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**ENCYCLOPAEDIA - COMPENDIUM OF
ALL HUMAN KNOWLEDGE**

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Prohlašuji, že jsem práci vypracovala samostatně s použitím uvedené literatury a zdrojů informací.

V Plzni, dne 29.6.2018

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ABSTRACT

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In the theoretical part of my work I'd like to concentrate on the history of encyclopaedias dating back to the Middle Ages. I will show that the greatest development of encyclopaedias occurs during the Renaissance and Enlightenment period. I will introduce a voluminous work, saying at the beginning of the dictionary "Age of religion and philosophy gave way to a century of science". I will pay great attention to encyclopaedias of Ephraim Chambers and Denis Diderot and consider the pros and cons of both encyclopaedias. I will focus on Czech tradition as well as on the contemporary electronic age. I will write about the speed of incorporating, the way of spreading the latest information, and the level of competence of the authors in a modern hurried time.

In the practical part of my work I will make a research on the ways and frequency of the children using encyclopaedias nowadays.

In the final part I will discuss the results of the provided research. I will mention how lexicography is slowly becoming an "endangered species" amongst other linguistic disciplines, and how the hunger for serious sources of information has ceased since the easy access to the internet become a matter of course for most of the civilised population. And last, but not least, I will discuss that the printed form of encyclopaedias is losing the ability to provide the public with up-to-date information.

Key words: encyclopaedia, knowledge, information, electronic, Enlightenment

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1. Introduction

How has the encyclopaedia progressed over the years?

Paideia (Greek: “education” or “learning”) was a system of education and training in classical Greek and Hellenistic (Greco-Roman) cultures that included such subjects as gymnastics, grammar, rhetoric, music, mathematics, geography, natural history, and philosophy. In the early Christian era the Greek paideia was called *humanitas* in Latin. This served as a model for Christian institutions of higher education, for example the Christian School of Alexandria in Egypt which offered theology as the culminating science of their curricula. The term was combined with *enkyklios* (“complete system,” or “circle”) to identify a large compendium of general education, hence “encyclopaedia.”

Of the various types of reference works—who’s who, dictionaries, atlases, gazetteers, and directories the encyclopaedia is the only one that can be termed as self-contained. Each of the others convey only a selective part of the information; only the encyclopaedia attempts to provide complete coverage regarding the total range of a specific topic which is represented in a comprehensive summary of its subject matter. In conclusion the encyclopaedia employs many features that can be useful in its task, including pictures, maps, diagrams, charts, and statistical tables. It also frequently incorporates other types of reference works.

To determine how encyclopaedia has progressed over the years it is necessary to examine the history of the encyclopaedia which includes:

1. Pre-Enlightenment period
2. Enlightenment Period
3. Czech Tradition
4. Encyclopaedias Worldwide
5. Electronic Age

An abundance of information came during the Enlightenment Period and that is why I am going to concentrate primarily on that period of time.

What sources of information is used by today young generation?

For the answer to this question, I conducted a questionnaire survey among pupils of primary and secondary elementary school in Kostelec nad Černými lesy where I teach the English language. It will be a sociological probe into the world of the youngest users of encyclopaedic type of information. The survey will show that users between the ages of 6 and 15 are able to easily find the information they need in electronic resources; the frequency of searches naturally grows with age. From the point of view of developmental psychology, the differences between boys and girls will be also very interesting.

I will prove that the importance and significance of encyclopaedic information has not diminished in electronic age, rather on the contrary, and this information has become widely available to even the smallest generation.

2. History

The encyclopaedia can be defined by four basic features: its subject, its purpose, methods or division, and the process of its origin.

Encyclopaedias can be general. These include entries from various disciplines (*Otto's Dictionary*, *Encyclopaedia Britannica*, etc.), or they can specialize in a particular discipline or entry range. But they are usually referred to as dictionaries (philosophical vocabulary, medical dictionary, etc.) or to a particular geographical or cultural area (a particular country, religion, etc.)

Encyclopaedic works aim to bring important knowledge from a particular field. In this sense, they differ in detail and scope. The purpose of the work can also affect the target audience. Children's encyclopaedias deal with the topic differently from general encyclopaedias or professional dictionaries.

Historically, there are two different ways of organizing printed encyclopaedias: alphabetical sorting and hierarchical sorting by category. Electronic encyclopaedias usually associate both methods, besides allowing search, indexing, and cross-references to the extent that the printed works are unimaginable.

Encyclopaedic works also differ in the choice of authors and editors, how to collect, authenticate, and write individual entries. Authors can be renowned professionals and disciplines, other modern encyclopaedias (including Wikipedia) are created and verified by a much wider circle of authors.

Unlike the dictionary, which provides a simple definition of an entry, the encyclopaedia tries to get the subject deeper and deeper. Encyclopaedic text can also be better structured and provide a brief but reader with sufficient information about the given entry, complemented by illustrations, maps, overviews, charts, or bibliographies (Multimedia Expo, 2012).

2.1 Pre-Enlightenment Period

The first encyclopaedia which have survived over time have been completed by Spieusippus, who has written a series of writings on natural history, mathematics, and philosophy. Aristotles' lectures at Lyceum also had a great influence amongst people. Together with Platon these have been the originators of the Encyclopaedia by means of providing a decent cultural background of each subject period. The Greeks wanted

to record the spoken word, but on the other hand, the Romans were looking to epitomize the existing knowledge in a readable form. The most important and influential Roman contribution was a work of Pliny, the Elder, called *Historia Naturalis*, a type of anthology of information, and it served as major source for other encyclopaedias for the next 1500 years. Even today it continues to be an important record of Roman sculptures and paintings.

2.1.1 *St. Isidor de Seville*

St. Isidor, a bishop of Seville (570-636), was an encyclopaedic scholar. He was one of the influential authors of the Early Middle Ages period. Pope Benedict XIII declared him in 1722 a teacher of the Church. His encyclopaedic work is called *Etymologiae* because it is often dedicated to explaining the origins of individual terms. The sorting of entries was predominantly thematic and not in alphabetical order.

His lifelong work has had, in an exceptional way, a huge influence on the culture of Western Europe. Throughout The Middle Ages, and especially until the beginning of the 13th century, it represented the most comprehensive introduction to almost all disciplines in ancient culture and irreplaceable knowledge about ancient realities. The Eighth Council of Toledo recorded its admiration in the following words: “The extraordinary doctor, the latest ornament of the Catholic Church, the most learned man of the Latter ages, always to be named with reference, Isidor”. The *De natura rerum*, a manual of elementary physics, was written and dedicated to King Sisebut. It deals with astronomy and geography. It is one of Isidor’s best known books and enjoyed a wide popularity during the Middle Ages. *De ordine creaturarum* deals with various spiritual and physical questions, for example the Trinity, the Sin and its consequences, the eternity, the ocean, and the heavens (O’Connor, 1910).

2.1.2 *Renaissance*

The Renaissance Period started in the 14th century and went through the 16th century. During this time the arts, visual paintings, poetry, light music, architecture, drama, philosophy, and astronomy were the primary disciplines. During this time there was also an increase of thought and productivity in the areas of the arts, culture, and the intellectual domains. They also created new ideas in non artistic areas such as finance, politics, and technology. Even with these innovations the main ideas were based on the arts, ancient wisdom, and religion.

At this time the world view was humanistic among the areas of power and the capacity of the human being. In the areas of humanity, literacy, and education they placed a lot of emphasis on these. They became a powerful tool in order to discover and understand the world. The Renaissance Period was on the artistic side of human life, the Enlightenment Period focused on the human intellectual side (Céline, 2017).

2.2 Enlightenment Period

2.2.1 English and French intellectual background

The history of the European Thought had played a significant role during the eighteenth century for a number of reasons. This was a period of major changes in the field of human knowledge and thinking, as well as a period of new lifestyle and unprecedented political changes across Europe. As far as the field of knowledge is concerned, throughout the 18th century, it was known as a classification period where scientists wanted to properly organize all the newly acquired knowledge. All these features of the 18th century had an impact on the later use of diverse attributes that pointed to the uniqueness of this century. One of them referred to this age as the Age of Encyclopaedic Works.

