

CAREER MAP (MAPA KARIER) – A FREE CAREER COUNSELLING WEB APPLICATION

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Abstract:

Career Map (Mapa Karier) – <https://mapakarier.org/> – is a Polish free career counselling web application whose aim is to provide support for children and teenagers, as well as for educators, teachers, career counsellors and parents who work with young people, as for career guidance and counselling. The Career Map project was launched in September 2017 and has been developed by Katalyst Education charity¹. The aim of Katalyst Education is to provide equal educational opportunity via free, open resources. Career Map is in line with this mission: it is a free-of-charge tool available for anyone; all materials displayed in the web application and published under the aegis of Career Map are shared as open-source resources. The aim of Career Map is to support children and youth in expanding their knowledge about the labour market and the world of professions, to find ways to practice and develop their soft skills and to prepare them for the future in their personal and professional life. The tool is based on real data from scientific reports, EU occupational materials and official documents and requirements of Polish Ministry of Labour, which makes it up to date and reflecting the current situation on the labour market as closely as possible. The tool involves descriptions of the labour market and various professions, and it tackles topics related to the field of work. Career Map makes use of different ways to present the content, according to the age and profile of the user of particular sections, i.e. interactive City of Professions for younger children, Career Paths cards for teenagers, resources and webinars for teachers, educators and career counsellors, etc.

Keywords: career counselling, career guidance, education, web application

Introduction

This paper presents an interactive online tool for career guidance counselling, i. e. Career Map (*Mapa Karier*)², an educational project developed by Katalyst Education charity. The paper outlines the origin and theoretical background of Career Map, describes its general aim and the target group of the tool, as well as looks at how the tool is advised to be used, and how it is actually used and received by its target group.

CAREER MAP (*MAPA KARIER*) is a free career counselling web application developed by Katalyst Education charity. It has been in use since 2017, when it was launched, and since then it has been developed, adapted to the needs of our users and is still expanding its resources and content.

¹ <https://katalysteducation.org/>

² <https://mapakarier.org/>



Fig. 1. Career Map landing page

All data displayed in Career Map is up to date and reflects the current situation on the labour market, both in Poland and worldwide. We also include predictions about the labour market and jobs that might emerge in the future. Thus, we want to achieve our objective of preparing youngsters for their professional life in the future in the ever changing world. In order to keep Career Map up to date and reflecting the current trends and state of the world of work, we base our content on scientific data, reports about career trends around the world, statistics of the Polish Office of Statistics and the Ministry of Labour.

The tool is used all around Poland and is one of the most popular career guidance resources in the country. We reach all Polish regions and address both individuals and institutions, i.e. schools, psychological centres, career counselling centres, etc. The content, however, is also very easily translatable by Google Translator, which makes it possible to use it in English as well.

Theoretical background

The creation of Career Map has been based on current research stating that it is crucial not to choose a career for children too early in their development (Mühlenweg, 2007; Piopiunik, 2013) and that career preferences tests are not relevant when done at the age of below 14-15 years old (Douglas Low, et al., 2005; Earl, Iskandar, & Elizondo, 2019; Greve & Seidel, 2014; Tracey, 2002). The description and way of presenting professions in the tool are also adapted to address mechanisms of career path choices (e.g. gender stereotyping and social stereotyping) while promoting inclusion and diversity, inspired by Linda Gottfredson's theory of circumscription and compromise (Bajcar, et al., 2006; Chambers, et al., 2018; Ertrachter Brimmer, 2017; Wojtasik, 2005). Finally, Career Map highlights the importance of educating young people about "jobs of the future", i.e. the innovative ones which are not so well known now, but are getting more and more popular (Bakhshi, et al., 2017; Manyika, 2017; World Economic Forum, 2018).

The creation of Career Map coincided with including general career education in the official school curriculum by Polish government in 2018. Since then, pupils and students at Polish schools have to receive general career education in preschool and grades 1-6; general career education and 10 hours obligatory career counselling in grades 7-8 and high school. Despite the change in

the curriculum, schools were not prepared to provide general career education for pupils and students due to a lack of experience and resources (CEDEFOP, 2017; Podwójcic, 2015). An absence of guidelines and resources on how to include this topic in the official school curriculum was covered by the Career Map tool which, since then, has addressed the needs of teachers and career counsellors at schools, based on research on how to introduce career counselling at preschool and at early grades of primary school (Cahill & Furey, 2017; Kashefpakdel, Percy, & Rehill, 2019; Watson & McMahon, 2016).

