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E-Learning and International Relations

What Teachers Can Learn From Neil Postman

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E-LEARNING AND INTERNATIONAL RELATIONS

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E-learning in the academic field of international relations is popular, but developing good didactic scenarios and learning materials is tricky. This paper argues that teachers should assess the usefulness of human-to-computer interaction, avoid a deterioration of language through e-learning, and distinguish between superfluous and valuable multimedia elements. Moreover, they should choose the right amount of learning material, provide shared knowledge while taking into account the fact that individuals construct their own knowledge, and allow for cultural differences. Referring to media critic and educator Neil Postman, the author of this paper argues that teachers who want their students to acquire knowledge have to offer long, hierarchical texts. If they merely want to offer information, shorter texts will do. Yet no matter what the learning objective is, teachers must steer clear of context-free information. This article also shows that human interaction is a crucial factor in learning, because it helps students to negotiate meaning. Two European projects illustrate how academic staff have dealt with these challenges.

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INTRODUCTION: THE RISE OF E-LEARNING

The popularity of e-learning is still increasing.¹ Certainly, the enthusiasm of the 1990s has given way to a more sober assessment of e-learning, but governments, teaching institutions, and businesses continue to allocate large sums of money to e-learning, which is, in essence, the transmission of learning material via information technologies and didactics. The computer literacy of university students is increasing, often exceeding that of professors. Students who do not like computers find it more and more difficult to find courses for which they do not need a computer and an Internet connection, even if only to download reading lists. This applies, of course, only to the few countries that can afford e-learning. Many universities in Africa, Latin America, Asia, and Eastern Europe are not primarily concerned about a lack of computers but need tables and books.

There are several reasons for the popularity of e-learning. Technological innovations have made the implementation of sophisticated e-learning projects possible. Hundreds of learning management systems (LMSs) have been developed, and many new ones are still being developed. With new software, texts, animations, and interactive exercises can be published online. The fact that these innovations are actually used is also a result of successful industry pressure. Nowadays, e-learning conferences are dominated by representatives from the private sector, who flood universities with emails and brochures about their e-learning products.

Many university teachers appreciate e-learning, since it allows them to teach more efficiently: They can publish course material for downloading on the Internet and develop online tasks that can be marked more quickly than traditional assignments. Moreover,

with e-learning, teachers can choose more flexibly when to tutor students than they can in traditional learning environments. Finance departments are also interested in e-learning, hoping to save money. At times of stagnant or even declining education budgets and rising student numbers, e-learning is seen as a way of reducing the time needed to teach students what they need to know. And while universities are hoping to save money through e-learning, businesses are hoping to make money. In the next 25 years, the number of university students is likely to double to 170 million worldwide (Kuchment, 2003). The commercialization of education, which is making fast progress, offers huge profits. Didactic considerations further add to the fascination with e-learning. Since the 1980s, cognitivism has lost ground to constructivism as the most popular learning theory (learning can be defined as “a change or potential to change in one’s level of skill or knowledge” [Newby, Stepich, Lehman, Russell, 1996:22]). According to the cognitivist paradigm (or information processing paradigm), teachers pass information on to students so that students can remember and recall the information. In cognitivism, learning is a change in knowledge that is stored in memory (Newby et al., 1996:31). Learning progress depends on the quality of information, on the way it is presented, and on the ability of students to process the information. Cognitivists argue that teachers should organize new information in ways that make it easy for students to memorize and to encourage links to students’ prior knowledge and thus increase learning efficiency.

Advocates of constructivism argue that knowledge is not objective and separate from the person who knows. Rather, individuals construct their own knowledge in their own particular ways by endowing any new information with unique meaning (Stenmark, 2002:3-4). The way meaning is constructed, and knowledge created, depends on learners’ exist-

ing knowledge, their social context, and their prior experience. Knowledge has no separate existence “out there” but is constantly negotiated and constructed (Malhotra, 2001:12-13). To the constructivist, the interaction between teachers and students, as well as the interaction among students, is an important element of learning. Constructivism tells us to devise teaching environments that place the learner and not the teacher at the center, as Brown and King suggest:

Collaboration is [...] an absolute necessity in a community of learners [...] and is founded on the idea that expertise does not rest with a single individual (such as the teacher), rather, it is spread throughout the classroom. Mastery of the subject/topic is the responsibility of all members of the community of learners. (2000:246)

Through active, collaborative learning, “the teacher selects, produces and supports the learning process, but the students themselves do the work of discovering and constructing meaning.” (Morgan, 2003:352) Teachers do better to ask good questions rather than to answer questions in a definitive manner.

E-learning helps put some of the ideas of constructivism into practice (Scardamalia and Bereiter, 1994). Learning material can be customized to students’ individual interests and prior knowledge. Students become responsible for their own progress, since they can decide when, where, and how much they learn. Most importantly, through interaction with peers and their teacher, they negotiate and construct the meaning of information. It is difficult to prove that students learn more effectively and efficiently through e-learning than through traditional courses, but some studies provide initial evidence that this is indeed the case (Clark, 2003).

This essay looks at the advantages and disadvantages of e-learning in the academic field of international relations (IR). It argues that e-learning offers a range of benefits for

teachers and learners but that it is difficult to develop good learning environments and learning material. Referring to the writings of US media critic Neil Postman, the essay discusses the ways in which students acquire and assimilate and teachers impart knowledge, information, and context-free information. The key conclusion is that the length of the texts used as learning material and the interaction between students and teachers determine whether teachers provide their students with knowledge or whether they merely impart information. In any case, teachers must avoid transmitting context-free information. Two European projects are discussed to illustrate how academic staff have dealt with these challenges.