In the 18th century, encyclopaedic works mirrored a certain enlightenment view of the organization of the world and became a popular type of work for scientists, who at that time experienced an unstoppable boom. The encyclopaedias represented the "strong aspect of success of Intellectual Tradition in the Enlightenment" (Sullivan, 1990, p. 314-316) and overall, they can be described as "an important record of the historical view of science and society" (Thorndike, 1924, p. 361). The desire to record and retain the knowledge of the various disciplines had influenced the production of encyclopaedic works in France. In all of the philosophical and scientific works of that time a new concept of knowledge had begun to be promoted. Gradually, attention was being focused on the practical disciplines. For example, the often neglected mechanical art was becoming more appreciated. The authors of the encyclopaedic works had not only dealt with descriptions of theoretical disciplines and their repeated reinterpretations, but on the contrary, they had begun to include in their work disciplines which were considered inferior and unsuitable for any kind of professional work until then. This picture was accompanied by a pictorial attachment, which was completely transformed at that time. In encyclopaedic works of this era, the allegorical and unrealistic depictions that were typical of many encyclopaedic

writers throughout the Renaissance until the middle of the 17th century gradually disappeared. At this time in the encyclopaedic works, graphic representations of animals or religious ceremonies were not revealed, but various objects or activities connected with the world became the subject of the depiction. Part of the work was a growing number of pictorial attachments that captured detailed sketches of specific subjects or technical procedures. The number of images in encyclopaedic works had so greatly increased. In particular, Locke and Newton's thoughts had expanded in England and the Montesquieu and Voltaire's in the French environment (Rod, 2004, p. 207). At the same time, Bacon's philosophy revived and emphasized the unity of all sciences. During this time many English books were translated and French authors were greatly inspired by them. A large number of French books have described the English environment and its detachment from the traditional ideas of organizing society.

Thanks to this uncritical admiration of English philosophy, science, and the whole of English culture, the French scholars chose to create an equality influential encyclopaedic project as the English had done. At that time the work of John Harris' *Lexicon Technikum* (1704) was quite popular¹. Then in 1728 *Cyclopaedia*² by Ephraim Chambers also became popular. J. Harris (1666-1719) was a clergyman and a graduate of Cambridge University. He had close ties with members of the Royal Society in London. Thanks to his education and experience he had created work that was not customary until then. *Lexicon Technikum* contained, and more strictly defined, different disciplines which from contemporary point of view ranked high among the arts and natural sciences.

Unlike contemporary works, much attention had been paid to mathematical and technical entries. This work had in essence paved the way for much more successful work by E. Chambers. In 1728, for the first time, the two-volume *Cyclopaedia* was released

¹ *By the whole title: Lexicon Technikum or, a Universal English Dictionary of Arts and Science: Explaining Not Only the Terms of Art, but the Arts Themselves.*

² *By the whole title: Cyclopaedia, or, A Universal Dictionary of Arts and Sciences contained the definitions of the terms and accounts of the things signified thereby in the various arts, both liberal and mechanical. Further only Cyclopaedia.*

which immediately became the best-selling English encyclopaedic work of its time. It had even achieved unprecedented popularity throughout Europe. It gained such popularity that other English encyclopaedic works were of little interest. Publishers of other encyclopaedias fought against it by all means. For example, in a later edition of *Lexicon Technikum*, the Chambers' accusations of copying and imitation appeared in the preface. Over time publishers from other countries have also begun to be interested in *Cyclopaedia*. At the end of the 1740's an Italian translation was published in Venice which was considered the first Italian encyclopaedia to be completed. However, before publishing the Italian version, French publishers were interested in the translation. But Chambers did not accept their offer because they asked him to dedicate his work to the French King Ludwig XV. (not the English ruler), which was inadmissible for him. At this time and earlier times dedication had been an important role. The devotee expressed gratitude to the patron who especially supported the author of the book. In encyclopaedic books, however, dedication had gained more importance over time. This type of book contained information that was learned up to this point where it can only be passed over under several conditions: a prosperous economic landscape, social and political support for science, the creation of new scholarly societies, libraries and other professional institutions, and freedom of scientific research. The new social and political ideology of the country thus had a significant influence on the discovery of new knowledge. Encyclopaedic works collecting the previously acquired knowledge have given insight into the complex level of the country which was influenced by the priorities of the ruling system. From this point of view, encyclopaedias represented the center of the ruling power of the time and mirrored the image of this power. (Yeo, 2001, p. 220-247).

2.2.2 Cyclopaedia and its relationship to Encyclopédie

Denis Diderot was a broad-minded man who had an admirable intuition, a sense of detail, a sense of systematic and, above all, was open to new thoughts and new findings (Cru, 1913, p. 37-38). Like many French contemporaries he was enthusiastic about English philosophy, science, and culture and he was perfectly fluent in English. He also translated many English books. Diderot also had experience with encyclopaedic projects. As for *Cyclopaedia*, Diderot made very significant changes in the concept of the project. He stepped down from the literal translation of *Cyclopaedia* and altered the existing work

scheme. In contrast to the original intention it was not a four-volume work, but a book that, according to his words, "will have not less than eight volumes and six hundred pictures" (Diderot, 1990, p.29). During the realization of the project he wanted to call all outstanding French scientists, artists, scholars, as well as craftsmen and other experts in his field who would jointly contribute to the publication of a great work entitled *Encyclopédie ou Dictionnaire Raisonné des Sciences, Arts et des Métiers*³. He wanted to create a work that would, like *Cyclopaedia* in England, sum up all the universal knowledge so far and would also show the cultural flourishing of the country.

Both the Church and the State feared threats to the norms enforced and therefore tried to prevent the publication of this project. They made temporary prohibitions and various other means such as the imprisonment of D. Diderot and the Royal Council's Ban on the release of two volumes of *Encyclopédie*. In opposition, it was among the educated bourgeoisie where the encyclopedia was a welcomed publication and which the bourgeois people would often like to turn. Diderot drew attention to the fact that many discoveries did not exist at the time of the emergence of *Cyclopaedia* predecessors, and that "scientists have not yet been enthralled by the spirit of discovery and rivalry / ..., the spirit of correctness and methods, have not yet undergone types of literature whose work has shifted science and art so far, were not created "(Diderot, 1990, p. 30). But at the time of the *Cyclopaedia* there were already scientific institutions and scientists who wanted to discover and explore the unprecedented. There was also an increase of curiosity among the people. Diderot and d'Alembert x appreciated both the style and the methodology of the *Cyclopaedia*. In the Foreword they commented on the alphabetical order that had been unusual in those days. It was more typical for etymological, biographical or historical dictionaries. Chambers regarded the alphabetical arrangement as an appropriate system by

³ *The encyclopaedic label has since been related to such work that has organized, merged, and maintained universal knowledge. The Encyclopédie became another wider term for the dictionary or lexicon. Since then, many books have been created across Europe, having the word encyclopaedia in their title, for example the German Encyclopedia, the Encyclopaedia Britannica, and the French Petite Encyclopédie or Nouvelle Encyclopédie Portative.*

which it is possible to inspect separately the different parts of knowledge while also seeing their interrelationships. He also introduced so-called cross-references that pointed to the links between the different entries. His work thus gave a view on the same material from different points of view. Diderot appreciated Chambers with the words: "Chambers understood the usefulness of an encyclopedic order or a chain, from which a certain science or art can come from the first principles of to its outermost consequences without interruption, and then come back to the basic principles "(Diderot, 1990, p. 31).

By this time most of the encyclopaedic works were organized according to the classical sorting method, ie systematically and thematically. For example in the *Encyclopaedia Britannica* preface of 1777 edition, Chambers and Diderot have been sharply criticized for trying to present alphabetically ordered knowledge. The circle of knowledge, which was to capture the unified circle of knowledge, had a structured understanding according to an arbitrary alphabetical order and at the same time pointing out the relationships between the various parts of knowledge. The authors of alphabetically arranged works tended to put in place both an extensive preface and a visual presentation that outlined the relationships between disciplines. In addition some, including Chambers and Diderot, wrote separate treatises on up to dozens of pages (Yeo, 1991, p. 26)⁴. The authors of this paper however tried to deal with possible objections and also to provide explanations of logical and systematic relations between different fields of knowledge. At the same time they focused on describing the purpose of their work. Diderot writes in his *Prospect* that "it is our duty to satisfy the social interest in the nature of the work and the means we have used to implement it" (Diderot, 1990, p. 29).

