

Ministry of Education and Science of Ukraine  
**ODESSA NATIONAL ACADEMY OF  
FOOD TECHNOLOGIES**

International Competition of  
Student Scientific Works

**BLACK SEA  
SCIENCE 2020**  
**PROCEEDINGS**



**ODESSA, ONAFT 2020**

Ministry of Education and Science of Ukraine  
Odessa National Academy of Food Technologies

International Competition of Student Scientific Works

# **BLACK SEA SCIENCE 2020**

**Proceedings**

Odessa, ONAFT 2020

Editorial board:

**Prof. B. Iegorov**, D.Sc., Rector of the Odessa National Academy of Food Technologies, Editor-in-chief

**Prof. M. Mardar**, D.Sc., Vice-Rector for Scientific and Pedagogical Work and International Relations, Editor-in-chief

**Dr. I. Solonytska**, Ph.D., Assoc. Professor, Director of the M.V. Lomonosov Technological Institute of Food Industry, Head of the jury of «Food Science and Technologies»

**Dr. Yu. Melnyk**, D.Sc., Assoc. Professor, Acting Director of the G.E. Weinstein Institute of Applied Economics and Management, Head of the jury of «Economics and Administration»

**Dr. S. Kotlyk**, Ph.D., Assoc. Prof., Director of the P.M. Platonov Educational-Scientific Institute of Computer Systems and Technologies “Industry 4.0”, Head of the jury of «Information Technologies, Automation and Robotics»

**Prof. B. Kosoy**, D.Sc., Director of the V.S. Martynovsky Institute of Refrigeration, Cryotechnology and Ecoenergetics, Head of the jury of «Power Engineering and Energy Efficiency»

**Prof. G. Krusir**, D.Sc., Head of the Department of Ecology and Environmental Protection Technologies, Head of the jury of «Ecology and Environmental Protection»

**Dr. V. Kozhevnikova**, Ph.D., Senior Lecturer of the Department of Hotel and Catering Business, ONAFT, Technical Editor

**Black Sea Science 2020**: Proceedings of the International Competition of Student Scientific Works / Odessa National Academy of Food Technologies; B. Yegorov, M. Mardar (editors-in-chief.) [*et al.*]. – Odessa: ONAFT, 2020. – 621 p.

Proceedings of International Competition of Student Scientific Works «Black Sea Science 2020» contain the works of winners of the competition.

The author of the work is responsible for the accuracy of the information.

Organizing committee:

**Prof. Bogdan Iegorov**, D.Sc., Rector of Odessa National Academy of Food Technologies, Head of the Committee

**Prof. Maryna Mardar**, D.Sc., Vice-Rector for Scientific and Pedagogical Work and International Relations of Odessa National Academy of Food Technologies, Deputy Head of the Committee

**Prof. Stefan Dragoev**, D.Sc., Vice-Rector for Scientific Work and Business Partnerships of University of Food Technologies (Bulgaria)

**Prof. Baurzhan Nurakhmetov**, D.Sc., First Vice-Rector of Almaty Technological University (Kazakhstan)

**Prof. Mircea Bernic**, Dr. habil., Vice-Rector for Scientific Work of Technical University of Moldova (Moldova)

**Prof. Jacek Wrobel**, Dr. habil., Rector of West Pomeranian University of Technology (Poland)

**Prof. Michael Zinigrad**, D.Sc., Rector of Ariel University (Israel)

**Dr. Mei Lehe**, Ph.D., Vice-President of Ningbo Institute of Technology, Zhejiang University (China)

**Prof. Plamen Kangalov**, Ph.D., Vice-Rector for Academic Affairs of “Angel Kanchev” University of Ruse (Bulgaria)

**Dr. Alexander Sychev**, Ph.D., Assoc. Professor of Sukhoi State Technical University of Gomel (Belarus)

**Dr. Hanna Lilishentseva**, Ph.D., Assoc. Professor, Head of the Department of Merchandise of Foodstuff of Belarus State Economic University (Belarus)

**Prof. Heinz Leuenberger**, Ph.D., Professor of the Institute of Ecopreneurship of University of Applied Sciences and Arts (Switzerland)

**Prof. Edward Pospiech**, Dr. habil., Professor of the Institute of Meat Technology of Poznan University of Life Sciences (Poland)

**Prof. Lali Elanidze**, Ph.D., Professor of the Faculty of Agrarian Sciences of Iakob Gogebashvili Telavi State University (Georgia)

**Dr. V. Kozhevnikova**, Ph.D., Senior Lecturer of the Department of Hotel and Catering Business of Odessa National Academy of Food Technologies, Secretary of the Committee

# **3. INFORMATION TECHNOLOGIES, AUTOMATION AND ROBOTICS**

## SEO - EDUCATIONAL SITE ANALYSIS

**Author:** Kostyantyn Morozovskiy

**Supervisor:** Iryina Kononovich

*Odessa National Academy of Food Technologies (Ukraine)*

**Abstract.** *What is SEO and what does it eat? Description of the importance and difficulty in mastering.*

**Keywords:** *SEO optimization, training material, work with a search engine.*

### **Introduction**

To help users navigate the Internet in a huge variety of online resources, there are specialized arrangements - search engines. Each search engine such as Google or Yandex, have their own search engine to query received from the user. Through this mechanism, the search engine selects the most appropriate search resources and gives them a list of the user. But somehow one site gets the first position and the second, exactly the same topics and close to content not included even in the top hundred.

Search engines regularly index sites on the Internet. In addition, each resource is given a rating index and relevance. Based on ongoing indexing search engine instantly produces a list of results, most closely matching the key request.

Every website owner would like to get into the top ranks of the list, but few people know that in the top position of search engine can be controlled. A set of actions aimed at improving life in the top positions of search, called SEO-optimization.

### **1. Analytical review of the literature**

Keyword selection is one of the most important stages of SEO. From what the "right" key phrases will be selected for optimiztsii, determine the fate of the site. Research popular search need not only of semantic core site, but also to study the target audience.

A well-chosen keywords not just attract traffic to the site - they attract targeted traffic. The benefits of properly folded semantic difficult to overestimate. It can be predicted jumps in demand, respond to changing market conditions and offer consumers goods, services and content they need. In the history of marketing there was no better way of studying the target audience than working with keywords.

There are many methods for determining keywords. Here are some tips:

- Viewing the source code of web pages of competitors;
- Choosing low keywords that have less competition;
- Using Google Trends, which analyzes of user queries to Google and calculates the number of times searched word;
- Do not use a single word. The phrases rather than words;
- Choose for words that often seek, but have weak competitiveness;
- To control the density of keywords in the text;
- Relevance. It is necessary to ensure that the site description reflects exactly what is offered;
- Not included in the kernel requests correctly. Similar searches automatically correcting system, and issue goes completely different. Also misspelled

keywords should not be used when writing text, as this may damage the company's reputation;

- Watch for a keyword. Best Places in HTML - tag <title>, header tags <h1>, <h2>, alt-tags, text, links, tags, bold / italics, URL-addresses, meta tags and comments;
- Locate keywords: to use its geographical position, but should avoid using too specific words;
- Do not use unnatural queries that will be difficult to fit into the content of the site;
- You must use the tools available to search keywords: keywordtool [1].

