

Emerging Trends in Research in English Language Teaching: Internet and Web Services

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Abstract

This paper shows the ELT education trend has recently been gaining in significance in education systems throughout the world. English Language Teaching (ELT) has tremendously changed over the last one decade. The Internet has the potential to change the way we conduct scholarly research in any subject. Internet has the potential to eliminating geographic and prejudicial barriers. Few would deny that the Internet and the World Wide Web (WWW or Web) have the potential to revolutionize the way people conduct themselves in business, education, and personal relationships. Distance Learning Technologies (DTLs) have changed the face of correspondence education. The world has become smaller for those who use internet on a daily basis. In modern era most people today can hardly conceive of life without the internet.

Keywords: English Language Teaching, Internet, Research, WWW, Web 1.0, Web 2.0, Web 3.0, Web services, Web Technology, Web Application.

1. Introduction

Language teaching in the twentieth century underwent numerous changes and innovation. In the past ten years the crucial factors have combined to affect current perspectives on the teaching of English. Generally every type of language teaching has its own technologies to maintain it. Language teachers who followed the grammar-translation method (GTM) (in which the teacher explained grammatical rules and students performed translations) relied on one of the most omnipresent technologies in language education, the blackboard a perfect vehicle for the one-way transmission of information that method implied. The blackboard was later supplemented by the overhead projector, another excellent medium for the teacher-dominated classroom, as well as by early computer software programs which provided what were known as "drill-and-practice" (or, more pejoratively, "drill-and-kill") grammatical exercises. On another side, the audio-tape was the perfect medium for the audio-lingual method (in which students were believed to learn best through constant repetition in the target language). University provided the lab facility, where students would perform the repetition drills. Late 1970s, the audio-lingual method fell into disregard, at least in part owing to poor results achieved from expensive language laboratories. Whether in the lab or in the classroom, repetitive drills which focused only on language form and ignored communicative meaning achieved poor results. The 1980s and 1990s have seen a full-scale shift in the direction of communicative language teaching, with an emphasis on student engagement with authentic, meaningful, contextualized discourse. Within this general communicative trend, we can note two distinct perspectives, both of which have their implications in terms of how to integrate technology into the classroom.

Modern Trends of Teaching through ELT Computers and language teaching have been walked hand to hand for a long time and contributed as teaching tools in the classroom. Computers and technology are still a source of anxiety for many teachers everywhere in the world despite the latest advances applicable to language teaching such as specialized websites, blogs, wikis, language teaching methodology, journals, and so.

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Teaching with Technology

Teaching with the technology, deal with the ICT in the language curriculum. According to the authors ICT have basic features that make its use a valuable source for input but some teachers may not trust technology or just be reluctant to include computer in their classrooms. Learning with technology, as distinct from learning about technology has the capacity to transform learning environments in ways that are difficult for most educators to imagine. Some adults have in using basic computer functions such as email, search engines, and presentation software is the much larger issue. The 21st century teachers integrate technology into their classroom and build the confidence to learn how to use technology in meaningful ways:

1. The pedagogical integration of technology in which they are placed for practicum experiences; 2. The future teacher's degree of computer literacy; 3. The pedagogical integration of technology by instructors during university education of future teachers; 4. A future teacher's expectations of success in integrating technology; 5. The value placed on technology by future teachers

As laptop computers, interactive whiteboards and broadband internet became cheaper and more available around the world began to introduce them into classrooms, often and sadly without appropriate training. This was the decade that we learned of digital immigrants and digital natives, which created an extra gap between teachers and students who were often considered in separate camps. We also had to learn a bunch of new acronyms (IWB, ICT, URL etc), as if we didn't have enough already. Different features and uses of technology in to the classroom:

- Word processor
- Digital camera
- Digital video
- Internet
- Web page
- Email
- Video conferencing
- Presentation software
- Computer games
- Spreadsheets and database

Internet is a global interconnection of networks that connects computers and devices worldwide.

From a historic point of view 1990/1991 is the official birth of the (commercial) Internet, which was available to the general public. From this date on you see a lot of technical and infrastructural evolution.

The area where the Internet can make a contribution is in research and data collection. Three primary categories of research involving Internet technology are; review research, marketing data collection, and participant recruitment projects.

2. Review Research:

This category includes research projects that access existing information on the Internet. Much like a literature review, this research typically involves collecting relevant information about particular topics found on the Internet and it's possible through browsing the Web.

