The Influence of Technology on Conceptualization or New Concepts for Existing Words in English

Familiar Concepts and Initiating Multicultural Understanding

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Abstract: The globalization of commonly used concepts is strongly associated with technological innovation. A brainstorming activity shows that technology has influenced how students perceive the world. Thus using familiar concepts of words from the world of computers and the Internet can serve as a common cultural starting point in the multicultural English language classroom. This paper is partly culture-based touching on the dynamics of conceptualization. Perhaps not a new topic but in the context of heterogeneous groups of learners it can provide a common denominator and establish a favorable foundation for further classroom activities.

Keywords: Concepts, Conceptualization, IT, English

Technology can serve as a common basis to initiate understanding among multicultural learner groups by using the common language, which has developed from technology. In some cases the special term has become the predominant one inasmuch as the first meanings have given way to the technology based meaning. For a new English user the computer and the Internet may be the first contextual use of English experienced and will flavour initial conceptualizations. Bearing this in mind the paper takes the reader from multiple meanings to new first meanings. A cultural context developed from the statements made by the students.

Recognizing and being able to use more than one meaning for the same word shows not only richness of the quantity and quality of someone’s vocabulary but also the flexibility of language use. Words having multiple meanings are words that depending upon how they are used in a sentence vary meanings depending on the context. Context clues can be helpful, because sometimes the ideas are not related at all. Many times one meaning for a word cannot be identified without prompting or adding further information. This may be an indication of a limited vocabulary, word-finding difficulties or rigid thinking. Knowing the multiple meanings of words helps to understand and appreciate puns and humor. It also helps to realize if something is misheard or misunderstood.

Multiple meaning can be applied to the different parts of speech. The noun “arm” can be used to refer to a part of the human body, to a part of a river, as well as, to parts of insects. The word “out” has a variety of meanings depending on how it is used as the following examples show:

- Smoking is out (not allowed) in public places.
- Call out (speak up) when you find the key.
- Go out (exit) the front door.
- Endangered species are at the risk of dying out.
- Floral patterns are out this year.
- Are the stars out (visible) tonight?
- The lights are out (off).
- The phone is out of order (not working).

Words related to the basic things in everyday life as a source of concepts have increasingly emerged through the influence of Information Technology. The power of metaphor in communicating abstract concepts in a more concrete way entail generating a lexicon of metaphor understood by others. In the case of the word <spam> which still is used to refer to canned meat usually ham, was incessantly used in the television series the Monty Python’s Flying Circus. Today it is used to name undesirable emails. These two concepts seem so far apart in meaning, which in addition makes checking for cultural differences in understanding essential. Today an English native speaker from New York would probably not even think of <spam> as canned meat at all. In some cases the new associations prevail.
Non-native English university students were asked to state what they associate with the words: window, windows, virus, slide and apple. The multinational group of 12 Austrian students and 9 from other European countries and states in Asia consisted of 9 female students and 12 male students. The heterogeneous group depicted learners of English and had not been taught the meanings of the words nor established the concepts. The students were asked to name or describe associations or connections with the words below and jot these down on paper. All students were able to clearly state what they associated with the words. The figure below shows the first meanings found.

1. Windows - A trademark for computer operating systems or environments that have a graphical user interface.  
2. Virus - A self-replicating code planted illegally in a computer program often aiming at damaging or shutting down a system or network. An infectious agent that replicates only within the cells of living hosts, mainly bacteria, plants, and animals. Commonly used as follows: a viral disease.
3. Slide – A single frame of a presentation made by using Microsoft software known as PowerPoint. A single picture, object, or image for projection in a projector. Associated with snowboarding.
4. Apple - The name of a computer company with its headquarters located in Cupertino, California. The round, red, green or yellow, edible fruit of a tree.
5. Window in the singular was associated with an opening in a wall of a building to admit light or air with panes made of glass. No other meaning was stated.

The new associations for concepts well known to all were named quite naturally and without any difficulty. The medical term virus is associated first of all as something that describes or causes problems occurring as a result of programs that effect or damage a computer system. The notion contains the idea of disease in both cases, but is usually related to those that affect humans only.

The existing historic concepts were listed but as a second meaning. The second meanings are in italics and follow the first meanings:

1. Windows - A trademark for computer operating systems or environments that have a graphical user interface. Plural of window.
The most interesting was the word *window* and the plural form *windows*. In the singular no other meaning than an opening in a wall to let light enter a building or something with glass panes to admit light was identified. A window as a term in the singular however has a variety of meanings:

1. An opening in a building which lets light in or
2. The display area in a shop behind a glass window or
3. A time period or
4. A gap or
5. An area on a computer screen that can be so that two or more files can be displayed at the same time.

The online English-English dictionary at [http://dictionary.reference.com/browse/window](http://dictionary.reference.com/browse/window) suggests 13 meanings. Explanation 11 suggests computer screens whereas the students place this one first. Rarely did any of the students indicate that it is the plural of window. In the plural form *windows* as an operating system for computers immediately came to the minds of the students – and not simply the plural form of *window*. That *<windows> is* immediately associated with an operating system for computers came of no surprise and this concept is always associated with the plural form.

**New concepts** originating from the sciences have gradually influenced the meaning of words and their use in everyday language. The term concept will be referred to as an idea associated with a word that is represented in the mind. Furthermore word combinations using new concepts have also emerged to better convey precise meanings.