All the information concerning the job market in Poland, as well as the details about each profession, have been researched and prepared according to data provided by Statistics Poland (Główny Urząd Statystyczny), Polish Ministry of Labour and European Union occupational materials.

Career Map objective

The aim of the Career Map web application is to broaden young people's knowledge about the job market and various professions and career paths in an appealing and interactive way. Children know little about the job market and teenagers often feel anxious about their professional future due to the social pressure to choose an occupation that would match their competences in the best way possible. Career Map addresses these needs by supporting young people in the process of discovering career and education paths and different professions. The website offers currently 620 different job descriptions adapted for youngsters and their educators (and each month we add 10-15 new occupations). The base is continually updated, based on observations of the job market and newly appeared occupations, and, at the same time, on our already planned development of the web application.

Through the approach of keeping options open, Career Map also aims to make young people perceive career as a dynamic process of constant learning and discovering oneself, as well as staying open for change in their career path. The end objective of Career Map is to help young people make smart educational choices. However, the tool does not envisage to make young people choose a specific career, i.e. the web application does not contain any competence or preference tests. Quite the opposite, the aim is to create a space for young people to explore the job market, to keep options open, i.e. to explore various alternative education paths leading to different occupations, until young people are ready for decisions. Thus, the objective of Career Map is to raise youngsters' awareness of the full spectrum of opportunities available on the job market, as well as of the range of alternative education paths leading to each profession.

Youngsters often lack knowledge about less-known professions which are often rewarding or highly demanded. Their career choice is also heavily influenced by gender stereotypes. Moreover, they usually lack knowledge about alternative education paths which lead to getting a certain job or they believe that some competences are connected solely to a specific set of occupations. By exploring job descriptions and workplaces, users can better understand what various jobs involve (required education and its alternatives, tasks performed, competences used, etc.). Apart from making it possible for young people to explore the job market on their own, the

aim of Career Map is also to support teachers and career counsellors at schools to cover the topics of career counselling curriculum, career choices, job market and job opportunities in an appealing and interactive way.

Another important objective of Career Map is to raise young people's awareness of the importance of education and all subjects at school. Job descriptions include information about education paths which need to be followed in order to perform a certain profession, as well as competences and school subjects that are essential to gain those. Career Map especially stresses the importance of STEM education, which constitutes an important part of education nowadays, since it prepares young people for the job market of the future which is said to favour STEM competences. Thus, this tool raises youngsters' awareness of the requirements of the job market and, at the same time, encourages them to learn and improve their competences in STEM subjects, towards which students are often discouraged due to the difficulties linked to those subjects.

Target group

The mission of Career Map is to support young people (children and teenagers) in exploring opportunities in the job market and getting to know more about professions and available education paths which lead to them. Thus, the main target group is young people (aged 5-19 years old) who, as indicated by research, do not have enough knowledge about the job market. Users can explore Career Map on their own or they can be supported by adults, i.e. their parents, as well as teachers and school career counsellors, who constitute the second target group of this educational tool. Teachers can use this tool as a database of information about the job market presented in an attractive form for young people. They can also use Career Map to talk with youngsters about career and competences, as well as use the resources available on the website to support their classes and activities. We also organise webinars and publish articles on our Blog addressed to parents and school tutors. In this way, we aim to support them with tackling topics related to career, world of work and skills development.

Thus, by addressing Career Map to various target groups – children, youth and adults and professionals of different profiles working with children and youth and adapting the content presented to the particular group, we want to accomplish our mission of expanding youngsters' knowledge about the world of professions. Directly and indirectly, we want to prepare them to enter adulthood and the reality and dynamics of the ongoingly changing labour market, by enhancing their skills such as flexibility and adaptability.

Career Map

Content

The Career Map web application offers a number of features:

- City of Professions (*Miasto zawodów*)³ – for 5+ year-old audience;

³ <https://mapakarier.org/city>

- Career Paths with job descriptions (*Ścieżki kariery*)⁴ – for 13+ year-old audience;
- Ideas for lessons (*Pomysły na lekcje*)⁵, i. e. online and printable resources (job cards, games, lesson plans, etc.);
- Blog⁶.

