Functions of Code-Switching in Electronic Communication

Introduction

Private communication often departs from the rules set for verbal communication in public contexts. When interacting with friends or intimates interlocutors often make use of jargon, slang expressions, elliptic phrases, terms of endearment, and other means of expression which are understood and accepted by those with whom they feel solidarity or share some experience. This plethora of language devices which mark the sense of closeness and familiarity between two or more persons appears to be enlarged by one more aspect regarding communicating between bilingual persons – the phenomenon of code-switching. Just like monolingual persons sometimes switch from a neutral code into a professional jargon (register-switching) or from a formal talk into a colloquial chat or even swearing (style-switching), bilingual persons also make use of two different language codes in order to interact with another who happens to know these two language systems as well. The purpose of this paper is to explore this phenomenon with regard to Polish-English bilinguals (foreign language graduates) in informal interaction with their friends and colleagues within the medium of electronic communication, the latter represented here by short text messages, e-mail exchanges and internet forum discussions.

What is bilinguality?

To start with, I shall briefly address the concept of bilingualism, or rather, on the individual level, of bilinguality. Definitions of bilinguality are numerous (cf. Baetens Beardsmore 1982) and they are formulated in respect to a number of variables that determine the type of bilinguality. Even though in secular terms a bilingual person may appear to possess a native-like knowledge of two languages (cf. Bloomfield 1935), I subscribe to a much more flexible definition offered by Titone (1972: 11, after Hamers and Blanc 1989: 7), who defines this phenomenon as “the individual’s capacity to speak a second language while
following the concepts and structures of that language rather than paraphrasing his or her mother tongue." What is more, a bilingual person does not have to be one who was born in a bilingual family (a childhood bilingual) but he or she may have acquired the second language later in life (adolescent bilingual and adult bilingual – Hamers and Blanc 1989, cf. Grucza 1981). One does not need to be born in an L2 speaking country (an endogenous bilingual), but he or she may have acquired the second language in a context where it was not used on a daily basis, e.g. via formal school education (an exogenous bilingual). Also, the ability to use two languages may vary with respect to the topic discussed – a perfectly balanced bilingual is a rare case, if at all possible, and, depending on the semantic field, L1 or L2 dominance may be visible (L1 or L2 dominant bilinguals, respectively).

These are only some aspects of the bilinguality phenomenon. They may be used to characterize the bilingual persons whose samples of language will be analyzed here – the bilingual community studied is a group consisting of adolescent, exogenous, L1 dominant bilinguals. These are persons who have either already graduated from their English studies (young and middle-aged adults) or are still studying. As will be demonstrated, their knowledge of English is fluent, and they are able to discuss a wide variety of subjects in the language. The purpose of this paper will be to analyze the code-switched words and phrases in terms of the possible functions the switches perform, with the discussion of their form and grammatical rules of the language they are inserted in being left for a separate analysis.

**Code-Switching: Theoretical Considerations**

The concept of code-switching has been studied for over 30 years. One of the first studies carried out by Blom and Gumperz (1972) offered a division of code-switching in respect to what motivates the speaker to choose to speak in another language or dialect. Thus, the most fundamental division into situational code-switching, metaphorical code switching, and conversational code-switching, otherwise referred to as code-mixing, was introduced. In the present analysis, situational code-switching may be overruled, as the context of interaction is stable – that of writing an electronic message; it will, however, be possible to see instances of the remaining two types in the study material.

