

# NEW DEGREE TRACKING METHODS IN HUNGARY

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## **Abstract**

*According to the Zoltan Magyary Program for the Development of Public Administration in 2012 the institution of civil servants' training and further training has started, called the National University of Public Service (NUPS). The mid-term vision of the Institutional Development Plan is to make NUPS: a solid training and research base of the development of Hungarian public service and of public service career model. It is important for NUPS how develops the feedback of its graduates on the academic years. Within the framework of the Graduate Career Tracking System (GCTS), research is carried out via questionnaires, whose completion is voluntary, among the current students and alumni with a degree no more than 5 years old. One of the purposes of the GCTS is to improve the University's standards of service and education. The willingness of respondents is low from year to year, so the result of the questionnaire is lower than expected.*

*The purpose of the study is to present a method to better track the opinions, experiences and placement parameters of graduate students. This new method helps to evaluate the results of the questionnaire more widely. this will allow the university to develop the institution more effectively.*

## **1. Introduction**

Making data driven decisions in higher education is getting more and more important for the Hungarian educational policy, the boards of trustees, the present and former university or college students and all the affected participants in the tertiary education, so it is highly important for them to get proper feedback about the performance of each institution.

The aim of the present study is to present an effective method which is able to track the opinion, experience and job prospects of graduate students. This new method helps to evaluate the results of the questionnaire in a broader way which enables the institution to improve more effectively.

## **2. The presentation of the Central System for Tracking Graduates' Careers**

First, it is important to make the notion of career tracking clear: every activity – a method, a process, a survey – is considered to be a tracking for career which gathers information based on definite topics about the labour market integration of university graduates and their career paths in the long run, in a shorter period or occasionally. The reference topics are typically the labour market relations, the quality of the educational process and the identification of the social-demographic background.

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According to the study „Suggestion for International Career Tracking”, GCTS covers the following fields:

- graduates' success on the labour market
- integration of graduates in the labour market
- characteristics of graduates on the labour market
- utilization of tertiary studies
- evaluation of institutions
- subjective factors, e.g. job satisfaction
- personal and professional competences and
- essential competences for working.[1]

Among the aims of forming GTCS the emphasis is on the followings:

- applicants must have information about the perspectives on the labour market after graduation
- the institutions must have relevant information for departmental strategy formulation about the job and career opportunities of graduates
- the institutions must gain an accurate picture of the career pathes of their graduates so as to get continuous feedback on the quality of their trainings.[2]

The career tracking inquiries are based on the process above; besides primary sources with questionnaires, they try to connect different administrative databases in order to get a comprehensive picture about the active and graduated students in the tertiary education.<sup>2</sup>

## 2.1. Career path tracking experiences of foreign countries

Career path tracking is a fairly new field although in many countries it has already had a tradition in the past decades. These kinds of investigation have been conducted since the 1970s in North-America and Western Europe but you can find some more examples in other parts of the world, too.<sup>3</sup>

Some international and national rankings give suggestions to define the efficiency of tertiary education institutions on an objective basis, although this methodology is criticized by researchers. . (Altbach, 2006; Fábri, 2008, 2010 2013; Margison – Van der Wende, 2007; Rauhvargers, 2011; Van der Wende, 2008). Rauhvargers suggests 13 ranking methodologies but only some of them are mentioned here: Times Higher Education World University Rankings; the Academic Ranking of World Universities from Sanghai; The QS World University Ranking; the Webometrics; the Universitas 21 but there is a need for a more practical system on the European level which can be ensured by the U-Map project supported by the European Union.

The lack of comparable international data is a challenge for the U-Map. The European Commission and the Eurostat has launched a data collection method which makes the comparison of universities possible throughout Europe. Until it develops the U-Map can rely on the national data, consequently it can make comparisons on the national level. [3]

<sup>2</sup> Integrated Administration Database (henceforth ÁAI), which is also supported by the Hungarian education politics can be mentioned in connection with the latter. It enables us to find the necessary information about the university students as the database is responsible for combining the incoming data from each institution, so we can see and handle the objective information as a part of a whole system. In the present study I do not investigate this initiative which is more recent than the GCTS.