Visual imagination in some sense was a tradition but at the same time it reflected time changes in one's thinking. Chambers inspired the realization of his paintings by medieval and Renaissance works. At that time the so-called tree schemes were dominant. Among those was the Llull's *Tree of Knowledge*, the logs of the so-called *Porphyrius tree*, genealogical trees or pedigrees.

⁴ *In Chambers' case this was a flyer called the Call for Action, Cyclopaedia (1726), in Diderot's case it was a work entitled Prospect (1750)*

Picture 1 Tree of Knowledge

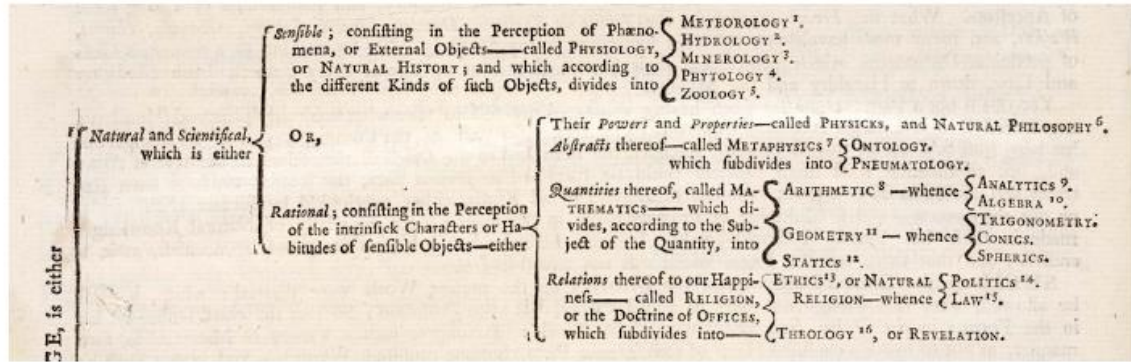


Visual imagery had become a practical complement to encyclopaedic works clearly illustrating the relationships between disciplines and serving as a tool for better remembering. However, the need to deal with new discoveries and methods had led to the suppression of such schemes. Earlier graphic depictions had its limits in the past, had its "fatal columns" (Bacon, 1990, p. 41) that had to be overcome. Graphic representations began to appear in the form of a map. It was possible to draw on existing knowledge on this model but also to record new knowledge and thus to keep abreast of the constant evolution of human knowledge.

It is worth mentioning Francis Bacon's attempt at a new unconventional classification of sciences. The tool is an inductive method which is based on a procedure from specific data to general conclusions. It differs from the prevailing deduction method which consists in the process from general rules to particular details. Thus Bacon's method emphasizes empirical capturing of a data, observation, and experimentation and he can thus be considered the father of modern science. The basis of Bacon's classification was a triple of mental abilities: memory, reason and imagination. Under memory he included history, philosophy, and imagination of poetry. (Bacon, 1990, p. 224). Chambers continued on with Bacon's theory. Although he divided the knowledge into two groups: on the one hand, a natural science group was divided into senses and reason, and an artificial-

technical group divided into internal (logical) and external parts. These were further divided into other subcategories (Chambers 1728, entry Science). His visual drawing was called *View of Knowledge, not a Map nor a Tree* (Chambers, 1728, ii).

Picture 2 *View of Knowledge, not a Map nor a Tree*



Diderot regarded visual imagery as the basis of encyclopaedic works. For as he states, the first step to be taken in the rational and well-structured implementation of the Encyclopédia is the creation of a genealogical tree of all sciences and arts where the beginning of all branches of our knowledge, their interrelationships to a common tribe would serve us to sort the entries to the respective sections (Diderot, 1990, p. 31).

It returns to medieval and Renaissance patterns rather than to Bacon's classification.⁵

D'Alembert was a very sceptical about this tree structure: "The general system of science and art reminds of a maze with winding paths where the spirit enters and does not know too well which way to go" (D'Alembert, 1989, p. 59). There was a fall between the tree model and the map model. Each represented another concept of cognition. The tree model expressed "the concept of a structured space enclosed within itself, into its own, precisely defined and unchanging number of spheres" (Eco, 2012, p. 59-61). The idea of universal knowledge appeared to be achievable as it had its own limit. The map model was able to write the newly discovered knowledge without any violent interference with

⁵ Although, as for Chambers and for Diderot, Bacon's classification of sciences had some inspiration.

previously recorded knowledge. In this context, knowledge was "seen as a geographical map without borders, which can be endlessly travelled to all he directions" (Eco, 2012, p. 55). The earlier ideal of universal knowledge had dissipated. Thanks to a degree of new knowledge and the increasing fragmentation of knowledge there had been more and more opinion among scientists that "general knowledge is no longer within the reach of human strength" (Diderot, 1757, p. 599). The *Encyclopédie* became a work in which retrospectively can be seen the shift "in the concept of knowledge from the closed world to the infinite universe"(see Koyré, 2004).

The motivation that led Chambers and Diderot to use the alphabetical sorting method had much deeper reasons than a practical one. Since the Middle Ages the idea was to have so-called "cocoons" to preserve the knowledge of encyclopaedic works. Educators were afraid that the knowledge they had collected up to this point could be lost. Due to this way of thinking, Johann Heinrich Alsted feared that the end of the world would happen in 1694, so he decided to create his work *Encyclopaedia Septem Tomis Distincta* (1630). The work was to serve as the storehouse of knowledge that had been collected by mankind from expulsion from Paradise (Yeo, 2001, p. 3). For this same reason E. Chambers had created the *Cyclopaedia* (1728). Unlike Alsted, Chambers was not afraid of the early end of the world, but he was rather indignant towards the book culture of his time, especially from the growing number of books and high quality encyclopaedic work that had not yet been created. According to Chambers, *Cyclopaedia* supposed to be a starting point of all known human knowledge (Chambres, 1728, i). He felt it should be more useful and beneficial than any other "existing book" and perhaps even replace the library itself. Since the alphabetical arrangement provided more practical access to knowledge, and at the same time all the knowledge was built on the same level, it was necessary to create an encyclopaedist work utilizing an alphabetical arrangement. *Cyclopaedia* featured the so-called "The Best Book in the Universe" (Yeo, 2001, p. 120-144). In this same way Diderot perceived the idea of the *Encyclopédie*. In 1745 he began to implement his *Encyclopédie* project in "the name of the future and the immortal being" (Diderot, 1990, p. 43). The first mention can be seen in Prospect which encourages the *Encyclopédie* to become a "tabernacle where human knowledge will be safe from evil times and violent coup" (Diderot 1990, p. 39). In *Encyclopédie* of 1755.Diderot has come to the conclusion that the *Encyclopédie* is a "time capsule of the Enlightenment". The *Encyclopédie* record all of the intellectual abilities of the time and in the future these books will achieve definitive

knowledge (Diderot, 1755, p. 635-648). Despite the fact that the French editors appreciated Chambers' chosen approach to the organization of knowledge and marked his Cyclopaedia as a beneficial encyclopaedic work, they conceptualized their Encyclopédie project quite differently; they did not just want to record knowledge but they also wanted to take a critical point of view⁶.

Diderot further criticizes the scope of Cyclopaedia. He found in many places "an extraordinary amount of shortcomings in the free arts a mere word where, a page would be needed, and in the mechanical arts it would be necessary to complete everything" (Diderot, 1990, p. 32). He had originally planned to create an encyclopaedia that would not have less than 8 volumes. In the end the *Encyclopédie* consisted of 28 volumes of which 11 were devoted to pictorial attachments. Such an extensive work was unusual at this time. No previous encyclopaedia which originated in the 18th century exceeded more than 10 volumes, except perhaps "the largest and most comprehensive German encyclopaedia of the eighteenth century" (Stockwell, 2001, p. 52) *Grosses Universal-Lexicon* (1731-1754) by Johann Heinrich Zedler (1706- 1751), which numbered 68 volumes.

Diderot's work during the 18th century became more popular not only among the general public but also the experts. Over time more and more work had been done which usually contained more than a 100 volumes. For example, the *Encyclopédie Methodique* (1782-1832) had a total of 58 volumes and fifty-one volumes of imagery and *Oekonomische Encyclopadie* (1773-1858), had 242 volumes. For all the encyclopedias mentioned above, a direct or indirect reference towards Diderot's work can be found.