This site uses keywords and phrases: moodle, Distance Learning Center ONAFT.

```

<title>Центр дистанційного навчання ОНАФТ</title>
<link rel="shortcut icon" href="http://moodle.onaft.edu.ua/theme/image.php/anomaly/theme/1347355760/favicon">
<meta http-equiv="Content-Type" content="text/html; charset=utf-8">
<meta name="keywords" content="moodle, Центр дистанційного навчання ОНАФТ" == $0
<meta http-equiv="pragma" content="no-cache">
<meta http-equiv="expires" content="0">
<link rel="stylesheet" type="text/css" href="http://moodle.onaft.edu.ua/theme/yui_combo.php?3.5.1/build/cssreset/.83.5.1/build/csssprites/erids-
min.css83.5.1/build/cssbase/base-min.css">
<script type="text/javascript" src="http://moodle.onaft.edu.ua/theme/yui_combo.php?3.5.1/build/yui/yui-min.js"></script>
<script type="text/javascript" src="http://moodle.onaft.edu.ua/theme/yui_combo.php?3.5.1/build/yahoo/yahoo-min.js83.5.1/build/don/don-min.js"></script>
<link rel="stylesheet" type="text/css" href="http://moodle.onaft.edu.ua/theme/yui_combo.php?2.9.8/build/assets/skins/sam/skin.css">
<script charset="utf-8" id="yui_3_5_1_1_1557920752697_2" src="http://moodle.onaft.edu.ua/theme/yui_combo.php?3.5.1/build/ooo/ooo-node-screen/node-screen-
min.js83.5.1/build/node-style/node-style-min.js" async</script>
<script charset="utf-8" id="yui_3_5_1_1_1557920752697_8" src="http://moodle.onaft.edu.ua/lib/javascript.php/1347355759/blocks/dock.js" async</script>
<script charset="utf-8" id="yui_3_5_1_1_1557920752697_9" src="http://moodle.onaft.edu.ua/theme/yui_combo.php?3.5.1/build/attribute.ize-min.js&moodle/
1347355759/block_navigation/navigation/navigation.js" async</script>
<script charset="utf-8" id="yui_3_5_1_1_1557920752697_10" src="http://moodle.onaft.edu.ua/theme/yui_combo.php?3.5.1/build/querystri_build/ie-base/ie-base-
min.js83.5.1/build/json-parse/json-parse-min.js" async</script>
<script charset="utf-8" id="yui_3_5_1_1_1557920752697_718" src="http://moodle.onaft.edu.ua/theme/yui_combo.php?moodle/1347355759/calendar/eventmanager/
eventmanager.js" async</script>
<link charset="utf-8" rel="stylesheet" id="yui_3_5_1_1_1557920752697_719" href="http://moodle.onaft.edu.ua/theme/yui_combo.php?3.5.1/build/overlay/_sam/
test.css&moodle/1347355759/calendar/eventmanager/eventmanager.css">
<script charset="utf-8" id="yui_3_5_1_1_1557920752697_720" src="http://moodle.onaft.edu.ua/theme/yui_combo.php?3.5.1/build/attribute.ild/json-stringify/
json-stringify-min.js83.5.1/build/test/test-min.js" async</script>
<script charset="utf-8" id="yui_3_5_1_1_1557920752697_751" src="http://moodle.onaft.edu.ua/theme/yui_combo.php?3.5.1/build/event-key/event-key-min.js"
async</script>
<script id="firstthemesheet" type="text/css"/>
```

Yandex and Google is an essential process of moving. The faster proindeksuyetsya new site in search engines, the better.

The site is not included in the top 10 sites for different keywords on the subject site in the search engine Google, Yandex apart - in this search engine site occupies 7th place for «moodle». Results "Distance Learning Center ONAFT" site is headed by top 10, taking first place in search engines Yandex and Google, region of Ukraine. Positions are determined by the site seogadget [3].

Анкор	Яндекс	Google
moodle	7 <a href="http://moodle.onaft.edu.ua/">http://moodle.onaft.edu.ua/</a>	17 <a href="http://moodle.onaft.edu.ua/">http://moodle.onaft.edu.ua/</a>
	№ Ссылка / ИКС	№ Ссылка / ИКС
	1 <a href="https://moodle.org/">https://moodle.org/</a>	1 <a href="https://moodle.org.edu.ua/">https://moodle.org.edu.ua/</a>
	2 <a href="https://moodle.znu.edu.ua/">https://moodle.znu.edu.ua/</a>	2 <a href="https://uk.wikipedia.org/wiki/Moodle">https://uk.wikipedia.org/wiki/Moodle</a>
	3 <a href="https://moodle.com/">https://moodle.com/</a>	3 <a href="https://moodle.org/?lang=uk">https://moodle.org/?lang=uk</a>
	4 <a href="http://moodle3.chmnu.edu.ua/">http://moodle3.chmnu.edu.ua/</a>	4 <a href="https://moodle.org/course/view.php?id=17...">https://moodle.org/course/view.php?id=17...</a>
	5 <a href="https://uk.wikipedia.org/wiki/Moodle">https://uk.wikipedia.org/wiki/Moodle</a>	5 <a href="https://moodle.org/mod/page/view.php?id=...">https://moodle.org/mod/page/view.php?id=...</a>
	6 <a href="https://moodle.tdpu.edu.ua/">https://moodle.tdpu.edu.ua/</a>	6 <a href="https://moodle.dnpu.edu.ua/">https://moodle.dnpu.edu.ua/</a>
	7 <b>проверяемый сайт</b>	7 <a href="https://moodle.cuata.edu.ua/">https://moodle.cuata.edu.ua/</a>
	8 <a href="https://moodle.mnau.edu.ua/">https://moodle.mnau.edu.ua/</a>	8 <a href="http://moodle.bsnu.edu.ua/">http://moodle.bsnu.edu.ua/</a>
	9 <a href="https://moodle.ua.edu.ua/">https://moodle.ua.edu.ua/</a>	9 <a href="http://www.dut.edu.ua/1025-pro-system...">http://www.dut.edu.ua/1025-pro-system...</a>
10 <a href="https://moodle.bsnu.edu.ua/">https://moodle.bsnu.edu.ua/</a>	10 <a href="https://moodle.tdpu.edu.ua/">https://moodle.tdpu.edu.ua/</a>	
центр дистанційного навчання онафт	1 <a href="http://moodle.onaft.edu.ua/">http://moodle.onaft.edu.ua/</a>	1 <a href="http://moodle.onaft.edu.ua/">http://moodle.onaft.edu.ua/</a>
	№ Ссылка / ИКС	№ Ссылка / ИКС
	1 <b>проверяемый сайт</b>	1 <b>проверяемый сайт</b>
	2 <a href="http://moodle.onaft.edu.ua/login/index.p...">http://moodle.onaft.edu.ua/login/index.p...</a>	2 <a href="https://www.onaft.edu.ua/dlc">https://www.onaft.edu.ua/dlc</a>
	3 <a href="https://www.onaft.edu.ua/dlc">https://www.onaft.edu.ua/dlc</a>	3 <a href="http://dlc.onaft.edu.ua/">http://dlc.onaft.edu.ua/</a>
	4 <a href="http://moodle.onaft.edu.ua/course/">http://moodle.onaft.edu.ua/course/</a>	4 <a href="http://dlc.onaft.edu.ua/index.php/system...">http://dlc.onaft.edu.ua/index.php/system...</a>
	5 <a href="https://www.onaft.edu.ua/ru/dlc">https://www.onaft.edu.ua/ru/dlc</a>	5 <a href="https://www.onaft.edu.ua/ru/dlc">https://www.onaft.edu.ua/ru/dlc</a>
	6 <a href="https://www.dlc.onaft.edu.ua/">https://www.dlc.onaft.edu.ua/</a>	6 <a href="http://dlc.onaft.edu.ua/index.php/system...">http://dlc.onaft.edu.ua/index.php/system...</a>
	7 <a href="https://cdn.snau.edu.ua/moodle/">https://cdn.snau.edu.ua/moodle/</a>	7 <a href="http://www.otk.od.ua/news/Distancijne_na...">http://www.otk.od.ua/news/Distancijne_na...</a>
	8 <a href="http://elr.tnpu.edu.ua/">http://elr.tnpu.edu.ua/</a>	8 <a href="http://www.otk.od.ua/">http://www.otk.od.ua/</a>
	9 <a href="http://di.oneu.edu.ua/">http://di.oneu.edu.ua/</a>	9 <a href="https://knutd.edu.ua/university/institut...">https://knutd.edu.ua/university/institut...</a>
10 <a href="http://di.nasoa.edu.ua/">http://di.nasoa.edu.ua/</a>	10 <a href="http://kntis.od.ua/uk/distancijne-navch...">http://kntis.od.ua/uk/distancijne-navch...</a>	