<sup>3</sup> In this study I do not discuss the history of tracking graduates' career. I prefer to focus on the tracking process from the 2010s.

By international surveys we usually mean the researches on the territory of the European Union or the ones required by the European Commission. The European Union puts an emphasis on forming a unified and switchable university system. To reach this goal and to support educational decision making, some informative analysis were made in the international surveys. The number of the cooperative countries has expanded, almost all the EU countries or European countries take part in the researches. The oldest regular observation is EUROSTUDENT, which assesses the social and educational status of students in the tertiary education. It helps researchers with grouping students and understanding factors behind different educational systems. By now 30 countries of the internationalisation network take part in the process.

Although initially the analysis of the labour market was in focus but later the emphasis has been put on its expectations. CHEERS asked graduates from the side of higher education, the core of the feedback was definitely the tertiary education. REFLEX is the first one where labour market is in the focus, namely whether university studies are able to ensure the vital knowledge, competence and skill-developing expectations of the job market. In HEGESCO (2008) the question of essential competencies is even more emphasized. [4]

In the non-European countries the system is mostly financed by the governments (even if the executive is a nonprofit organization), consequently their interests are detectable in the surveys. Online researches are applied in most cases as the cheapest, fastest and easiest solution but parallel to this the response rate is lower.

In the North-American countries and in New-Zealand career tracking has some decade long practice, so they are financed by the state, based on representative samples and on choosing cohorts. The data is available on the websites of the research institutions and universities get it for further analysis. In American countries the alumni system and the contact with the graduates means a significant financial power for the institutions.

Australia, Chile, South-America built up the presentation of their results and the feedback in a way that they can be attached to the data required by the interests of higher education. The Emirates, South-Africa, Philipines, Malaysia, Oceania and Singapore have one or two-decade long practice but on the level of the governmental decision making there is a need for data so they strongly influence the territories included in the survey. [5]

The international practice results are used in more ways: stakeholders are informed by them, university applicants are attracted by them; marketing goals, education development, quality assurance, strategy-planning in the institutions, supporting the decision are all benefits. What is more, it has also advantages on the governmental level, e.g. forming the supply of trainings, supporting financial decision making or the data of GCTS can be applied by employers, too.

Although in most cases we cannot see any payment for responding, the rate of participation is usually high. It is partly the result of the former good relationship with the institution: respondents share their opinion just to help us. On the other hand, the participant is glad to be asked to evaluate the institution. Thirdly we can see solutions where there is no financial reward but respondents get some kind of value, e.g. access to an integrated search database or supplier package. [4]

In the North-European practice the willingness of participation is higher because the legitim central statistical office of repute interviews the graduates. The study of Education Kft. highlights that in the British and Irish GCTS model the attitude of students differ from Hungarians and it reflects in

higher respond rates. It is noted that „they do not respond the questions because it is compulsory but because they feel its benefits, even at their personal level.” The strong bond to the universities and colleges and their reputation gives the basis of the successful research.

These are all factors which are worth to integrate into the Hungarian practice.

## 2.2. Career path tracking experiences in Hungary

The legal conditions of the Hungarian graduate career tracking system was laid down in the Act CXXXIX of 2005 on Higher Education [7] which was reinforced by the Act CCIV of 2011 on Higher Education (henceforth *Nftv*), so that is why this survey is referred to be relatively new.