The scope of encyclopaedias had been closely linked to the development of the entries themselves. Diderot complained that Chambers was collecting the so-called knowledge from the table and that he never went to craft workshops to get familiar with their techniques and styles. "Chambers read the books, but he barely went to watch the artists, although a lot of things can be learned in workshops" (Collison, 1966, p. 32). Diderot embraced the *Encyclopédie* as a collective work, in which scientists, artists and

⁶ *Chambers' work did not have sociocritical character as an Encyclopédie project. It is not even clear at this time what was Chambers preference of religion. Sources from the 18th century speak of Chambers as a Quaker while later he states that he was open-minded. (Yeo 2001, 37*

craftsmen, all the best experts in their field collaborated. The scientific collectivity which is one of the key features of the Encyclopédie is closely linked to the development of scientific institutions, the expansion of research support organizations, the emergence of professional journals, and, last but not least, the less formalized form of French intellectuals meeting each other in Cafés or Saloons⁷. In order to avoid any doubt about the authorship of entries, each entry should be preceded by the initials of the author who has written it. If the entry was edited by the editor, in this case Diderot, it was always provided with an asterisk. Nevertheless, in the first volume we encounter so-called empty places where no author is mentioned. "Everybody only dealt with what he understands and was therefore able to judge positively what the old I wrote about it modern, and to the knowledge he has taken from it, or to add knowledge drawn from his own resources "(Diderot, 1990, p. 34).⁸

Everyone has written entries within an area he understood. At the same time through the collective work Diderot kept the idea of "gathering all the talented and genial men of one age and country to create a proposal of human knowledge, philosophical and scientific testimony of the generation" (Cru, 1913, p. 242). Diderot's emphasis on collectivism did not appeal to all authors of encyclopaedic works. In particular, the authors of German and English encyclopaedic works, for example *Grosses Universal-Lexicon*,

⁷ *All of these institutions have greatly improved communication opportunities between scientists and intellectuals of the time, and have contributed to improving collaboration amongst scientists. (Burke, 2000, p. 57-70, 80-88).*

⁸ *Most of these sites were for entries that became quite controversial for the society, such as the entry Author's Politique. Over time the number of empty spaces has increased with other volumes. The names of the authors were not intentionally mentioned for political reasons. Among the entries marked with an asterisk were doubts about Diderot's authorship. There are still disputes which entries can be attributed to Diderot and which entries have been written by someone else (Schwab, 1969a, p. 240-45, Schwab, 1969b, p. 370-438).*

Encyclopaedia Britannica, generally tended to hold a rather individualistic Chambers' approach to the writing work⁹.

It is necessary to consider Chambers and Diderot's relationship to the sciences which, according to many researchers, is most beneficial for these projects of its time. As was noted above, Diderot drew attention to Chambers' inadequate description of science and entry processing. Diderot had a very close relationship to the science which is evidenced by the name of the *Rationale des Sciences, des Arts et des Métiers*¹⁰, where science was at the forefront and it had larger range of entries. Diderot was very knowledgeable in medicine and biology and d'Alembert in mathematics and mechanics.

It is not without interest that the writings from the Jesuit authors surprisingly surfaced among the unknown sources from which the authors drew; the Jesuit's knowledge was an intellectual rival for the *Encyclopédie*.

Chambers' choice to organize knowledge in alphabetical order with the cross-references and his use of graphical representations accurately showed the relationship between the sciences. This brought encyclopaedias at this time a great success to readers as well as the publishers and the editors of encyclopaedic projects such as *Encyclopaedia Britannica* or the *Deutsche Encyclopaedia*. The alphabetical arrangement was a way of coping with the so-called reader's revolution that grew in the transition from intense reading to an extensive way of reading. As a result of the augmentation of books from the invention of a book printing it gradually moved from focus of reading faster to a gentler reading. At the same time this type of publication had not only become a tool for educated people and scholars, but also for less educated people and even women. Such organized knowledge according to those views became not so difficult to understand because they did

⁹ For example, not until the third edition of *Encyclopaedia Britannica* it had more contributors (Kafker, 1994, p. 393).

¹⁰ *The work that has organized, merged, and maintained universal knowledge. The Encyclopédie has become a competitor for terms like a dictionary or a lexicon. Since then, many books have been created throughout Europe with the word encyclopaedia in their title, for example the Deutsche Encyclopadia in Germany, Encyclopaedia Britannica in England, and the Petite Encyclopédie in France, Nouvelle Encyclopédie Portative.*

not require any great intellect (Green 1996, 159). The Encyclopaedia became available to a much larger group of readers, and so its ideological focus spread rapidly. The *Encyclopédie* attacked both the Church and the State. It was a prototype of critical work of the time concentrating on the transformation of its own country and culture. For this reason, the *Encyclopédie* is also referred to as a work that "laid the intellectual foundation for the French Revolution" (Shorr, 1932, p. 12).

2.3 Czech Tradition

The roots of encyclopaedic literature in Bohemia date back to the Middle Ages and are connected with the founding of the Prague University (established in 1348). Encyclopaedic works were interpreted as a Latin-Czech university textbook and were compiled by the team of Master Klaret who was the personal physician of King Charles IV. Historically, besides Klaret's ensemble of the *Great Mirror*, it also included the *Encyclopedia Správovna*, which was given to King Jiří z Poděbrad by master Pavel Žídek. At the end of the second half of the 15th century the hermit Honorius of Autun compiled the *Encyclopedia Elucidarum* as a theological guide for the instruction of the layman. Through the form of dialogue between the scholastic Master and the inquisitive pupil this popular encyclopedia of varied aspects of medieval medicine, geography, theology, etc. had been explored in most European countries and maintained in the form of analogous prints of martial arts until the years before the First World War. In Europe John Amos Comenius' all-knowing work was a universal and systematically structured system of knowledge seen through the eyes of the contemporary era of manufacture capitalism.

The idea of compiling a Czech educational dictionary was already considered by Josef Jungmann, who saw it as one of the appropriate tools of school education and he saw the processing as a result of the division of labor among the invited specialists. The first proposal for the Czech educational dictionary was submitted on 21 November 1829 by František Palacký to the count of Bohemian Kingdom Karel Chotek. In the proposal, he says: "For now, we have agreed that our work should link solid scientific effort with as much clarity as possible, and that it should be of universal interest, and that it should touch all the sciences, but above all, be mindful of homework." There were only a few articles out of the big plan (Hartmanová, 2000).

2.3.1 Rieger's Encyclopaedia

Rieger's instructional dictionary was the first Czech encyclopaedia and was published in the years 1860-1874 under the name of the *Teaching Dictionary*. František Ladislav Rieger composed it together with the lexicographer Jakub Malý and later Rieger took his place in the editorial office. Even as an older man he led editors of other encyclopaedic dictionaries and offered to the Prague publisher, Jan Otto, the literary work of which Otto's Encyclopaedia was then learned and that entries were sorted alphabetically. Rieger's work on encyclopaedia lasted for 15 years and in its literary terms the readers are reminded of its difficulty, demandingness, necessity and merit but there is also an apology formulated:

If the last part of the work, namely the add-ons, the strict criticism of some weaknesses, provides, be excused by this circumstance that at the very end of the work, it is impossible to keep the editorial power of the editorial staff together, so this part of the instructional dictionary is simply the work of amateurs (Hartmanová, 2000, number 1, p. 15–21).

The vocabulary was highly appreciated as a lender of language efforts especially in terms of professional terminology. The negative part of it was too much of the geographic data. As a compendium of Slavism, he found repercussion in Slavic nations but was also appreciated in neighboring Germany. Some entries have been translated into Slavic and into other languages. A significant entry about Prague was translated into German language. In Yugoslavia it was served as a textbook in their secondary schools ((Balík, 1992. p. 283-288)

2.3.2 Otto's Encyclopaedia

In the early eighties of the 19th century, Czech librarian and publisher Jan Otto began planning a new Czech encyclopaedia. It was probably inspired by the first Czech encyclopaedia of F. L. Rieger. The aim of the project was to present a high level of Czech society and to support the Czech national revival. The main editor and author of texts from psychology, sociology, philosophy and logic was Tomáš Garicque Masaryk. He wrote:

The most important requirements of our literature include, above all, the new educational dictionary. For us it is more important than for the world's literature. For them, the conversation vocabulary is mainly a popular condensation of all knowledge, but it also provides us with the only possibility to write something in many disciplines. If this is not

the case in the educational dictionary, where and when should we learn, for example, about Japanese culture? (Winters,2002,p.339-400). He managed to assemble a team of distinguished technicians, theologians and other representatives of the Czech scientific field. *Otto's Encyclopaedia* included 27 volumes and one supplementary volume that were published in 1888-1909. The dictionary did not have the content and scope of its predecessor yet the choice of entries and the form of processing was completely original and beautifully illustrated. It was by then the largest continuous Czech literary work and one of the largest encyclopedias in the world. The dictionary demonstrated the development of the Czech national society at the turn of the 19th and 20th centuries, the unique position of the Czech nation among other European nations and its contribution to culture (Balík, 1992. p. 283-288).¹¹

Immediately after the first edition, Otto began work on the second revised edition. This work continued after Otto's death in 1916, but was never completed due to the rapidly rising costs. In 1926 a pocket edition was published by Otto's Publishing House.

