

CONTENTS

Contents	2	
Introduction	4	
About the Project	4	
About Game-Based Learning	5	
About the E-Book	6	
National Context of Game-Based Learning in Partner Countries	7	
Bulgaria	7	
Germany	9	
Finland	10	
Hungary	10	
Ireland	11	
United Kingdom	12	
Best Practices from Bulgaria	14	2
National Careers Guidance Portal - Bulgaria	14	
ePortfolio For Your Future	16	
My Tomorrow Mobile Application	18	
Prometheus Mobile Career Tools	19	
Velocity Job Interview Simulation	21	
Best Practices from Finland	23	
Tulevaisuusohjaus / Future Guidance: Get A Life simulation	23	
Mansikkapaikka / The Strawberry Field	25	
Posiviitinen CV / Positive CV	26	
Best Practices from Germany	28	
Berufe Entdecker	28	
Bewerbung: Fit fürs Vorstellungsgespräch / Applying for a Job: Getting Fit for the Inter-	view 30	
Federal Employment Agency's Video Portal	32	

LEVEL UP – GAME-BASED LEARNING IN CAREERS GUIDANCE E-BOOK

GaBaLearn Project – Game-Based Learning in Nursing	33
Best Practices from Hungary	34
Sociopoly / Szociopoly	34
Az Én Utam / My Way	36
National Careers Portal - Hungary	37
Best Practices from Ireland	40
The Game of Life App	40
Fake it to Make it	41
Develop Project - Developing Careers through Social Networks and Transversal C	.competencies43
Med-Assess EU Project	45
Best Practices from the United Kingdom	47
Job Interview Game	47
Virtual Project Manager	48
Shape your Future	50
MeTycoon	51
Best Practices from Elsewhere in Europe	53
L'avenir s'imagine / "The Future Can Be Imagined!" (France)	53
MBO STAD (Netherlands)	54
Atlas Of Emerging Jobs (Russia)	55
Bibliography and Resources	57

INTRODUCTION

ABOUT THE PROJECT

Level Up will harness game-based learning (GBL) and digital approaches to produce innovative resources that help young people (particularly those making decisions around education transitions) to better understand the learning outcomes found within VET. These aims are driven by the fact that the number of people entering VET has dropped across Europe in recent years, a trend which is contributing to growing skills mismatches within European labour markets. Therefore, policy makers and VET practitioners have begun to realise that there is a need to challenge misconceptions around vocational pathways, in order to help position these routes as a 'first-choice' once more for young people.

To aid this, the project will build an interactive digital game for use in guidance sessions with young people that will begin to break down stereotypes around VET routes. Young people will be able to simulate progression through VET, as the game highlights that vocational learning outcomes are as varied and complex as those found in other education pathways. At the same time, the link which the game will draw between VET and the labour market will demonstrate to young people the value which vocational training has on long-term career progression. The project's innovative use of ICT will help to maximise the impact of project outputs, as it will allow Level Up to involve digitally native young people via mediums which are proven to add an engaging, innovative dimension to traditional educational guidance.

To capitalise on players' increased motivation around VET, and to further challenge misconceptions and stereotypes, game levels will also link into complementary content found within the project's online portal. Here, both young people and the guidance practitioners who work with them will be able to find regional, national and European information on the career benefits of VET, Labour Market and Skills Information (LMSI), and further guidance on training routes. This will provide game players and professionals with the hard data and further information needed to inform decisions around VET pathways, by showing the concrete long-term impact of gaining such skills. These

resources will be particularly useful for professionals as they will help to develop their skills and knowledge in relation to utilising digital guidance tools.

LEVEL UP – GAME-BASED LEARNING IN CAREERS GUIDANCE E-BOOK

The project will also draw on several European level tools and resources in its development. This is because it is felt that an open, transnational approach to the promotion of VET is needed in order to offer effective resources that highlight the diverse training routes and career opportunities found across Europe. This includes the European Qualifications Framework, as well as practical labour market tools such as Europass and EURES. Such an approach will help the project produce universal resources, which demonstrate the demand and opportunities for people with vocational skills to build careers on the local, national and European level.