Marketing Data Collection:

Internet technology is quickly emerging as a powerful tool for finding and targeting potential customers. Using Internet technology, companies can glean information from users that can aid in market research. With this information the organization or corporation can more accurately tailor its Web site to specific users.

Participant Recruitment Projects:

This type of research uses the Internet as a medium to attract and recruit participants as well as to collect the data for the project. Through internet one is capable of accommodating several forms of communication in a single medium. For example, unlike radio or television, it can accommodate text, audio material, visual material, video, and live interaction. It also allows one to access geographically remote material and people. This might make it much more practical to conduct cross-cultural research and access material that would otherwise be unavailable. Like the participant fills out the questionnaire, usually consisting of a series of check boxes or pull-down menus, and clicks a "submit" button to send the responses to a mainframe or server computer. In these types of research projects participants can be solicited via multiple Internet technologies including, e-mail/list serves, electronic bulletin boards, and registration of key words with Internet search engines. Additionally, traditional methods of participant recruitment, such as

advertisements in newspapers, as well as trade, academic, or professional journals, can be helpful in enlisting subjects. Retrieval of data is also possible through internet.

A web service is a software system designed to support computer-to-computer interaction over the Internet. Web services take the form of an Application Programming Interface (API). The web is an increasingly important resource in many aspects of life: education, employment, government, commerce, health care, recreation, and more. The web is a system of interlinked, hypertext documents accessed via the Internet. With a web browser, user views web pages that may contain text, images, videos, and other multimedia and navigates between them using hyperlinks. The web was created in 1989 by Sir Tim Berners-Lee, working at CERN (The European Organization for Nuclear Research) in Geneva, Switzerland.

The Semantic Web is an evolution and extension of the existing Web that allows computers to manipulate data and information. The Semantic Web is the extension of the World Wide Web that enables people to share *content* beyond the boundaries of applications and websites. The main purpose of the Semantic Web is driving the evolution of the current Web by enabling users to find, share, and combine information more easily.

The semantic wave embraces four stages of internet growth. The first stage, **web 1.0**, was about connecting information and getting on the net. **Web 2.0** is about connecting people putting the “I” in user interface, and the “we” into a web of social participation. The next stage, **web 3.0** is about representing meanings, connecting knowledge, and putting them to work in ways that make our experience of internet more relevant, useful, and enjoyable. The next stage, **web 4.0**, is starting now.

Web 1.0- The Shopping Carts & Static Web

In web 1.0, a small number of writers created web pages for a large number of readers. As a result, people could get information by going directly to the source. The WWW or Web 1.0 is a system of interlinked, hypertext documents accessed via the Internet.



The first implementation of the web represents the web 1.0, which, according to Berners-Lee, could be considered the “read-only web.” In other words, the early web allowed us to search for information and read it. The average internet user’s role was limited to reading the information which was presented to him. The overall goal was to present products to potential customers, much as a catalog or a brochure does — only through a website retailers could also provide a method for anyone (anywhere in the world) to purchase (their) products.

The best examples of this 1.0 web era are millions of static websites which mushroomed during the dot-com boom (which eventually has led to the dotcom bubble). There was no active communication or information flow from consumer (of the information) to producer (of the information). But the information age was born.

When the Internet gained momentum, one of the primary benefits was the ability of people and organizations to share information. As the Web grew, tools were developed to help people using the Web find information with ease and accuracy. Tools and technology were developed to facilitate searching, and utilizing the Web in mainstream, everyday fashion. People figured out how to help people use the Web to serve customers, play games, advertise products and services, and share just about every type of information.

Some of the technologies developed during this stage of the Web include:

- File and Web Servers
- Content and Enterprise Portals
- Search Engines (AltaVista, Yahoo!)
- E-mail (Yahoo!, Hotmail)
- P2P File Sharing (Napster, BitTorrent)
- Publish and Subscribe Technologies

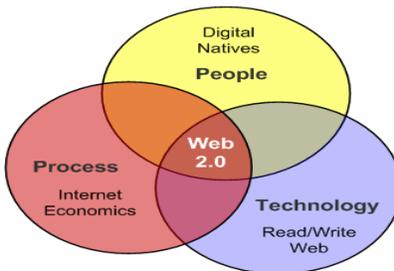
Web 2.0 - The Writing And Participating Web

The lack of active interaction of common users with the web lead to the birth of Web 2.0. The year **1999** marked the beginning of a Read-Write-Publish era with notable contributions from LiveJournal (Launched in April, 1999) and Blogger (Launched in August, 1999). Now even a non-technical user can actively interact & contribute to the web using different blog platforms. Berners-Lee's described it as the 'Web 2.0', or the "read-write" web has the ability to contribute content and interact with other web users. This interaction and contribution has dramatically changed the landscape of the web. This era empowered the common user with a few new concepts like Blogs, Social-Media & Video-Streaming. Publishing your content is only a few clicks away!