ADVANTAGES OF E-LEARNING IN IR

Constructivist, learner-centric learning environments are increasingly popular in IR teaching (Brown and King, 2000). Very often, e-learning elements are incorporated into IR courses. For a start, lecturers might put texts, bibliographies, spreadsheets, and assignments online. Here, online distribution channels such as websites or an LMS replace merely the physical distribution channels of learning material. Teachers have to learn how to use the technology, but they can save time otherwise spent organizing photocopies.

At a more advanced level, a range of electronic teaching elements, whose production can be either cheap and quick or costly and time consuming, can be offered to students. Instead of simply putting bibliographies online, teachers can complement these with annotated topical link collections. Colored images and mind maps can be used to provide

overviews of the structure of texts and learning modules. Pullout boxes can be used to highlight important issues or to give detailed analyses. Students can click on hypertext glossary terms and download historical documents, images, and sounds. These elements can be posted on a timeline that reduces historical complexity by allowing students to visualize them along a chronology of events. Electronic text markers and electronic note-taking functionalities allow students to highlight elements they deem important in the text to assist their critical assessment of the information presented.

A potential advantage of e-learning is that it can lead to enhanced learning interactivity. Tutors can post questions on online discussion forums, and students can then discuss these questions with each other. The discussion can be moderated by a tutor or by a student. Electronic paper rooms allow students to print out assignments and presentations by fellow students, thus learning from each other (peer learning). Multiple-choice questions, combination tasks, and drag-and-drop exercises are all valuable means for engaging students in the learning process. Position games are also useful. One such game was developed at the Technical University Darmstadt (Conzelmann, Haidvogel, Offenbartl, Steinmetz, Wolf, 2002). Students are asked to express their views on civil society by responding to preformulated statements. Once they have sent off their responses, they see their personal political profile, which helps them to become aware of their own views and, through self-observation, maybe challenge their assumptions.

Similarly, students can be asked to give their opinions to questions into specific boxes. By sending their comments, they trigger an automated answer to the initial question, which they can then compare to their own answer. LMSs have the additional advantage

of being able to track the learning progress. An LMS can register the number of a student's correct and false answers and the lessons a student has already completed.

There are various ways to engage students through computer-based learning environments. Allowing students to participate in their learning process makes learning much more effective, because it increases retention rates, as several studies have shown and as constructivist theory tells us (Morgan, 2003:352-353; see also Shaw, 2004).² But can this not also be achieved with traditional didactic methods? And what are the specific problems of e-learning in IR?

THREE CHALLENGES OF E-LEARNING IN IR

The introduction of e-learning raises various organizational, legal, and technological questions. How can e-learning students be assessed, and how can cheating be avoided, if students are not required to be present in the classroom? Can academics be encouraged to develop e-learning material, when their careers still depend on the publication of articles and books? How can we get around the fact that the development of e-learning exercises and software is often more expensive and time consuming than the distribution of hard-copy texts and essay assignments? What is the copyright status of pictures taken from the Internet and published in e-learning modules? Which technological standards are needed for storing and sharing learning material? How can multimedia elements be used in low bandwidth environments? These are important questions, which are discussed in a rapidly growing body of literature (see, among others, Dutton and Loader, 2002). However, the main focus is on the development of high quality learning methods and learning material.

Some experts question the assumption that learning can be made more interactive with computers. As the British publisher Michael Lynton wrote in 1996: “The book is the greatest interactive medium of all time. You can underline it, write in the margins, fold down a page, skip ahead. And you can take it anywhere” (quoted in Knowles, 1998:196). Simply publishing a text on the Internet and allowing students to underline words with an electronic text marker will add nothing to conventional book learning. On the contrary, it makes learning more cumbersome, as students have to find a computer before they can even begin to read and learn. Further, why should students engage in an online debate, if they can improve their social and debating skills over a cup of coffee? And an electronic paper room into which students post their assignments is all well and good, but on-campus students can also meet to exchange and photocopy their work and maybe use the occasion to talk about class, the situation in Iraq, or other topics of interest.

Neil Postman has written some excellent texts on learning, and teachers are well advised to read his work in order to understand the limitations of e-learning and to avoid mistakes when developing learning material. A professor at New York University, Postman was a prominent critic of contemporary trends in education and technology (he died in October 2003). His *Amusing Ourselves to Death*, *The End of Education*, *Technopoly*, and other books became bestsellers. In his works, Postman defends the printed word, reason, and rhetoric, and strongly criticizes television, the unwarranted use of computers in the classroom, and the transformation of politics and education into entertainment. The following quote refers to the popularity of Sesame Street in the United States and to the widespread view that this television series helps children to learn how to read and consequently to enjoy school:

Whereas a classroom is a place of social interaction, the space in front of a television set is a private preserve. Whereas in a classroom, one may ask a teacher questions, one can ask nothing of a television screen. Whereas school is centered on the development of language, television demands attention to images. [...] Whereas in a classroom, fun is never more than a means to an end, on television it is the end in itself. (Postman, 1987:147)

The first of Postman's three points pertains to the inability of television (and by implication e-learning) to increase the interactivity among learners and between learners and their teachers. Computer-based learning methods can lead to feelings of isolation and boredom in students sitting alone at home in front of their screens. Although tutors can answer students' questions online, some e-learning environments do not include a tutor (see below). Automated computer responses cannot replace a human tutor, as such responses cannot be programmed in such a way that they are sophisticated enough to engage in a debate and reply to questions. A computer cannot engage in a meaningful dialog – only another person can do this.

