

CREATING A MODEL OF AN INTERACTIVE MAP OF TIMIRYAZEVKA

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Abstract: This project aims to address the common issue faced by new students in navigating the complex layout of campus buildings at Timiryazevka. Through the development of an interactive map, the project offers a solution to efficiently plan routes and easily locate specific rooms and departments within the university. The visual models and design enhancements presented in the project showcase a user-friendly interface that prioritizes clear navigation and information delivery. With a focus on improving the overall experience for students, this project demonstrates the potential to significantly enhance campus navigation and streamline daily activities.

Key words: Interactive map, Timiryazevka campus, campus layout, route planning, visual models, student experience.

Even at the beginning of our training, we faced a big problem: we are not able to navigate the territory of Timiryazevka. And even now, periodically, this problem still concerns us. The territory of the institute is too vast and multifaceted, there are a huge number of buildings, cultural monuments and park areas, many of which even students of the magistrature are not familiar with.

There are several ways to solve this problem, one of which is actively implemented by the university. At the beginning of the year, all freshmen are provided with a paper map on which all important points are marked. But, unfortunately, it is quite difficult to use it and it does not help to navigate inside the buildings.

So we decided to focus on the idea of an electronic map that will show how the territory is outside. so is every case from the inside. It will work on the principle that all electronic cards will not be connected with Timiryazevskaya,

opening up additional opportunities for students.

At the beginning of any project lies its planning, so we have identified some tasks for ourselves that will help us understand how much our project is needed at all and create a starting layout:

1. Find out how relevant the project is
2. Think over the functions
3. Come up with a nice design
4. Create a visual model of the project.

For the beginning we did a Google survey that our university students took. It was not difficult, it consisted of only three questions: How often have you encountered this problem? Have you ever been lost on the university grounds or in buildings? Did you use the paper card that the university gave us?

To the first question, most, almost half, answered that this problem had concerned them before, which proves its relevance (Fig. 1). New students come to us every year, and each time they experience the same difficulties

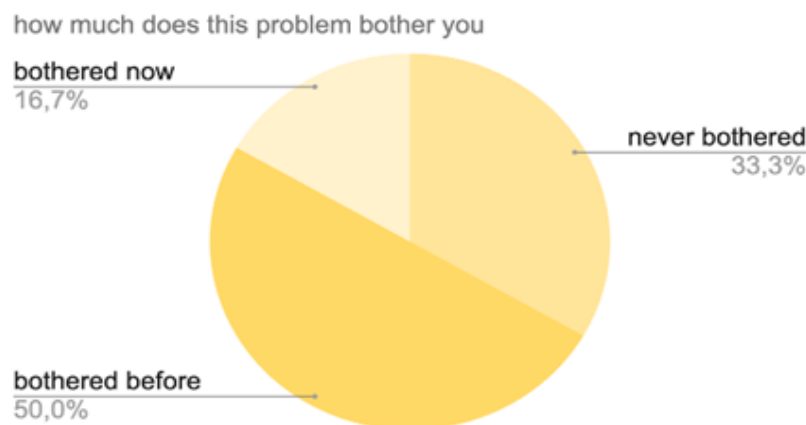


Figure 1 – Distribution of answers to 1st question

The second diagram (Fig. 2) shows how often students were lost on the university grounds. Not knowing the way to the right building or office is one thing, but getting lost in the endless abundance of paths, buildings and trees is something completely different. And, unfortunately, it is almost impossible to avoid this, only 12 percent of students managed to do it.

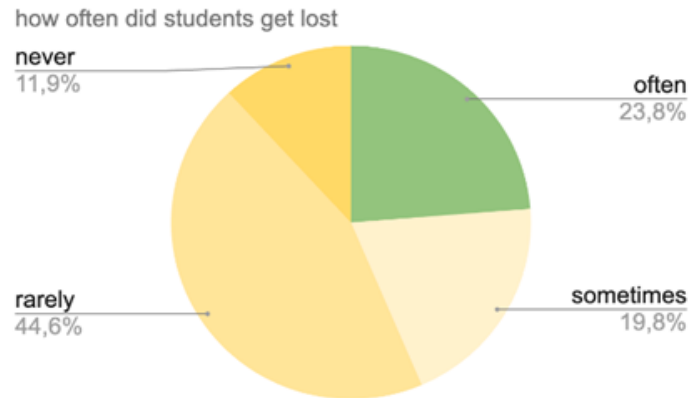


Figure 2 – Distribution of answers to 2nd question

The third diagram evaluates the way our university solves this problem. And, as we can see, the results are not the rosiest. Unfortunately, the paper card does not help us in any way in solving the problem.