Moreover, the Career Map project does not exclusively involve the web application only. Within the project, we also provide resources published externally from the Career Map website:

- the Career Map YouTube channel⁷ - where we publish past webinars and conferences;
- #ZawodowyStream⁸ (# *Live Stream of Professions*) YouTube channel – where we organise live streamings about specific professions.

CITY OF PROFESSIONS (*MIASTO ZAWODÓW*)

This tool is a colourful, playful and interactive map of a fictional city. It is addressed to younger users of the Career Map tool, i.e. children aged 5-13 years old. They can explore the city and, by clicking on different places in the city landscape, check what jobs are available in particular buildings and areas. They can read an easy to follow description of each occupation, illustrated by a profession avatar and combined with information about statistics concerning the job, an example education path that leads to this profession, what school knowledge and skills are essential to perform this job, etc.; all information and the language used to present it are adapted to the target audience of the tool. The descriptions are available in a text form, as well as an audio (voice over).



Fig. 2. City of Profession cityscape

⁴ <https://mapakarier.org/paths>

⁵ <https://mapakarier.org/inspirations>

⁶ <https://mapakarier.org/blog>

⁷ <https://www.youtube.com/MapaKarier>

⁸ <https://www.youtube.com/ZawodowyStream>

Apart from navigating around the city, it is also possible to directly browse professions and workplaces (there are over 160 of them), which allows the user to easily find a specific occupation they are looking for.

When reading a description of a job, the application suggests also other occupations linked to this one (e.g. law specialists when reading about the lawyer), including a list of other jobs that might be interesting for the user. Thus, Career Map enhances exploration of the job market and makes youngsters discover jobs they know little about.



Fig. 3. City of Professions: What skills are important (and why) in the Greenkeeper's occupation?

City of Professions also allows the user to change the gender of professions, which counteracts stereotypical thinking about certain jobs. Moreover, there is also a feature which makes it possible to draw a random profession and explore it by reading its description, finding it in the cityscape and checking other jobs that are related to it.

CAREER PATHS (ŚCIEŻKI KARIERY)

This tool is addressed to slightly older children (i.e. teenagers) who want to know more about specific occupations. It is a more than 620 profession cards which can be easily filtered and sorted. Each card presents a detailed description of a profession, illustrated by a photo, containing information about job market requirements in order to perform this job, example education path with its alternatives, competences and the character of the work, etc. There is also a feature allowing the user to discover other jobs, i.e. a list of similar professions or the ones linked to the one being explored.

Mapa Karier

Ścieżki kariery

Miasto zawodów Pomysły na lekcje Blog Współpraca FAQ Kontakt

Ścieżki kariery

ZMIEN PLEĆ SORTOWANIE FILTROWANIE FILTR PREFERENCJI

Nowy Inżynier audiowizualny

Nowy Pielęgniarka opieki długoterminowej

Nowy Cyfrowa krawcowa

Nowy Zakonnica

Nowy Przedstawicielka medyczna

Nowy Biolożka molekularna

Balsamistka

Specjalistka ds. e-commerce

Fig. 4. Career Paths: Female version

Mapa Karier

Ścieżki kariery

Miasto zawodów Pomysły na lekcje Blog Współpraca FAQ Kontakt

Ścieżki kariery

ZMIEN PLEĆ SORTOWANIE FILTROWANIE FILTR PREFERENCJI

Nowy Inżynier audiowizualny

Nowy Pielęgniarz opieki długoterminowej

Nowy Cyfrowy krawiec

Nowy Zakonnik

Nowy Przedstawiciel medyczny

Nowy Biolog molekularny

Balsamista

Specjalista ds. e-commerce

Fig. 5. Career Paths: Male version

Moreover, the tool displays statistics concerning each job (e.g. typical salary, education length); for most professions, the users can also see how the market demand for the occupation has changed in recent years, helping them understand what the future may hold for each career.

Inżynier górnictwa odkrywkowego

Organizuję i nadzoruję pracę w kopalni odkrywkowej.