Web 2.0 or "the Social Web" was an effort to enable individuals from all around the world to participate in content creation and sharing, and to enhance individual Web users' experience. Many of the mega ".com" companies grew out of the Web 2.0 era, including Twitter, Facebook, MySpace, YouTube, eBay, and Flickr.

Some of the key technologies developed during this stage of the Web include:

- Blogs (Blogger)
- Wikis (Wikipedia)
- Social Bookmarking (del.icio.us)
- Social Networks (Facebook, MySpace)
- Instant Messaging (Yahoo!, Google Talk, AIM)
- Mash-ups
- Auction Web sites (eBay)
- Professional Networking (Linked-in, Plaxo)



Examples of Web 2.0 Based Websites

1. **Flickr** – A photo sharing website which allows users to upload their photographs and share it with anyone and everyone.
2. **Orkut**-Social networking site which allows the users to send messages and communicate with other members.

3. **YouTube** – It allows the users to upload their videos and share it with everyone.
4. **Blogs** – Maintained by individuals or groups, they can be used to convey anything.
5. **Google AD sense** – Allows users to earn money through posting Google ads on their websites.
6. **Wikipedia** – Online encyclopedia wherein the users contribute by writing the articles, definitions, etc. It is completely edited and maintained by the users.
7. **Scribd**– Users can upload any documents on the website where other users can either download or view those documents online

Web 3.0 – The Semantic Executing Web

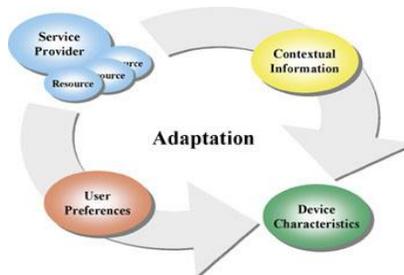
According to **Tim Berners-Lee's** explanations, the Web 3.0 would be a “read-write-execute” web. Web 3.0 is defined as the creation of high-quality content and services produced by gifted individuals using web 2.0 technologies as an enabling platform.

Currently, thousands of web services are available. However, in the context of Web 3.0, they take center stage. By combining a semantic markup and web services, the Web 3.0 promises the potential for applications that can speak to each other directly, and for broader searches for information through simpler interfaces. *Semantic markup* refers to the communication gap between human web users and computerized applications. A *web service* is a software system designed to support computer-to-computer interaction over the Internet. It seems we had everything we had wished for in Web 2.0, but it is way behind when it comes to intelligence. Web 3.0 had better analytical abilities than existing search technologies! Keyword based search of web 2.0 resulted in an information overload.

The following attributes are going to be a part of Web 3.0: Contextual Search

- Tailor made Search
- Personalized Search
- Evolution of 3D Web
- Deductive Reasoning

Web 3.0 is a term that has been coined to describe the evolution of Web usage and interaction that includes transforming the Web into a database. Web 3.0 is an era in which we will upgrade the back-end of the Web, after a decade of focus on the front-end



Web 3.0 is a term that is used to describe various evolutions of Web usage and interaction among several paths. These include transforming the Web into a database, a move towards making content accessible by multiple non-browser applications, the leveraging of artificial intelligence technologies, the Semantic web, the Geospatial Web, or the 3D web. Gartner suggests the need to differentiate incremental changes to Web 2.0 from Web 3.0. Tim Berners-Lee coined Giant Global Graph (GGG) as another facet of Web 3.0

Web 3.0 is a web where the concept of website or webpage disappears, where data isn't owned but instead shared, where services show different views for the same web / the same data. These services can be applications (like browsers, virtual worlds or anything else), devices or other, and have to be focused on context and personalization, and both will be reached by using vertical search. One could speculate that the Google / Sun Microsystems alliance to create a web based operating system for applications like word processing and spreadsheets is an early indicator of this trend. Web 3.0 endeavors to connect the information of the Web together in new ways.