**The word user** often refers to the person that uses or employs a computer or software. The online dictionary again places this meaning towards the end. The word *user* is also found in contexts giving a technical and clean touch to the context. At one point in the use of the word *<user>* it referred to a person that regularly consumed drugs as in *<drug user>*. The concepts are different and yet perhaps one common idea that can be identified is perhaps the notion of “regular” use.

**Combinations** such as *user acceptance, user groups and user needs*, among other combinations suggest this. In addition terms such as “*user friendly*” have emerged. Electronic equipment can be described as user friendly if no long explanations are necessary and intuitive application is possible. A user may have a user account that identifies the user by a user name. A user account is often used to identify the user before access. Thus logging in requires a user account or user name. These terms have been used as is in many languages.

<table>
<thead>
<tr>
<th>Word</th>
<th>Concept</th>
<th>New use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider</td>
<td>Provide</td>
<td>A company that provides for example an internet connection.</td>
</tr>
<tr>
<td>Antivirus</td>
<td>Medication against something</td>
<td>Something that helps to fight against problems with computers</td>
</tr>
<tr>
<td>Parasite</td>
<td>A type of symbiotic relationship between two different organisms.</td>
<td>Trojan horses that create problems with computers</td>
</tr>
</tbody>
</table>

**Figure 6: Other New Concepts Found**

The ways, in which words are used, produce a reality. The change in the concept of a word may affect the reality perceived. Context will give the necessary embellishment to understand the use of the word. In the example: “I’d love to have an apple” depending on the context could mean that a person wants to have round red fruit to eat or could mean a particular computer brand. In this case the contents of the word “apple” vary and do not share a common attribute. In another use of the word “apple” as “in the apple of my eye” originally meant the apple of the eye and referred
to the central aperture of the eye. This contains the idea of round. A main thing or perhaps the first thing that comes to mind is the roundness of the fruit. With “apple” referring to a computer brand marks a totally different association. When listening to a conversation between computer freaks:

A: I’d love to have an apple.
B: So would I.
C: I got myself one a few weeks ago. It’s really fantastic. I haven’t discovered any worms at all yet. And I don’t even need an antivirus program.
B: Wow! That sounds fantastic.
A: I have had a lot of trouble lately with viruses.
C: If you ask me an apple is the best.

Worms are viruses that use the Internet to spread themselves (you do not necessarily need to do anything to get them, and once your computer is infected, they use your computer as a host and scan the network for other computers to infect). This scanning of other computers also results in serious performance decreases of web surfing, email and any other on-line activities. Someone that does not know that worms are somehow related to computer problems may wonder what the context of the conversation is. This would indicate that a different scheme of thought is conjured up in the mind.

Technology has begun to change the first ideas that are associated with words. This can be interpreted as an indication that the reality surrounding us and thus the words used or the meanings of them have adapted to a changing world. The words discussed showed changes that can be described as new meanings that are just another addition to the meanings already in use. However, some have apparently taken on the central idea that comes from the metaphors used in science and technology i.e. spam. The idea of an apple, a piece of fruit may be second, leaving its first meaning to computer brand. In the mind a picture of a computer may appear first. The word apple brought 443,000,000 results in Google appeared within a few seconds. The first 15 pages were absolutely dedicated to the computer system as found on Dec. 20, 2008. For information about the apple as something to eat an additional term was necessary and by the way not Macintosh.

This contribution does not suggest that the changing meaning of words is new. As in the case of <window> according to the online dictionary.com its origins began in Middle English around 1200 and combined the words wind and eye developing over several hundreds of years to the meanings that it has today. The interesting aspect of the word <windows> is that it illustrates a new addition, but only in the plural. What this paper does attempt to indicate is that meanings develop, perhaps placing emphasis on a particular meaning depending on the environment and thus become the generally understood first meaning. This could be considered relevant and suggests influence from the environment and reflects the times in terms of Zeitgeist. The three main adaptations to meaning as discussed are:

• Same idea in a different context as in <virus>,
• New idea of a word as in <spam> and
• Specific idea as in <windows>.

Technology surrounds us and has had a strong influence on how the world is seen today. Technology provides a new context for which verbal representations of concepts need to be found. The aspect discussed in this contribution is that the new words are used globally – around the world, across languages and cultures. This has affected not only English but other languages that have incorporated the same words for the same idea - used in the same way. Word imports from other languages is nothing new, but have provided cultural touches with long-lasting effects on vocabulary development. Science has also delivered words that were readily incorporated in everyday use. IT, a relatively new field, is bringing forth metaphors, which have become widely used as new words.

How this will continue and what images are awakened in the mind first, provides evidence that concepts are changing. The impact of globalization especially in the area of
communication is far reaching and has affected conceptualization and resulted in the common use of words representing the concepts. It remains to be seen how and to what extent the ideas develop and how they influence how the world is perceived in future.

In the context of culture common experience with modern technology does help build human relationships and self-concepts. By doing so a fruitful, positive working climate can be aimed for in a heterogeneous group. The article about youth cultures in the classroom does suggest that children today are "Digital Kids" with a common ideal. Establishing and developing a multi-cultural classroom is an ongoing task and of course it will take more than just using a little bit of technology to develop a good attitude and a multi-cultural spirit, but it can serve as a beginning among young people and they are an important part of the future.

References

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