The issue of reasons for code-switching and the functions it performs has also preoccupied other linguists. Myers-Scotton (1979), the leading researcher in the field, suggested a variety of reasons assigned to code-switching, e.g. lack
of knowledge of one language or lack of facility in it, the use of another language to exclude some persons from interaction, switching into another language in order to introduce a new subject, or speaking in a different language to impress others. The researcher (1979: 73) claimed, however, that they all may “be subsumed under a broader explanation which views a desire to attain as high rewards as possible and as low costs as possible as the determining factor in any language choice.” These, in practical terms, might mean choosing to speak a language one feels more comfortable with at a given moment (i.e. a low cost) or switching into a language that one may be admired for the knowledge of (i.e. a high reward). Myers-Scotton (1993b) also introduced the markedness model, the purpose of which was to analyze code-switching in terms of what is expected or not expected in a given bilingual community. Thus, when a switch or a series of switches into another language are expected (because e.g. the situation changes, as when a person meets a foreign friend or starts a foreign language class, or provides consecutive interpreting between two foreigners), it is obviously unmarked; when, however, the speaker, by changing into another language, wants to manifest some attitude to an issue, stress some point, redefine the situation, draw others’ attention to himself/herself, the switch may be described as unexpected, and therefore marked. It is the marked switches that linguists have been mainly preoccupied with when it comes to discussion of the purpose of this phenomenon. Baker (1997, after Gabryś 2000), for instance, came up with as many as thirteen different purposes, dividing them into the linguistic and the non-linguistic ones. Some of these include, e.g. substituting an unknown word, lack of an equivalent in L1, clarification for the sake of understanding, etc. (linguistic reasons) and e.g., showing positive or negative feelings, bringing in humour, manifesting a particular attitude to one’s interlocutors, topic specificity, etc. (non-linguistic ones). However, at times the division between the linguistic and the non-linguistic reasons is not very clear (e.g. the reinforcement of a command or request is linguistic whereas lightening the tension of a conversation is non-linguistic), likewise, the divides between certain non-linguistic categories do not appear very clear and convincing (e.g. showing negative feelings vs. showing a social distance between interlocutors); I will, therefore, only broadly rely on the categories suggested here in my further discussion.

Another aspect of code-switching that has attracted linguists’ attention is the structural make-up of sentences with switches. In the present analysis the question of the structural aspects of switches will be addressed only briefly towards the end of the discussion, however, it appears useful to broadly survey
the developments in this area. One of the classical approaches divides code-switching into intersentential code-switching, intra-sentential code-switching as well as tag code-switching (cf. Romaine 1989), where the switches take place between sentences, within a sentence, or have the form of a question tag in the other language, respectively. Tag switching may even be found in the performance of foreign language beginners, whereas the other two assume a fluent knowledge of the two languages involved. A very similar classification was offered by Poplack (1981), here, however, apart from the categories of intersentential and intrasentential code-switching the author has suggested a class of extrasentential switches, a broader one than tag switching, where the switching of discourse markers, exclamations, interjections and idiomatic expressions takes place.

Apart from the classification problems, the issue that has preoccupied a number of linguists (cf. Poplack 1981; Myers-Scotton 1993a) is that of the grammaticality of the switches. It has been claimed that when switching from one language into the other, bilingual speakers subconsciously observe the grammatical rules and constraints of the language they switch into so that the switches come in such places where they do not violate the grammar of the so called Matrix Language (ML), the one which is dominant in the discourse, and the Embedded Language (EL), i.e. one which is being inserted into the Matrix Language of the sentence. Examples of switches collected by various investigators in bilingual communities (cf. Poplack 1981; Grosjean 1982; Myers-Scotton 1993a) appear to prove that the switching from ML into EL and vice versa is always grammatical. It will, however, be demonstrated in this analysis that even this rule is not observed under all possible circumstances, making the phenomenon of code-switching very obviously context-dependent.

The latter is of special importance. Code-switching is usually studied on the basis of the user’s spoken language. It has been established that bilingual persons are often not aware that they have code-switched a number of times during an interaction; they may even deny this fact. The written mode, which will be analyzed here in the form of electronic messages, has its own constraints, and it demands that the message sender make conscious decisions about the words and phrases he or she is making use of. In this case the use of elements from EL will have a much more conscious, deliberate character, there will be a lot more monitoring and careful structuring of the language used by the sender (cf. Crystal 2001) than there would be in the case of spontaneous speech. At this point, however, it is worth emphasizing the fact that the electronic media language
in many cases departs from the careful wording and style of a book, article or even a handwritten letter. It allows for much more flexibility, rule-flouting, the use of colloquialisms, *ad hoc* formations, etc., in which it bears a considerable likeness to the spoken language (cf. Murray 1988; Dąbrowska 2000, 2006; Crystal 2001). Some linguists, e.g. Tannen (1982) or Murray (1988), even emphasize the fact that it is not possible to abide by the dichotomy of the spoken and the written medium, and instead suggest the existence of a continuum between them (with CMC as a clear example thereof) depending on the degree of personal involvement in the communication process. It is for these reasons that the presence of code-switching in electronic messages appears particularly interesting: the largely informal context of communication, and therefore high degree of personal involvement more characteristic of orality allows for the introduction of non-standard vocabulary, under which the use of English words and phrases may be subsumed as a manifestation of the professional jargon. On the other hand, the sender must fairly closely control his/her writing as it is permanent, less context-dependent than speech, and always with a time-lag between production and reception. The choices he/she makes will therefore be worth examining.