Until 2019 the mandatory institutional data supply was conducted with a standardized questionnaire and methodology, voluntarily filled online among those alumni students who got their pre-degree certificate in one, three and five years. [2] Later the GCTS was renewed and since then students are asked to fill out the questionnaires who finished their studies in one and five years. Furthermore, the concept of the questions was also changed radically compared to those of the previous years.<sup>4</sup>

The model of the Hungarian GCTS has two levels:

- the institutions collect data and ensure data supply which provides the basis of different analyses at the institutional level
- a central institution – up until the end of 2015 it was the *Educatio Kft*, its assign is the Ministry of Education- which collects and processes the information at the national level; then later it makes statistics and analyses based on them and finally the results are announced. [2]

The exact topic, due date, frequency, method and the methodology of the data supply as well as the questionnaire based on the act is announced by the minister on the website of the ministry. The results and consequences of the career tracking must be published on the website of the university in a form of a concise summary and a full length study.

Although the law does not list the nonmandatory tasks of the institutions, but the extension of the standardized questionnaire with special institution and profession-specific questions as well as submitting the institutional GCTS database for projects and enquirers are considered to be two of them.

One of the biggest challenges of the Hungarian career tracking is the low and decreasing rate of response. One of the reasons is that as many of the potential respondents are not available at their contacts, consequently they cannot be informed about the survey. The other reason is the low willingness to respond, that is graduates do not see their interest in filling long forms. There are more possibilities for gaining the number of respondents:

A study by the State Audit Office „A study on defining the focus fields and aspects of state audits in governmental actions towards gaining competitive knowledge and their use” suggests inventing the mandatory response of graduates. However the specialists note that in order to create a motivating environment, the aim of the research must be clear to the respondents: the development

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<sup>4</sup> an international cooperation, a reflex project

of educational quality, the assurance of the practical use of the degrees, career advices and presenting possibilities in further education.

According to the study of the State Audit Office, techniques aiming the higher response rate ( e.g. multiple requests, phone requests, financial and non-financial incentives) cannot be sufficient. It notes that empowering loyalty is important primarily for universities as the good relationship with former students provides lots of advantages for the institution.

### 2.3. A report on the GCTS at University of Public Service

Under the law of Nftv the establishment of GCTS was started in 2010 at the university, which meant a new challenge as the university had been formed with the fusion of three predecessors. The institution considers it important to know its students' and graduates' opinion, motivation and experience along with maintaining relationship in order to meet the requirements of both the labour market and that of the students. [6]

Just like in the national trend, the process of career tracking was completed between 2013 and 2018 among the students who got their pre-degree certificate in one, three and five years based on the regulations of tertiary education. During this period in order to enhance the willingness of respond a letter was attached to the link of of the questionnaire and weekly follow-up e-mails were also sent. Between 2013 and 2016 even a giveaway was promoted.<sup>5</sup>

As a general consequence we can say that filling in the questionnaires was difficult partly because of the partial lack of the e-mail addresses and on the other hand the low level of willingness in taking part in the survey. The poor quantity of response was predictable because the results of prior monitoring processes were similar to this one. (In 2012 488 people, in 2013 400, in 2014 451, in 2015 416, in 2016 585, in 2017 696, in 2018 571 and in 2019 440 people filled in the questionnaire.) Furthermore, many e-mail addresses were missing. The willingness of participation in the survey is between 9 and 11 % of the questionnaires sent out. (See the chart below)

