

## A. T. S. M.

[Alternative Touristic Serving Machine]



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# Introduction

Thanks to the fact, that people have an opportunity to get quickly to any part of the world, tourism is developing extremely fast. International tourism is one of the fastest growing sectors in the world economy. Number of tourists has doubled for the last ten years. The number of international tourist trips reached a record 1.09 billion in 2013 (UNWTO). Because of high demand this sector is very attractive for investments nowadays. Thus, tourism is one of the major global industries and a major sector in many economies. In order to make a country a popular destination for tourists from all over the world it is very important to have a developed tourism infrastructure with highly qualified workforce, developed transport system, lots of hotels and different entertainments for all tastes. That's why many countries implement policies of augmentation of quality tourism infrastructure over their countries.

Analysis of business activities in tourism shows, that the development in this sector mainly depends on technologies. Tourism has significantly developed since the time when railways were invented in Great Britain. The growing popularity of steamers has encouraged lots of people to make cruises. With progress in automobile industry cars began to be used widely all over the world and lots of people started to travel by car. In the 20th century aircrafts were invented, which firstly weren't large and suitable for mass use, but in comparison with railway were much faster and more attractive for long-distance traveling, so traveling by air became very popular. Thus, nowadays most tourists use this way of transportation, and air companies even launch many charter flights to cope with continued passenger traffic growth. Fast developing technologies also make a lot of people dreaming about space traveling – and in fact space tourism has already gained some popularity, although currently among a limited target group of very rich and adventurous people. However things are changing, and although outer space tourism is still in its baby steps, bookings for some space tourism operators are now on-going.

One of the signs of travel & tourism development is a competition in the industry. The main aim for any business is to be profitable, so to increase their profits tourist companies always try to expand their market share. Researches show that implementation of innovations is the most effective way to increase market share and remain competitive in the rapidly changing business environment. Innovations are implemented in all parts of tourism industry (the most popular one is e-commerce)

The company McKinsey considers, that 6 month delay in launching of an innovative product leads to a decrease in profit of 30%, and at the same time cost overrun of 30% causes just a downturn in profit of 2%. Owing to modern innovations many little known companies have an opportunity to become industry leaders in the near future. Emphasis of innovations is essential for business for which technological changes aren't effective enough. For example, development and competitive ability of tourist business greatly depend on application of new ways of traveling and improving the old ones; constant search of better and cheaper ways to promote tourist product and improve its quality.

Analysis of innovations in tourism industry shows, that they are aimed at:

- Development of new types of products and/or improving the existing ones;
- Improvement of quality of transport and hotel services and etc.
- Development of new markets
- Advanced information telecommunication technologies
- Modern forms of organizational and managerial activities.

# Main part

All of us have an experience of traveling within and out of our home countries. And all of us have some great and not so great experiences related to our travels. Most of impressions are excellent, but there are situations, when you start wondering about how Travel & Tourism services could be improved and better accommodated for travelers. For instance, you can hardly fully enjoy wandering the streets of Paris or crannies of Venice along with your fellow tourists and being focused mainly on your guide's umbrella and trying to keep up with your group and not to get lost. Similarly, it is rather annoying after a whole day of a guided tour in Rome and Vatican to find yourself somewhere near Piazza del Popolo, and hear the guide words: "Dear tourists, now you have free time. See you next morning at 7 o'clock in the hotel lobby". Free time does not make you quite happy, because you realize how tired you are, and that your only wish is to relax in your hotel room, but your hotel is on other side of the city, very far from where you are, and it will take a lot of time to get there. Clearly, all of this and more can happen, and happens to all tourists at any destination, but there are also good news, and this news is technology advancements that have changed and are still changing the way we travel.

