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CREATING A WEB PLATFORM OF ONLINE EDUCATION FOR BAZIS
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Creating a web platform of online education for Bazis Online

Abstract

The following paper describes the process of creating a web design for an educational platform called Bazis Online. The main purpose of this Bachelor's thesis project is to become familiar with the basic issues related to web design and to create a graphical interface for Bazis Online – a Russian online educational platform. This paper focuses on research and development approaches. The topic of this thesis is related to information technology and user experience aspects in visual design.

The main web design principles have been analysed. The objective of the present work is to discover a solution for the problem of attracting and retaining new customers to a business with a modern and user-friendly interface.

Language

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Pages

Appendices

30

Keywords

Web Design, Graphic design, User interface, User research

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1 INTRODUCTION

The present thesis aims at gathering a solid theoretical and knowledge base to develop a practically based project. The primary target of this project is to create a web site design where the potential students of the Bazis Online institution could connect to and study from all over the globe, as well as to contact a lecturer and to get all the necessary information concerning their studies. Another aim of the new web site is to invent the possibility of registering and paying for studies online. Research in this thesis includes step by step guide for web site design, which includes determining all the needed design components and how they can affect the visual outcome. The main web design principles have been analysed. This thesis aspires to research different ways of creating a layout for a new web site by applying sufficient knowledge obtained during the theoretical research.

2 THEORETICAL FRAMEWORK

2.1 Plan and thesis framework

To succeed in a project-based practice realisation it is incredibly important to discover the process with a corresponding theoretical framework and determine all the main concepts involved in the process. In this research I will mainly concentrate on web design and explain the whole process of its creation in particular, from site mapping to actual design. Within the research process the user experience research methodology has been used, which is mostly based on a user psychology perspective. The project realization will be described in order to determine how web designers should apply psychological theory in their design process. In order to build a solid knowledge base, supporting the theoretical part of this thesis, I will cover web design basics to bring a clear understanding of the given topic.

The result of the project is a user-friendly, clean and stylish web site. Furthermore, all brand guidelines, logotypes, typefaces and pictures will be provided.

In addition, I will take basic web design principles, such as colour theory, typography, icon usability and current design trends into consideration. Thus, basic canons in web design will be reviewed and considered. Eventually, behind the distinct decision of creating a certain design there is a major and clear understanding of a web design basis. The design is supposed to be connected to Bazis Online's style, to support the brand spirit and attitude, help them to stick out in the educational market among other companies, and to be attractive to all new and already existing customers. To sum up, it is incredibly important to have an understanding of the brand strategy, the strong and weak sides, and what makes a client unique among the others. This research will help to concenter this information in the future while designing a web site for Bazis Online. In this process I will use different aspects of literature observation in order to reach the research objective and to get the final outcome.

2.2 Web design definition

According to Powell's definition: "Web Design is a multi-disciplinary pursuit pertaining to the planning and production of web sites including, but not limited to, technical development, information structure, visual design, and networked deliver" (Powell 2000, 5).

As it is written in a book called *Graphic Design Basics: Arts, Visual Arts*: various areas of web design contain specialities such as web graphic design; UI - user interface design, UX design, different search engine optimisation and authoring, including uniformed code and possessive software. (CTI Reviews 2016, 7.)

Generally used term "Web Design" depicts structure of the design process, which belongs to the front-end design part of a web site, also including the writing mark up. Web design is also fractionally overlaying web engineering part in the wider range of web development process. Web designers mostly tend to have definite knowledge of

usability, and if their roles engage creating mark-ups, that means they are also should be familiar with web accessibility guidelines. (CTI Reviews 2016, 12.)

A good web design is not just delivering content to the user and making it look good. It consists of many various disciplines in the production of websites. Designers commonly work in groups covering all parts of the web design process.

2.3 User interface and user experience in web design

According to Klein's article, user experience design is the process defining what the experience will be like when a user interacts with a certain web site or application. UX is the experience that a visitor has while interacting with a web site, therefore, UX Design means the process while which designers define what that experience will be. (Klein 2016.)

As Lamprecht mentions, "UX Design refers to the term User Experience Design, while UI Design means User Interface Design. Both elements are decisive to a platform and interact closely with each other. Contrary their professional relations, the parts they play themselves are rather distinct, referring to many different parts of a process and the design sphere. Where UX Design is mostly an analytical and technical area, UI Design is nearer to what we got used to determining graphic design. However, the duties are somewhat more complex." (Lamprecht 2016.)

The main target of UX is to get inside users' minds and to understand what they see. There are several ways of getting this information, such as interviews, surveys and web analytics to answer important questions such as:

- Why do they make the decisions they do?
- What are they looking for?
- How could they benefit from the web site?

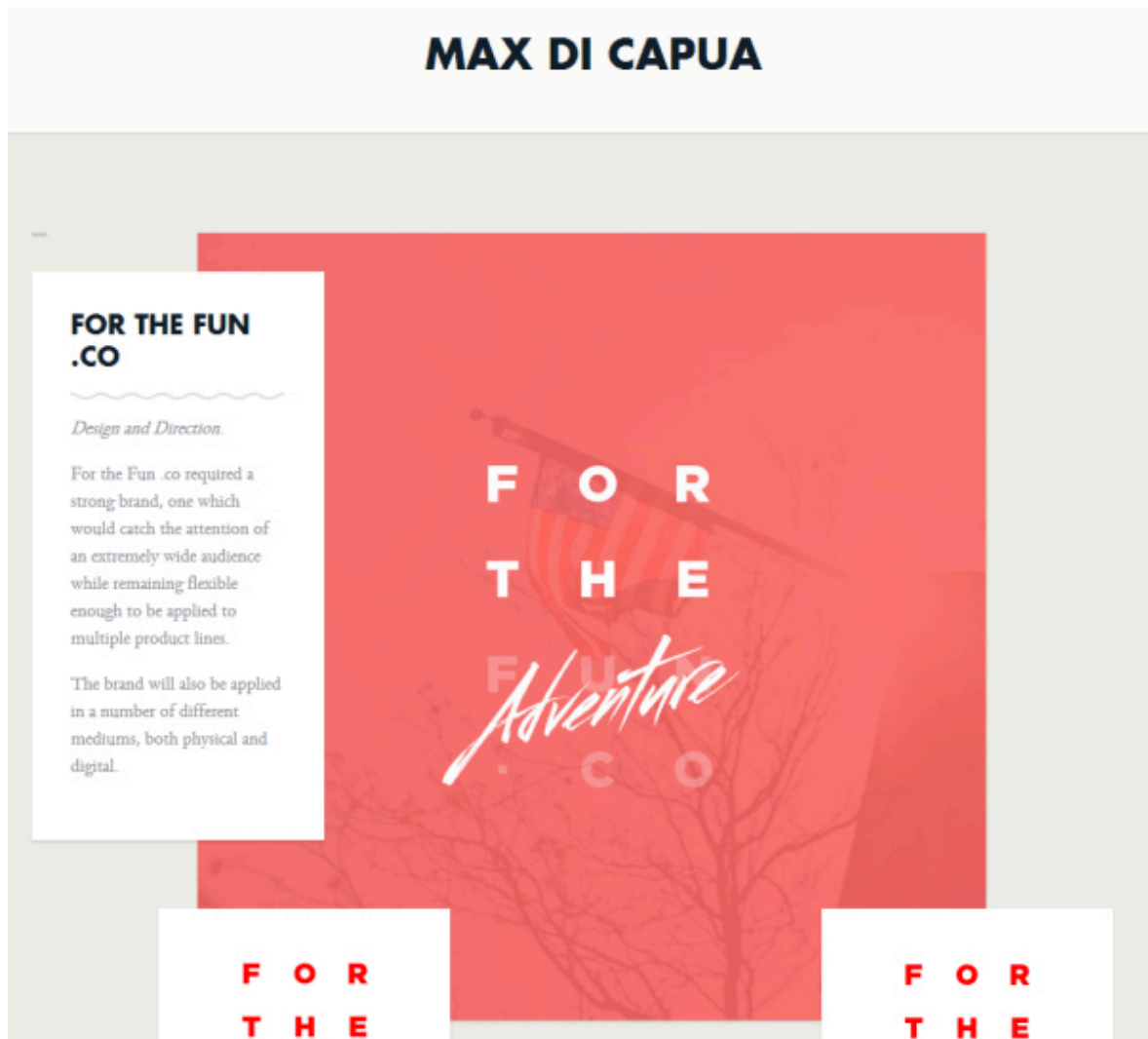
According to Klein, "people are always in the middle of something. Living their lives,