Fig. 2.1 - The position of the site in comparison with competitors

### 3. The results

The model involves the creation of contextual advertising classifieds linked to certain keywords. When a user enters any of these keywords into the search box, along with the results for the issuance, he served ads and advertisers.

If the user turns on any ad, with a business owner will be charged for a click is made.

For each search set certain price based competition among advertisers. Accordingly, in the first place will ads from an advertiser who set the highest price per click.

Competitor moodle.org [4] ranks first in the keyword search.

Keywords competitor: moodle, Moodle - Open-source learning platform, Moodle.org.

Advertisements missing.

```

<meta name="apple-itunes-app" content="app-id=633359593, app-argument=https://moodle.org/">
<link rel="manifest" href="https://moodle.org/admin/tool/mobile/mobile.webmanifest.php">
<meta http-equiv="Content-Type" content="text/html; charset=utf-8">
<script src="https://js-agent.newrelic.com/nr-1123.min.js"></script>
<script type="text/javascript" async src="https://ssl.google-analytics.com/ea.js"></script>
<script type="text/javascript"></script>
<meta name="keywords" content="moodle, Moodle - Open-source learning platform | Moodle.org" == $0
<link rel="stylesheet" type="text/css" href="https://moodle.org/theme/yui_combo.php?rollup/3.17.2/yui-moodlesimple-min.css">
<script charset="utf-8" id="yui_3_17_2_1_1557924079146_8" src="https://moodle.org/theme/yui_combo.php?m/1557910220/core/dock/dock-loader-min.js" async>
</script>
<script charset="utf-8" id="yui_3_17_2_2_1557924079146_2" src="https://moodle.org/theme/yui_combo.php?3.17.2/oaginator-core/paginator-core-min.js&3.17.2/paginator/oaginator-min.js" async></script>
<link charset="utf-8" rel="stylesheet" id="yui_3_17_2_1_1557924079146_18" href="https://moodle.org/theme/yui_combo.php?3.17.2/cssbutton/cssbutton-min.css">
<script charset="utf-8" id="yui_3_17_2_1_1557924079146_19" src="https://moodle.org/theme/yui_combo.php?m/1557910220/core/event/evt.otion-min.js&m/1557910220/filter_glossary/autolinker/autolinker-min.js" async></script>
    
```

Fig. 3.1 - Keywords moodle.org site

#### 4. Main material

The benchmark shows derivative is the visibility of the site. In contrast, there is no absolute and relative value. Site Visibility is calculated as the ratio of effective website shows the total number of searches for a given query. The value of visibility is expressed as a percentage.

Visibility of the site can be considered as impression share (from all possible content in this section) that could get a site on their positions in the search results. Visibility is close to 100% means that users of search engines see links on this site almost any inquiry on this subject. Visibility is less than 100% indicates that only some users, giving requests given topic, see the site in search results. If the site and its mirrors occupy several positions in the search results, the visibility of the site drawn up more than 100%.

Increased visibility - one of the main prerequisites for increasing site traffic.

With site megaindex [5] an analysis of site visibility moodle.onaft.edu., As shown in the figure.