Some of the key technologies that are being developed during this stage of the Web include:

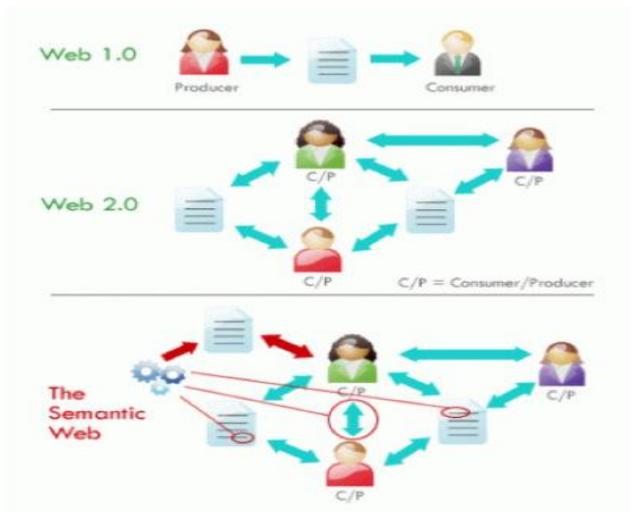
- Ontologies (YAGO, DBpedia)
- Semantic Searching
- Thesauri and Taxonomies
- Personal Intelligent Digital Assistants
- Knowledge Bases

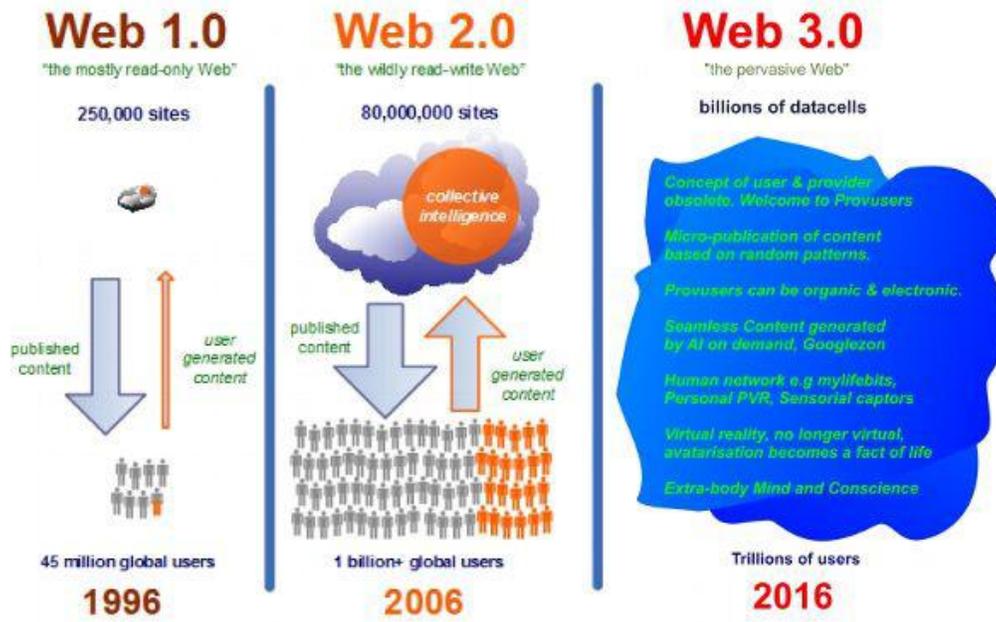
Web 4.0 – Open, Linked and Intelligent Web

Although Web 4.0 still is in developing mode and the true shape is still forming, first signals are in that Web 4.0 will be about a linked web which communicates with us like we communicate with each other (like a personal assistant). Web 4.0 is called “symbiotic” web. This Web will be very powerful and fully executing. Web 4.0 will be the read-write-execution-concurrency web. It emphasized on the ability **to learn and reason**. Web 4.0. Technologies will not just be able to connect information or connect knowledge through semantic techniques, but they will be able to apply the knowledge shared between data items and define context to do basic reasoning. For example, if I'm doing research on Apple Computers, I would not want my research to include recipes of apple pies or how to prune an apple tree.