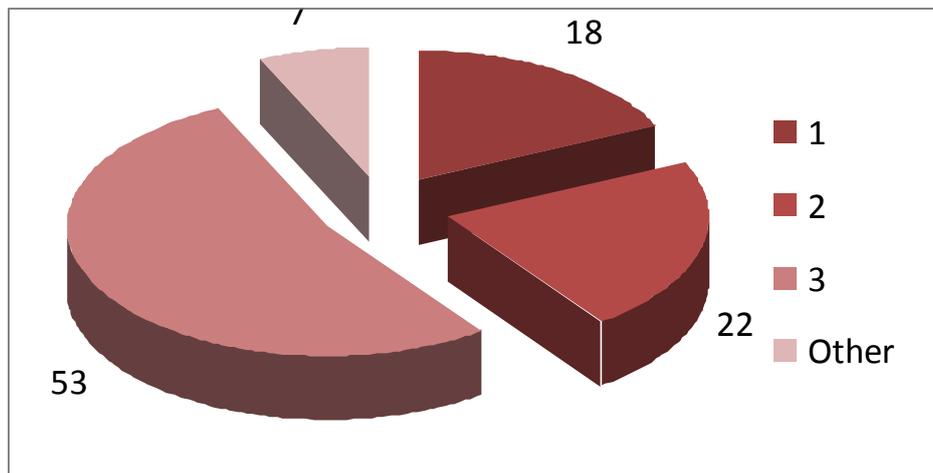
Internet, social networks and tech gadgets have equipped tourists and companies working in tourist industry, with ways to develop and implement the means to connect people, exchange e-mails, make and watch photographs and videos, download music, buy goods and services, make travel itineraries, offer, promote and enjoy permanently improving Travel & Tourism experience.

Many companies have been set up in tourism industry, offering services related to the Internet technologies. In order to remain competitive, companies keep creating new ways to attract new clients (customers). Nowadays nobody is surprised by opportunity to book hotel rooms or air tickets online. The main direction of ICT researches is to find new alternative ways to provide better, safer, more comfortable, attractive and sustainable services. So, how could technology advancements be used for sustainable development in tourism industry? In our research we explore the ways tech gadgets could improve Travel & Tourism service to satisfy customers' needs and wants and support Travel & Tourism sustainability.

Some 10-15 years ago people did not use as many gadgets for T&T as nowadays— many of modern gadgets simply did not exist. Since that time due to technology development things have changed. People have realized how tech gadgets can simplify traveling, and their popularity has been constantly growing.

A lot of people today prefer to organize their trips and vacations by themselves. The age groups of active technology users are 25-30 and 40-50, and most Travel & Tourism activities they perform using technology devices are related to the planning stage and Internet booking engines. Does it mean the end of travel agencies? It is unlikely. While many people are attracted by technologies and eager to explore innovations, many others prefer real communication with a real travel agent to virtual communication in the digital space.

People also have different perception of using technologies on holidays. Some of them prefer to have a complete break from the usual routine, and enjoy activities quite different from everyday life, where using tech gadgets is a necessity and a habit. The results of our survey conducted in the social network VKontakte showed that when asked about using technology on holidays, 55% respondents who traveled at least twice a year were positive about it, and 35, 8% were negative.



When we asked about respondents' preferences related to their travel and tourism activities, our survey results revealed that 53% respondents would prefer to travel equipped with technology and GPS, while much less respondents – 22% would use maps and guides, and yet less – 18% would not use tech gadgets at all.

As regards the choice of a particular device used by travelers, there are different options and each has some advantages and drawbacks. In our research we focused on three tech gadgets, namely smartphones, tablets and Google Glass.

**Как вы предпочитаете путешествовать ?**  
 Аня Щербатенко Ученик (97), Вопрос на голосовании 1 неделю назад

- 1) В далеке от цивилизации и технологий.
- 2) В незнакомой стране с использованием как справочник карты и путеводители.
- 3) В незнакомой стране с использованием технологий и GPS.

A smartphone is a means for communication, that enables people to call, surf the net, find and explore maps, use navigation systems, online translators, take photos, make videos and use many other options. The major drawback is mobile phones' limited memory (particularly when it comes to photos and videos of high quality).

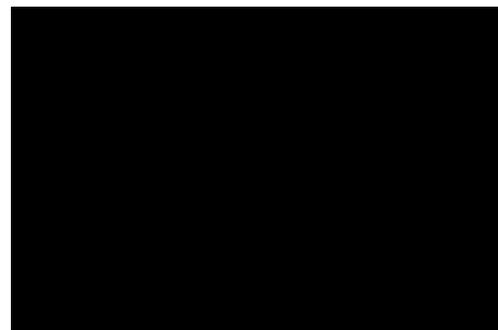
A tablet gives access to the Internet, maps and navigation systems, indication of QR-codes, on-line and off-line translators, photos and videos apps, tourist guides for any country, opportunity to download and keep loads of information. But on the other hand, it is uncomfortable to have to always hold a tablet in hands while walking, visiting museums or drinking coffee in a local cafe, and there is always a risk for your tablet to be left somewhere, or dropped or stolen, and in each of these unfortunate scenarios your gadget and all information you will be lost.