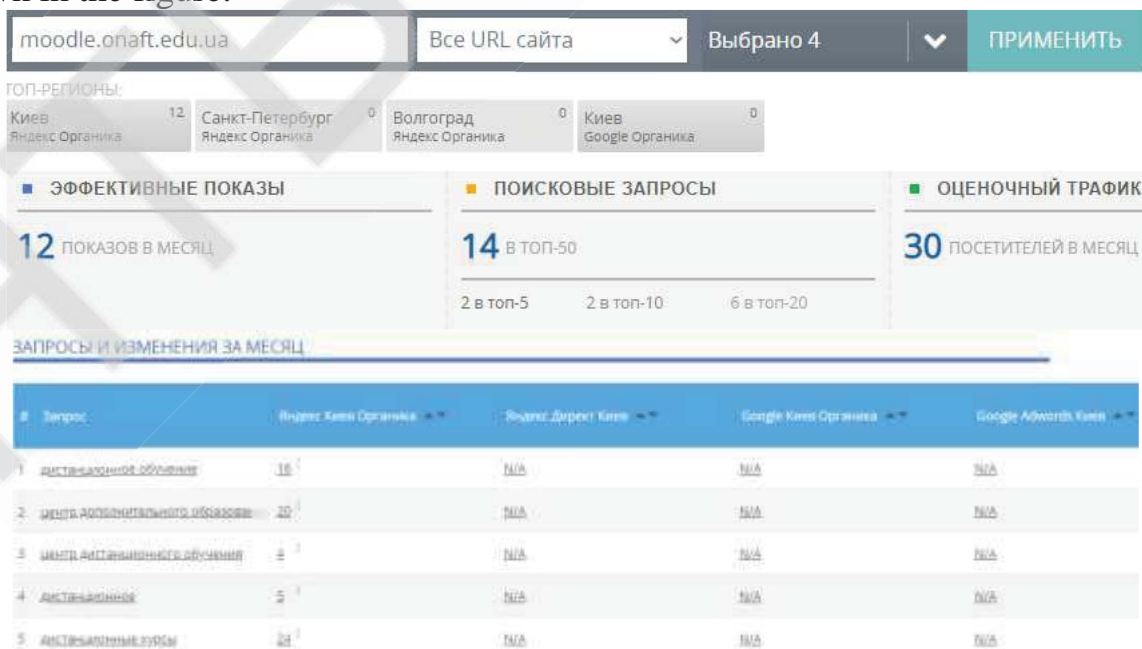


Fig. 4.1 - Site Visibility moodle.onaft.edu.ua

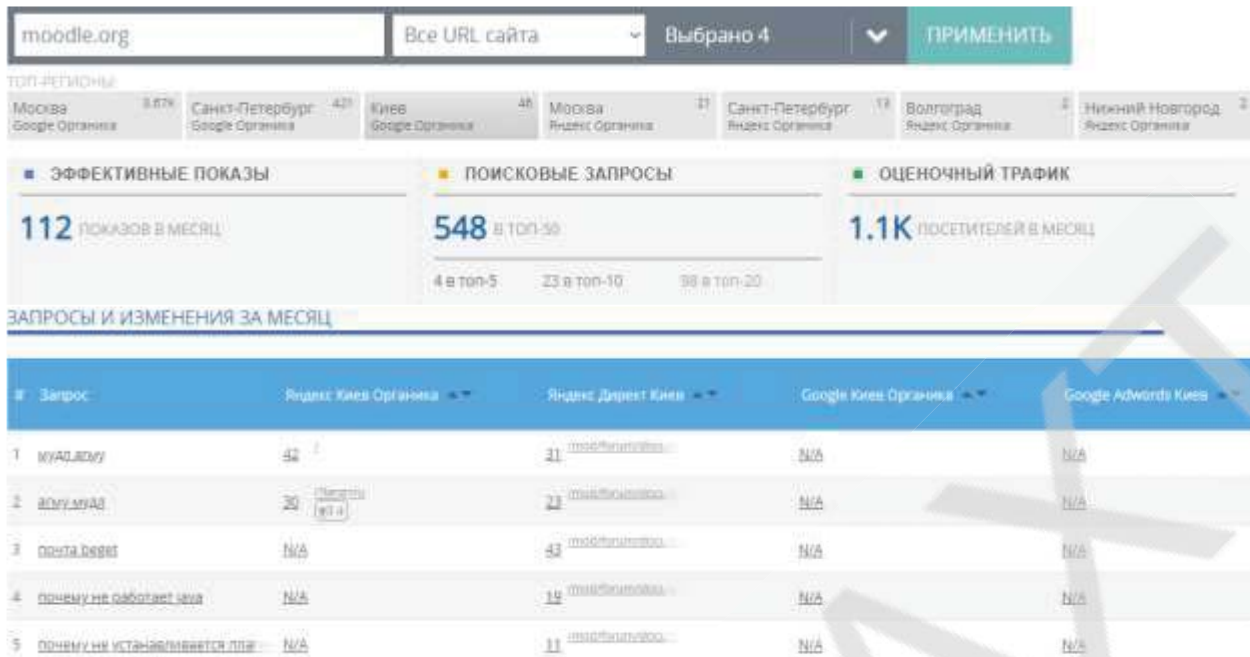


Fig. 4.2 - Visibility competitor moodle.org

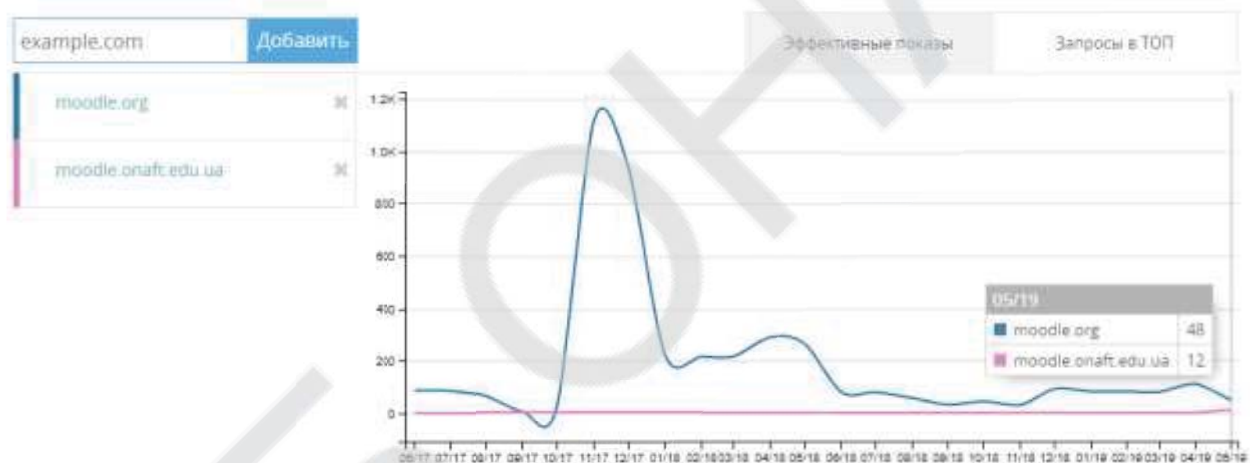


Fig. 4.3 - Schedule of sight

- Analysis of statistics on the site

Enrollments particular resource - is not just numbers, which you can find active site. This is very useful information for the owner of the site and for its competitors or interested people. For quantitative audience research site has appeal to search engines, directories, counting time spent online and other technical means. These data are summarized Special service site traffic analysis such as Google Analytics.

Among the enrollments accounted site visits, unique visitors, the number of new visitors and audience behavior parameters such as the average length of visits, average depth of view and so on. In most studies, online marketing audience the notion of permanent or regular users. Detection constant audience inaccessible log analyzer, due to the fact that no cookie-files (that log analyzer to set users can not) user identification extremely difficult.

So, for this kind of analysis requires the use of special software and accounting stamped cookie-files. Depending on the method, subjects online resource and frequency of renewal of its approaches to the selection of user groups that are returned to the site with some frequency may vary.

Target domain statistics analyzed and designed website pr-cy.ru [6].