working on projects, building towards a goal they have. A designer has to anticipate user behaviour when they interact with a product, and how that interaction fits into their goals.” (Klein 2016.)

Another important thing that needs to be considered while creating a web site design it is its responsiveness. Responsive web design has become a necessary practice in building any site. It is very important to every web designer to be familiar with all the latest trends and practices in the field of web design and development.

Responsive Web Design, the formatting of web site design, is a method that it highly optimal for viewing and navigation via a broad scope of devices such as traditional personal computers, smartphones and tablets. RWD makes use of media requests, that let the page to clean out various CSS3 style orders; furthermore, flexible grids and images, as well as the website automatically adjusts itself for a variety of portable devices and their screens. (Lifewire 2016.)

2.4 Web design inspiration



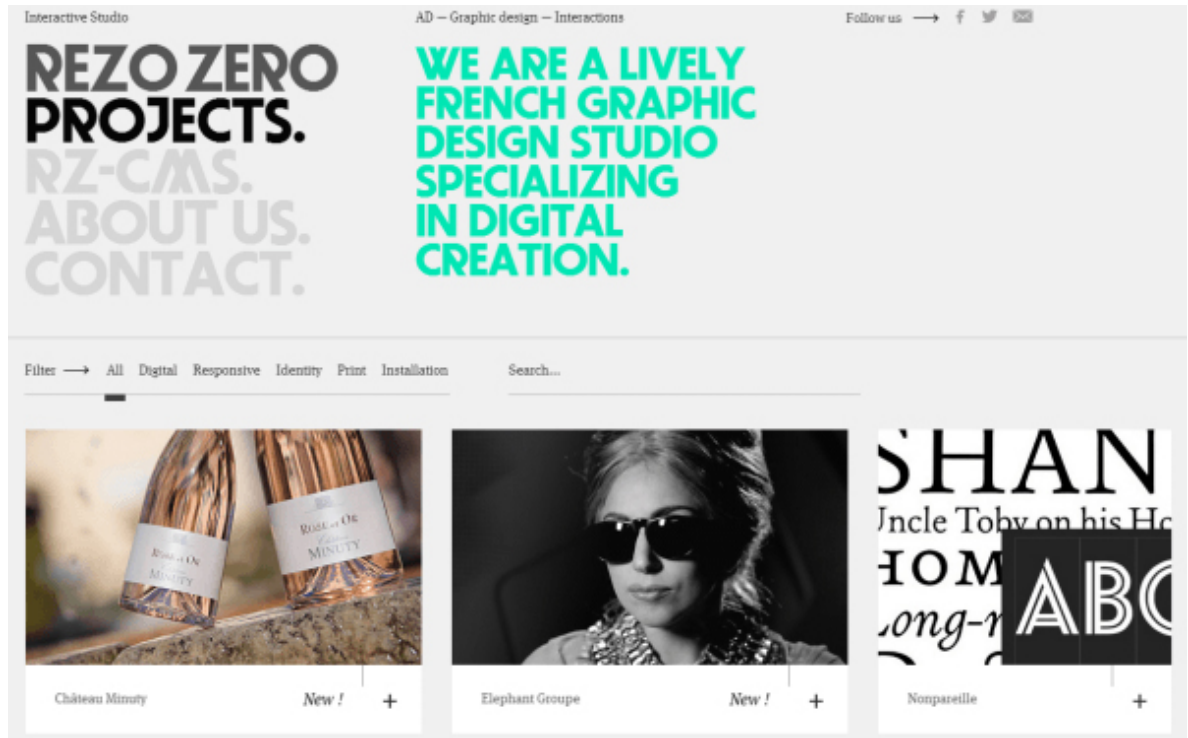
Picture 1. Main page of the web site Max Di Caupa <http://www.maxdc.co/>

Max Di Caupa's website represents a well-designed overlapping layout and nicely chosen typography, which work together as a modular system. The style of the layout seems to be refreshing due to its fluidity. Wide spaced typography looks invigorative and brings the feeling of something new and modern, especially serif typeface, that has been used for the headlines and body make them easy to apprehend.



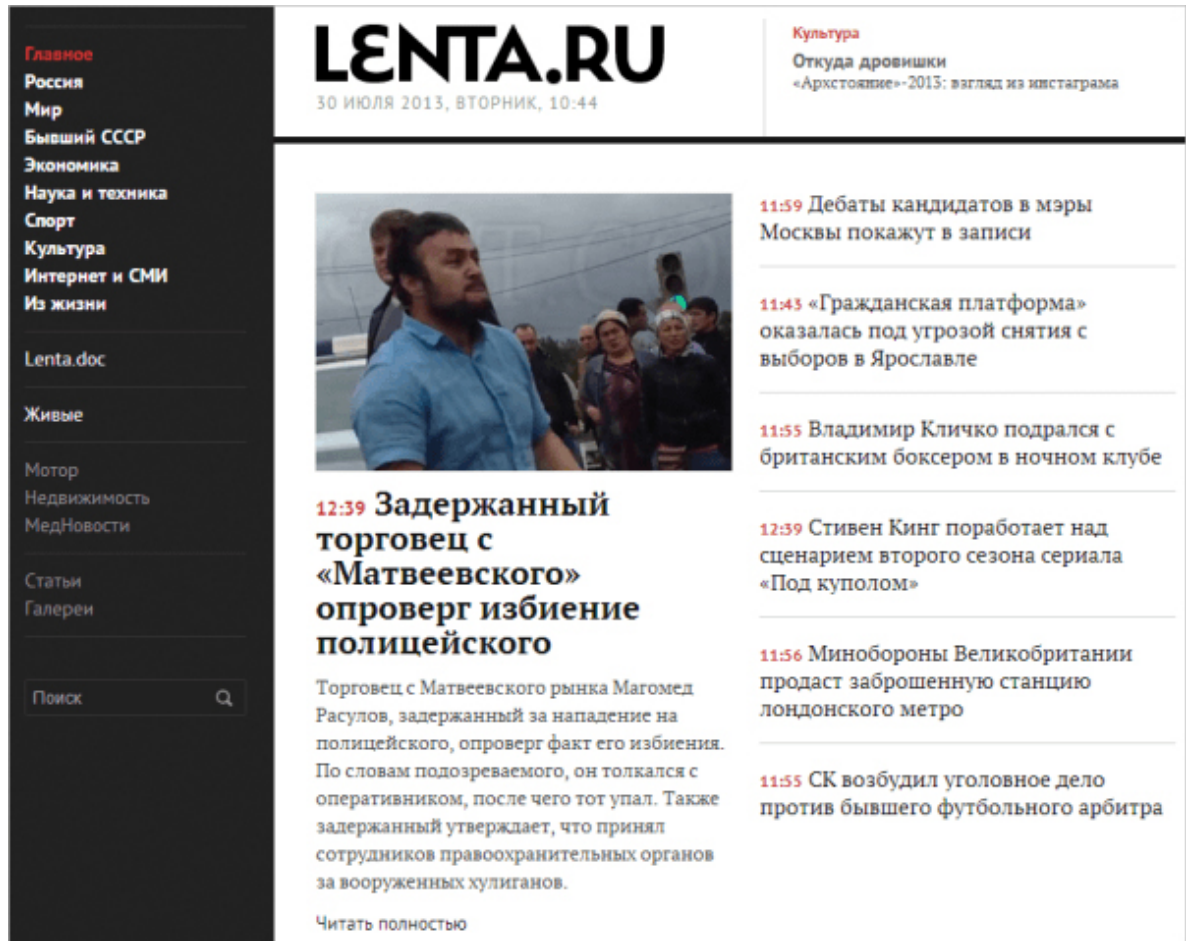
Picture 2. Main Page of ECC web site. <http://ecc.co.nz/>

