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## Adoption Of eCommerce Terminology

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### Abstract

*Realizing that digital technology has become a key factor of economic growth, it is necessary for South East European countries (where Serbia & Montenegro also belong to) to start overcoming numerous e-commerce barriers on their way of integrating into European Union. One of the obstacles they are encountering is the language barrier. The first problem is how to understand the meaning of certain highly specialized terms in the field of e-commerce. Solution lies in good unilingual dictionaries. Another problem is how to find the equivalent in mother tongue for abundance of quite new words and expressions. This can be solved by well concised bilingual vocabularies. However, neither unilingual vocabularies in the field of e-commerce nor bilingual vocabularies are published to greater extent. Only few have focused on the language of e-commerce. This is why the terminology of e-commerce is to be carefully collected and explained, standardized and finally adopted. Finding proper solutions for above-mentioned problems would enable South East European countries to create a proper environment for digital technology, completely in line with European standards.*

### 1 Digital Divide

Economic globalization and the development of information and communications technology are the two principal trends, which have dictated the shape of business and industry in the second half of the 20<sup>th</sup> century and beginning of the new millennium. However, not all the European countries are equally involved in the development of information society.

According to the summary of “Activities and Results of the Stability Pact SE Europe Initiative” much lower level of Internet penetration in South Eastern Europe (2-6 %) comparing to EU level (15-65 %) confirms existence of digital divide and urgent need for quicker information society development in that part of European continent.

Many factors may have contributed towards the digital divide such as public policies, investment in science and technology, the regulation of telecommunications, the levels of socioeconomic development, the language barrier, and so on.

The mentioned language barrier is frequently stated in the professional literature. In paper [6] Language Barriers are quoted as a part of Structural Barriers to Global E-Commerce.

Connection between language and computer usability is also well explained in [7] “Cultural attitudes towards using computers may also contribute towards some of the differences evident between relatively similar societies, like the UK, Germany, France, and Italy, **especially familiarity with the English language**, since the most comprehensive attempt to map over 1 billion web pages found that 87% of the current contents are published in this tongue (www.Inktomi.com).”

In order to participate in digital society, people must have access to information that is relevant for them and the contents that can be found on the Web will determine the success of this participation. Approximately on the Web, more than 78% of all websites and 96 % of e-commerce sites are presented in English. Since English speakers were the first users of Internet, the predominance of their language was natural. The Figure 1 shows the distribution of on-line language population, where 40.2% are native English speakers. The dominance of English, and especially US content, makes it less useful to other countries, raising the question of multilingualism.