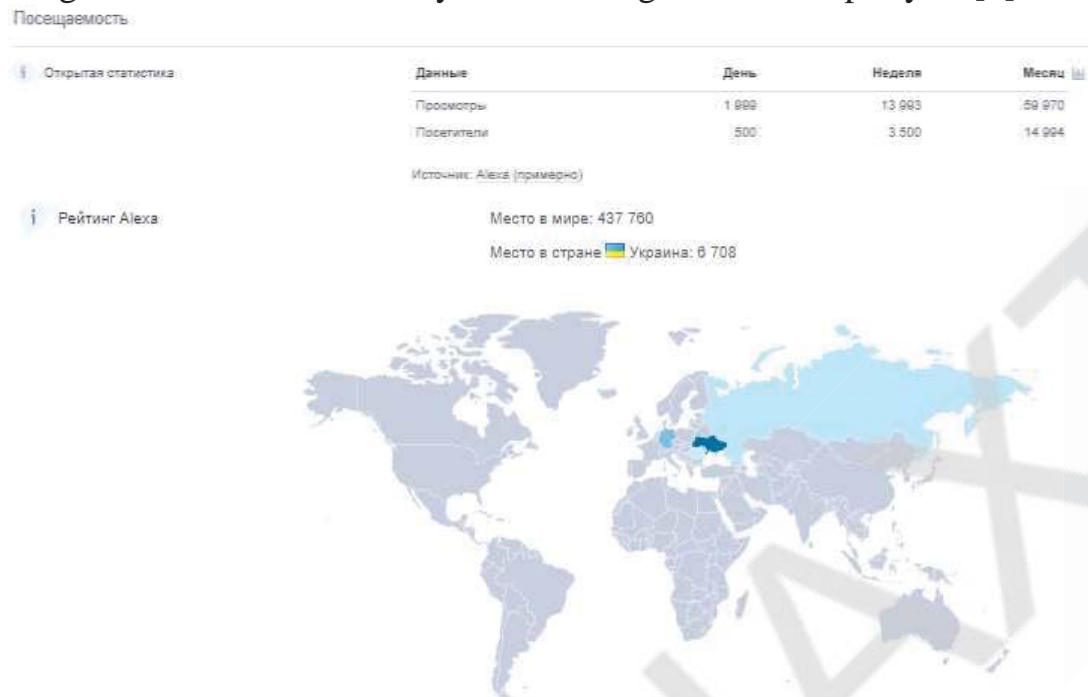


Fig. 5.1 - statistics destination domain

With site serpstat.com by most visited site:

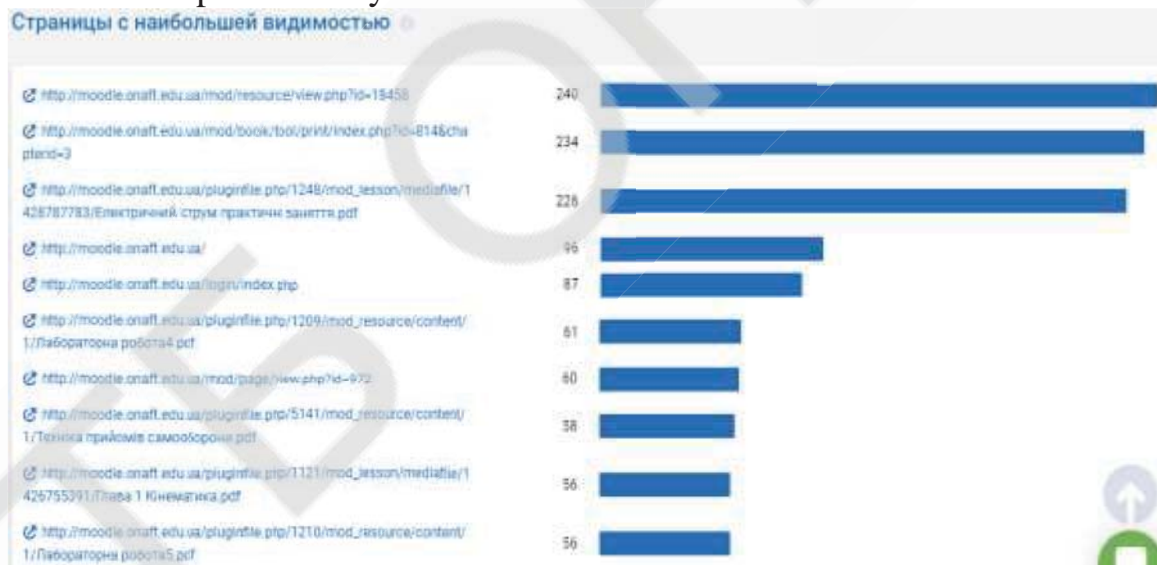


Fig. 5.2 - Pages naybolshoyu attendance

### Analysis of external and internal site error

Technical optimization every year plays an increasingly important role in search engine optimization. Correction of errors on the site can provide a significant increase in positions with little or no significant infusion of funds. Well, considering that a reference impact factor is constantly decreasing, then check website for errors and correct them is a must.

With sites varvy.com, a.pr.-cy.ru, seop.ru and seowarlock.ru revealed the following errors:

- No description page;

- Redirection is not configured;
- Used headers H1 - 1, H 2 - 1, H 3 - 0 H4 - 0 H5 - 0 H6 - 0. On present selected items that are rarely found in the text of the page is hardly reasonable to use the allocation for irrelevant words. It is frequently used tags allocation B, STRONG, EM and I elements in the text of the page;
- The site is located 3 images, but alt-attributes not found. Adding alternative text search operations will better understand the content of the image;
- Not all links are clear and easy to understand user;
- No site map sitemap.txt;
- The robots.txt file is not found;
- Speed HTML 3,17 с .;
- A low brake words, less than 3%;
- Mikrorozmitky Open Graph and Schema.org not found