Otto's Publishing House returned to this project in the 1930's and called it the *Otto's Dictionary of the New Age*. It had the supplements to the original *Otto's Encyclopaedia*, which should reflect a new scientific knowledge and historical developments since the first edition had been published. Most of the entries were new and only a small amount of entries from the original edition was revised. In 1934, Otto's Publishing House got into great financial difficulties and the publishing house Novina took over (Hartmanová, 2000, number 1, p. 15–21)

For over a century, the *Otto's Encyclopaedia* was the largest Czech encyclopedia. In 2010 it was overwhelmed by the Czech version of the electronic encyclopedia *Wikipedia* in the number of entries. *Otto's Encyclopaedia* is still a good source of information especially in the field of history. In its time it was one of the best educational encyclopaedias in the world along with *Encyclopaedia Britannica*. The continuity of the

¹¹ *At the same time (1896-1904), in France, the seven-volume Nouveau Larousse illustré plus a single volume of supplements were released. The Czechoslovak encyclopaedic work led by the Otto's Encyclopaedia became an important part of the world encyclopaedic work and brought new information of the Czech nation about its history, culture, abilities, and skills.*

development of modern Czech encyclopaedias was interrupted by the Second World War and the political development in the post-war years. That is why, between the release of the last part (1943) of the never-completed *Otto's Dictionary of the New Age*, lies nearly twenty years without the release of any Czech general encyclopaedia. (Hartmanová, 2000, number 1, p. 15–21)

2.3.3 *Production after 1945*

After the Second World War the *Encyclopaedic Institute* was founded where the Primary Educational Dictionary¹² was first published. The dictionary is the first Czechoslovak post-war and socialist work. In spite of the various shortcomings in terms of the professional and lexicographic level of the work however, vocabulary was particularly burdened by ideological doctrines.

After the revolution in 1989, an interest in the general Czech encyclopaedia evoked the need for new publications for both the layperson and the professional public. The council of the Encyclopaedic Institute was elected. His management was taken over by RNDr. Miloslava Lavičková, at that time the head of mathematical, physical, and technical sciences. The *Charta 77* Foundation lent the Institute their first computers. Teams were created to work on certain types of dictionaries, including electronic data processing. The *Encyclopaedic Institute*, from 1945 to 1992, the sole creator of general encyclopaedias, struggled to survive in a new era of market economy of which many of its professional editors refused to take note. So then at the end of 1992 it ended.

General encyclopaedias written in various languages (French, English, German, Spanish), of course, have a much wider application and they are used by a larger number of readers. The widely publicized view of simply translating "*Britannica*" or "*Larousse*" is very short-sighted. The focus on England and the English-speaking countries and on France and the French-speaking countries brings considerable information constraints reducing the value of Czech scientific, social and cultural experts and their works. In any case it does not strengthen the much-needed national awareness and membership of the European Community as an equal partner for other developed countries.

The general encyclopedia does not belong to anyone and at the same time it belongs to everyone. All kinds of scientists participate in it and therefore they have the opportunity

¹² *By its original name Příruční slovník naučný (PSN)*

to present all their achievements and successes to all fields of human activity. The technical processing of the printed book represented the level of the printing industry and the encyclopedia gave it the opportunity to present its work. (Hartmanová, 2000, number 1, p. 15–21)

2.4 Encyclopaedias Worldwide

2.4.1 *The Western World*

The major influences on the collections of encyclopaedias, Bacon, Diderot, Britannica, and Brockhaus, the encyclopaedia of Pierre Larousse, a French writer, must be added to this list of names. His encyclopaedias had a unique reputation and readability style that has never been sacrificed to conciseness. The editors of *Larousse* have paid a lot of attention to the changing public taste among French readers focusing on the presentation of information.

Webster's informative *American Dictionary of the English Language* (1828) had the characteristics of an encyclopaedia but he avoided the long entries. Webster concentrated more on the American taste and soon became a bestseller. *Brockhaus* soon faced opposition because his encyclopaedia was stronger on humanities than on scientific and technical subjects. Joseph Meyer's *Der Grosse Conversations-Lexikon* (1840–52) was the first of a highly successful series that competed strongly with *Brockhaus* for over a 100 years.

The British market for encyclopaedias in the 19th century seemed inexhaustible but many publishers lost money by putting out works that failed to gain the public's attention. *Chambers's Encyclopaedia* (1860–68) was an exception; Robert Chambers and his brother William compiled an original work that took the *Konversationslexikon* form and thus found a new readers' market that lasted to the present days.

During the 19th century many varieties of encyclopaedias appeared in the United States, ranging from reprints of British encyclopaedias to works such as *The New American Cyclopaedia* (1858-1863) and *The People's encyclopaedia of Universal Knowledge* (1881). There were about two dozen encyclopaedias available to American readers. *Encyclopaedia Britannica* was among them.

At the beginning of the 19th century there was also an increasing amount of activity in other countries. In Poland the *Encyklopedia Powszechna* (1858-1868), known as "Orgelbrand" after its publisher. Larrouse did not go unchallenged. La Grand

Encyclopédie (1886-1902) provided France with a superb, authoritative, and comprehensive work. It was well documented and contained excellent scholarship throughout. Another important work was the 65 volume *Bolshaya sovetskaya entsiklopediya* “Great Soviet Encyclopaedia” (1926-1947). Its second edition (1949-1958) had a Marxist-Leninist approach represented all of the Soviet Union’s cultural resources. In the United States, *The New International Encyclopaedia* appeared in 1902 and was supplemented by yearbooks. *The Encyclopaedia Americana* traced its origin to an English adaptation (1829-1833). The “Espasa”, the *Encyclopedia iniversal ilustrada europeo-americana* (1905-1933), like the *Encyclopedia italiana*, kept away revision in favour of a series of supplements.

In spite of continuing popularity of *Larousse*, France produced other encyclopaedias in the 20th century. The *Encyclopédie française* (begun 1935) was a great collection of monographs by well-known specialists. There are 21 volumes and each under the direction of a different authority dealt with tools like logical thought, language, and mathematics, physics, heaven and earth, life, human beings, the human species, the study of mind, the economic and social universe, the modern state, chemical science and industry, philosophy and religion, arts and literature, the world in its development. One of the most interesting new encyclopaedias was the *Encyclopaedia Universalis* (1968-1974). This work was inspired by L’*Encyclopédie*. It contained extensive and well-illustrated articles and also paid attention to modern science and technology. By the 21st century virtually every Western country had produced either a single-volume or a multivolume encyclopaedia in its native language (*Encyclopaedia Britannica*, 1911).

2.4.2 The Eastern World

In 1980, officials of the Greater Encyclopaedia in the China Publishing House and *Encyclopaedia Britannica, Inc.*, made an agreement under which the *Micropaedia* of the 15th edition of *Encyclopaedia Britannica* would be translated into Chinese for its distribution. In Japan a more completed general encyclopaedia appeared in the Showa period (1926-1989). *Japonica* with 19 volumes (1967-1972) is an example of a well put together work. The *Buritanica Kokusai Dai Hyakka Jiten*, or *Britannica International Encyclopaedia* (29 volumes), which began publication in 1972 which was the joint creation of *Encyclopaedia Britannica* and the Tokio Broadcasting System. After 2006 the

encyclopaedia was available only in electronic form, as Encyclopaedia Britannica Online Japan.