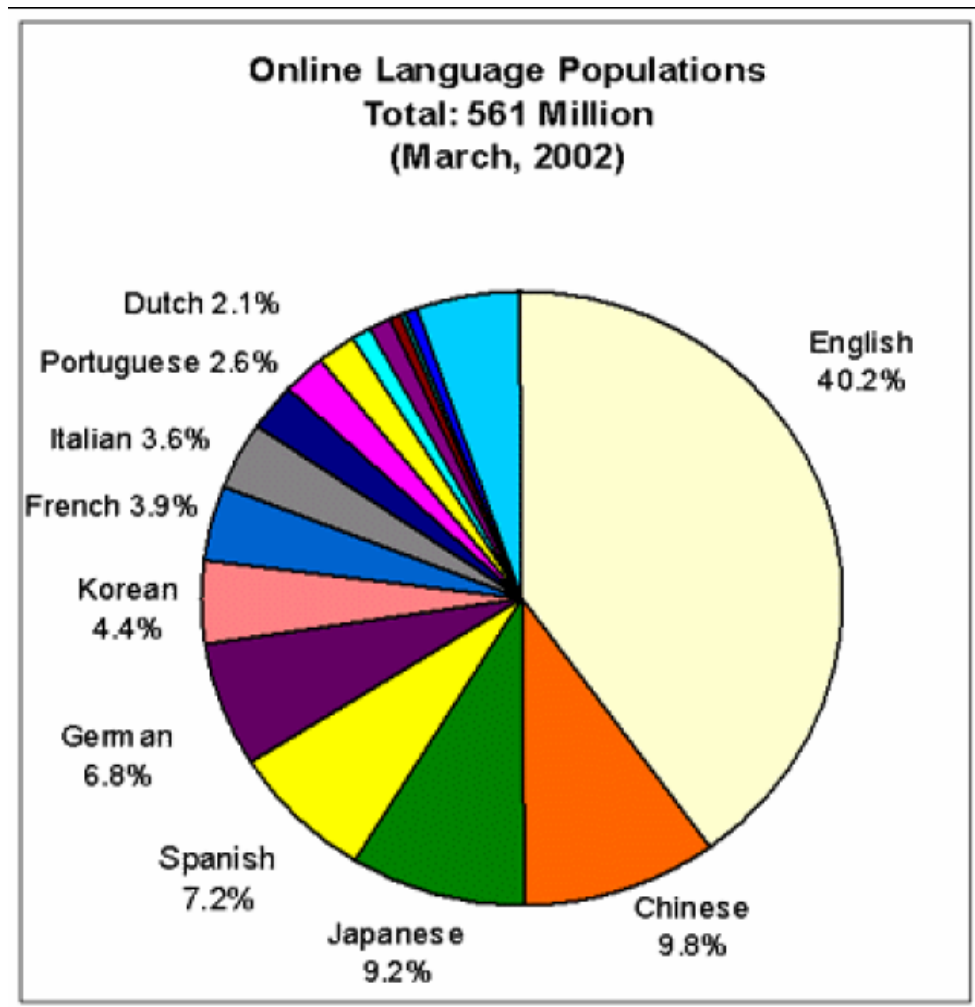


Figure 1: Picture Distribution Of The Online Language Population [11].

## 1.1 Understanding Of The Newly Created Internet Terms

Making the world global with information instantly accessible from any computer linked to the network, the World Wide Web has created the abundance of new terms and phrases.

However, the appearance and use of the newly formed Internet terms may sometimes lead to miscommunication. For instance: What's the first thing you do to shut down a computer running Microsoft Windows? Click "Start". How can the translation be clear and consistent, if the original text is confusing?

In the area of Internet marketing, we also face a number of potentially confusing terms as well. Let us take "relationship marketing" and "one-to-one marketing". These phrases include words that are commonly used to describe what goes on between people. The question arises how they can be used to describe a company or a company's web site? Words are tools used to communicate with customers, and a Website is one way to deliver that message. Consequently, words ought to be chosen carefully for the purpose of avoiding the problem of misunderstanding. Similarly, "search engine" or "personalization engine" is a piece of software; however, most dictionaries say an "engine" is a physical machine.

Being aware of the dominance of one language, that is to say the English language, systematic approach to e-commerce terminology written in English will have to be developed, bringing to light the underlying linguistic nature of terminology as well as socio-terminological aspects. That will help non-native English speakers (where people from South East European countries also belong to) who are beginning to explore global markets to avoid possible confusions.

## 1.2 Need For Term Standardization

As the universal language on the Internet, English has a leading role in the usage of e-commerce, which rapidly developed thanks to development of new technologies. Naturally, along with new technologies comes new terminology, which involves terminologists' adaptation to the new technological environment. Having this fact in mind, it is important to introduce standardized terms so that vagueness in communication and interpretation of knowledge can be avoided.

In this area of rapid and continuous changes even native English speakers may express lack of understanding of the newly created terms due to lack of standardization. One of the examples of this claim is presented in [10] "Eric Davis, an Information Architect with Resource Marketing, recently reported on a **usability test of shopping cart terminology**. The draft design featured the term "Shopping Sled" since the site (selling winter sports products) had a desire to stand out and avoid standard terminology. Result: "50 % of users did not understand the Sled concept. The other 50% said that they figured out what it meant because it was in the same location as a chart would be. They knew that you had to add to *something*, and the only something that made any kind of sense was the Sled. Lesson: Do not try to be smart and use new terms when we have good words available that users already know". The only conclusion that can be drawn from this illustration is that even native English speakers feel noticeable affection towards standardized terms.