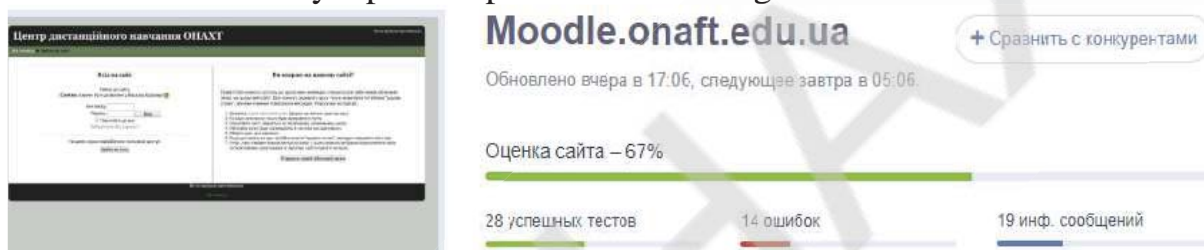


Fig. 6.1 - Bugs Online

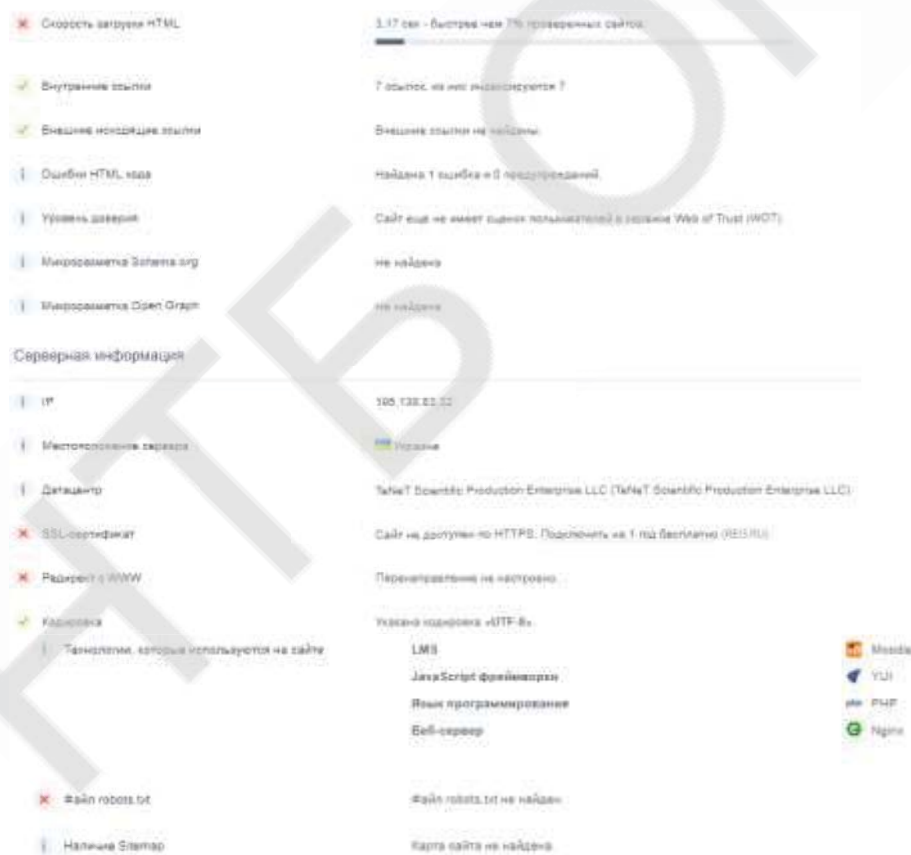


Fig. 6.2 - Bugs Online

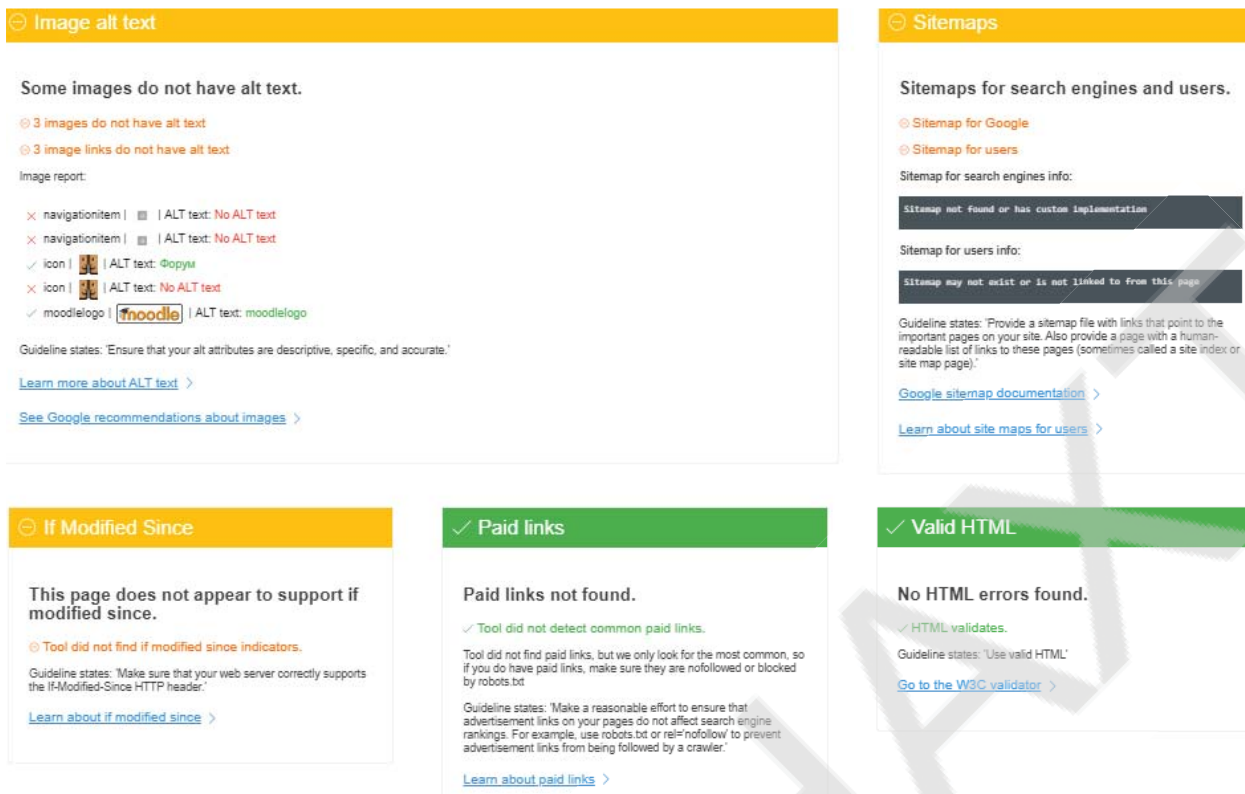


Fig. 6.3 - Bugs Online

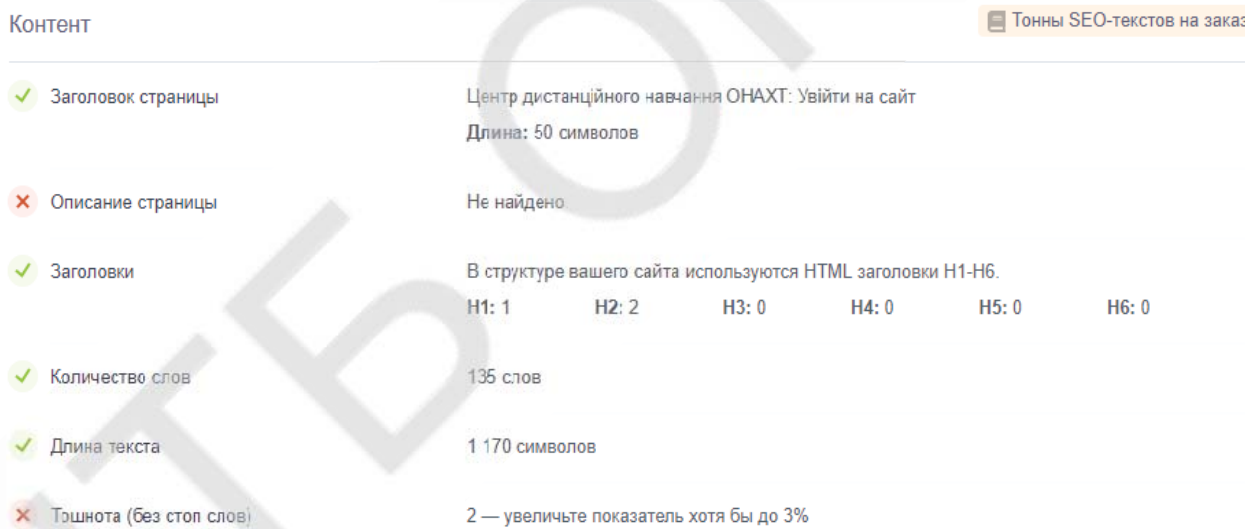


Fig. 6.4 - Errors in content site

- Analysis of the presence of internal and external links

Be sure to pay attention to the internal and external links. It is worth to take care of the proper organization of internal links. It is also important to periodically analyze internal and external links to keep the situation under control. The internal reference is a reference to another material, which is also located on site. Thanks to an internal reference content is linked together, placed on the site. External links are yet another resource that the site it might just go away. This means that some traffic from the site will be free to move to another.

Typically, webmasters hide from indexing external links using special tags. But

there are exceptions. You can not hide external links that lead to your other resources. So just traffic will be redistributed between sites, almost anything without losing.

Analysis of inbound links to the site is also very important to do, to see the whole situation and in case of mistakes promptly correct them. Links can be divided into ankornyy and bezankornyy. Encore - a reference that hidden under the word or phrase with a special tag. That same address in the text is not visible, hidden under some reference word, clicking on which she works. Bezankorni reference is not hidden, are in normal text in a website address. Better use Encore, they look much nicer and not scare visitors.

With site pr-cy.ru/link\_extractor[7] on this site was discovered 7 internal links, all of them indexed and external links does not.