Helvetica plays a main role in this website design. The graphical part in here is minimalistic, clean and neat. I personally enjoy the main elements such as buttons and other calls to action for being huge and bold. This helps them to grab visitor's attention. The way images are shown seems to be intriguing since they are appearing only after the area is hovered over. The navigation system is vertically oriented. This is not usual, but still comfortable in usage on this website.



Picture 3. Main Page of Rezo-zero web site. <https://www.rezo-zero.com/en>

The main character on the Rezo-Zero website is definitely a unique custom typeface. I think this typography brings up the identity of the brand by setting a light green colour against a grey-ish website. The typeface is neither overused nor underused.



Picture 4. Main page of Lenta news web site. lenta.ru

The Russian news website Lenta.ru amazingly combines its minimalistic style and graphical qualities with a huge amount of content and easy-to-use navigation. I adore the sans serif font that designers used on the web site.

3 BAZIS ONLINE

The client is a Russian company called the Institution of Professional Education Bazis with more than 100 offices in St. Petersburg, Moscow, and other cities. Since 1995, they have provided a wide scope of various courses taught in Russian language in different fields, from driving school classes to floristic, interior design, management, accounting and many other courses. During its existing period, Institution Bazis has established a strong reputation among their clients.

Within the high demand among students and growth of the institution's profits, in 2016 Bazis decided to go online. The sub company was named Bazis Online, and needs to have an online platform to run their courses via the internet. Bazis Online will ease lives of many students by allowing them to take lessons regardless of what their timetables may be and where they live. In contrast to face-to-face lessons, the interactions of the students establish an interactive effect, resulting in high quality dialogue.

In order to take a step to the creation process for a new web site, it is significant to understand the strengths and weaknesses of the company. The strong point of Bazis Institution is all about the content, the uniqueness of the courses they provide, and the ability to change and adopt to quickly changing technologies by updating studying programs and providing actual information to students. In online education the learning process becomes more student centred, bringing students more responsibility for learning. The target market for the service is people between 18-60 years old. The client has recently decided to approach to a younger market, which represents an important part of the potential future customers. Currently the main focus is to attract new young crowds, including students and pupils. Due to the many strengths of online learning it is becoming popular. Thus, competition in this field is increasing incredibly quickly. At the present moment, the main goal of Bazis is to run the project Bazis Online as soon as possible.

4. WEB DESIGN FUNDAMENTALS

4.1 Grid

According to Josef Müller-Brockmann's book *Grid System in Graphic Design*, a grid is a framework consisting of a range of horizontal and vertical lines, used to set content. (Müller-Brockmann 1981, 19.)

A grid system helps to create a solid shape and structure of the future web site, organizing sections of content in the right way. The main purpose of a grid in web design is to establish a set of guidelines for how elements should be positioned within a layout. A key aspect of a grid is its ability to help determine and define proportion. Using a grid-view is very helpful when designing web pages, since it makes it easier to place elements on the page.

"The grid system is an aid, not a guarantee. It permits a number of possible uses and each designer can look for a solution appropriate to his personal style. But one must learn how to use the grid; it is an art that requires practice." (Müller-Brockmann 1981, 22.)

4.2 Typography in web design

Content is one of the most important components on the website, thus typography needs to be a first priority while creating a web site design. Good websites usually have a nicely developed content hierarchy, indexes of where to start reading and where to continue.

As an enterprise, a major goal for subsistence is, as the near mythical Robert Bringhurst, the writer of *The Elements of Typographic Style*, would have it: "...to endow human language with a durable visual form, and thus, with an independent existence," (Bringhurst 2004, 36).

Typography evokes various emotions to web site visitors. Nowadays, thanks to CSS3, there is a huge variety of a different typefaces that can be used in web design.

As Turner mentions, typefaces are constructed to be used in definite context and for certain uses. Serif fonts (with diminutive serifs like Times New Roman typeface has) are usually identified as professionalism, and importance, whereas sans serif fonts (e.g. Helvetica) look mostly modern and bring a fresher, cleaner and more informal feeling. (Turner 2014.)

According to my personal observations, most news websites use serif fonts. It seems that it helps them to bring feelings of tradition and knowledge. Sans serif fonts mostly bring a modern feeling, giving refinement and a clean look to the interface.

Turner also writes that sans serif fonts are used by tech industry users to feel that they are up to date. They give a hint of a futuristic feeling. (Turner 2014.)

The manner in which typography is presented on the web site plays an important role as well. Leading and kerning need to be kept in mind, since texts seem to be easier to read with a larger kerning. Texts with a smaller kerning distance is hard to perceive more than one paragraph at one time.

As written in the Business Dictionary:

“leading is an essential design aspect that determines how text is spaced vertically in lines. For content that has multiple lines of readable text, you’ll want to make sure the distance from the bottom of the words above to the top of the words below has appropriate spacing to make them legible. Leading describes the vertical space between each line of type. In olden times actual strips of lead were used to separate lines of text vertically; the naming convention persists.”
(BusinessDictionary.com 2016)

Kerning is used to adjust the vicinity of neighbouring letters to optimise their visual aspect and readability. It allows to regulate rooms amongst specific characters in a range of text, using their native form and slope to refine their presence. If not kerning, some letter conjunctions (for example WA and VA) may seem clumsy and can prevent the smooth flow of eye movement lengthwise across the text. Kerning is even more

significant in italic letters, and as well as when the size of the font increases (e.g. in headlines). (BusinessDictionary.com 2016.)