Zmień płeć

Drukuj kartę zawodu

Skopiuj adres zawodu

Fig. 7. Career Path for the "mining engineer", female version



Fig. 8. One of the educational paths for “mining engineer”

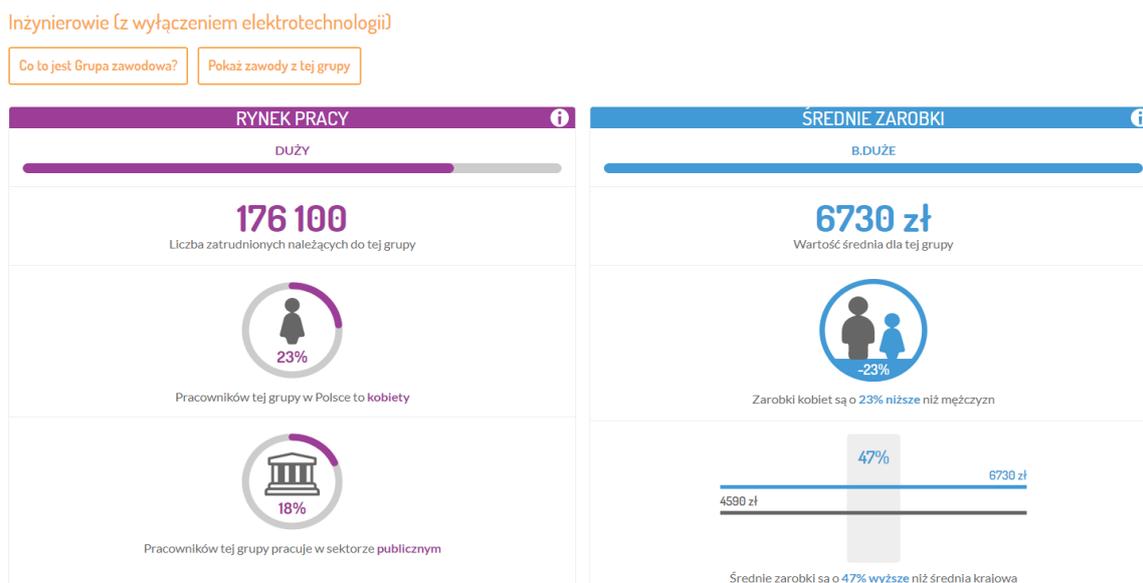


Fig. 9. Statistics view for engineers

The tool features an advanced filtering and sorting system. Results can be filtered according to the branch of industry, work environment, key school subjects essential for a particular profession, etc. They can be sorted according to the education length, salary, job market demand, etc. or they may be sorted randomly. Thus, it is possible to, for instance, look for jobs in a specific field, jobs for those who like to work with people, the ones where the mathematical competences are crucial, “jobs of the future.” Recently (2021), we have launched a new feature called “Filter of Preferences”. It is an advanced filtering system that makes it possible to filter professions in Career Map according to various criteria such as: scope of activities, school subjects needed to do a job, usual working hours, level of physical effort, work environment, etc. The user starts with all the

criteria maximized and all the elements checked and they can uncheck and modify their choice, observing at the same time how their choices change, limit or enhance the range of jobs that they can do in the future. After completing all the choice criteria, the user can see professions displayed according to the percentage of how they match with their choice.

Fig. 10. Filter of Preferences

“Jobs of the future” are professions specially marked in the set. They constitute professions that have not been very well known or popular until now, but the job market predicts that they might become crucial and highly demanded in the future, e.g. HR Business Partner, Travel Tester, Privacy Broker, Teletutor, End of Life Planner, CyberCity Analyst, Sketchnoter.

Finally, the Career Paths module offers a feature to “roll the dice,” which allows the user to display a random job, as well as a feature to change the gender of professions, which again, as in City of Professions, counteracts stereotypical thinking about certain jobs.

IDEAS FOR LESSONS (*POMYSŁY NA LEKCJE*)

This is a subpage containing educational materials that can be used by teachers and career counsellors at school for individual or group work with their students. The resources cover the topic of career counselling, the job market, competences and skills, self-discovery, etc. All materials can be printed and used under Creative Commons licenses. They include educational games, lesson plans, advice, ideas to use various educational resources, etc.

BLOG

The Blog section encompasses a set of constantly updated articles about career counselling, education, ideas on how to introduce career education at school, etc.