Postman's second point refers to the quality of language. While we could argue that e-learning concepts that include text boxes and discussion forums allow students to improve their writing skills, it is equally clear that spelling, grammar, punctuation, and style suffer in emails and online discussions more than in letters and essays. Generally speaking, the Internet is contributing to a decline in the quality of language, as millions of websites show. It is worrying that many political science students are unable to express themselves clearly and correctly in their native language. After all, superior writing skills should be their competitive advantage compared to law, business, and engineering students.

Postman's third criticism – that fun in learning should be a means to an end and not the end in itself – can also be leveled against the use of multimedia elements in teaching, which are supposed to make learning more entertaining. Many lecturers argue that films can make politics and IR less abstract and that students are used to absorbing information via images.³ Cynthia Weber writes the following about her experiences, which also illustrates Postman's previous point about students' writing skills:

Few of my U.S. students were good writers. Few did not have difficulty comprehending simple IR texts. And fewer still had anything approaching critical analytical skills when it came to IR theory. Yet in contrast to these academic deficits, these very same students were some of the best readers and writers of visual culture I had ever encountered. As the years went by, my students got better and better at reading visual images. This had nothing to do with me and everything to do with how they seemed to have trained themselves (or had been trained by others) to cope with the bombardment of visual imagery they encountered in their daily lives. (2001:282)

Visual images can indeed make teaching more interesting and possibly even more effective. However, if schools and society fail to teach students to work with words, university teachers and e-learning material developers must invest equal energy into correcting this trend and abstain from creating visual and audio luna parks that are not only entertaining but also superficial.⁴ Teachers should resist the temptation of disposing of historical dates and difficult texts that might reduce the fun factor but that are crucial for understanding IR. Fun is good, but hard work achieves results.

THREE MORE CHALLENGES OF E-LEARNING IN IR

The problems discussed above are arguably dwarfed by three further challenges: the difficulty in choosing the best length of texts; the difficulty of allowing individuals to con-

struct knowledge while at the same time creating shared knowledge, and the difficulty of negotiating meaning in culturally heterogeneous learning settings.

To approach the problem of finding the right volume of learning material, we must distinguish between knowledge, information, and context-free information. In the literature, the experts disagree about the definitions of these terms. For the purposes of this paper, information is defined as answers to “who”, “when”, “what”, and “where” questions, and knowledge as answers to “why” and “how” questions.⁵ Information pertains to facts, while knowledge pertains to beliefs, interpretation, and the ability to understand and explain issues.⁶

A professor offers information when he or she distributes copies of a newspaper article describing an attack on US soldiers in Iraq, the presumed identity of the attackers, the time and place of the attack, the number of casualties, and the US response. In contrast, students may acquire knowledge after putting the attack into the context of the historical relationship between the US and Iraq; they may explain the ability of anti-coalition forces to stage attacks by referring to the internal structure of those forces; and they may relate the attack to guerilla warfare in other countries.

Context-free information can be defined as text that answers the question “who” but does not explain when something happened, what happened, and where it happened; text that refers only to the “where” and does not tell us who was involved; text that answers only the question “when”; and so on. Hence, whereas information is about providing several facts relating to the same context, context-free information means the isolation of specific facts from closely related ones. Of course, it is difficult to say where context-free information ends and information begins (similarly, it is difficult to say where informa-

tion ends and knowledge begins). Historians are probably right in saying that the 1980s cannot be understood without reference to the 1880s.

An abundance of context-free information is a major weakness of the Internet and of e-learning. There is a deplorable tendency in e-learning to provide context-free information instead of information and knowledge. Learning object designers, in particular, must be careful to steer away from context-free information, which adds little to students' learning process. According to the learning object method, teachers should no longer design hierarchically structured courses but short, stand-alone information packages, or learning objects (Hamel and Ryan-Jones, 2001). Learners can work on individual learning objects, or they can link together several learning objects according to their own interests and needs. Designing learning objects is different from developing traditional course material. The need in e-learning for independent information packages forces teachers to reassess the notions of context and sequencing:

Learning objects should be independent of other content so that they can be recombined for different contexts. This means that each learning object must be able to stand alone so that confusion is not caused by references to previous topics. [...] [Before, units of instruction] typically followed a linear sequence set forth by the instructional designer as the best way to impart the needed knowledge. The sequences were chronological, whole-to-part, step-by-step, or something else, but the sequence was part of the context that drew the units together to form a cohesive course. [Now], [d]esigning for linear sequencing and embedding context will limit the reuse of the instructional object. So, instructional designers will need to change their views on instructional design. (Hamel and Ryan-Jones, 2001:2-3)

The principal hope underlying the learning object method is to save costs by allowing teachers and institutions to re-use their educational material and share it with others (Hamel and Ryan-Jones, 2001:1).⁷ Moreover, learning objects have potential benefits for students. They let them decide when, where, and how much they want to learn, and they can select the learning objects that suit their interests and needs.⁸ The learning object

method thus seems to take into account the constructivist notion that learning should be student-centric and not teacher-centric. As Clark suggests, it also offers students an unprecedented flexibility: “[T]he constructivist approach to learning suggests that we learn through incremental steps, building and adapting our own mental models as we go. This is precisely what e-learning may offer through repositories of learning objects” (2003:18).