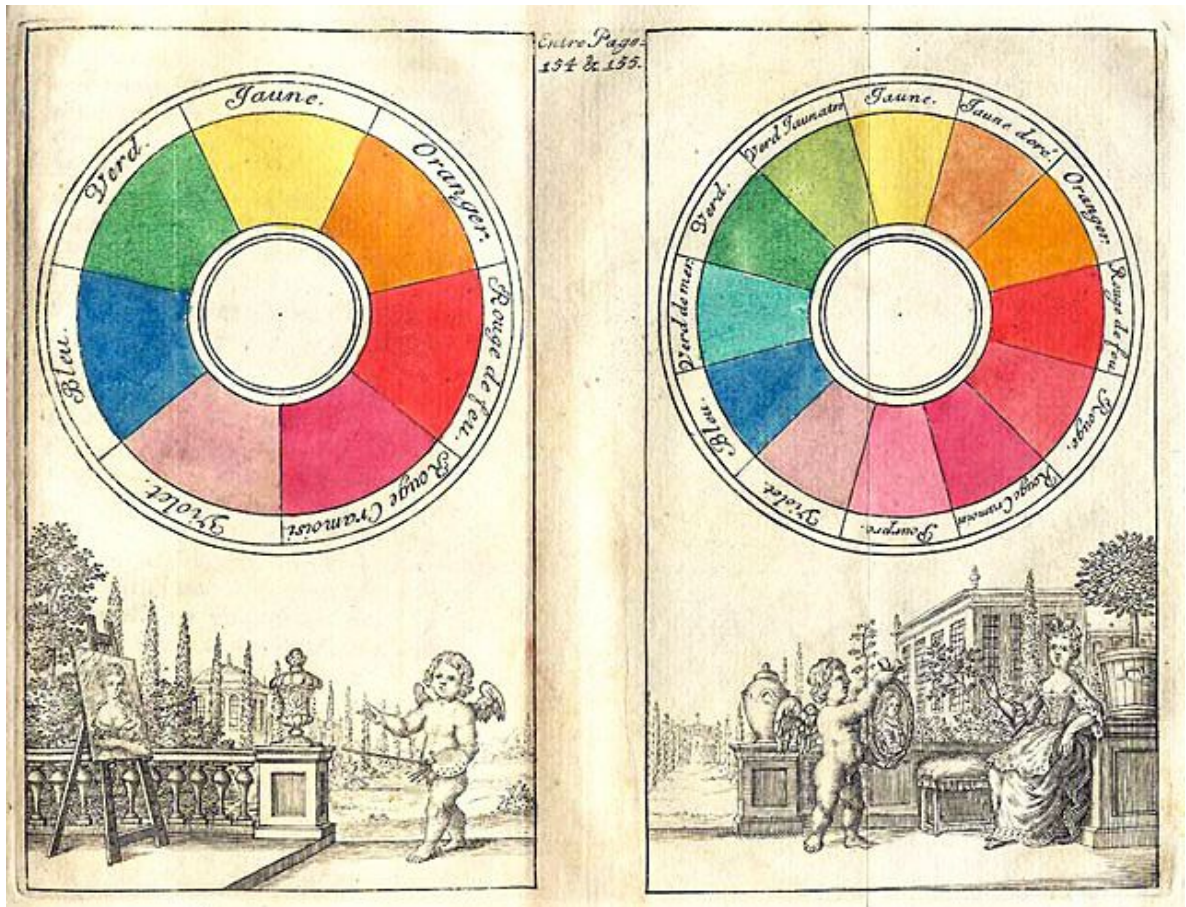
4.3 Colour theory in web design

Colour theory is a sphere that some people have given their lives to studying, and there is a great case of science behind colour matching and combining. Nevertheless, in every field various colours have diversifying emotional and psychological effects on viewers. Colours affect people in many ways, both mentally and physically.

Picking the right colour palette in website design is important. Nevertheless, a lot of people mostly think from only aesthetic aspect of it. In fact, different colours evoke various emotions in viewers while changing perceptions of the company in question. It is significant to portray the company's website in the correct light with the best colours.

The way colours are used to help produce positive and affirmative feelings relies on the tint, darkness (shade) and hue of the colour likewise as how much of the colour is opt to use in design.

A colour wheel, based on red, yellow and blue, is traditional in the art sphere. The first colour wheel was created in 1666 by Isaac Newton.



Picture 5. Isaac Newton colour wheel (1666)

The primary colours - blue, yellow, and red – are arranged around the circle. Secondary colours - green, orange, and purple, fit between the primary sections. Purple is located between red and blue since those are the two colours required to make purple. Green and orange follow suit in their placement. Tertiary colours are added in the same way – by combining adjacent colours and then displaying the result between them. Colours on opposite sides of the wheel that create one another called complementary colours. The maximum contrast these combinations create can bring out the best in each colour when properly applied. Examples are green plants with purple flowers, or blue shirts with yellow trim.

4.4 Psychological aspect in web design

Once users come to a web site, they generate certain feelings about the company. The kind of feelings they produce – positive or negative – are completely in the designer's hands and should not be skipped during the design process. Over the past decades, there has been enormous knowledge produced to assist designers while their creating process, so far as effective graphics go into the psychology of their users. In order to achieve this, one has to understand how different web design elements work and how we use them to affect the attitude, mood and experience the web site the visitor will have whereas browsing.

It is incredibly important to keep all the content on the website clean, readable, well-organised, professional and concise to help aid in the psychology of the future visitors and produce positive emotions, since how a web page is organised can affect how a user feels while he is there. Managing content must be a priority in any web design process, but also this organisation should take into consideration the space it takes up on the web site. "White space" is the area of a design where no content or visual element demanding attention is located. White space plays an effective role in any type of design work, especially in web design, since it visually brings a resting place for the user.

When a user visits a website where every centimetre of real estate on the screen is taken up by content, it starts to feel chaotic and makes the user uneasy. If no free space is present, the user cannot give his eyes a visual break. It is important to take some time and to organise the content correctly. In the end it will bring a feeling of professionalism, organisation and overall positive feelings to the user.

4.5 Icon design

By definition, icons are a visual representative of an action, object or idea. The selective use of icons makes certain items stand out more or add visual interest.

I have found out several benefits of using icons in a graphical user interface:

- Icons are visually pleasing and enhance the aesthetic appeal of the design.
- Icons help to economize space, being compacted enough to let toolbars to show different icons in a comparatively small space.
- Icons are attentive of cultural distinctions, and there is no necessity to translate icons for all international visitors.
- Icons correspond as the same style and icons are used in a few places on the layout.

Nevertheless, icons are not really suitable for everything abstract, such as Bid or Invoice, since abstract things mostly do not have a strong visual image. Concerning Bid and Invoice icons - both could be presented as a paper document, and there is nothing distinguishing between them. By this I suppose that when space allows, icons combined with text is best.

5 BAZIS ONLINE WEBSITE DESIGN

5.1 Design brief

The main task is to make a comfortable-to-use, relevant and stylish web site design

for Bazis Online. The site is dedicated to the direction of "Online Education". Each page should correspond to a single course. The domain home page consists of general information about online education and its benefits. It is required to have several calls to action in there, such as "buy course", "call back" and "sign up". System design should be accurately displayed on any type of monitor and with any type of web connection (modem, high speed channel, etc.) Graphical elements should be light enough to ensure the high speed of loading pages on the site; a web site should provide for the easy identification of a visitor to the course. A site should be correctly displayed on all possible screen sizes and resolutions; this requires a responsive design. The interface of the site should provide a visual, intuitive representation of the structure placed on it, and a quick and logical transition to the sections and pages. Navigational elements should provide a clear understanding of their meaning by the user. Content menu should be used for comfortable navigation on the web site. If the site contains a link to another website, it should be opened in a new window. Above all, the client also required additional visual elements such as icons, signs, etc.

As for the visual aspects, the client suggested using darker and calm shades, avoiding bright red and yellow colours.