In Lebanon there was compiled the *Da' irat al-ma'arif*, The Circle of Knowledge (1876-1900) Arabic encyclopaedias, both general and topical, were widely available by the start of the 21st - century (Encyclopaedia Britannica, 1911)

2.5 Electronic Age

Internet books originated from a combination of printed and internet media. Their main difference from the printed books is interactivity and almost limitless content, which is limited only by data capacity. As far as the content is concerned, it offers the possibility of using both visual and audiovisual elements which allows the articles to be accompanied by various videos, sound files, or applications.

The original meaning of the encyclopaedia as the sum of all knowledge seems to be too ambitious and incomprehensible. A brief and clear description of the scientific, technical, social, and other concepts in one place seems more realistic. The direct competitor of online encyclopaedias has become their own carrier medium - the internet itself. All one needs to do is ask what to look for and with the search engine they will get a lot of information, often far more extensive (and often more practical and more sophisticated) than any printed publication can offer. The main advantages of encyclopaedias are the guarantee of truthfulness of information, the absence of unusable content and, last but not least, a unified environment. With open encyclopaedias there is an increasingly visible phenomenon of interaction, participation, and presentation. Many people can perceive the creation of online encyclopaedias as a service to the society, others as a means of self-realization or propagation of their own ideas. With a sufficiently sophisticated system of checkings and corrections a rich and relatively validated database of concepts and terms emerges (Černý, 2008).

2.5.1 *Britannica online*

Together with Wikipedia, the most popular encyclopaedia is famous and traditional Britannica. It is built on the long tradition of the largest printed encyclopaedia of the world and the first volume in printed form came out in 1768. Philosophy is built on a completely

opposite model than its current main competitor. Access is priced but it allows employing a professional team of editors who supervise content and guarantee the quality of entries.

The roots of the *Encyclopaedia Britannica* date back to 1768-1771, when the first edition of 3 volumes and 2391 pages was created in Edinburgh, Scotland thanks to the printers Andrea Bill, Collina Macfarquhara, and William Smellie. Ever since, *Encyclopaedia Britannica* has grown and various British institutions including the University of Cambridge and the *Times* have been involved in publishing it. This was until 1901 when the ownership of the copyright was finally transferred to the United States. In 1911, for the first time, all twenty-nine volumes of the 11th Edition were published. In 1920 he bought the Sears, Roebuck and Company in Chicago. The last, in the 15th edition of *Encyclopaedia Britannica* was published in 1974 and the revision followed 11 years later. It is based on a unique approach: passive entries (Micropaedia), detailed (Macropaedia) and strictly indexed (Propaedia). Since 1990's, *Encyclopaedia Britannica* has been on CD. In 2012, after 244 years of the first publication of the book version of the *Encyclopaedia Britannica*, the largest printed encyclopedia in the world ends. The interest in printed editions has fallen significantly over the past decade thanks to computer encyclopaedias such as Wikipedia but also the digitized form of *Britannica* itself. Revenue from the printed version today accounts for roughly 1% of the publisher's revenues and today there is no interest in printed version. This is certainly due to the relatively high price while Wikipedia is free of charge. In addition, the printed version of the encyclopaedia is rapidly becoming obsolete¹³.

Encyclopaedia Britannica continues to rely on earnestness, credibility, thoroughness of erudition, and popularity but will gradually abandon its current distribution and lean towards modern informative technology. It turns out that excessive adherence to traditionalism is not only unpromising but also economically disadvantageous which applies to traditional brands such as *Encyclopaedia Britannica*.

The *Encyclopaedia Britannica* contains 72,000 entries, 12,000 illustrations, and tens of thousands of links to relevant pages stored on other servers that naturally cannot (as

¹³ As an example here are some interesting figures: *Britannica* was the largest seller in 1990 120,000 sets has been sold. The 2010 edition which remains the last has sold just 4,000 out of 8,000 printed sets

well as audio and audiovisual sequences) be included in *Encyclopaedia Britannica* in a classical form. But the electronic *Encyclopaedia Britannica* is part of an extensive hypertext system with other databases.

Today we have to wonder how the publishers of encyclopaedias could have gone without electronic publishing or the Internet. We had to accept that these reference documents fix the dates valid at the closing date and then wait for a costly update perhaps in the form of supplements. It is therefore questionable whether *Britannica Online* and other similar products are necessary when the World Wide Web itself represents a huge hypertext or media database characterized by immense dynamics and reflecting the whole spectrum of human knowledge. Unlike the World Wide Web where the chaos and absolute freedom are generally dominated by unreliability of the electronic form, the *Encyclopaedia Britannica* is characterized by ordering, detailing, and concentration of information in one place without having to search for uncertain results in the infinite sea of pages whose authors or their qualifications do not know anything (Černý, 2008).

2.5.2 Wikipedia

Wikipedia, the world's most famous and most popular encyclopaedia, is ranked 7th in the world. It leads over the popular Facebook, and Orkut, and Microsoft websites. It has become one of the primary sources of information.

Wikipedia is a very unique project in terms of co-authorship on one project. The English version (with almost 2.5 million articles) is the most extensive, followed by German (764 thousand), French (673 thousand) and Polish (512 thousand articles). In this context, the recent Czech jubilee (100 thousand articles) is relatively insignificant. The Czech version, created on May 3, 2002, is the twentieth largest. It was created in a relatively short sequence after the English version, which was created in January 2001. The authors state that the total number of articles is about 10.6 million, about 505 million almost 50 per article). The main part of the responsibility lies with (just!) 4400 administrators. Perhaps the most commonly cited disadvantage of Wikipedia is that no editorial authority is responsible for the accuracy of the content. This complaint relates to the very essence of the way an encyclopaedia was created.

Researchers at Harvard Business School were looking for a response by comparing four thousand posts or entries from *Wikipedia* and comparing them to British content. They

focused on English-written entries covering American politics, and in particular, controversial topics such as the war in Iraq or legal migration during 2012. However the Harvard study showed that times have changed and entries are balanced and neutral. Nearly three million publishers are watching them, who often and violently fight for how the entry is to be formulated. (<http://cs.wikipedia.org/>)

3. Research

3.1 Research project

I conducted a questionnaire survey among pupils of primary and secondary elementary school in Kostelec nad Černými lesy where I teach the English language. It will be a sociological probe into the world of the youngest users of encyclopaedic type of information. The survey will show that users between the ages of 6 and 15 are able to easily find the information they need in electronic resources; the frequency of searches naturally grows with age. From the point of view of developmental psychology, the differences between boys and girls will be also very interesting.

I will prove that the importance and significance of encyclopaedic information has not diminished in electronic age, rather on the contrary, and this information has become widely available to even the smallest generation.

3.1.1 *Formulation of the problem*

This new era called *Electronic Age* has brought major changes not only in the technology of making and spreading encyclopaedic works, but also making no less significant changes to their users. While in earlier times encyclopaedic works were relatively expensive and except the public libraries or school libraries only a limited range of scholars owned it, nowadays the electronic sources of encyclopaedic information are available to practically anyone who is interested. Highly efficient and fast Google search engines are a common tool.

3.1.2 *Description of methods and techniques of data collection*

In choosing the research method, I used the benefits of a survey that allowed me to standardize respondents' answers to comparable categories. In the questionnaire, I have chosen clear questions that will provide clear answers; the introductory questions were formulated as closed, offering predefined answers, creating four subcategories from the research sample. I chose the other questions as an item for more claims from which the respondents chose. The open questions used in the questionnaire allowed respondents to express their opinion / preference, which was more difficult to interpret and evaluate.

3.1.3 Examined population

The sociological probe was carried out at the Primary School in Kostelec nad Černými lesy where I work as an English teacher. I determined the research sample with a quota selection so that it was made up of three classes of first degree pupils and four grades of pupils of the second degree.

I had 426 completed questionnaires for the survey, with: a total of 220 pupils, of which 110 girls and 110 boys, completed a questionnaire. From the second stage the questionnaires filled 206 pupils, 95 of them girls and 111 boys, see Table 1 Breakdown of the sample by age and gender.