Although many teachers and institutions have adopted the learning object method, caution is warranted. The method is difficult to reconcile with an understanding of learning as a hierarchical activity, which requires teachers to advise their students which learning materials they should choose. Postman argues that learning is like building a house – one cannot start with the roof without first having constructed the foundation:

Every television programme must be a complete package in itself. No previous knowledge is to be required. There must not be even a hint that learning is hierarchical, that it is an edifice constructed on a foundation. The learner must be allowed to enter at any point without prejudice. This is why you shall never hear or see a television programme begin with the caution that if the viewer has not seen the previous programmes, this one will be meaningless. Television is a nongraded curriculum and excludes no viewer for any reason, at any time. In other words, in doing away with the idea of sequence and continuity in education, television undermines the idea that sequence and continuity have anything to do with thought itself. (1987:151)

Some examples are used here to illustrate Postman’s points. Take the following statements: “Stalin reduced unemployment by increasing industrial output. He was very popular with many Europeans after the war. The Soviet Union shot the first man into orbit.” If we fail to show how Stalin’s domestic economic policies, his reputation abroad, and Soviet space technology are linked, students receive nothing more than a few isolated bits of information that may well help them solve crossword puzzles but will not help them to write a coherent essay on Stalin.

Another example: “A Palestinian teenager blows herself up on a crowded Israeli street, killing 25 shoppers. Israeli helicopters fire on a car convoy, killing an entire family. Hamas announces more suicide attacks on Israeli citizens.” What matters – and what is missing here – are the links between the psychology of suicide attackers, Israeli military policies, and the integration of radical groups such as Hamas into Palestinian society. A political science student who can do no more than cite the latest casualty figures would be hard pressed to explain the situation in the Middle East to his grandfather, who, uninformed, may simply believe that the world has gone mad.

A student interested in terrorism might download a list of terrorist organizations provided by the US government. But why should it benefit her to know that there are more terrorist groups in, say, Latin America than in Africa? On its own, the list is of little value. A professor who is preparing an e-learning module on terrorism and adds a link to the list would also have to explain that political interests can determine whether a group appears on the list. If the professor explains why the Provisional IRA was removed from the US list of terrorist organizations during Bill Clinton’s presidency or why the Colombian paramilitary organization AUC suddenly found itself on the list in 2001, the students will understand that counterterrorism policy is a negotiated process.

In the best case, context-free information is quickly forgotten. In the worst case, it leads to confusion and misunderstanding. To be able to write or talk about a political issue coherently, students must get the facts right, define important terms, say how the issue has changed over time, discuss some of its causes and consequences, and show how the issue is related to other problems. Images, link lists, sounds, and short, easily digested texts are

unsuitable for this purpose. Longer, hierarchically structured texts are needed. However, these are incompatible with the requirement that learning objects are kept short.

Another problem should be mentioned. Constructivist theory postulates that the construction of knowledge is an activity undertaken by the individual. People assign meaning to texts by linking what they read to their pre-existing knowledge. This means that writers cannot simply pass on their knowledge to their readers. Rather, readers endow new information and the writers' knowledge with their own meaning, thereby altering their own existing knowledge structure (Stenmark 2002:3). The construction of meaning is thus a highly individual activity.

This has an important consequence for teachers: They should refrain from imposing their own reading of IR events or processes on their students and remember that individuals assign different meanings to the same text. As Stenmark suggests: "By taking an interest in the user perspective, we acknowledge that though a document may be seen to carry its own information representation, the user wraps this learning material in an interpretative envelope, thereby giving the information a subjective meaning" (2002:4). Postman regards this fluidity of knowledge as an asset. For him, "knowledge is not a fixed thing but a continuous struggle to overcome prejudice, authoritarianism, and even 'common sense'." (1995:124)

The downside of the constructivist approach is that, if taken to the extreme, it reduces teachers to mere information providers who do not show students how various issues are connected, i.e. who no longer use their normally superior knowledge to offer answers to "how" and "why" questions. Moreover, there is a risk that constructivism leads to an

overemphasis of private meaning. For a society to function, its members must communicate with each other, for which shared knowledge is needed.⁹

Teachers face another challenge: heterogeneous student groups. As discussed above, students construct knowledge on the basis of their pre-existing knowledge, beliefs, and cultural backgrounds. Teachers must take this into account when they explain IR issues. Naturally, teachers hope that students interpret their learning material more or less as the teacher intends it to be interpreted. The more similar the traditions and cultures of the students to that of the teacher, the more likely this is, as Stenmark suggests: “Tradition, profession, and organizational belonging all carry their own assumptions, and the more overlapping these tacit assumptions and experiences – i.e. the personal knowledge – are, the better from a knowledge sharing perspective” (2002:6; see also Malhotra, 2001:14). Where teachers and students come from similar cultural and social backgrounds, their individual interpretations of events and information are more likely to match.

However, the more that the traditional, professional, and organizational backgrounds of students and teacher differ, the more difficult it becomes to share knowledge. A military officer is likely to have a different view on terrorism from that of a political science student, and the views of a Palestinian student and that of an Israeli student are likely to differ markedly. Terrorism, free trade, migration, and democracy mean different things to different people.¹⁰

When student groups are highly heterogeneous, there are two options. Teachers can either interact directly with students to help them understand what they mean, or, if direct interaction is not foreseen, teachers can provide information that is as culturally and politically unbiased as possible. If they want to go beyond information and venture in to the

dangerous territory of knowledge, they are largely confined to *asking* “how” and “why” questions instead of *answering* these questions, which, after all, hinge on culture.

This section and the previous section have illustrated some problems of e-learning. The next section shows what this means for teachers and institutions who decide to use e-learning in IR.

HOW TO BENEFIT FROM E-LEARNING IN IR

There is no panacea for the problems discussed above. It is important to remember that they exist and to engage in e-learning with caution. In order to apply e-learning to the teaching of IR in beneficial ways, it is useful to stick to a hierarchy of learning objectives: Knowledge is the most desirable, information comes second, and context-free information, which is to be avoided, last.