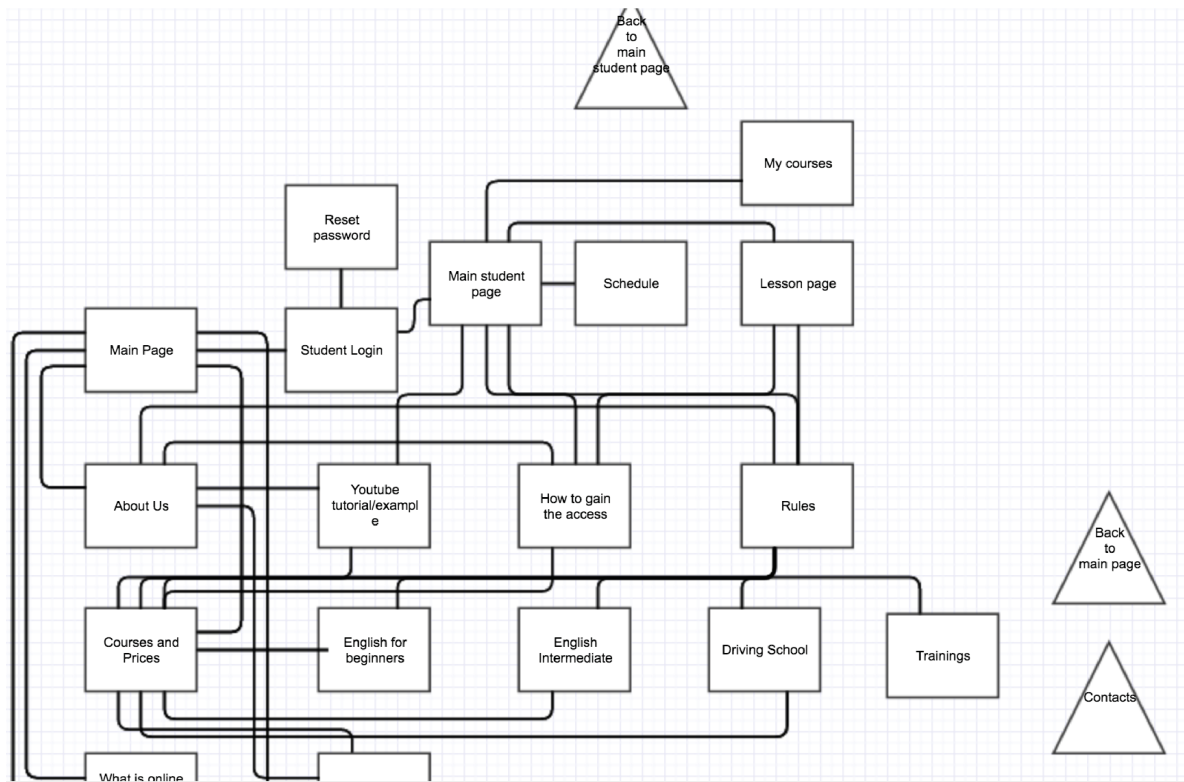
5.2 Design process

The plan is the first and one of the most important things that should be done when working on a new project. The planning stage really matters - it is more likely that the project will go smoothly and without as many problems and challenges when a project is well-planned. Another important thing to work on while planning is related to the site's content - create a site map. Website map gives a clear understanding of how all the hierarchy works together on the site, how the content fits all together overall, etc.

However, as well as all the work to do with the content it is also nice to start looking at the core of the project, workable deadlines and the project scope.

After I received the web content from the client, the first thing to do was to deeply

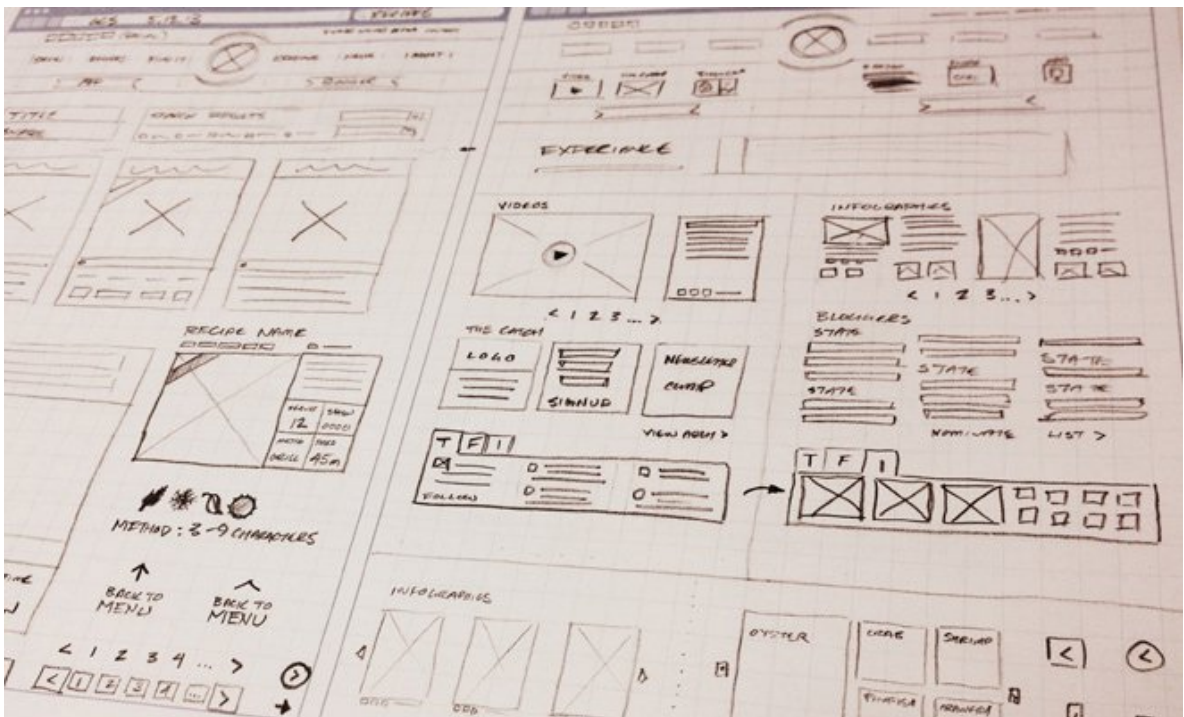
analyse the content and try to spot anything that might need changing or removing. During this process, I went through the content and assigned three colours to it – green for the one which needs to be kept on the future website, yellow for the unnecessary content and red for the content that needs to be removed. The further destiny of the yellow marked content was discussed and resolved during meetings with the client. In my opinion, it is a pretty good technique to quickly sort through the given content and to point out important contents of the future website.



Picture 6. Bazis Online web site map

According to Hobson (2001, 2016), “a hierarchy is a system or organisation in which people or groups are ranked one above the other according to the status or authority – and we actually can apply this statement while working with content hierarchy. Basically, we are creating a system that displays our content in a useful and significant way. During the content sorting process, I was always thinking about how the content belongs and how it will be spread out.”

When the content is sorted out and wireframes are ready, it is time to start creating an actual design. Basing on my own experience, before jumping onto a computer and starting to draw, I prefer to sketch out all the ideas that I have. The aim of the sketching is to get rid of all of the rubbish ideas before starting the actual design and to explore ideas I might come up with further. The essential benefit of sketching is that it helps to clarify how to imagine the rough layout of the future design. It is also a great opportunity to experiment and to think in a disorganised way about how design elements could work.