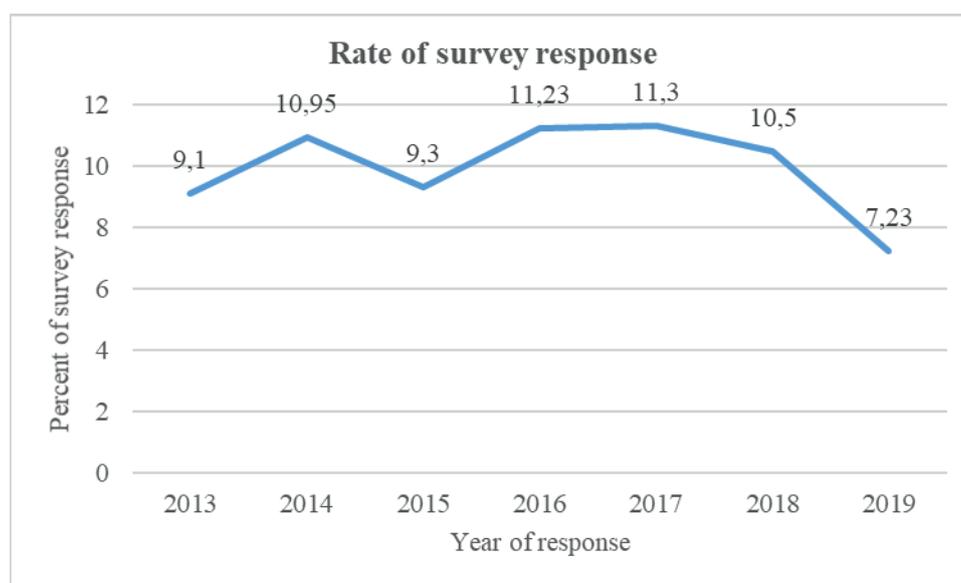


Chart 1: The rate of survey response at UPS<sup>6</sup>

<sup>5</sup> Career tracking investigation at University of Public Service between 2013-2016.

<sup>6</sup> Self-edited based on career tracking investigation at University of Public Service between 2013-2016.

Although after 2016 until the renewal of the GCTS the survey response rate reached 10 per cent, the answers cannot be considered to be representative because it can be referred to the population which sent the questionnaires back. The low number of response does not solely a characteristic of UPS it can clearly be seen that the survey is filled out mostly by the highly satisfied and the highly unsatisfied.<sup>7</sup> GCTS monitoring make it possible at the same time to measure different topics, such as the competences, skills and abilities of graduates; based on their opinions valuable insight is offered about their connection with the labour market and their chances of successful employment. The results of the survey and the analysis of the data can provide valuable information for those connected with University of Public Service. That is why it is worth to reconsider the operation of the system. [8]

### **3. Mobile applications in the career tracking system**

As a consequence of the detailed correlation, it is worth to examine if a more effective method for career tracking exists. With the spread of mobile phones, people's needs have changed. It has become essential for them to get every kind of information in real time and the most suitable marketing tool for this is a mobile application. People spend more and more time with their mobile applications: while in 2015 this number was 2.1 hours, in 2019 phone usage was one hour longer: 3.1 hours. [9]

Why are mobile applications good and how could they be worthy in career tracking?

If we take the approach of the business side, it can be seen that the latest generation does not choose the Google search engine, they search in the application stores. Because of this we can say that if a company has a mobile application, it can be found easily in the search networks. A good-quality application provides such a good experience that the user will remember the brand name and services of the provider much longer. Why is it important in business life? Because it speeds up the growth, improves the quality of relationship and communication; it can provoke cooperative activity so closer relationship can be established. Mobile applications are the most effective marketing tools in the business sector to increase takings these days.

According to Comscore statistics 87% of mobile usage take place on applications compared to the same rate on web search engine which is only 13%. [10] How can we establish closer links with mobile applications and how can they be used in career tracking? (see chart)

We must remember that applications work mostly among youngsters as they prefer them. Apps are really popular in the 18-44 age range. [8]

As I have already mentioned above, those students are asked to fill out the questionnaires who finished their studies in one and five years, so vast majority of the respondents are from that reference group.

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<sup>7</sup> According to the institutional GCTS representatives one of the most challenging problem of GCTS in Hungary is the low and descending tendency of respondent rate, stated by Nyüsti-Veroszta.