**Code-Switching in Short Written Messages**

The corpus of the switches analyzed below consists of 145 fragments of messages written by Polish graduates or current students of English. They have been excerpted from three types of electronic sources: private text messages (60), private e-mail letters (45) and posts from the discussion forum of English students (as well as graduates) at the Jagiellonian University in Kraków, Poland (40). Although differing in some respect (length of messages, purpose of writing, technical constraints), the three media appear to share the informal character of communication, which in turn, as mentioned above, allows for departure from the set rules of standard Polish and for playing with linguistic conventions. Indeed, the discussion forum may demand a more careful writing as a semi-public medium, it is, however, used mainly by young persons (19–25 years of age) and predominantly people who know each other fairly well and interact with each other on a regular basis (47 persons). This compensates for the more relaxed atmosphere of the other two types of electronic media selected, where the samples analyzed were recorded in messages written by a total of 23 middle-aged persons (30–50 years of age). The combination of these three types
of media and of different age groups should provide a fairly wide spectrum of contexts and strategies of code-switching.

The overview of the recorded code-switched elements allows for the identification of a number of various functions that the switches may perform. Obviously, these will always be assumptions as it is impossible to know what exactly motivated the sender to switch into English, yet certain contextual clues may help us account for some possible reasons behind them. The character of the context will also make it possible to decide whether the types of switches observed may be treated as marked or unmarked. And thus it may be concluded with a certain degree of probability that a number of the switches recorded (12) are direct quotes of words uttered or written by some other persons. For the obvious reason of ease (cf. Myers-Scotton’s low cost) they were kept unchanged as it was certain that the message addressee would understand them. For this reason they may be treated as unmarked, as they do not carry any special meaning. They may be found in the following examples:¹

(1) X napisała że można zapłacić reg. Fee on arrival (‘X wrote that one can pay the regular fee on arrival’)

(2) bardzo się cieszę, że was poznał – “such charming, bright and entertaining people” (‘he is very glad to have met you – “such charming, bright and entertaining people”’)

(3) dostalam komplement za excellent English (‘I got complimented on my excellent English’)

(4) Już mi nie chodzi o ten call for papers (‘and I don’t even mean this call for papers’)

(5) we miss you too

(6) yes, see you tomorrow

This interpretation may be deduced from e.g. the use of inverted commas marking the actual quote, e.g. bardzo się cieszę, że was poznał – “such charming, bright and entertaining people,” the use of deictic markers as ten (‘this’) call for papers pointing to a concrete entity, or else from the fact that some messages may be interpreted as responses to some other previous message, e.g. we miss you too; yes, see you tomorrow. Using direct quotes makes the process of

¹ The original form of the recorded messages has been kept unchanged.
communication smooth since it does not require the translation of some often long and complicated structures into L1.

Another reason for code-switching, to be expected due to the character of the bilingual community involved, is topic specificity. The persons interacting via CMC share the same type of education and often discuss topics related to their work or studies by means of the medium. It is therefore to be assumed that certain words or expressions often used in the course of lectures or classes delivered in English (and perhaps not used in Polish otherwise), e.g. names of courses, types of classes, academic terms, etc. will more naturally be used in their English forms, even though their Polish equivalents may otherwise be found. Thus, the context of interaction, when focused on work or studies, in a way induces the switches and gives them the unmarked character. This function, found in 15 switches, is to be illustrated by the following examples:

(1) zostawiam ci artykuł w mojej szafie w teacher's room (‘I’m leaving this paper for you in my locker in the teacher’s room’)

(2) w konsekwencji są zredukowane do tutorials (‘as a result they are reduced to tutorials’)

(3) Zauważyłam że w Twojej wiadomości nie było żadnego code-switching . . . (‘I’ve noticed that there was no code-switching in your message’)

(4) Załączam zapowiadany outline wykładu (‘I am attaching the announced outline of the lecture’)

(5) Jedną z atrakcji orientation week była wycieczka (‘one of the attractions of the orientation week was a trip’)