Two factors determine whether e-learning can provide knowledge, information, or context-free information: the length of texts and human interaction. The importance of long texts for knowledge acquisition is discussed above. With regard to interaction, the decision about whether or not teachers interact with their students is crucial, since interaction allows for the negotiation of meaning, although meaning is also negotiated by learning materials alone, i.e. without interaction, if to a much lesser degree. Human interaction can thus counterbalance the decontextualization of learning material, for example, in learning objects. As one group of experts puts it, some form of contextualization is always essential: “If decontextualized learning objects are to be developed and deployed, a compatible method of reintroducing context must be utilized” (Wiley, Padron, Lambert, Dawson,

Nelson, Barclay, Wade, 2003:61). The more interaction is offered to students, the more they are likely to learn. “If good content were enough to support learning and human interaction were unnecessary, libraries would never have evolved into universities.” (Wiley et al., 2003:62).

This graph illustrates the hierarchy of learning objectives and the methods to achieve these.¹¹

Knowledge I (long texts, interaction)
Knowledge II (long texts, no interaction)
Information I (short text, interaction)
Information I (short text, no interaction)
Context-free information I (short text, interaction)
Context-free information II (short text, no interaction)

By providing long texts, teachers offer their perspectives on events and processes to students. Of course, it is not sufficient for a text to be long. It must also be well written and coherent. But if it is too short, not all aspects necessary for understanding and/or explaining an IR issue can be discussed.

Ideally, the next step would be to discuss the text with students. Nobody has a monopoly on knowledge, and students should be given the opportunity to question the interpretations offered to them. Postman alludes to the fact that no text or textbook should be con-

sidered definitive but should be used as basis for discussion, in the full understanding that it was written by one or more humans and should therefore by default be used as an object of inquiry:

We would start with the premise that a textbook is a particular person's attempt to explain something to us, and thereby tell us the truth of some matter. But we would know that this person could not be telling us the whole truth. Because no one can. We would know that this person has certain prejudices and biases. Because everyone has. We would know that this person must have included some disputable facts, shaky opinions, and faulty conclusions. Thus, we have good reason to use this person's textbook as an object of inquiry. What might have been left out? What are the prejudices? What are the disputable facts, opinions, and conclusions? (1995:126)

If interaction is not envisaged in a learning environment, teachers can still help their students to acquire knowledge by offering them long and well-argued texts online in an easily printable format. These can be supplemented with sound, images, historical and legal documents, link collections, glossaries, and other elements that can be disseminated efficiently via the Internet. All these materials should be interpreted and linked with related elements that put the elements into their specific contexts. Simply showing the bullet holes in Che Guevara's body is an invitation to voyeurism. Offering information about his life, politics, and the circumstances leading to his being killed furthers a student's knowledge on Guevara's role in history.

It is important that teachers learn to distinguish between multimedia elements added for the sake of adding multimedia elements and those that truly enhance the learning experience. Didactic usefulness, and not technology, must determine the material presented to students. A teacher should use a technological feature not because it is new or because everybody else uses similar features but because it helps to achieve the defined learning objective.

Teachers who want to enhance students' knowledge of complex IR issues should offer interpretations but also allow their students to construct their individual knowledge. Objections must be raised when governments or international organizations present themselves in a positive light with the help of "educational" modules, or when professors present a definition of terrorism without discussing, for example, whether or not only non-state actors can be terrorists. Weber's advice that teachers abstain from *Kathederwertung* (uncontrolled value-intrusion) should be heeded (Weber, 1995 [1917]:28-30). Wiley et al. show that particularly learning object developers must give a voice to the Other – a shift in current development policies:

The current paradigm of learning objects delivery as expressed in various standards and specifications completely ignores discourse or dialogue; in other words, many approaches to using learning objects present learners with one worldview and no opportunity to experience alternatives, hear the stories of Others, or ask meaningful questions. *From this point of view, learning objects could be seen as "oppressive"*. (2003:62; emphasis in the original)

Of course, no learning material is neutral. But teachers must make their theoretical assumptions clear, just as they should define key terms and give a voice to the Other. This is particularly important in IR, since IR students are likely to influence the lives of others once they start working as journalists, government officials, employees of international organizations, and in NGOs. If they use e-learning courses, these should assist them to think clearly, assess information from different sources, and challenge any simple solutions to complex problems.

To move down the hierarchy of learning objectives, teachers who want to inform their students can opt for short texts that answer "who", "when", "what", and "where" questions. If facts are controversial, students should be informed. Again, ideally the informa-

tion should be accompanied by tutor-student interaction, so students can discuss the facts. If interaction is not possible or desired, information must be meticulously prepared.

Yet no matter what the learning objective is, teachers should avoid context-free information. In a worst-case scenario, facts are provided that answer only one of the questions “who”, “what”, “when”, “where” without making temporal and spatial links and without discussing these links with students. The second-to-worst learning environment is one where teachers offer context-free information but then place the information into context by interacting with students.

What does this mean for academic staff who not only have to develop material but who also create learning environments designed to achieve their learning objectives? Generally, a blended learning (BL) environment is better suited to providing knowledge than a learning object approach. In BL, students know each other, and lecture series or seminars are complemented with computer-based work. The learning material can be stored in password-protected web classrooms. Students can interact with each other or with the teacher online or in the physical classroom. Teachers know their students and can thus offer information or knowledge that hooks up with students’ pre-existing knowledge.

Learning objects, on the contrary, allow people to learn “any time and anywhere”. Students are basically on their own, and they interact with computers instead of professors, assistants, or online tutors. Institutional requirements do not matter, and students are responsible for their own learning progress. The learning objects are normally published via an LMS, and ideally they are open to anyone, free of charge. In the future, learners may find a searchable list of thousands of learning objects, pick the ones they find interesting or relevant, and assemble them as they please.