CAREER MAP YOUTUBE CHANNEL

The channel offers all past webinars and conference presentations organised by Katalyst Education within the Career Map project. As we want to make our content as accessible as possible, we organise online training sessions and webinars free of charge and we publish them afterwards on the YouTube channel. In this way, we want to reach a maximum number of teachers, educators and career counsellors, i.e. the primary target group of the Career Map YouTube channel.

The videos concern topics strictly related to the Career Map web application (e.g. how to use the tool with children and teenagers of different age) and any topics within the scope of career counselling and the world of professions and labour market (e.g. jobs of the future, soft skills development, etc.). Nevertheless, even when tackling more general topics, we always present them from a certain point of view, i.e. so that teachers and educators can use the acquired knowledge in their work with young people.

#ZAWODOWYSTREAM

Although this YouTube channel is a separate one, it still belongs to the Career Map project and its content is communicated through the tool and within our community.

Within the #ZawodowyStream project, we organise free-of-charge online live meetings with representatives of specific professions. We address the meetings to young people (with focus on high school students who start thinking about careers and choosing further education).

#ZawodowyStream meetings have a form of an interview with two representatives of a given occupation or two persons working in different professions but within the same business or industry. We prioritize diversity, i.e. on each live stream we try to involve a woman and a man (in order to promote equality in jobs) who undertake various tasks, even in the scope of the same occupation (in order to show how diverse the field is and how many opportunities it provides). We have already organised live streams with, among others, people working in humanitarian aid, specialists from the space industry, physiotherapists and representatives of the film industry.

Thanks to the #ZawodowyStream live sessions, youngsters can discover the presented occupations, get to know its light and dark side, become aware of the importance of particular school subjects in the future, realise what competencies are needed in order to do a given job. Thus, #ZawodowyStream lies along the mission and the aim of the Career Map project, i.e. it promotes life-long learning, competencies development, becoming aware of the world of professions, etc. It also makes it possible to address directly young people's needs to discover particular jobs or business and industries.

Use

All materials offered on the website can be used in various ways, at school, at home, individually or in a group. By organising training and workshops on its use, Katalyst Education ensures that educators know how to take advantage of the potential of this tool and are able to spread these

competences among their colleagues in order to reach the most considerable number of teachers, career counsellors and youngsters.

As we aim to make education and career counselling accessible for everyone, the Career Map web application is designed so as it is easy to use, available on any digital device and free of charge. To access Career Map, one should type *www.mapakarier.org* in the URL bar. All resources are available there for free. There is no need to log in on the website and there are no preliminary conditions to use the tool.

In order to monitor the use of the web application and draw conclusions as for how users take advantage of the tool, we constantly collect data about the traffic on the website and we also ask the users for their feedback every time we introduce a new feature. In this way, we can observe what is the most common way users go through the content on the website and we can introduce modifications and draw conclusions on future improvements of the tool.

Feedback and communication with users

For the Career Map project, it is extremely important to collect feedback from our users. We constantly adapt and modify the web application and all activities within the project in order to make the user experience as good and useful as possible.

The Career Map tool features a Feedback section, where its users can communicate any idea, comment, etc. to the team, who is always ready and willing to improve the quality of the tool. We also communicate with our users in the community on social networks, where we promote our activities and new features of the web application

Finally, whenever we introduce any new feature, we firstly publish it in a *beta* version (parallelly to the main Career Map website), where users are able to try out the new feature and give us feedback about it. Then, before launching the feature on the main version of the website, we analyse the feedback and adapt the extension or changes so as to address the needs of the user.

"It's a real pleasure to use your internet site. We've spent the whole hour with the kids from 7th grade to go through different professions. Time was not enough to look at all of them, but the students were just glued to the screen. Now I'm looking for fresh inspirations on your site."
Justyna Janik, Complex of Schools im. Bohaterów Akcji V2 in Sarnaki, Mazovian Voivodeship

"Career Map is a fantastic tool for every counsellor working with kids in elementary school. Very interesting content, great ideas for lessons. I use your scenarios also during advisory classes."
Agnieszka Bachusz, Primary School in Siedliska, Subcarpathian Voivodeship

"In my opinion, the Career Map is one of the best, available for general use, ways to look for your future job. I always lacked a resource where I could find workplaces together with job requirements, salaries and other important data which is easily forgotten by young people. I think that it can help many future high school graduates who are uncertain about their future and about what they want to do in life." Kaja Wawer, pupil

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