In English dictionaries and E-commerce vocabularies/glossaries somewhat special cause of misinforming may be attributed to use of homonyms, synonyms and acronyms.

In [8], the terms e-commerce transaction, business-to-business e-commerce transaction; business-to-business transaction; B2B transaction are synonyms, because all are defined in the same way as “a segment of e-commerce that promotes the sale of products and services between companies through the Internet, extranets and virtual private networks”. All these offered variants for the same concept may cause confusion and this is why the terminology needs to be uniform. In that sense, the same term or definition should be used whenever the same concept is mentioned. In such a way, international understanding may be improved.

Good illustration of homonyms, the same term with different definitions resulting in different meanings is presented in [12]: Noun **Transaction** is defined as: “the action or process of buying or selling something: She had been involved in several suspicious transactions ■ **financial/commercial/business transaction** The sale of goods is the most common form of commercial transaction. ■ **enter into/engage in a transaction** Investors feel the company is entering into too many risky transactions”, and also as: “very formal **a discussion between two or more people at the meeting**”.

In addition to the above problems, the use of acronyms presents further obstacle to correct transfer of information. “Acronyms are especially inconvenient for nowadays efforts to increase transparency and overcome the artificial boundaries between apparently disconnected disciplines. Decoding of acronym IT has yielded the following meaning: IT -Industrial Technology, IT-Information Technology, IT -Intervallence Transition. The above three cases are quoted from Acronym & Abbreviation Meanings (2003)” [13].

Normally, it is desirable to correct and standardize the terminology when new versions are issued in the normal course of standard development. Also wording should be clear and understandable and definitions are to be consistent, self-supporting and carrying basic information. However, when comparing definition of “banner” in [15], which reads “Advertisement in the form of a graphic image on the Web”, with definition of “banner” in [14], which reads “A graphic element, usually horizontal, on a Web page, used to title the page, head a new section, present a company’s or advertiser’s message, or provide a link to another page.”, it can be noticed that there is a different quality of knowledge or even lack of information in the first one. These are only some of the reasons why e-commerce terms are to be standardized.

Having in mind the fact that the ratio of native English speakers will continue to fall as more people outside of the “Anglo Saxon” world get connected, it should be pointed out that more concise and clearer language of new e-commerce terminology is to be offered, because the terms used in special languages (language of e-commerce also belongs to special languages) provide the building blocks from which original texts and translations are crafted.

## 2 Review Of Terminology Standards

There are several international organizations involved in ICT standardization, such as the International Standardization Organization (ISO), International Electrotechnical Commission (IEC), International Telecommunication Union (ITU) and the International Internet Engineering Task Force (IETF). ISO and IEC have a joint technical committee on IT called JTC1. There are 18 major sub-committees (SC) within JTC1 and two independent working Groups. On the other hand, ISO has more than 8 Technical Committees concerning IT, other than JTC1, a part of which is related to terminology (TC37).

The scope of ISO/TC 37 is standardization of principles, methods and applications relating to terminology and other language resources. Its objective is to prepare standards specifying principles and methods for the preparation and management of language resources within the framework of standardization and related activities.

Among the 15 standards published, the most important are:

ISO 704:2000 Terminology work-Principles and methods

ISO 860:1996 Terminology work- Harmonization of concepts and terms

ISO 1087-2:2000 Terminology work –Vocabulary-Part 2: Computer applications

ISO 10241: 1992 Preparation and layout of international terminology standards

ISO 151 88:2001 Project management guidelines for terminology standardization

Regarding E-commerce, there is one standard in preparation and that is ISO/PWI 22274 Basic principles of multilingual product classification for electronic commerce.

