was – and is – the basic rationale for the present learning system, its linkage to specific subjects and learning steps, as well as its straightforward structuring.

Conclusion

It has been argued in this article that the mere existence of the WWW and its seemingly endless variety of target-language sources does little to foster language and knowledge acquisition. Especially at lower and intermediate levels of GFL, tapping the 'authentic' WWW can lead to frustration and disappointment – if only because the linguistic complexity is normally too great. Working with 'authentic', unedited sources may not lead to reasonable proficiency/knowledge gains within a reasonable time.

All the same, the Web provides easy opportunities to create supplementary target-language study material either by tapping and modifying external WWW sources or by self-authoring web pages according to actual syllabi and student needs. This was demonstrated by our own system about political institutions in Germany. Such a system constitutes an intermediary level of electronic learning, which is highly structured and 'artificial'. But it satisfies precisely the needs of students at a particular acquisitional level, while not compromising the students' 'freedom' to use the 'new media' independently.

In its orientation towards the classroom (and, in this case, even to a specific textbook), it is to some extent comparable to the conventional type of *Begleitmaterialien*, which

normally supplement popular teaching methods. The difference here is that the new technological tools – the WWW and software – enable teachers *themselves* to create such electronic learning environments, specifically targeted at 'local' needs, without specialist knowledge and with relatively little effort. This is no small gain for GFL, particularly if such systems become publicly available on the WWW and can, if so desired, be easily adapted by other teachers working under similar circumstances (cf. Hess 2001). It is, at any rate, an incomparable gain in 'autonomy' for concerned teachers – who could then lead their students gradually, carefully and meaningfully to use the Web for their own specific purposes as GFL learners.

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