<i>Advantages of applications in business</i>	<i>Advantages of applications in GCTS</i>
<i>direct shopping on the way is possible</i>	<i>It would make responding possible on the way. While it is a characteristic of surveys that blocks of questions and the questions themselves are built on each other, it is not possible to return to previous questions and the questionnaire does not let the respondent to go on the next section unless all points are answered. Meanwhile the application enables us to return to the question where we stopped or to switch to another question block.</i>
<i>Push message sending encourages the user to act immediately. As a result of the immediate push messages, 70% of customers can be activated and it is 14 times more likely that they would purchase. These marketing tools are at the company's service for free.</i>	<i>By sending a push message the user would be encouraged to act immediately. This way the willingness of respond could be improved. Email has been used to attract former students's attention to the survey. Students have to open their mailbox to do this. The downloaded application keeps sending messages which can be seen on the phone screen immediately, there is no need to enter the app.</i>
<i>Useful tools are available on one platform (e.g. calculators, blog, social media, e-mail collection, QR coupons)</i>	<i>Some useful tools could be added to the questionnaire function: reports, relations, calculators could be reached from one platform so that the user would get confirmation. With an extension like this, the actual results could be seen in the app.</i>
<i>Marketing tools to establish customer loyalty (e.g. coupons, discounts, giveaways). Mobile applications contain more kinds of loyalty tools, they can be activated anytime and they are never left at home. Offers can be targeted both at everybody and a target group (e.g. GEO offence).</i>	<i>Customer loyalty tools could be used as it is likely to increase the number of respondents. There are some institutions where they are already used.<sup>8</sup> At this point adapting the foreign practises would be favourable: e.g. providing access to certain services of the institution or a discount in taking part in a university course after filling in the right amount of questionnaires.</i>
<i>By setting up exclusive content a unique field of interest can be established.</i>	<i>By setting up exclusive content a unique field of interest can be established. Alumni system.</i>

**Chart 2: Comparing advantages of applications in business and in GCTS<sup>9</sup>**

<sup>8</sup> Based on reports of State Audit Office of Hungary, seven institutions introduced incentives in the form of gifts for respondents

<sup>9</sup> self-edited

In order to track career starter graduates, we have to discuss the basics of application making.

*1. What is the main aim of creating an app? What problem is it intended to solve? What utility does it have for the user? Why do users want to download it?*

The aim of the application would be to substitute the questionnaires of GCTS with the app. Moreover the app could be expanded with the combination of data collected by the different institutions. The questions would still be from the institutional GCTS online survey's question [11] bank but it would worth altering: the questionnaire consists of four blocks where the first one is about the studies. The first four questions of the thirteen reflecting on the previous studies are irrelevant because the Neptun /ETR system contains them. This information has been given by the university so as to provide their validity. The next block refers to the courses finished after graduation – if there is any. The questions are about the necessary motivation in finishing a course; the connection between the course and the employer; the relationship between the present and former studies are examined. The block can be shortened down to 20 questions if the respondent did not finish a course after graduation. The 12 questions of the third block refer to the respondent's status on the labour market while the fourth block ask for personal data. The users would be universities who could reach more people with their questions. By analysing the responds, institutional development would become more effective. The app would also solve the problem of the missing or non-existing email adresses and it would also help forming an Alumni system.

*2. Who is an ideal user?*

The potential target group of the app would be the same as the respondents of the GCTS. It is a possible risk that only a smaller part of the target group would use the application. Its reason may be that not all the members of the group is an experienced mobile user. A larger target group can be reached when the app is simple to use as long questionnaires also may discourage the reader from filling out the forms. With the app the rate of the responds could be higher. By building in sales promotion tools, such as PR materials, pens, diaries or discounts on tuition fees can be motivating for the target group.

*3. Is a website unsuitable for this aim?*

Functionality, problem solving and marketing are those small details that define whether an application is needed or not. A mobile application should be compared to an existing website in order to see its real utility. But if the user can solve everything on the website, it is unnecessary to use an application. [8] Data can be analysed with the GCTS questionnaires and the results can be sent via email or it can be downloaded by the respondents but the application can offer more and this is the key of success. It makes possible to ask students about their positive experiences which can strenghten the goodwill of the university. This is one of the best ways to communicate about students' satisfaction. We can ask for proofs of their opinions, e.g. videos, pictures or other content.[9] There are no functions like this in the questionnaire.