(6) Czyli jeśli przyniesiesz jakiś reading i dorzucisz do tego jakieś discussion (najlepiej w grupach) to powinno grać (‘so if you bring any reading and add some discussion to this (at best in groups) it should be fine’)

(7) dr X ma swoje office hours . . . (‘dr X has her office hours’)

A use of L2 which would have been expected in such sample material but was found in just one example are words or expressions which have no Polish equivalents at all, and therefore the economy of language, especially in the informal context, would call for the least-effort principle here and hence the use of foreign terms. The recorded example was:

(1) mówimy o samych warsztatach czy też tych after hours? (‘are we talking about the workshop itself or the after hours?’)
It appears worthwhile to mention this function, though, because in a bilingual community with such parameters as described above this type of function is likely to be found, and for this reason it is also to be treated as unmarked.

A reason often mentioned in code-switching studies is that of using L2 to emphasize the meaning of what the speaker/sender is communicating. Due to associations that people may have with L2 (more formal, more beautiful, more persuasive, more powerful, more suitable for expressing certain meanings, etc.) certain speech acts, e.g. requests, commands, promises, apologies, thanks, congratulations, wishes, criticism, etc., may be expressed or additionally reinforced by a word or phrase in L2. Since such linguistic behaviour is not normally expected between two native speakers of L1, this type of code-switching may be described as marked. Such cases were very often found among the examples recorded in the analyzed material; in fact this was the type of use that numerically exceeded all the others, with 54 examples leaving all the other functions far behind. This shows that the Polish graduates of English hold the language in particular esteem and use it particularly often to emphasize their emotions. This use may be illustrated by:

1. X, ale kupisz mi . . . ? Please! (‘X, but will you buy me . . . ? Please!)


3. Call me please!

4. Może jeszcze ktoś przyjdzie. Thanks anyway (‘Perhaps someone will still turn up. Thanks anyway’)

5. Once more – many thanks

6. Naprawdę nie wiem, jak to się stało. SORRRY!!!!!! (‘I really don’t know how it happened. SORRRY!!!’)

7. Puszczę ci smsa jak tylko znajdę opis. Sorry about the trouble, wiem że zawaliłam (‘I will text you as soon as I find the description. Sorry about the trouble, I know I’ve bungled it’)

8. Jeśli dostaniesz coś w roku ubiegłym, to good for you! (‘if you got anything last year then good for you!’)

9. ale to już może jak się spotkamy. To which I’m looking forward :-) (‘but this perhaps [will happen] when we meet. To which I’m looking forward’)


(10)  *Co do przygotowywania zajęć – don’t I know* (‘as regards the class preparation – don’t I know’)

(11)  *Teksty – I dearly hope – nie będą pochodzić jedynie od w/w osób* (‘The texts – I dearly hope – will not come from the aforementioned persons alone’)

(12)  *ale tak – jestem speechless* (‘but yes – I am speechless’)

Another reason for the non-linguistic character of code-switching observed in the accumulated material is that of using L2 as an in-group identity marker. It is, in other words, a marker of solidarity with others, an indication of the fact that both the sender and the addressee are members of the same group, share similar knowledge (here, among others, the knowledge of another language) and use this knowledge to corroborate this fact. If the sender decides to make use of such a marker of solidarity, it is a clear indication to the addressee that he or she is liked by the sender. The use of English switches carries, therefore, some additional meaning to the literal one, and for this reason should be recognized as marked. These markers of in-group membership may be found in 17 examples, here illustrated by:

(1)  *Here’s the questionnaire for you :-)*

(2)  *Much love, X*

(3)  *I’ve Got things to do so will hang around anyway. CU!*

(4)  *Uściski, good night* (‘Hugs, goodnight’)

(5)  *dzięki, sweet dreams!* (‘Thanks, sweet dreams!’)

(6)  *Więc, count me in* (‘So, count me in’)

(7)  *w piątek jestem free* (‘on Friday I’m free’)

(8)  *właśnie wróciłam z X. Let’s talk tonight. Love X.* (‘I’ve just come back from X. Let’s talk tonight, Love, X’)

(9)  *Sounds good, prawda?* (‘Sounds good, doesn’t it?’)