### **3 Interdisciplinary Nature Of eCommerce**

Having in mind the fact that EC is a new field, based on several different disciplines, the development of new terminology should be a group activity with interaction between terminologists, subject matter experts, and direct and indirect users of the terminology. In that sense, it will be possible to create networks for producing and sharing information, transcending national and geographical boundaries.

After brief overview of EC infrastructure it can be observed that EC is based on several different disciplines, which are mutually interrelated (Figure 2) [3].

For example, economists are needed to understand the myriad of marketplace and financial considerations that shape the business environment. Social scientists are needed to understand the behaviors of consumers and organizational entities competing in the new economy. Computer scientists, information technology specialists are needed to understand the electronic and informational linkages among the infrastructures. Linguistics as a science is necessary to take into account the interdisciplinary nature of e-commerce and find appropriate solutions for rather complex terminology, which requires continuous updating and unambiguous identification of entities.

Consequently, terminology of e-commerce must provide business transactions without ambiguity and uncertainty, which are not desired from legal, commercial consumer and information technology perspectives.



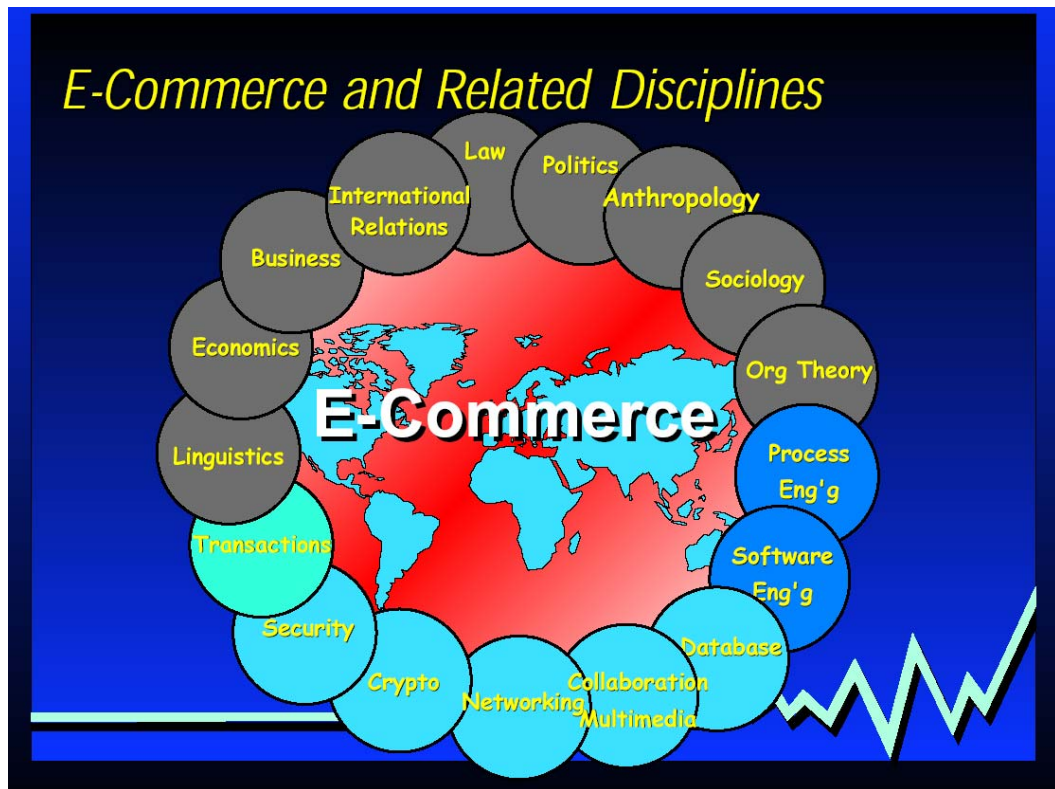


Figure 2: The Interrelated Disciplines Of EC [3].