Найденные ссылки

Внутренние ссылки — 7, индексируется — 7

Внешние ссылки — 0, индексируется — 0

1. До головного змісту  
...gin/index.php#maincontent
2. На голову  
http://moodle.onaft.edu.ua/
3. новий обліковий запис  
http://moodle.onaft.edu.ua/login/signup.php
4. <Нет анкора>  
...er=cookiesenabled&lang=uk
5. Забули ім'я або пароль?  
...login/forgot\_password.php

Fig. 7.1 - External and internal links Site

On the site link 900 pages and 7 domains. There is low activity in social networks.

Ссылки на сайт

Данные MegaIndex

Ссылается страниц	900
Ссылаются доменов	7

Источник получения данных был обновлен, числа стали более точные.

Социальные сети

Социальная активность

Общая социальная активность составляет 4 пункта.

ВКонтакте	4
Facebook шареды	0
Google+	0

Facebook: Ссылка на страницу в Фейсбук не найдена.

ВКонтакте: Сообщество ВКонтакте не найдено.

Twitter: Ссылка на страницу в Твиттер не найдена.

Fig. 7.2 - Analysis sitelinks

- Performance Analysis Site

Page Speed is a very important signal to search engines. And for users is a significant factor that is difficult not to pay attention if problems with it. Improving site speed can not only obtain advantages in ranking but also gain more trust and conversion rate.

The analysis results a.pr-cy.ru sites and varvy.com revealed the following problems in performance:

- Render blocking CSS and / or JS;
- There is no link from page 404;
- CSS is not minimized. Large files css. One of the points of optimization

is to minimize the code that is transmitted by the browser at the opening of the site. This includes content CSS-files. These measures can significantly reduce the size of the final bit of code and speed up the download site. Minimization is due to remove extra spaces, tabs, and blank lines.