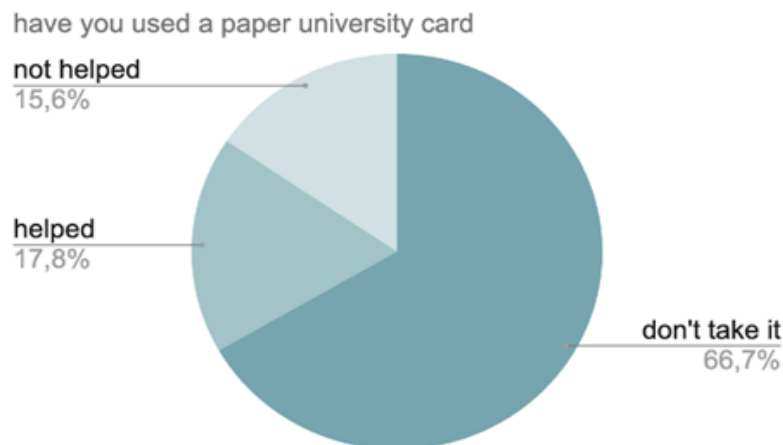


Figure 3 – Distribution of answers to 3rd question

The next important step is to highlight the functions of our project, the main things. which we will rely on when creating the model and programming. First of all, we obviously highlighted the main function - the ability to plot a route on the territory and inside the buildings. You can also add a description of each building, a list of departments that are located there, and which teachers are in these departments. We have also introduced a separate designation for buffets, canteens, vending machines and monuments.

It remains to take the most important step at the initial stage of the project: a visual map. We decided to make some improvements to the design of already existing popular maps (Fig. 4), we just added some additional elements to increase informativeness.



Figure 4 – Visual improvement of existing maps

We believe that maintaining a common design style will help users navigate more easily, avoiding unnecessary complexity. We spent a significant amount of time thinking about ways to display routes inside the building (Fig. 5). Our goal was to create a map that was not too overloaded with information, but still contained all the necessary details for accurate navigation inside buildings. It was also important for the map design to be visually pleasing. As a result of our deliberations, we decided to stick with this option. It meets all our set tasks and successfully performs its main function - providing a clear route from the place you are currently located right to the necessary lecture room.

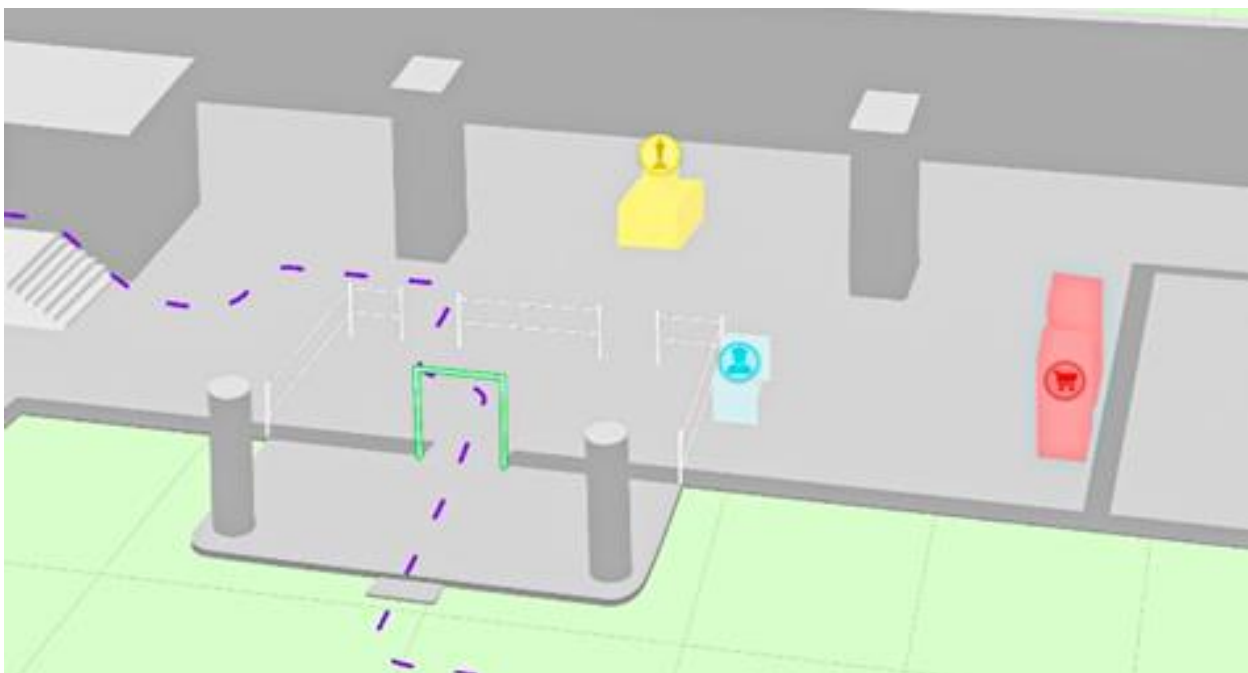


Figure 5 – The design model of the new map

To conclude, we would like to say that our project should solve a great problem. The survey data shows the relevance of our project. Moreover, if we continue to develop the app, apart from maps, we can add many other functions that will maintain the relevance of the application. At this stage of the research, we are able to provide visual models, and the key concept of our app. Implementation of the project will definitely simplify the lives of our students.

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