This category may be additionally expanded by a subcategory of humorous elements, whose task is to lighten the tone of interaction and thus make the other person feel good. This is visible in the following three examples:

(1)  *krakowskie pubs stoją otworem* (‘Cracow pubs stand wide open’)

(2) ... *i ‘congratulations’ Wam na drogę* (‘and ‘congratulations’ to you for your trip’)

(3) *Mi się *very, very* podoba* (‘I like it very, very much’)

The above examples indicate, therefore, that English may be viewed as an identity marker in this group, and thus code-switching into English can be treated as a manifestation of positive politeness, which the use of group identity markers is a strategy of (cf. Brown and Levinson 1987). It may be somewhat surprising that this use of English switches does not appear to be very extensive here. It is to be added, though, that when surveying the collected material one can find an even larger number of other similar code-switched items (26 of them) to the ones just mentioned, e.g. *thnx, c u [F04A?]* or *może znajdziesz czas w next week?* (‘perhaps you’ll find some time next week?’). When recorded in the spoken medium, they would most certainly have been assigned to the category discussed above. However, my view here is that such expressions, although formally similar to those in the previous group, in fact perform more than one function. They may certainly be recognized as in-group identity markers; it appears, however, that their application in the sentences was motivated in the first place by the fact that they are simply shorter, and at times less complicated than the equivalent Polish words or phrases. This function, which I call the text reduction device (cf. Dąbrowska 2004, 2006) is particularly visible in short text messages as well as other types of electronic communication. Due to its special features (speed, spontaneity, informality, technical constraints) the reduction of the outcome text is a feature expected in this type of messages, and for this reason may be classified as unmarked. Switches performing the function of reducing the size of the message were found in 37 examples altogether. Here they are illustrated by:

(1) *I hope I said 1.30, did I?*

(2) *happy Valentines Day!*

(3) *Love, X*

(4) *CU 2moro*

(5) *thnx, c u*

(6) *i to będzie dopiero next year* (‘and this will be only next year’)

(7) *next week jestem free od Śr. w górę* (‘next week I’m free from Wed onwards’)


(8) pozdrawiam. **CU Saturday** (‘Greetings. C U Saturday’)

(9) załączę tekst artykułu, **just in case. Love. X.** (‘I will attach the text of the paper, just in case. Love, X’)

(10) *mam nadzieję, że to tam znajdę, otherwise będę dzwoniła do p. X* (‘I hope I’ll find it there, otherwise I’ll call Ms X’)

(11) obawiam się, że to tylko takie **excuse dla gorzej zorganizowanych osób** (‘I’m afraid this is only an excuse for the more poorly-organized persons’)

(12) **no chyba, że nastąpi jakieś emergency** (‘Unless there’s some emergency’)

(13) *jak nie będziesz mieć już siły to never mind pogadamy w piątek* (‘If you are tired, never mind, we’ll talk on Friday’)

In order to evaluate the length of the switched elements in the above examples properly, Polish equivalents are provided side by side below:

(1) **I hope I said 1.30, did I?** (viz. Pol. *Mam nadzieję, że powiedziałem, że o 13.30, tak?*)

(2) **happy Valentines Day!** (viz. Pol. *Wszystkiego najlepszego z okazji Walentynek!*)

(3) **Love, X** (viz. Pol. *Pozdrowienia/Uściski, X*)

(4) **CU 2moro** (viz. Pol. *do zobaczenia jutro*)

(5) **thnx, c u** (viz. Pol. *dzięki, do zobaczenia*)

(6) *i to będzie dopiero next year* (viz. Pol. *w przyszłym roku*)

(7) *next week jestem free od Sr. w górę* (viz. Pol. *w przyszłym tygodni (...)) wolny)

(8) pozdrawiam. **CU Saturday** (viz. Pol. *do zobaczenia w sobotę*)

(9) załączę tekst artykułu, **just in case. Love. X.** (viz. Pol. *na wszelki wypadek. Pozdrawiam*)

(10) *mam nadzieję, że to tam znajdę, otherwise będę dzwoniła do p. X* (viz. Pol. *w przeciwnym razie*)

(11) obawiam się, że to tylko takie **excuse dla gorzej zorganizowanych osób** (viz. Pol. *usprawiedliwienie*)

(12) **no chyba, że nastąpi jakieś emergency** (viz. Pol. *nieprzewidziane zdarzenie*)
(13) *jak nie będziesz mieć już siły to never mind pogadamy w piątek* (viz. Pol. *to się nie przejmuj*)