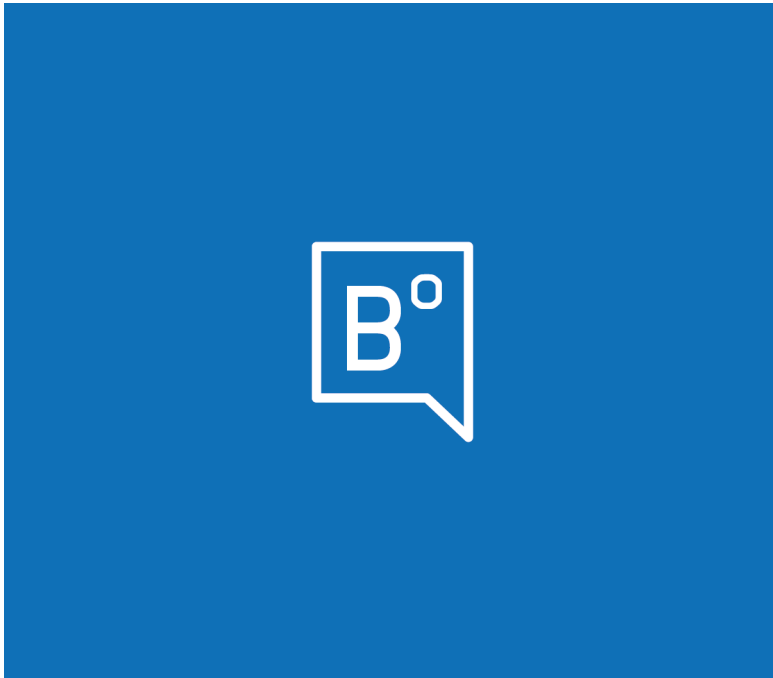
Picture 7. Web design sketches

Another significant things that have to be done before beginning work on the web site's design are wireframes. According to Garret, a wireframe is a 2D exemplification of a page's interface, which concretely focuses on space allocation and the prioritization of content, available functionalities, and betrothed behaviours. For these reasons, wireframes usually do not include any graphics, colour or styling. Moreover, they help to establish relationships between a website's various templates. (Garrett, 2002, 17.) This means that wire framing is a significant manual for a web site which

allows the designer to see the website layout without thinking about the actual design aspect of the project using the previously edited content. At some point, creating wireframes is an optional but important step, since it displays the visual layout without thinking about visual details like typography, colours, etc. Well-written and nicely displayed content that is clear and understandable to those who are going to read it will result in a better and more qualified design.



Picture 8. Bazis Online wireframes



Picture 9. Bazis Online sign

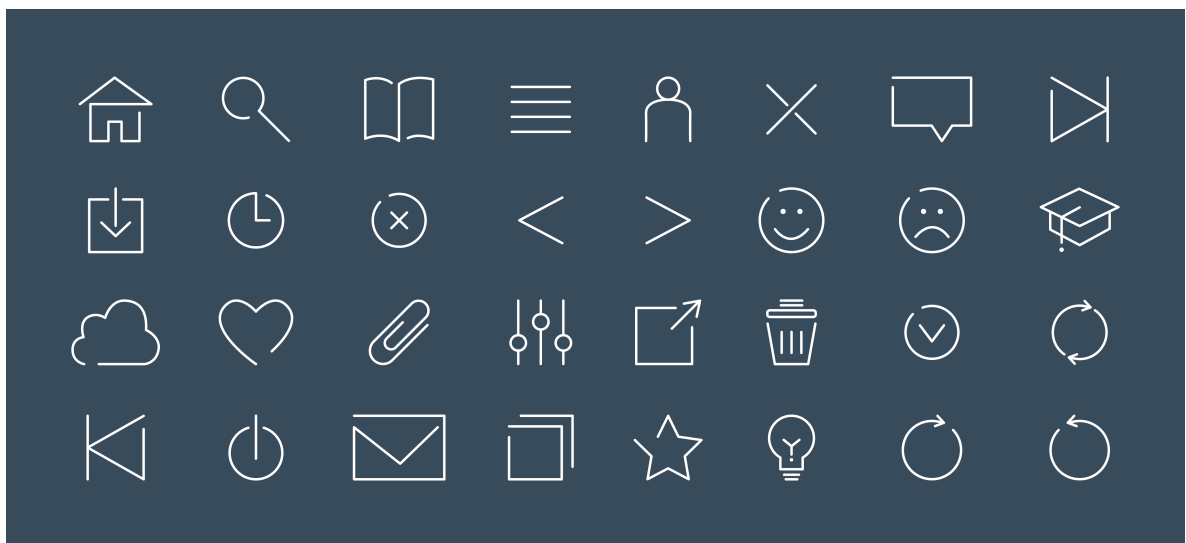
In web design it is crucial to make tough hypotheses about users. Nevertheless, colouring is one area where some small exceptions can be made. Because colour mostly evokes different feelings for every person, it is better to try a wider assumption of what a colour can mean to Bazis Online's target audience. It is also important to consider how colours will be used physically by visitors. Another thing to keep in mind is how selected colours could be deliberated by people with certain visual difficulties. It is nearly impossible to predict what kind of visual difficulties users might have; we can try to use colours efficiently, but carefully, so as not to produce any further problems for web site visitors.

The typeface in the primary paragraphs is Futura, since it is a sans-serif font and is comfortable to read on the web. The headers in the layout have a bolder typeface called Futura Bold, and with some paragraphs Black, used to underline the headings and express comparative significance. A text body size of 16pt was chosen. The text colour is white on darker backgrounds and dark grey (#2b2727) on lighter backgrounds.



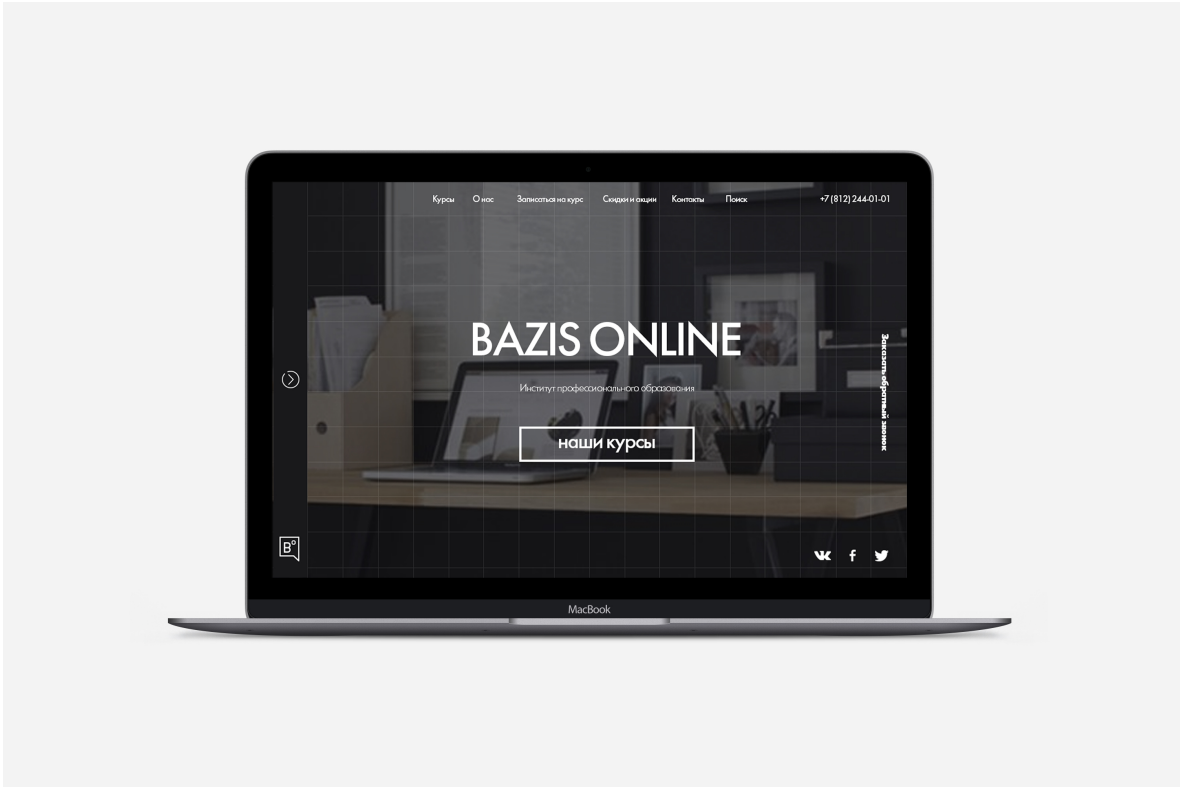
Picture 10. Chosen typeface Futura showcase