Google Glass provides portability, ease of use, functionality, and small size, it makes possible to connect to the Internet, make calls, check e-mails, use maps, translators and navigation systems, take photos and videos and transfer them to PC by using cloud technologies. Google Glass can be controlled in two ways - using voice controls or by using gestures on the side of the frame. Google Glass has its own app



ecosystem – there are round 70 at present, including Google Now, Google Maps, Google +, Gmail, Name Tag app for face recognition, and Field Trip app that allows browsing information about all nearest points of interest. Other apps, such as Facebook, Twitter and Tumblr are also available. Obviously Google Glass provides plenty of innovative opportunities that can be extremely useful for travelers, and there's still a lot of potential/ Using Google Glass in general, and for tourists in particular, is much more convenient than using a tablet or even a smartphone. There's much less risk to loose or drop Google Glass, and it is hardly possible for a thief to pick up this headset – ay least while it is right on the tourist's nose. Besides, Google Glass is a trendy curiosity, which is also attractive. The drawbacks of this gadget are the limited battery life (around 5 hours) and the price that makes it hardly affordable for an average tourist.



Our findings inspired us to think about opportunity of mashing existing tech gadgets together in order to emphasize their strengths and improve services they can provide. After a period of generating ideas and deliberation we came up with an idea of mashing together a tablet and Google Glass to create an A.T.S.M. - Automatic Tourists Serving Machine.



A.T.S.M. is a combination of tech gadget that can be used by tourists at all stages of their traveling activities and will provide them new experiences and more comfort through various apps suitable for a variety of their needs and wants. The logo of our product is a dinosaur A.T.S.M. which symbolizes a tourist who uses new technologies and our product.

We presented our idea at GTP Russia “Create Your Brand” Contest, and were happy to capture the 1<sup>st</sup> Prize announced at “Future You” Conference in Moscow on April 24<sup>th</sup> 2014. Participation in the Contest has given us a lot. We learned how to generate and evaluate ideas, how to be creative and think “out of box”, to negotiate and make decisions, to create and deliver presentations and many other important skills, including social and communication skills.



When invited to participate in the GTTP Research Award stage we were very excited about opportunity to further develop our project with an emphasis on how our invented product can be useful for Travel & Tourism companies to offer advanced services better accommodated for individual customers interests and how it can serve as means of sustainability in Travel & Tourism.

We started with a research to answer several important questions:

- What benefits does the product provide the consumer with?
- Who is our target market?
- How much will the product/service cost?

The major benefit of A.T.S.M. for customers is a variety of things it can do in a more comfortable way achieved by mashing together the strengths of 2 tech gadgets. Our product is

apparently designed to help travelers with everything they need or want from trip routing to sightseeing and lunch suggestions.

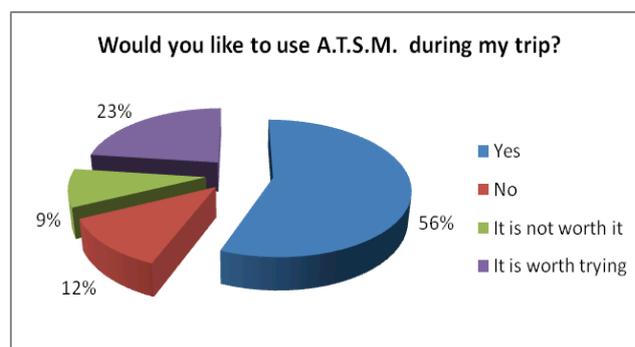
Our major target market obviously includes technology enthusiasts eager to try and test cool innovations. But also think A.T.S.M. can appeal for wider target groups offering apps that aid in navigation, trip information, emergency notifications, currency conversion and more.

Product cost is certainly a challenge: A.T.S.M. is not cheap, primarily due to Google Glass price. So if we want our product to be popular we need to make it more affordable.