#### 4 Adoption Of eCommerce Terminology

We are witnesses that a number of glossaries dealing with the Internet and new technologies have been published, but few have focused on the language of e-commerce. Only a few terms can be found, scattered here and there. Thus, a completely new terminology research based on reliable works written by e-commerce experts and appropriate adoption of e-commerce terminology are to be carried out so that this gap can be filled.

Consequently the main aim of this paper is to indicate that clear interpretation of e-commerce key terms and their definitions are attempts which would help less developed countries to take part on the global market without difficulties.

There are a great number of books, papers, web sites and so on in which e-commerce terminology is treated [1-9]. By author's opinion, one of the best explanations of the most important e-commerce terms and phrases is given in [2], where all definitions seem to be like a standard. By collecting these terms, we are making the first steps towards e-commerce terminology elaboration and standardization.

It is well known that electronic commerce can take several forms depending on the degree of digitalization of the product sold, the process and the delivery agent. Consequently, pure physical organizations (corporations) are referred to as **brick-and-mortar** or old economy organizations, whereas pure EC organizations are considered **pure online virtual organizations**. **Click-and-mortar** organizations are those that conduct some e-commerce activities, yet their primary business is done in the physical word.

EC can be classified by the nature of the transaction or relationship among participants. The following types of EC are distinguished:

**(B2B) Business-to-business:** All of the participants in business-to business e-commerce are businesses or other organizations. Today most EC is B2B.

**(B2C) Business-to-consumer:** It includes retail transactions from business to individual shoppers. This EC is also called **e-tailing**

**(B2B2C) Business-to-business-to-consumer:** enables some product or service to a client business. The client business maintains its own customers to whom the product or service is provided.

**(C2B) Consumer-to-business:** This category involves individuals, who use the Internet to sell products or services to organizations, as well as individuals who seek sellers to bid on products or services they need.

**(C2C) Consumer-to consumer:** In this category consumers sell directly to other consumers. The best examples are individuals who are selling residential property, cars and so on in online classified ads. It also includes advertisement of personal services over the Internet and the selling of knowledge and expertise online. A special type of C2C is where people exchange music, videos, software and other digitizable goods electronically using a peer-to-peer (P2P).

**(M-commerce) Mobile commerce:** Operations of this category involve transactions conducted in a wireless environment. M-commerce transactions targeted to individuals in specific locations in specific times are called location commerce (l-commerce).

**Intrabusiness (organizational) EC:** This category includes all internal organizational activities that involve the exchange of goods, services or information among various units and individuals in that organization. Intra-business EC is usually performed on intranets.

**(B2E) Business-to-employees:** This category is a subset of intra-business activities in which the organization delivers services, information, or products to individual employees.

**(C-commerce) Collaborative commerce:** It is applied when individuals or groups communicate online. For example, business partners may jointly forecast market demand.

**Non-business EC:** There are a lot of non-business institutions such as academic institutions, not-for-profit organizations, religious organizations, social organizations and government agencies using EC to reduce their expenses or to improve their general operations and customer service.

**E-government: (G2C) Government to citizens and to others:** In e-government EC, a government entity buys or provides goods, services or information to businesses or individual citizens.

**(E2E) Exchange-to-exchange:** This category describes a public electronic market with many buyers and sellers. In fact, it is a formal system that connects exchanges.

It can be noticed that English is very creative having accepted into the language such abbreviations as **B2B, B2C, C2B, C2C, B2E, G2C, E2E** which have become famous all over the world.

There are also a lot of new terms in the field of payments online. The overwhelming majority of Web payments (B2C payments) are made with **payment cards** (usually credit cards,) not with digital cash. One innovation in online credit cards is a **virtual credit card**. It is an e-payment system in which a credit card issuer gives out a special transaction number that can be used online in place of regular credit card numbers. **Purchasing cards** are used for B2B. They are special-purpose payment cards issued to a



company's employees to be used solely for purchasing non-strategic materials and services up to a present dollar limit. **Smart cards** look like plastic payment card but they are distinguished by the presence of an embedded microchip that enables predefined operations or the addition, deletion or manipulation of information on the card. Smart cards can be categorized by the way in which data are downloaded and read from the card. There are two major types of smart cards. The first type is a **contact card**. That is a smart card containing a small gold plate on the face that when inserted in a smart-card reader makes contact and so passes data to and from the embedded microchip. The second type is the **contact less (proximity) card**, which is fact a smart card with an embedded antenna, by means of which data and applications are passed to and from a card reader unit or other device.