Each icon in an interface has a certain purpose. Apart from just saving free space on the screen they also bring a better understanding of the interface and help to navigate by being a visual submission of an action. In my icons design I mostly paid attention to their meaning and perviousness, not just following brand personality.

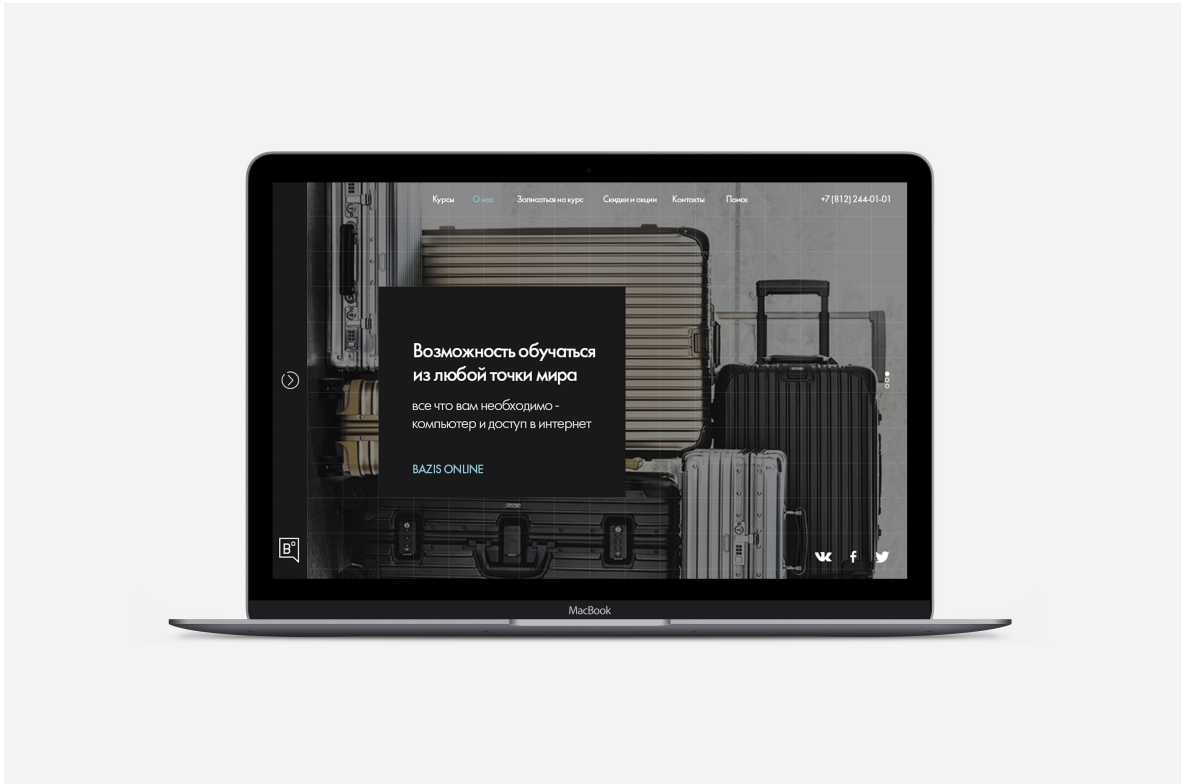


Picture 11. Bazis Online web site Icons

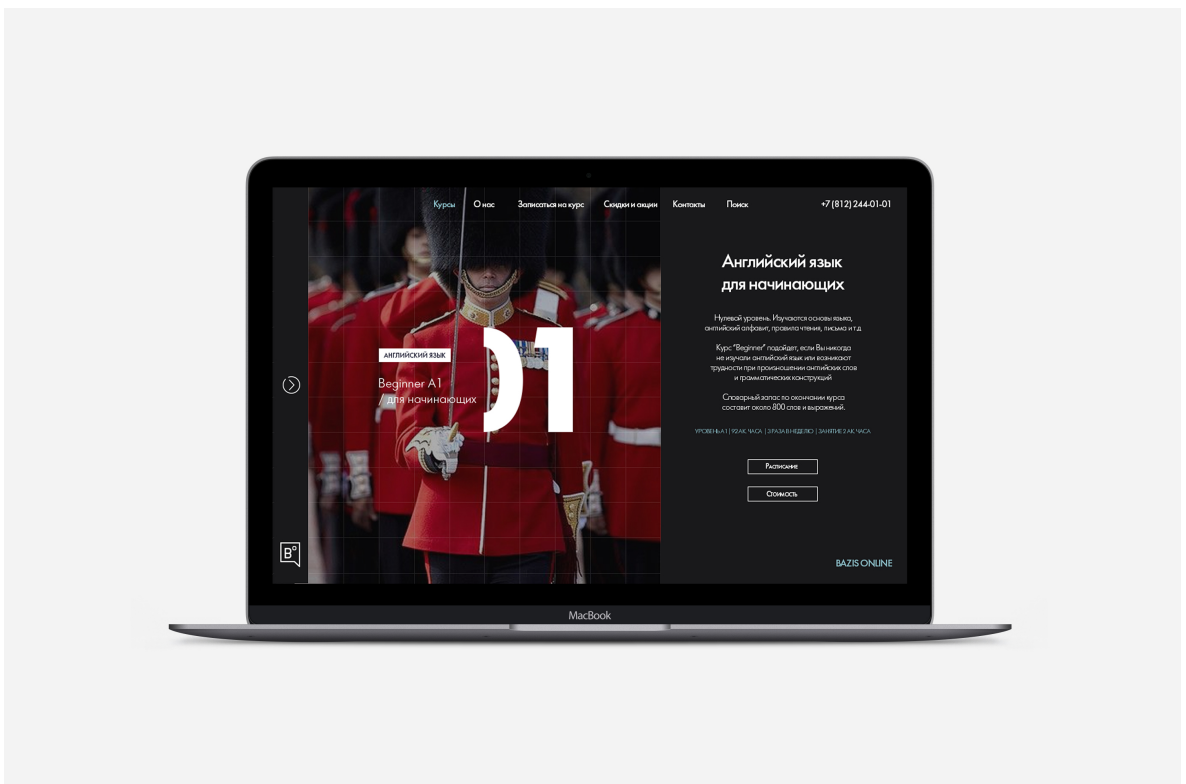
5.3 Outcomes (final design)