Our solution is to offer hotels to install A.T.S.M. at the hotel rooms and rent it to customers providing both in-room and outdoors services. While customer is in his room, he could use a rented or his own tablet and apps that allow to obtain information of the hotel facilities and services, request room service, call a housekeeping or babysitter, check local weather and flights, look at a restaurant and sores, learn more about destination and its attractions, choose and book a tour or find directions to visit a place of interest by himself, call a taxi or rent a car, book tickets, etc. Who would resist such “personal concierge” service? The stay at the hotel will be much more enjoyable, and planning necessary for each trip or vacation will take much less time and energy. Vast database will allow each visitor to decide what to see, where to eat, how to entertain and the location of the venues providing services that matches his interests, and transfer all information o Google Glass via Bluetooth.

After making informed choices visitor leaves the hotel free-hand, wearing Google Glasses on his head. Finding the way is not a problem – you can use Google Glass as a mapping guide, it displays directions with a 3D map and the speaker in the right hand tells you when to turn. You can take photos and record video and send them to friends, and use translation app. Google Glass is personal guide that makes visitors’ experience of exploring the destination more exciting and comfortable. After a lovely day out visitor returns to the hotel and while his personal guide is recharging he can use his personal concierge’s service to make plans for the next day.

A combination of a tablet and Google Glass can easily replace many other gadgets, regarded as useful while people are traveling or on holidays, such as camera, navigator, maps, guidebook, pocket translators etc. Simply rent A.T.S.M. from the hotel and you are all set.



We asked people around us what they think about A.T.S.M. and more than 56 % respondents said that they would use such product and service if it is offered at the hotel.

How A.T.S.M. supports sustainable development of Travel & Tourism? Sustainability involves environment protection, employment and positive impact on the destination tourists are visiting. A.T.S.M. can be viable for this purpose. Here are few suggestions

**Problem:** Big tourist flows can cause destruction of an attraction as, for instance, it nearly has happened to the Coliseum, since nearly every second tourist leaves the sight with a ‘souvenir’ of a Coliseum stone – simply ignoring the warning signs and without a second thought about consequences.

**Solution:** A new app created for ATSM will provide not only information about location, directions and brief descriptions of historic or heritage sights, but also will be enriched by rules to follow when visiting such attractions to avoid the disastrous consequences of the barbaric behavior of tourists.

Same or similar strategy could be used to protect other places of interest through education potential visitors of the essential rules that help preserve the sights they visit. For example, a visitor using ATSM to find directions to the ZOO will learn why it's not allowed to feed animals without Zoo attendants' supervision, while those who are browsing information about a nature preserve will learn about waste control and why they should not make fires or pick up plants etc.

Another dimension to support sustainability is to help tourists use ATSM to navigate around the city to reach sites they want to visit. GPS navigation will make traveling around an unknown city easy and comfortable for tourists traveling by cars. A special ATSM app will provide those who use public transport the best options to travel to the point of destination. The effects are obvious – optimization of time and fuel will help reduce air pollution and will add to satisfaction of tourists who will reach sites of interest easily.

A.T.S. M. will help preserve sights and environment of popular destinations in good condition and will help manage tourist flow in a manner that will decrease the impact of tourists, so more tourists could be attracted and admitted, and more money will be gained to be used for development and improvement of the local infrastructure, and positively affect the lives of the local population.

Another dimension of ATSM use is encouraging visitors' cultural sensitivity and understanding and respect of different cultures and regulations.

**Problem:** Every country has different laws, culture, mentality, special behavior rules and traditions. And even within the same country different locations can differ in terms of ways of living, values and beliefs. Tourists unaware of the specific features of the places they visit could often find themselves in awkward situations, and their behavior could cause irritation and even hostility on behalf of the local population.

**Solution:** A special ATSM app will help visitors to learn major Do's and Don'ts regarding the places they are planning to visit. Visitors will find their experience much more satisfying in case they are aware of such essential things. In addition built in live translation offered by Google Glass will make communication between tourists and local people easier.

Would our project help support employment and create new work places? Yes, highly qualified staff, with skills to develop new apps, set up and update software, and to install and repair technical equipment is required for such project to come to life.

Would our product improve quality of services provided by Travel & Tourism companies? We think so. ATSM provides a variety of different services and options to satisfy different needs and wants in an easy and comfortable way. And if instead of buying costly device, visitors could rent it from the hotel at a moderate price, A.T.S.M. will become a new marketable gadget popular among companies that offer it, and among the customers.