Thus, the two functions coincide understandably frequently in the case of short text messages. It may sometimes be observed that the author of a message attempts to shorten the length of the text also in Polish as he or she may be in a hurry or may not find it comfortable to type a longer text on a tiny keyboard, viz. *dam znać w poniedziałek next week* (‘I will let you know on Monday next week’); *pozdrowienia* (‘Love; greetings’); *ale sushi w czwartek next week b.[ardzo] chętnie dam znac w poniedziałek* (‘but sushi on Thursday next week with pleasure; I will let you know on Monday’). The additional incorporation of the English phrases makes the task even easier, which can immediately be seen in the comparison, for instance, of *next week* and *w przyszłym tygodniu* (it is notable that the time adverbs like *next week, next year, next time, next Saturday*, etc. are elements particularly frequently code-switched in the analyzed material). Thanks to such examples an interesting and surprising observation concerning the form of the recorded switches flagged at the beginning of the paper may be elucidated – the fact that, despite the claims of numerous linguists (cf. Poplack 1981; Grosjean 1982; Myers-Scotton 1993a) about the full adjustment of EL elements to the grammatical requirements of the ML, including, among others, case endings, none of the examples recorded in the present study showed this modification, i.e. none of the English inserts took Polish case endings, bare forms having been used instead (cf. *bez stopwatch* vs. a possible *bez stopwatcha*; *do tutorials* vs. *do tutoriali*; *w teacher’s room* vs. *w teacher’s roomie*, etc.). The analysis of this phenomenon in the context of electronic communication, and particularly the language of text messages, allows us to state that the use of bare English forms is the outcome of the text reduction function visible here. There is no point inflecting the nouns or adjectives if the purpose is to keep the message short. English is particularly suitable to fulfil this aim – not only are the English forms on the whole shorter than their Polish equivalents (an uninflected vs. an inflected language), but they themselves allow for being abbreviated by means of the vowel deletion or number-word substitutions. The latter can be found in some of the examples quoted above: *thnx, c u* [thanks, see you]; *bardzo thx* [thanks] *za namiary; pozdrowiłam X i one Ciebie też. C u soon* [see you soon]; *pozdrawiam. CU Saturday* [see you Saturday] or *CU 2moro* [see you tomorrow]. Thus, the observation concerning the use of bare forms in electronic communication corroborates Montes-Alcalá’s (2001)
observation that written code-switching is not subject to each constraint of written discourse.

Conclusion

To conclude the discussed issues, it appears that the Polish-English code-switching observed within electronic media has some unique features as compared to the code-switching observed in other bilingual communities and to that performed with the use of the spoken medium. The analysis of the function of the switches found in the examples demonstrated the following:

• a variety of functions could be identified in the code-switched material. The functions may be subdivided into unmarked and marked code-switches. Unmarked switches are those motivated by: the topic specificity, L1 gaps, direct quotations and text reduction. Marked switches are the ones used to reinforce various speech acts and stress the addressee’s in-group membership, respectively;

• the best represented function (54 examples) was that of the reinforcement of various speech acts. This function is marked as it brings about some metaphorical change of interpretation of the verbal behaviour. The very high frequency of emphatic switches proves that the English language is particularly often associated by this group of users with having a power of persuasion and expression;

• the least represented function (1 example) was the one motivated by the lack of linguistic elements in the Polish language;

• the second largest group (37) was that composed of switches used to reduce the length of the outcome text. This function is specific to the written medium, especially the CMC, and notably to text messages (22). As a feature expected in short text messages, such switches need to be treated as unmarked;

• a well represented group of switches was the one marking the in-group membership of the sender and the receiver (a marked use of English). The collected examples prove that English is a marker of solidarity in this bilingual group, and therefore the English switches may also be perceived as a manifestation of positive politeness;

• moreover, it was observed that certain code-switched elements (26) could at the same time perform more than one function: that of stressing the
in-group membership of the sender and the addressee (a marked function) and that of a text reduction device (an unmarked function in CMC).

The observations made on the ambiguity of certain code-switched elements as regards their function prove that the interpretation of the code-switching phenomenon is largely contextual, and neither the formal characteristics of code-switches nor the functions they perform should be treated as universal, but rather as language-, medium- and context specific.

REFERENCES