**Electronic payments (e-payments)** are another payment option. In fact it is a transfer of payment from one person or party to another person or party over a network without face to-face-interaction. They are used as alternatives to credit cards when small amounts are in question and they are grouped into four categories:

- e-cash and micro payments,
- stored value cards,
- e-loyalty and rewards programs, and
- person-to-person (P2P) payments.

**E-cash** is the digital equivalent of paper currency and coins, which enables secure and anonymous purchase of low-priced items.

**Micro payments** are small payments, usually under \$10.

**Stored-value cards** involve **visa cash** (sponsored by Visa) and **mondex** (sponsored by Mondex, a subsidiary of MasterCard), which are designed to handle small purchases or micro payments.

**E-loyalty and rewards programs** are used to generate repeat business. The currency used by loyalty programs is electronic script. It is a form of electronic money, issued by a third party as a part of loyalty program. Consumers at participating stores can use it.

**Person-to-person payments** involve one of the newest and fastest-growing e-payment schemes, enabling the transfer of funds between two individuals.

**Intranet** is an internal corporate or government network that uses Internet tools, such as Web browsers and Internet protocols.

**Extranet** is a network that uses the Internet to link multiple intranets.

**Virtual communities** involve groups of individuals linked on the Internet.

However, when comparing different authors of e-commerce books, it can be noticed that sometimes they have different definitions of the same terms. For example, there is a debate among e-commerce experts about the meaning and limitations of both e-commerce and e-business [5]: «Some argue that e-commerce encompasses the entire world of electronically based organizational activities that support a firm's market exchanges-including a firm's entire information system's infrastructure (Rayport and Jaworksi, 2001). Others argue, on the other hand, that e-business encompasses the entire world of internal and external electronically based activities, including e-commerce (Kalakota and Robinson, 2001.)«. Also, a good illustration of this statement is the comparison of [2] and [5]. In [2] e- commerce is defined as: the process of buying, selling, or exchanging products, services and information via computer networks and **e-business is defined as: broder definition of EC** that includes not just the buying and selling of goods and

services, but also servicing customers, collaborating with business partners and conducting electronic transactions within an organization. In [5] e-commerce is defined as: the use of the Internet and the Web to transact business. More formally, digitally enabled commercial transactions between and among organizations and individuals and e-business is defined as: the digital enablement of transactions and processes within a firm, involving information system under the control of the firm. In this case, **e-commerce is broader concept than e-business.**

In order to get the modern and innovative e-commerce terminology it is necessary to be aware that non-native English speakers do not want e-commerce terminology, causing confusion and reducing comprehension. On the contrary, they want all terms and expressions to be quite clear, without inconsistencies. In this area, as in all business dealings, ignorance can be extremely costly. Thus the adoption of e-commerce terminology without ambiguities is an imperative!

## 5 Conclusion

Being aware that the language problem significantly affects the process of E-commerce adoption, it is necessary to provide good glossaries or vocabularies with standardized definitions of terms, without ambiguities which may lead to misinforming.

Unfortunately, there is neither standardized vocabulary (containing terms and concepts that are specific to a field of study), nor glossary (which may contain terms and concepts outside a particular field of study) relating to e-commerce field. Consequently this gap may be a great challenge for further research and achievements in this field.

The ability to define key terms of this area reduces ambiguity, improves consistency and makes business operations more precise. The adoption of e-commerce terminology (by people from South East European Countries) will enable considerable benefits in conducting business operations like global connectivity, high accessibility, interoperability and interactivity. In that way the above mentioned digital divide may be reduced.

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