### **Look how it can work.**

When I decided to spend a weekend in Moscow, I searched Internet for suitable days and affordable prices and booked an air ticket and a hotel room using my tablet from a café. It was a last minute decision and I did not have much time for planning, so actually while I was waiting

for my flight at the Airport I asked my Facebook friends about places they recommend to visit, and also browsed few websites to find a place where I could have a vegan dinner.

Checking in at the hotel I learned about A.T.S.M., and since the price was affordable, and I was curious to try a new cool gadget, I asked to include this service.

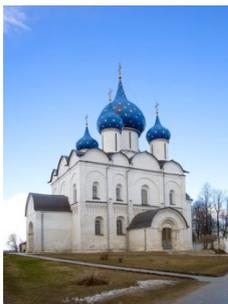
I found the places I was interested to visit using a tablet in my room, and sent all necessary information via Bluetooth to the Google Glass.

Leaving the hotel I followed directions provided by Google Glass and used subway to get to my first destination - Tsaritsyno. This place takes its history from 1633 and in 1775 Empress Catherine the Great ordered development of a grand ensemble of palaces there. Famous Russian architect Vasily Bazhenov and Mikhail Kazakov developed a miraculous ensemble, but for some reason, Tsarina did not like it, and though the place was named after her, Tsaritsyno, and was intended to become her home palace, it has never happened.



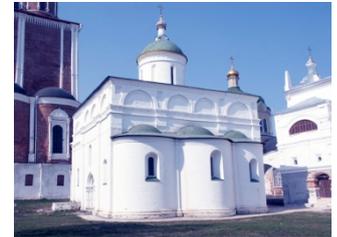
Tsaritsyno has more or less survived through more than two centuries, and has been popular mainly for a neglected, but still a wonderful park, visited by Moscovites. The restoration of Tsaritsyno continued several decades, and it offers a variety of fabulous options for visitors of different ages and interests. Tsaritsyno is located pretty far from Moscow downtown, and it is a huge place – one day is certainly not enough to explore the whole range of attractions and services it offers. It was essential and useful to use a tech gadget to search and chose the options most interesting for me, to figure out how to get there and actually find the way to make my visit comfortable, enjoyable and memorable.

Also in my list of places to visit was the Kremlin. The symbol of Moscow located at the very heart of the city, and also a historic and heritage and a political centre. I thought there's only one Kremlin in Moscow, but I was wrong. Thanks to my tech gadget I learned about and visited Izmailovo Kremlin – another beautiful and extremely interesting place to visit, which boast a navy museum and the biggest fair of souvenirs in Moscow, and at affordable prices. Satisfied with my visit and great shopping I managed to find a restaurant with a menu to fits me without any problems. I spent the evening in Neskuchny (Not boring) garden – a wonderful old park on the banks of the Moscow river with a fantastic panorama of Moscow.

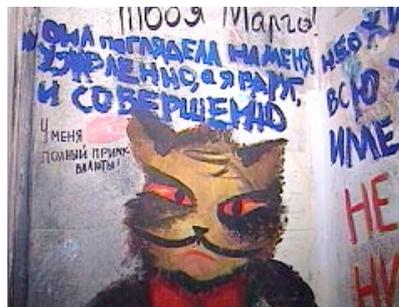


Back at the hotel I continued my research of the Russian Kremlins –ancient fortresses built many centuries ago and turned into museum preserves today. Using the tablet and sending information I need to the Google Glass I found out that 2 towns Vladimir an Ryazan, both

relatively close to Moscow have their own Kremlins. I also learned that there is a small town Suzdal near Vladimir which is regarded a pearl of ancient Russian architecture. I searched for travel information and made my travel itinerary quickly and easily. Also I booked a ticket for a high-speed train to Vladimir and Ryazan and a bus from Vladimir to Suzdal and back. Additionally I found a hotel in Ryazan and booked a room for one night. I even figured out places to eat at each site I planned to visit. I saved time and energy and felt quite prepared for my adventure – all thanks to my ‘ personal concierge’ service provide by A.T.S.M.



Next morning I started my trip equipped with my ‘personal guide’ – Google Glass and followed by trip route smoothly and enjoyed this experience enormously. On my way back to Moscow I was reading a famous book “ Master and Margarita” by Mikhail Bulgakov. Back at my hotel room I searched for more information about this wonderful writer, and was delighted to learn that there is a museum of Mikhail Bulgakov in Moscow. Next morning before leaving Moscow I enjoyed a visit at the museum.