As argued above, the fact that learning objects must be short limits their usefulness for IR teaching. In a long text or hierarchically structured e-learning course on arms control, for example, one might start by defining the relevant terms, then summarize the history of arms control treaties during the Cold War, and finally explain why the Bush administration is reluctant to sign arms control treaties. To understand Bush's reluctance, one must also elaborate on the conditions that encouraged the signing of arms control treaties during the Cold War – the fact that these conditions no longer apply at the beginning of the 21st century accounts for the current negotiation stalemate.

In this example, the learning objects must also permit learners to read about the latest debates in the UN about arms control without necessitating extensive study of the history of arms control. The challenge in this case is to show learners that arms control is not a recent issue in international security, and there is no simple set of conditions that facilitates multilateral arms control. In other words, the developers of these learning objects should not try to answer tricky questions. Rather, they should show students when arms control treaties were signed and by whom, what weapons the treaties referred to, and how effective their implementation was.¹² If a self-contained, small information package were presented to students, it would be difficult to explain the conditions under which arms control succeeds, and to explain why the US has turned away from multilateral arms control. To illustrate these points, the following section describes two e-learning projects. The German initiative PolitikON is a blended learning project. In the second project, the e-learning team at the Zurich-based International Relations and Security Network develops learning objects on international security risks.

PROJECT I: POLITIKON

PolitikON is an initiative for enhancing IR teaching and learning in German-speaking countries through the use of computers and the Internet.¹³ With the initiative, the German federal government hopes to reverse the fact that Germany is lagging behind the US in e-learning. PolitikON is one of more than 100 projects in various fields for which the German Federal Ministry of Education and Research spent around €200 million between 2001 and 2004 (Schieder, 2003:358). The PolitkON project began in spring 2001, and by early 2004, many political science faculties in Germany were participating in the project. PolitikON develops e-learning material as a supplement to (not a substitute of) traditional teaching in order to strengthen student-centered learning and to unite the German political science research community on a single Internet portal. The learning material, which is produced by academic staff from various universities, includes topics like arms control, theories of development studies, and Japanese foreign policy. By early 2004, about two dozens modules had been published online.

PolitikON, which uses the open-source learning management system ILIAS (<http://www.ilias.de/ios/index-e.html>), has several advantages compared to conventional teaching and learning. Teachers benefit, as they can save time by exchanging learning material. A professor in Stuttgart who teaches a seminar on US foreign policy can use maps published by a colleague in Trier, who in turn tells his students about a glossary on arms control developed by the Frankfurt PolitikON team. Further, academic staff and students can compare the quality of learning material, thus giving lecturers an incentive

to publish good material. Transparency is a necessary condition, although it's not the only one.

Students benefit greatly from PolitikON: they can look at various topics presented in standardized ways, thus gaining an overview of IR. Learning is more easily tailored to the individual, as students work not only on the topics discussed in class but also on any other topic they find interesting. They are given an overview of the learning material, they can set their own personal bookmarks, use a search engine, find annotated topical bibliographies and link collections, take notes, look up terms in a glossary, send messages, access databases, view maps, images, and historical documents, and join newsgroups. Further, many modules invite students to debate specific questions in password-protected virtual discussion forums or in the physical classroom, which shows that PolitikON contributors emphasize the importance of interaction.

In combination, the various features provide a lively and interactive learning environment that puts many tenets of constructivist learning theory into practice. In addition, PolitikON has the advantage of allowing students to inform themselves about studying political science in Germany and also about job vacancies.

Some PolitikON material is self-contained in the sense that students do not have to follow the structure of a module from beginning to end but can start at the end and work their way back to the beginning. In other modules, however, the conclusion does not make sense unless it is read last. PolitikON authors present their topics in four steps (Schieder, 2003:396-397). First, they introduce the topic and define the learning objectives. Second, the students are presented with the core learning material of the course (for example, IR theories or international organizations). Third, students are given the opportunity to re-

flect upon the learning material. Here, they are shown how to analyze texts and to search for more information on the Internet. At this stage, the discussion forum is frequently used. Fourth, the knowledge is summarized, applied to current political topics, and supplemented with recent research results.

PolitikON contributors discuss theories and concepts, touch upon tricky political issues, and offer students various ways of interpreting these. Thus, PolitikON allows students to broaden their knowledge base in IR, not just to gather information. It should be noted, however, that the contributors to PolitikON believe that knowledge is created in the physical classroom and not in the web classroom:

Web-based learning environments can be highly user-friendly and conducive to learning. Their use, however, requires a social setting, that is, a physical presence, the creation of a common knowledge base, the facilitation of group coordination, and a *real classroom teaching component*. The Internet can be used primarily to collect material, work on search assignments, and prepare for the teaching session, whereas in the seminar the learning material is processed, structured, absorbed, and reflected upon [...]. (Schieder, 2003:399; translation C.F.)

This blended learning scenario is compatible with constructivism, as it allows students to learn at their own pace and in their own idiosyncratic way. Developers of learning material do not impose their own views about complex topics on students, but, rather, they allow students to draw their own conclusions. In the physical classroom lecturers explain to students the pros and cons of theories and give them possible interpretations for understanding and/or explaining a specific IR issue. Meeting in the classroom thus helps students to make sense of the learning material and allows teachers to ensure that shared knowledge is created. The preparatory online work is important, as it provides students with the facts before they go to the classroom and allows them to test some arguments in

advance in the discussion forum, helping to raise the standard of the seminar discussion (Schieder, 2003:406).