Examples of key technologies that will or are being developed include:

- Semantic Social Networks (Twine)
- Semantic E-mail (IBM Omnifind)
- Context-Aware Games
- Better Natural Language Processing





Web 1.0 / 2.0 / 3.0 Summary

Crawl	Walk	Run
Web 1.0	Web 2.0	Web 3.0
Mostly Read-Only	Wildly Read-Write	Portable & Personal
Company Focus	Community Focus	Individual Focus
Home Pages	Blogs / Wikis	Lifestreams / Waves
Owning Content	Sharing Content	Consolidating Content
Web Forms	Web Applications	Smart Applications
Directories	Tagging	User Behavior
Page Views	Cost Per Click	User Engagement
Banner Advertising	Interactive Advertising	Behavioral Advertising
Britannica Online	Wikipedia	The Semantic Web
HTML / Portals	XML / RSS	RDF / RDFS / OWL

3. Conclusion

The web offers so many opportunities to people with disabilities that are unavailable through any other medium. It offers independence and freedom. However, if a web site is not created with webaccessibility in mind, it may exclude a segment of the population that stands to gain the most from the internet. Most people do not intend to exclude people with disabilities. As organizations and designers become aware of and implement accessibility, they will ensure that their content can be accessed by a broader population. As laptop computers, interactive whiteboards and broadband internet became cheaper and more available around the world began to introduce them into classrooms, often and sadly without appropriate training. This was the

decade that we learned of digital immigrants and digital natives, which created an extra gap between teachers and students who were often considered in separate camps.

The Semantic Web (Web 3.0) promises to “organize the world’s information” in a dramatically more logical way than Google can ever achieve with their current engine design. This is especially true from the point of view of machine comprehension as opposed to human comprehension. The Semantic Web requires the use of a declarative ontological language like OWL to produce domain-specific ontologies that machines can use to reason about information and make new conclusions, not simply match keywords. The effects of Web 2.0 are far-reaching. Like all paradigm shifts, it affects

the people who use it socially, culturally, and even politically. One of the most affected groups is the social networks and Wikis are all products of Web 2.0 designers and developers who will be building it—not just because their technical skills will change, but also because they will need to treat content as part of a unified whole, an ecosystem if you will, and not just an island. First, knowledge of all kinds gets represented in a form that is interpretable both by people and machines. Second, different forms of language in which knowledge is expressed begin to be interrelated and made interchangeable with each other. Third, when knowledge is encoded in a semantic form, it becomes transparent and accessible at any time to a variety of reasoning engines.

References

- O’Reilly, T. What Is Web 2.0: Design Patterns and Business Models for the Next Generation of Software. Available at <http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/whatis-web-20.html> (Accessed on 07/01/2008)
- World Wide Web Consortium (W3C). Introduction to Web Accessibility. Available at <http://www.w3.org/WAI/intro/accessibility.php> (Accessed on 04/01/2008)
- Chris. Unlock knowledge with Enterprise Search. Available at <http://blog.devnet.com.au/> (Accessed on 04/01/2008)
- Jennifer Lang. Libraries and the Social Web: Using Web 2.0 Applications to Deliver Information in the 21st Century. Available at <http://jenniferlang.net/lib20/> (Accessed on 05/01/2008)
- Abram, S. Web 2.0, Library 2.0, and Librarian 2.0: Preparing for the 2.0 World. Sirsi Dynix One Source 2. Available at http://www.imakenews.com/sirsi/e_article000505688.cfm?x=b6yRqLJ,b2rpQhRM (Accessed on 06/01/2008)
- Jeffrey Zeldman. Web 3.0. Available at <http://www.alistapart.com/articles/web3point0> (Accessed on 05/01/2008)
- IIA Blog .The Semantic Web: Web 3.0?. Available at <http://blog.iiia.ie/2007/the-semanticweb-web-30/> (Accessed on 04/01/2008)
- Steve Spalding. How to Define Web 3.0. Available at <http://howtosplitanatom.com/news/howto-define-web-30-2/> (Accessed on 04/01/2008)
- Brian Getting. Basic Definitions: Web 1.0, Web 2.0, Web 3.0. Available at <http://www.practicalecommerce.com/articles/464/Basic-Definitions-Web-10-Web-20-Web-30/> (Accessed on 06/01/2008)
- Wikipedia. Web 2.0. Available at http://en.wikipedia.org/wiki/Web_2 (Accessed on 06/01/2008)
- Really Simple Syndication and Rich Site Summary. What is Web 2.0. Available at <http://www.rss-specifications.com/what-is-web-2.htm> (Accessed on 04/01/2008)