Table 1 Breakdown of the sample by age and gender

Age of respondents	Girls	Boys
Primary school	110	110
Secondary school	95	111
Summary	205	221

3.2 Presentation of the results

In order to present the results of the sociological probes, I used the method of tabling the data into clear tables. For each table, I've created graphs from which the results of the investigation using the color resolution are obvious at first glance. Each Table and each chart are described, numbered and listed in the List of Tables and in the Chart List

Questions 1 and 2 were formulated as closed and pre-offered dichotomous answers (Yes-No answer). By evaluating these responses, I divided the participants of the questionnaire survey into four sub-ranges. (see *Table 1 Breakdown of the sample by age and gender*)

Question number 1: I am the following gender:

- a) boy
- b) girl

Question number 2: I belong to the following age category:

- a) Primary school student
- b) Secondary school student

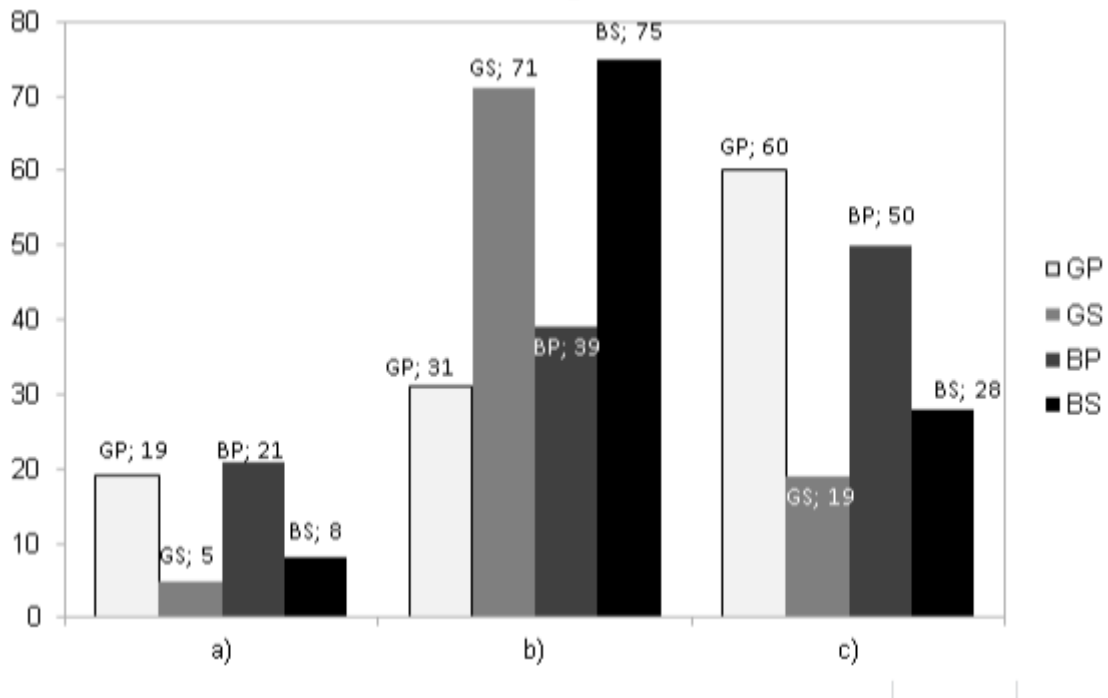
Question number 3: When I search for information, I prefer:

- a) Printed form of dictionary or encyclopedia
- b) Electronic form of dictionary or encyclopedia (eg Wikipedia ..)
- c) Ask other people (parents, classmates, buddies)

Table 2 Question number 3

	Girls		Boys	
	P	S	P	S
a)	19	5	21	8
b)	31	71	39	75
c)	60	19	50	28

Graph 1 Question number 3



Legend:

- GP Girls primary school
- GS Girls secondary school
- BP Boys primary school
- BS Boys secondary school

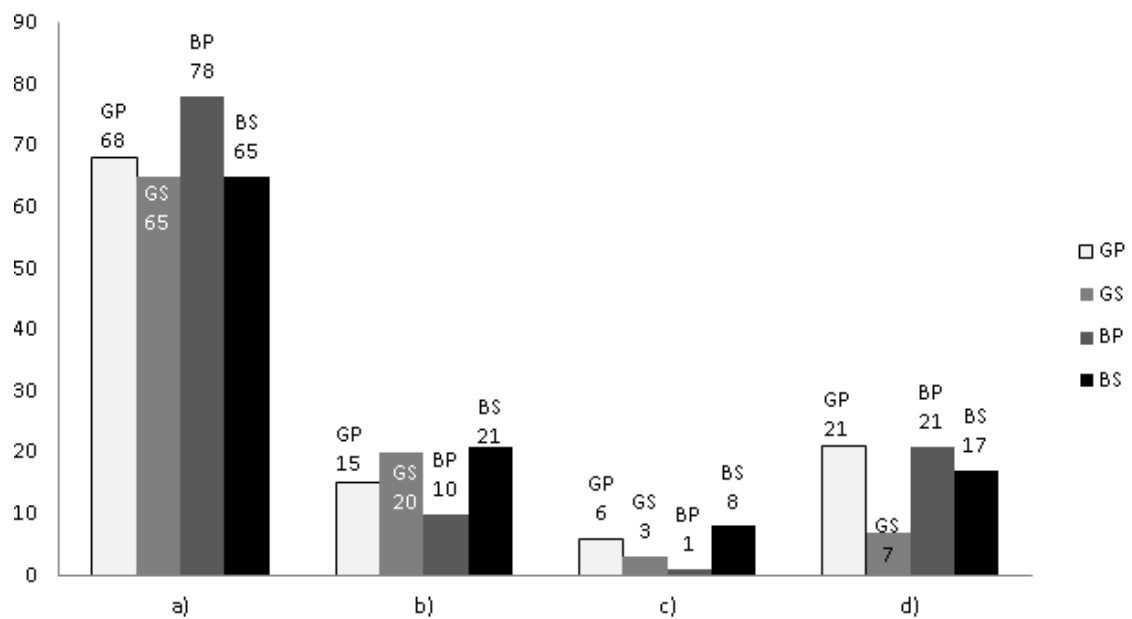
Question number 4: I most often search for information for the following purpose:

- a) To verify the correctness of information in the context of compulsory home preparation for schooling
- b) To gain new or deepen my current knowledge of the fields I'm interested in
- c) To help to find an information for a friend
- d) To make an impression on other person

Table 3 Question number 4

	Girls		Boys	
	P	S	P	S
a)	68	65	78	65
b)	15	20	10	21
c)	6	3	1	8
d)	21	7	21	17

Graph 2 Question number 4



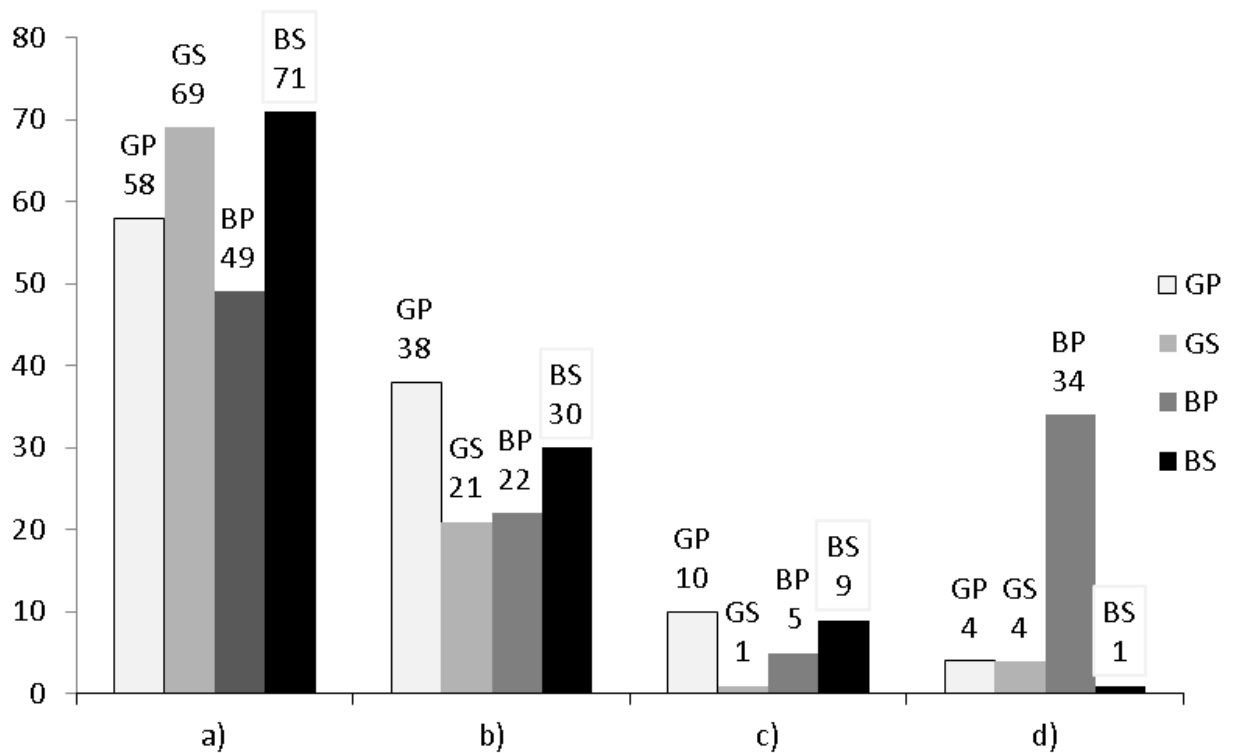
Question number 5: Last time I searched for information was:

- a) A few days ago
- b) A month ago
- c) A year ago
- d) I do not remember, it's been a long time ago

Table 4 Question number 5

	Girls		Boys	
	GP	GS	BP	BS
a)	58	69	49	71
b)	38	21	22	30
c)	10	1	5	9
d)	4	4	34	1

Graph 3 Question number 5



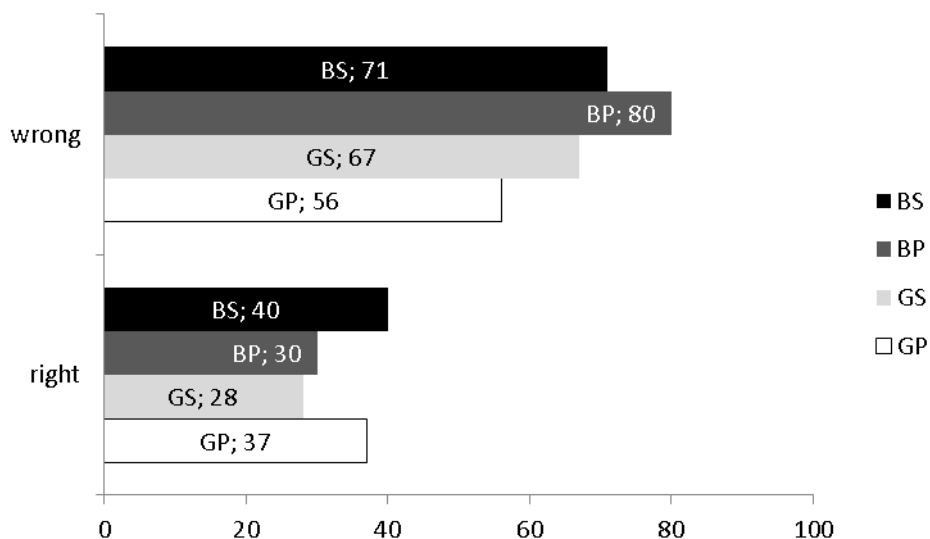
Questions number 6 and 7 were free, not all respondents answered, which is the percentage of the total number of respondents in the tables, respectively by age and gender subgroups. Respondents, in their words, said the difference between the encyclopaedia and the dictionary and named their favourite book. As a part of data sorting and cleaning, I evaluated these free answers and translated them into the results yes / no

Question number 6: Do you know the difference between encyclopedia and dictionary? (If so, give an explanation)

Table 5 Question number 6

	Girls		Boys	
	GP	GS	BP	BS
right	37	28	30	40
wrong	56	67	80	71

Graph 4 Question number 6



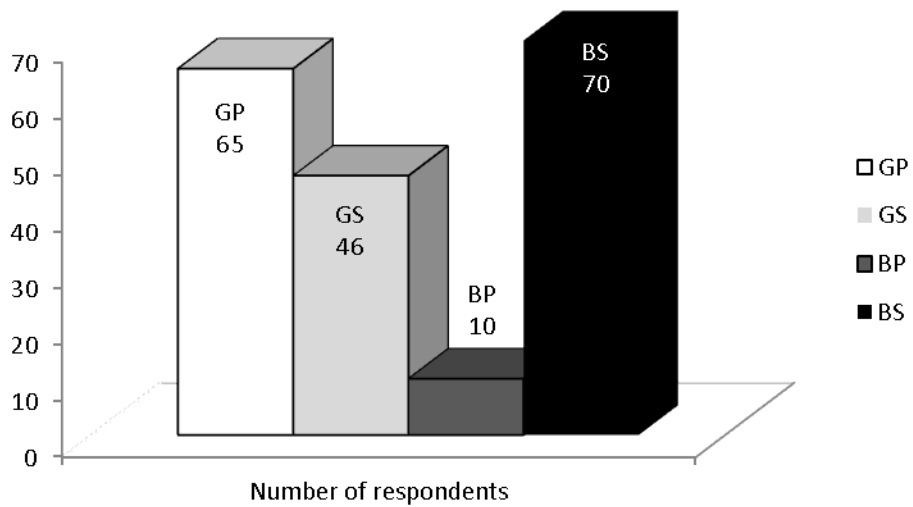
Question number 7: Name your favourite encyclopedia or dictionary

Number or percentage in relation to the total number of respondents GP 9%, GS 48,4%, BP 9%, BS 64%.

Table 6 Question number 7

	Girls		Boys	
	GP	GS	BP	BS
Number of respondents	65	46	10	70

Graph 5 Question number 7



4. Discussion

In the first part of the study I followed the long development of the idea of the encyclopaedia as an organized sum of human knowledge from the beginning to the twentieth century. A significant feature of this development was the exponential increase in the volume of encyclopaedic works which naturally reflected the rate of growth of human knowledge. A breakthrough in development has occurred with the arrival and general availability of electronic media and networks. This new era called *Electronic Age* has brought major changes not only in the technology of making and spreading encyclopaedic works, but also making no less significant changes to their users. While in earlier times encyclopaedic works were relatively expensive and except the public libraries or school libraries only a limited range of scholars owned it, nowadays the electronic sources of encyclopaedic information are available to practically anyone who is interested. Highly efficient and fast Google search engines are a common tool. Reflection can be also seen in the language, the verbs such as *to google* have become a common part of colloquial Czech and can be expected to soon be considered as literary expressions. Search engines generally offer Wikipedia as the first option.

There are disadvantages as well as advantages to the electronic world. What if a painting over the centuries which was believed to be original is discovered to be a fake? Or when a major company is renamed and therefore the entry belongs to another volume? On the other hand, the information is free, it is immediate, and it is more interactive as well as interesting than the printed versions of encyclopaedias.

In the web age sceptic voices are heard. The encyclopaedia is more an artifice than an information source, rather the enlightenment experience when the world appeared rational and easily measurable and descriptive. This is at odds with the reality of the end of the twentieth century which is a mosaic of many aspects or as a result of conflicting interests.

In the second part of my thesis, I attempted a sociological probe into the world of the youngest users of the encyclopaedic type of information. The results of the questionnaire survey among pupils of the primary and secondary elementary school confirmed what we all know or know intuitively already. Users between the ages of 6 and 15 are able to easily find the information they need in electronic resources; the frequency of searches naturally grows with age. In conclusion, the importance and significance of

encyclopaedic information has not diminished in electronic age, rather on the contrary, and this information has become widely available to even the smallest generation.

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Shrnutí

V teoretické části mé práce jsem se soustředila na historii encyklopedistiky od dob středověku. Poukázala jsem, že největší vývoj encyklopedií nastal během období renesance a osvícenství. Představila jsem rozsáhlé dílo, ve kterém na začátku stojí: "Věk náboženství a filozofie ustupuje století vědy". Velkou pozornost jsem věnovala encyklopediím Ephraima Chamberse a Denise Diderota a zvažila jsem klady i zápory obou encyklopedií. Zaměřila jsem se na českou tradici i na současný elektronický věk. Psala jsem o způsobu šíření nejnovějších informací a o úrovni kompetence autorů v moderní uspěchané době.

V praktické části jsem se pokusila o sociologickou sondu do světa nejmladších uživatelů informací encyklopedického typu. V závěrečné části jsem zhodnotila výsledky výzkumu. A v neposlední řadě jsem ukázala, že tištěná forma encyklopedií ztrácí schopnost poskytovat veřejnosti aktuální informace.

Klíčová slova: encyklopedie, znalosti, informace, elektronický, osvícení