PolitikON contributors also deserve credit for having resisted the temptation of sacrificing academic rigor for multimedia “edutainment”. Some might criticize PolitikON’s learning material for being heavy on text and relatively light on multimedia animations and automatic exercises. While it would have been possible to invest more time into, say, Flash animations, this might have led to a trivialization of complex issues that consist not simply of facts but of the interpretation of facts.

PolitikON’s initial results are positive, although until now only few classes that have used PolitikON learning material have been systematically evaluated. Lively online discussions have taken place, and students have appreciated the option of choosing when, where, what, and how fast they learn.

PROJECT II: LEARNING OBJECTS ON INTERNATIONAL SECURITY RISKS

Terrorism, drug problems, climate change, migration, financial crises, and information operations are important issues in international security. The e-learning team at the International Relations and Security Network has therefore developed learning modules on these topics (see the course website at www.isn.ethz.ch/isr).¹⁴ All learning material is open to anyone, free of charge, in line with the ISN policy of making available free information.

Those who teach students about risks necessarily have to discuss the role of perception. When discussing threats, it is relatively easy to identify adversaries, their hostile inten-

tions, and their potential to cause damage. With risks, however, these three factors are less obvious. Policy makers and the general public therefore construct risks on the basis of their perception of events and issues, and these constructions often differ. Individuals can hold very different views about, for example, who is responsible for drug problems; is it the peasants, traffickers, consumers, or politicians? There is much disagreement about whether the consequences of climate change are catastrophic or manageable. Risk perceptions depend, among other things, on people's cultural background and on their previous exposure to risks. Describing the way in which people construct risks is thus crucial to any explanation of risk policies (Daase, Feske, Peters, 2002).

Each of the topics above is treated in a module that consists of nine learning objects in all. Each module provides an overview of the specific risk; links the topic to the concepts of security and risk; analyzes the history of the risk; discusses its possible causes; discusses its possible consequences; focuses on the risk policies of states and international organizations; looks at interdependencies between the particular risk and other risks; offers online sources of information about the risk; and allows the learner to assess various risk policy options.

Texts on these topics are supplemented with interactive exercises (opinion polls, multiple choice questions, combination tasks, text boxes with automatic answers), links to websites, graphs, pictures, and bibliographies. Students can use a glossary function and an electronic text marker, and they can download printable files of the learning object and a bibliography. Completing an entire module takes between five and ten hours, depending on how much time is spent on the exercises and on finding additional information on the Internet.

Students can look at learning objects directly on the ISN website without registering. Alternatively, they can look at them via the Partnership for Peace Learning Management System (PfP LMS), which is co-developed by the ISN (http://www.isn.ethz.ch/elearning/adl/pfp_lms). The first option – accessing the modules directly via the ISN website – is the faster, while the second option has the advantage that the LMS registers which learning objects the student has already completed. It also tells learners how others have voted in opinion polls. With either option, learners are free to do the entire course, a single module, or a single learning object. Further, they can choose to work with the given sequence of the learning objects, or they can start, for example, with learning object nine, which allows them to assess policy options, and finish with learning object one, which offers an overview of the specific risk.

In summer semester 2004, the learning objects are being used in a lecture series offered by Professor Andreas Wenger, from the Center for Security Studies. The lecture series is designed for Swiss military officers, political science students from the University of Zurich, and natural science and engineering students from the ETH Zurich (Swiss Federal Institute of Technology). In this lecture series, Professor Wenger discusses the history of international relations and security since World War II. Students use the learning objects mainly for group assignments. While students study all of the modules, they look particularly closely at the module on terrorism, the most prominent topic currently on the international security agenda.

For the course, Professor Wenger and his team have constructed some provocative statements about terrorism, which students then have to address. The students are divided into heterogeneous groups, each of which includes military officers, political science students,

and natural science and engineering students. Each group discusses one of the statements online. For example, group 1 discusses the statement “A definition of terrorism should also include state actors” and group 2 discusses the statement “Since the mass media help terrorists to spread their message around the world in seconds, censorship is needed”. For each group, one student moderates the discussion, and another sums up the main points of the debate and presents the results to the class in the lecture theater at the end of the semester.

By discussing international security risks, students reflect upon their individual belief systems, correct oversimplified views, and pool their subjective impressions to create shared meaning. Since the discussion takes place in a password-protected web classroom, students can express themselves freely. Moreover, by interacting with their professor and his assistants online and in the lecture theater, they can negotiate shared meaning without suppressing alternative interpretations. Another advantage of human interaction is that Professor Wenger and his team can suggest ways of using the learning material. Although students can approach a risk by looking at the last learning object (on policy options), they are told that in order to understand the implications of policy options, they should first read about the history, causes, and consequences of a risk.

It has taken the ISN e-learning team and the external experts who were hired to write some of the texts considerable time and effort to design the learning objects. The main challenge was to avoid presenting information that was funny, biased, and context-free. It was tempting to make learning objects more entertaining by using more images and sound files. However, this would not necessarily have led to a better understanding of security risks. The use of every picture in a learning object must be justified. Hence, de-

velopers of the module on drug problems decided to show the dead Colombian drug trafficker Pablo Escobar lying on a rooftop in Medellin surrounded by the hit squad that killed him, because the accompanying text explained why such violent confrontations are inherent to the structure of the international drug economy. Context-free information was to be avoided by not letting facts speak for themselves and by offering some clues about how they can be interpreted. This meant offering as many questions as answers, a necessity, given the complexity of security risks. Knowledge is still largely acquired in the ETH Zurich lecture theater.

Students are served well if topics like climate change, financial crises, and other problems are presented to them as risks that are, at least to some degree, constructed. This helps them to understand that these risks are highly complex. It also helps them to avoid proposing simple solutions. Students come to understand that they should not take their own perceptions for granted and that it is important to look at risks in a holistic way in order to devise policies that are efficient, effective, and that do not cause major negative side effects.