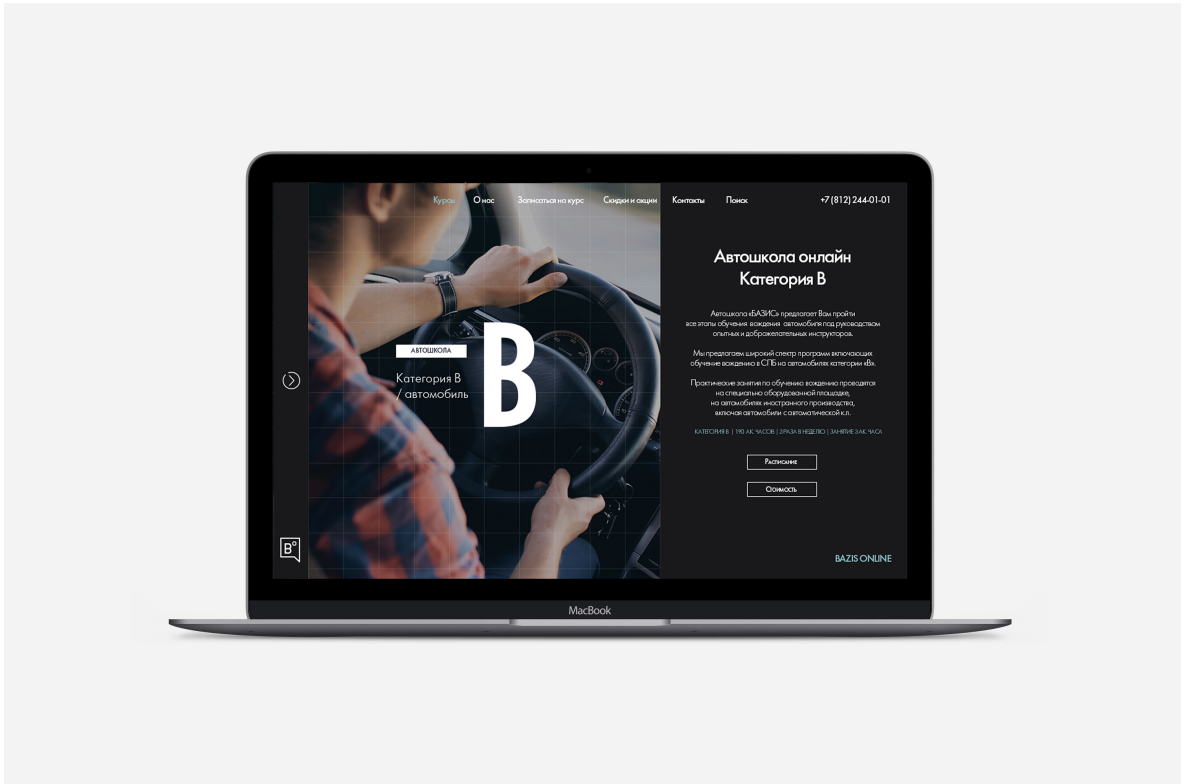
Picture 12. Bazis Online Main Page



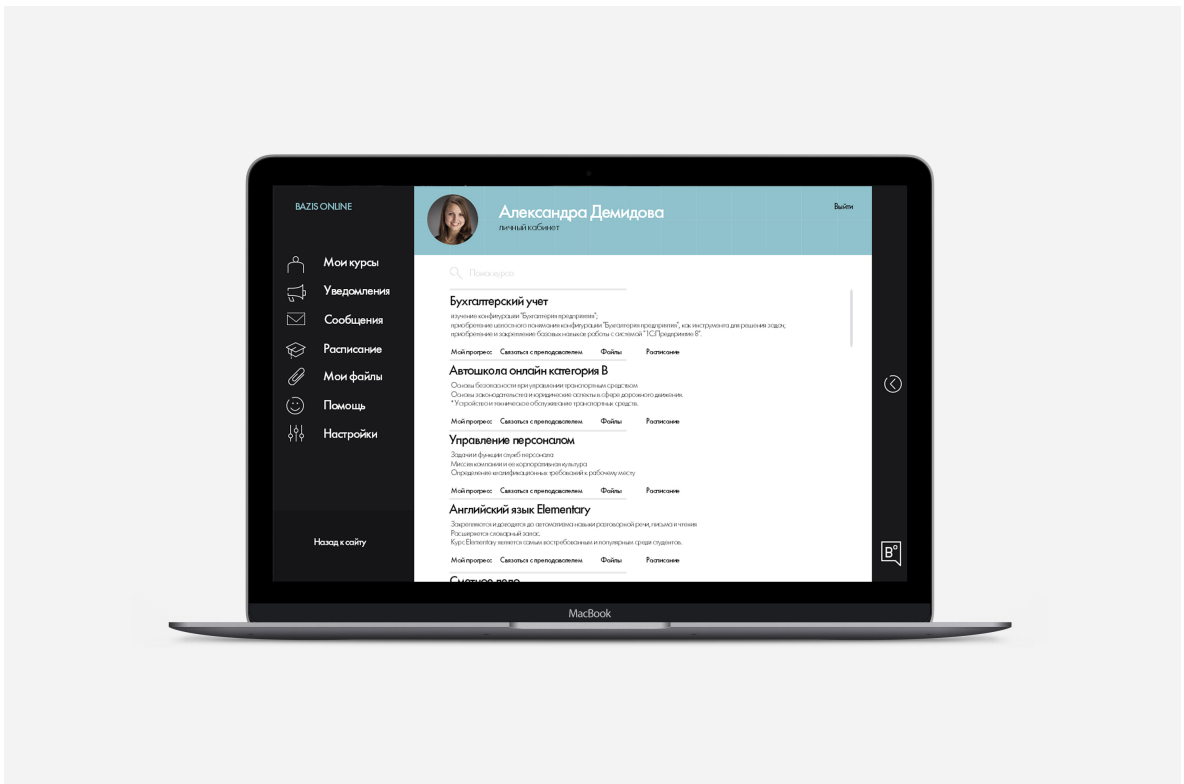
Picture 13. Benefits of online education page



Picture 14. Bazis Online Course page (English language Beginner level)



Picture 15. Bazis Online Course page driving school (theoretical part)



Picture 16. Bazis Online Personal student page design

6 CONCLUSION

First of all, 5 main pages and 96 secondary web pages were made. The final design is presented in chapter 5.3 - Outcomes. Due to the huge amount of material, I have attached just the key designs of the web site.

From my experience, as laid out in this thesis, there is always a way to accomplish what is strived for if one continues to take different perspectives on it. These processes have allowed me to gain developmental knowledge as well as reaching the final goal of creating a website from an idea.

The images used in the final designs were bought from an online, royalty free, international micro stock photography provider called IStock by Getty images.

6.1 Research learning outcome

I feel satisfied for being able to participate in something as huge and important to the Russian educational field as this present study. It was a great chance and a huge responsibility to work with the creative team of professionals in the institution and to understand how the educational business is arranged from inside.

Apart from the theoretical constituent of creating a web site design following the research guidelines, I realised that it is important to understand a client's wishes concerning the web site's outlook. In the end, Bazis Online's web site introduces a very confident and bold design that functions, communicates with users, and has pervasive usability.

6.2 Feedback from the customer

I asked seven company members who were responsible for this design project for feedback. In the end, the client was satisfied with the final design and the functionality

of the web site and gave positive feedback. Furthermore, the client highlighted that the new website seems to function well and is easy to use for all the target groups. The results show that the website's design follows usability and a good user experience to lead to success in the future. Later, the client offered to work on further projects as well.

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