#### *4. Is there a similar solution on the market? Who can be rivals?*

When you search for mobile applications, you can find different applications and survey apps but none of them are in connection with students' career tracking.<sup>10</sup> That is why a new career tracking app would be a unique option to develop based on other survey programmes. While an average app is available and downloadable for anybody, the career tracker should not be open for everybody. The app must be attached to universities because according to some researches it is the institutions' task to ensure commitment; plus the results of GCTS are also applied by them as they can complete the questionnaires provided by the Ministry of Education with their own questions. In my opinion, a basic application containing the mandatory questions of the ministry would be enough and the institutions could add their own questions to them. The logo of the institution could help with the searching process as the user could identify the college or university. To limit the number of respondents and to control them, entering the former students' ETR or Neptun code could be the solution. As this code is registered and attached to students in the institutions, the system could allow the response only for those who finished their studies in the reference year. At this point the question of anonymity may rise. Up until now it has been ensured while filling in a form. The institutions could choose which anonymity they prefer in the questionnaires: the research methodology type one is when every respondent receives a password-generated survey which is unique in the sense that it independently exists without bonding it to a person. In this case the IT anonymity means that questionnaires are not generated in advance, but with a help of a link the respondent can reach and fill in the survey. It is clear that passwords have been used to fill in forms, so the app could ensure privacy by using the Neptun /ETR code but it enables tracking filling the forms. In this case the applicant cannot be attached to any filled questionnaire.

#### *5. Which strategy is suitable for spreading the application? How can the periodic maintenance and updates be solved?*

User tests are really helpful to make the user experience better and to meet the needs of the target group. In business life it often happens that application owners focus on getting new users only and push aside communication and keeping in touch with them. Although it is true that users do not like to be bombed with push messages constantly, sometimes it is advisable to send messages for them to maintain the connection. Searching for new graduated students is unnecessary, it is done by the institution every year. As the application can create closer relationship than a questionnaire so practically an alumni system would be formed. Maintenance and updates would be solved by the institutions.

As we can see from the relations above, the idea of a mobile application in the career tracking could work. However, the way towards creating an app like this raises some questions, too. Before developing the software, we should conduct a market research among the future target group of GCTS, as the size and the characteristics of the group and their demands. The assessment of recent results in the tracking system could also give help to know them better. I think a simple and easy usage should be combined with an eye-catching appearance in order to make the appearance more popular among users. [10]

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<sup>10</sup> With English search words

## 4. Summary

Higher education institutions have recently discovered the significance of following their graduates: they can see a clearer picture of their former students' performance on the labour market and it may also play a role in institutional development. What is more, good results can mean a competitive advantage for the institution when students' make their educational choice.

It would be vital for the institutions to get more precise results as career tracking of graduates with a central question block is codified. During the last ten years the results of questionnaires have already proved that online survey is not successful, as respondents do not get the questionnaires and they are not motivated. Technological development in our everyday lives also suggests that we should rethink the old methodology and form it to a modern technological environment. It would seem that career tracking system adapted to a mobile application could reach more graduated people and the institutions would get better results. This technological development would give a more realistic picture of the job market and the chances of graduates on it. Employees and companies could also have a clearer picture about the skills and knowledge of a young graduate of a certain faculty. Last but not least universities and colleges can learn from the more exact results: the answers may encourage the institutions to adapt to the expectations of the labour market; to keep in touch with their graduates and to develop their institutions more effectively.

Since the execution of the Central System for Tracking Graduates' Careers in 2010 the results have been called into question: how good the results are and how much reliable are those answers to make decisions based on them. In 2017 the verified system was developed and as a result the rate of survey response dropped by 2019. Knowing and applying the opportunities lying in the technological innovations should be taken into consideration soon by the Ministry of Education and the institutions.

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