Initial results show that students appreciate this form of e-learning. Discussions are lively, constructive, and substantial. Instead of simply presenting opinions, students pick up on questions and arguments they have found in the learning objects, refer to information they have found on the Internet and in articles and books, and find the interactive exercises useful. Further, they say that they find it challenging to discuss political topics with students whose background is very different from their own. For example, military officers enjoy discussing anti-terrorism policies with political science students, who often hold different views about the causes and consequences of terrorism.

CONCLUSION

This paper looks at the advantages and disadvantages of e-learning in IR. It argues that although e-learning offers many ways of making teaching and learning more efficient and effective, caution is warranted. Neil Postman's writings warn against the tendency to let the computer become an end in itself instead of a means to an end. Teachers who want to use e-learning must think about whether human-to-computer interaction adds value to learning, whether they can avoid a deterioration of language, and how they can distinguish between multimedia elements that are superfluous and those that are not only fun but also enhance the learning experience. Moreover, they must calibrate the size of texts to the learning objective and offer their own, while at the same time leaving enough space for the individual construction of meaning; they must also manage heterogeneous student audiences.

Knowledge acquisition, i.e. enabling students to answer "why" and "how" questions, necessitates long, hierarchically structured texts. Information, defined as answers to "who", "when", "what", and "where" questions, can be passed on by providing shorter texts. What must be avoided at all costs is context-free information. In addition to the size of texts, interaction is a crucial factor for achieving learning objectives. Generally, the more interaction that is provided, the more effective teaching is likely to be. After all, meaning is not "out there" but is negotiated. Knowledge acquisition can be better achieved through blended learning than through learning objects, because it requires longer texts and, ideally, interaction.

Yet no matter how they apply e-learning, teachers must not forget that computer-based work has its limitations. Computers cannot replace humans in IR teaching and learning. As Postman puts it: “The plain fact is that humans have a unique, biologically rooted, intangible mental life which in some limited respects can be simulated by a machine but can never be duplicated. Machines cannot feel and, just as important, cannot *understand*.” (1992:112; emphasis in the original).

¹ For their comments I thank the members of the e-learning team at the International Relations and Security Network (www.isn.ethz.ch) at the ETH Zurich (Swiss Federal Institute of Technology), as well as Niklas Schoernig, Andreas Wenger, and particularly Michelle Norgate.

² Rochester (2003a), however, takes a critical view on interaction, or at least on interaction among students, by asking if “anyone [has] ever calculated how much wasted time occurs when you have students who know virtually nothing interacting with other students who know virtually nothing?” See Raines (2003), who criticizes Rochester’s arguments and Rochester’s (2003b) reply to Raines.

³ On the pros and cons of using film in the IR classroom, see Pollard, Haney, Kuzma (2001), Waalkes (2003), and Weber (2001). See also Nordmann (2002).

⁴ See Schwanitz (1999:551-554) on the superiority of text over images.

⁵ These definitions, as well as various others, are listed in Stenmark (2002:2).

⁶ The terms understanding and explaining are controversial in IR. Hollis and Smith (1991) see them as representing different epistemologies (post-positivism versus positivism), whereas Wendt (1998) argues that they are complementary.

⁷ The hope to make learning, or training, cheaper is a driving factor behind the Advanced Distributed Learning (ADL) Initiative (www.adlnet.org).

⁸ Learning objects on IR are developed, among others, within the framework of the ADL Working Group of the PfP Consortium of Defense Academies and Security Studies Institutes. The learning objects are stored on the Partnership for Peace Learning Management System (<http://pfplms.ethz.ch>). Access is open and free of cost. One only needs to register on the system.

⁹ Not everyone would share the view that knowledge can be shared, of course. Radical constructivists argue that the world consists of billions of individual texts and that suggesting purportedly plausible readings of texts is authoritarian (on deconstruction see Postman [1995:24-25]; on different readings of texts in IR see Linklater and Burchill [1996]). From a slightly less deconstructivist perspective, one could argue that teachers can never provide knowledge but only information, since knowledge is purely an individual activity, as Stenmark [2002:6] implies. However, is Edward H. Carr’s *The Twenty Years Crisis* a mere description of the interwar period, or is it also a scathing critique of liberal internationalism? Is Hedley Bull’s *Anarchical Society* a mere collection of historical facts, or is it also an attempt to understand and explain the stability of the modern state system? A student who reads Carr and becomes a “realist” and a student who reads Bull and becomes a member of the English School not only integrate information into their pre-existing knowledge structure. They also absorb a specific worldview.

¹⁰ On the impact of cultural differences on perceptions of IR issues, see Young, Gehrmann, Kerkmann (2003). On different cultures and their “narratives”, see Postman (1995: Part I).

¹¹ The factor “cultural homogeneity among learners” is not included.

¹² Not all the arguments presented here follow Postman. For example, Postman writes that presenting events to learners requires the teacher to go “into the realm of concepts, theories, hypotheses, comparisons, deductions, evaluations”. If the level of abstraction is not increased, so Postman, an event is meaningless (Postman 1992:192). To take Postman to the logical conclusion would mean that all information, as defined in this paper, would be meaningless. However, the author of this paper holds that only the learning objective “knowledge acquisition” obliges teachers to present theories and interpretations.

¹³ For a description of PolitikON, see Schieder (2003) and the PolitikOn website (www.politikon.org).

¹⁴ The ISN is part of the Center for Security Studies (www.fsk.ethz.ch) at the ETH Zurich.

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by Cornelius Friesendorf

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