It was my best trip ever, and I would certainly use the A.T.S.M. service in the future, and I will recommend I to my friends. Even more, when planning my next trips, I will be looking for hotels that offer A.T.S.M. service, and availability of such service will be one of the major factors to influence my choice of a place to stay.

That’s how A.T.S.M. could work and how it could improve the Travel & Tourism services, and influence customers’ decisions, and promote destination, without affecting them in a negative way.

## SWOT- analysis

We have made SWOT - analysis and revealed the following:

Internal	Strengths	Weaknesses
	1) Mashing gadgets together in one A.T.S.M. to emphasize their strengths in a compatible way; 2) A.T.S.M. replaces several gadgets; 3) Saves time, energy and money to	1) The reorganization is necessary for the entire electronic system of the hotel; 2) High cost of implementation; 3) Lack of visitors’ technology skills to use A.T.S.M.

	receive information, make itineraries and follow directions; 4) Offers a wide range of customized services 5) Convenient and reliable 6) Affordable if rented from the hotel	
<b>External</b>	<b>Opportunities</b>	<b>Threats</b>
	1) Growth of employment opportunities for skilled workforce responsible for installation and maintenance of devices and systems and development of applications; 2) Development of new Travel & Tourism services; 3) Involve tourists in environmental protection, understanding of laws, and the features of local behavior in the destinations they visit; 4) Availability of the A.T.S.M. is a competitive advantage for a hotel.	1) Google Glass is still a the prototype stage, currently not widespread; 2) The gadget is expensive; 3) Some parts are not available independently ; 4) The lack of qualified personnel for installation and maintenance of the devices; 5) Possible damage of the gadget.

This analysis shows that, despite of quite serious weaknesses and threats, strengths and opportunities are quite promising an optimistic. A.T.S.M. has many competitive advantages and we have a reason to predict our new product a market success and a bright future. We think A.T.S.M. may have a significant positive impact on the sustainable development of Travel & Tourism and, in particular on HoReCa.

The main problem of the implementation of our project is finance. Tourism is important for the national economy sustainable development and for the image of the country, therefore there are good prospects to gain the government funding for innovative technology project.

Banks and financial institutions may also be interested to invest, as well as large corporations and hotel networks.

We can see a least three possible models to support implementation of A.T.S.M. idea

1 The direct participation of the state in the implementation A.T.S.M. project, development of national centers of financing, free training employees for A.T.S.M project.

2. Subsidies and grants to develop specific applications and content and translations of the information to other languages.

3. For private business the investment in the development and purchase of necessary equipment should be provided by various tax incentives, government loans and guarantees.

It should be noted that the state should supports small innovative companies, provide tax incentives and an ability to obtain start-up capital or grant for a new idea. This form of organization of innovative entrepreneurship can help create a system of "incubators", innovation centers and venture capital funds. The state should also contribute to the formation of innovation market (information in the media, exhibitions, exchanges, trade fairs, etc.)

## Conclusion

We are confident that A.T.S.M. service provided at the hotels can increase not only the quantity of independent tourists, but also contribute to the number of tourists that are using the tour operators. It will require high level of investments, and it is not possible without the state support. However growing quantity of tourists will contribute to the development not only of traditional destinations, but also accommodation, cafes and restaurants, souvenir shops, theaters, concert halls and other Travel & Tourism service providers.

The world is moving forward. Many tourists are eager to try something new, whether it's the exotic tastes or sensations, which they had never experienced. They want to experience new things to diversify their lives and work routine... A.T.M.S. is designed to make each person's travel experience more comfortable, enjoyable and memorable. Technologies make it possible and also contribute to sustainable development of Travel & Tourism services.

## Teacher's Notes

Students enjoyed GTTP program and contests. Through participation in the two stages of the Research Award: "Create Your Brand" Ideas Contest and "Travel & Tourism" Case Study Competition students gained and improved a variety of skills, including teamwork, communication and presentation, planning, research and project management. They were eager to work hard and do their best to come up with an innovative ideas providing solution to the competition challenge, and to elaborate on their project, learning by doing how to create and present a project. It was enormously beneficial experience for these particular students, and for the entire class to learn and apply new knowledge and skills. Resources and approaches developed through this project will help me introduce GTTP program and contests to potential learners. Students have already expressed their willingness to contribute by sharing their experience with their schoolmates and provide support to those who will participate next academic year.

Teacher is Irina Sanikidze.

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