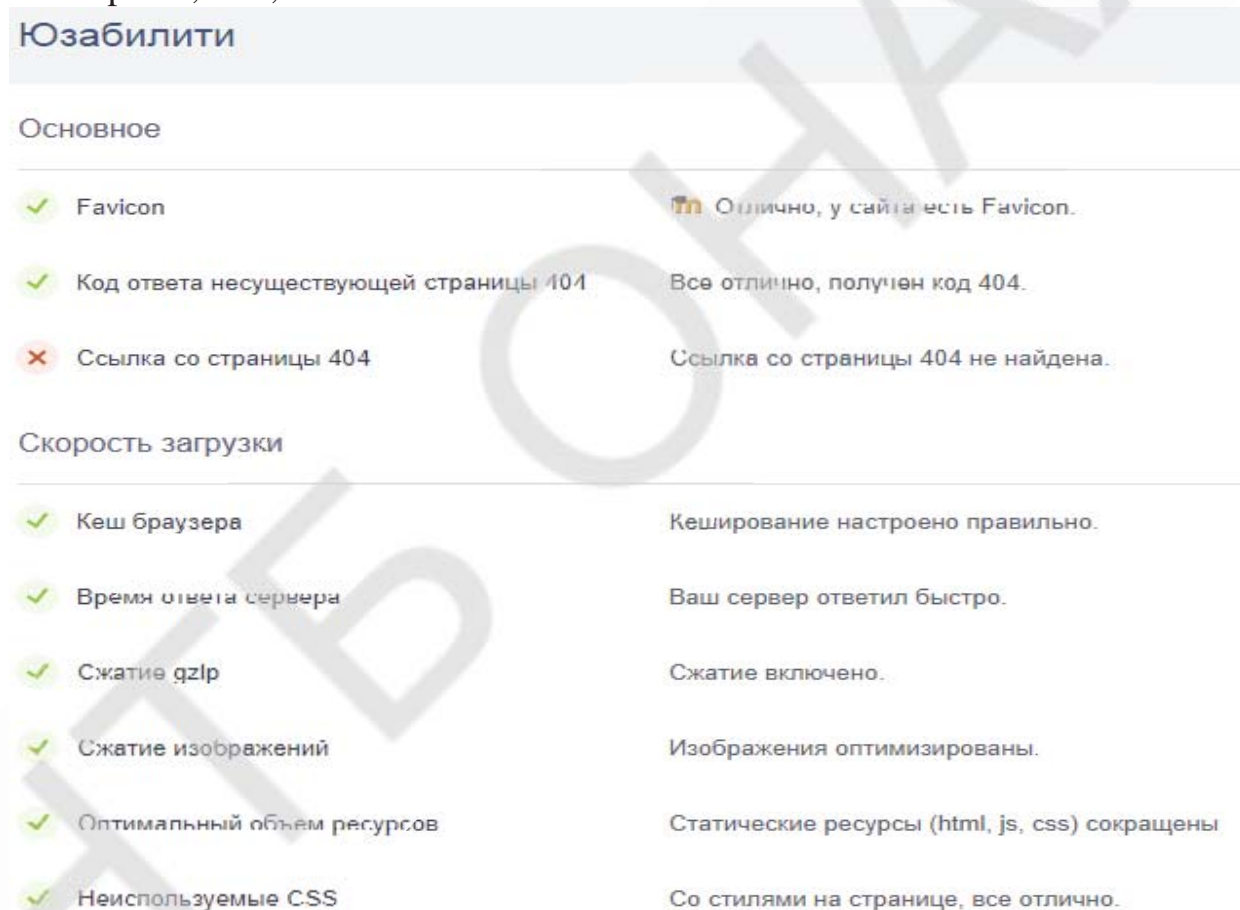


Fig. 8.1 - Site Usability

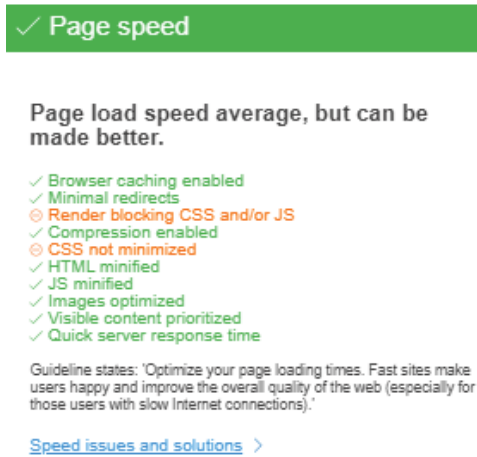


Fig. 8.2 - speed page

- Check optimization for mobile and desktop devices

Nowadays more and more people prefer to go to the Internet via mobile devices and tablets. So today, designers and developers far more important to think about how their sites will be presented on these devices. In April 2015 held updates search algorithm Google during the informal name "Mobilegeddon", and in February 2016 Yandex announced similar work algorithm called "Vladivostok". Their essence is similar - in mobile search preference to those sites that are adapted for viewing on mobile devices. This means that mobile adaptation ignored no longer.

The site is not well adapted for mobile devices that do not allow them easy to use on any device. The analysis indicates that:

- pressing the small area, but it does not prevent them completely use;
- font size on small sites;
- viewport not set

The analysis was conducted using site varvy.com [8].



Fig. 9.1 - Analyze your site's mobile



Fig. 9.2 - The site on a mobile device

## 5. Conclusions

In general, the site was created at a level that allows users without a separate major flaws they use. But most of this site with quite a lot of flaws and errors. Most serious mistakes and shortcomings were the lack of a site map, a low download speed, no Russian and English languages and lack lokalizatsiyiyi by robots.txt. All work on optimization should not take more than one or two months.

What you need to fix:

- Add keywords;
- Add Russian and English versions localization pages. To solve this problem, each executing a file, you need to connect additional libraries responsible for localization. Or place the additional features that are the same character;
- Add your robots.txt file;
- Add sitemap.xml. You can do it yourself or using a resource <https://www.xml-sitemaps.com/>;
- Reduce the size of css files. Minifikatsiya CSS files includes removing any unnecessary characters from the file to reduce its size and thereby speed up downloads. That removed during minifikatsii file: space characters; comments; line breaks; separators blocks. In most cases the process does not affect minifikatsii file and optimize it for download. Especially useful minifikatsiya CSS, JS and HTML-files. In addition, Google takes into account when ranking the performance of resource and minifikatsiya helps speed up your site. To distinguish minifitsirovannyye files, their names are added to expand .min;
- Add alt text to images. This alternate text that displays the browser if for some reason he can not download the image (if the image has been deleted from the server or by off images in the browser). Bots have not yet learned to "read" images, but because of this attribute can tell the job that is this picture that her name and that it is

written. Previously, W3C standards having this attribute was optional;

- In this site a low level of confidence. You'll need to assess service users in the Web of Trust (WOT);
- Increase the rate of stop words, more than 3%;
- Need to add a description page

#### **6. References**

1. Lindin AG Search keywords [electronic resource] / Andrew R. Lindin - Access to the resource: <http://keywordtool.io/ru>[1];
2. Distance Learning Center ONAFT [electronic resource] - Access to the resource: <http://moodle.onaft.edu.ua> [2];
3. Indexing [electronic resource] - Access to the resource: [www.seogadget.ru/serppos](http://www.seogadget.ru/serppos)[3];
4. Moodle [electronic resource] - Access to the resource: <https://moodle.org> [4];
5. Analysis visibility domain [electronic resource] - Access to the resource: [megaindex.ru](http://megaindex.ru) [5];
6. Analysis of statistics [electronic resource] - Access to the resource: [pr-cy.ru](http://pr-cy.ru) [6];
7. Analysis of the presence of internal and external links [electronic resource] - Access to the resource: [http://pr-cy.ru/link\\_extractor](http://pr-cy.ru/link_extractor)[7];
8. Analysis of external and internal errors [electronic resource] - Access to the resource: <https://varvy.com> [8].

INTELLIGENT URBAN TRAFFIC Author: Anastacia Pidgurska Supervisor: Peter Nikolyyuk.....	340
MEASURING SYSTEM TO MONITOR DEFORMATION OF LARGE SIZE STRUCTURE MEMBERS Author: Maksym Zakharchenko Supervisor: Andrii Levterov.....	354
HARDWARE-SOFTWARE COMPLEX TO RESTORE FINGER MOVEMENT COORDINATION AND COLOR PERCEPTION Authors: Mykola Hnezdilov, Volodymyr Polianichkin, Vlavyslav Shurbin Supervisors: Iryna Zhuravska, Yevhen Davydenko.....	362
METHOD AND MODEL FOR A HIGHLY REALISTIC RENDERING OF A THREE-DIMENSIONAL IMAGE Author: Mykola Nechyporuk Supervisor: Olexander Romanyuk.....	377
SEO - EDUCATIONAL SITE ANALYSIS Author: Kostyantyn Morozovskiy Supervisor: Iryna Kononovich.....	391
ADAPTIVE MOBILE APPLICATION FOR THE CATS LEARNING SYSTEM Author: Ilya Lehchylin Supervisor: Yuliya Papova.....	404
MEASUREMENTS FROM HIVE PREVENTS THE EXTINCTION OF BEES BASED ON IOT TECHNOLOGY Authors: Sebastian Górecki, Arkadiusz Mączkowski, Konrad Koperek.....	419
REMOTE TEMPERATURE AND HUMIDITY MEASUREMENT SYSTEM Authors: Veronika Maraieva, Oleksandr Mykheliev Supervisors: Sergii Bozhatkin, Igor Horovyi.....	425
INFORMATION MODEL OF THE APPLICATION OF A HELLIOSYSTEM FOR THE NEEDS OF STUDENT DORMITORY IN THE BLACK SEA REGION Authors: Volodymyr Sliusarenko, Vitalii Stoliarov Supervisor: Liliia Ivanova.....	437
VICTORY MANIPULATOR UNIVERSAL ROBOTS IN THE LINE SORTING OF FINISHED PRODUCTS OF THE WINE INDUSTRY Author: Igor Kotsur Supervisor: Volodymyr Honhalo.....	449