Thus, the completed Level Up resources will offer a comprehensive digital guidance package that will both engage and upskill staff and directly interact with young people. This will improve the quality of support received by students, which will in turn mean young people are making better informed decisions about their education and training. Ultimately this will allow them to develop skills more directly suited to the needs of the labour market, and so begin to address the skills mismatches found across Europe.

ABOUT GAME-BASED LEARNING

GBL is central to Level Up's use of digital technology. Whilst the principles of GBL are gaining traction within education more generally, they remain underutilised within guidance. However, this is in opposition to the expectations of digitally native young people, who now expect the use of interactive/digital tools to be embedded within their guidance experiences. Therefore, the project looks to harness the potential of GBL as a tool for effectively engaging with young people to further enrich VET careers provision across partner countries.

The benefits of adopting a GBL approach to achieve the project's objectives are numerous. For example, as Bogost (2007) indicates, GBL does not just present learners with information. Instead, it facilitates the provision of skills and knowledge while also allowing the learner to implement/practice these skills and knowledge - applying them in a digital context which is without the risks of real-life consequences. Therefore, unlike many current promotion tools within VET, by simulating the benefits and learning



outcomes of VET via progression through a GBL platform, the project will be able to expose players to experiences not possible in 'real-life' and so challenge their preconceptions around VET.

GBL has a growing reputation for helping people to develop their skills and behaviours. That is why such an approach has been embraced by large companies for the development of courses on topics such as leadership, time-management, teamwork and other soft skills. Examples include Pacific, Merchants and Triskelion, developed by Gamelearn¹.

ABOUT THE E-BOOK

The objective of this e-book is to collect examples on the use of GBL in careers guidance together in order to provide a foundation on which the technical specifications of the Level Up resources can be based. Whilst the focus of research has been on initiatives within guidance linked to VET, other innovative practices within careers guidance more generally have also been explored, in order to provide a broad picture of the current adoption of GBL within guidance (and so inform the project's own GBL outputs).

The e-book contains more than 20 best practices from across Europe. The best practices focus on the content and technical aspects of the GBL initiatives, as well as their target audience and the wider sector/policy need they address. Their strengths and weaknesses are also presented. Many of the presented best practices have been developed as part of European-level projects. Among them there are mobile apps and online games, interview simulations, self-assessment and job-exploration tools, and national careers guidance platforms with a wide range of interactive game-based tools.

¹ https://www.game-learn.com/serious-games-resources/



NATIONAL CONTEXT OF GAME-BASED LEARNING IN PARTNER COUNTRIES

BULGARIA

There is an increased interest in GBL in Bulgaria, particularly in training and education. However, its potential is still underutilised within careers guidance.

On a national level, the national careers guidance portal http://Orientirane.mon.bg is one of the few examples of an interactive digital offer. The website contains interactive exercises and information about job trends, support around career choices, videos, and online assessment tools.

In recent years, several Erasmus+ projects have used GBL elements or gamification to make learning more user-friendly, attractive and to create a more inspiring learning environment. This includes:

<u>Velocity project</u> – 3D virtual reality simulation of the job interview process (currently in development)

Open Mind project – gamified MOOC for social entrepreneurship (currently in development)

<u>EPortfolio</u> project (2008) - explored the potential of GBL in careers guidance and developed an online game.

Euro4Science project – forensic science education platform designed to promote scientific literacy in students across Europe. The project uses crime cases and mock tools to create challenges that students solve using techniques such as blood type analysis. Whilst doing this, users also learn aspects of maths, chemistry and other subjects in a more interactive and exciting way. The spin off project Euro4Science 2.0 will expand and improve the forensic science education toolbox with materials and activities related to the environment, health and citizenship.

The most common GBL approach is the use of flash games which simulate different professions/job tasks (example 1, example 2, example 3). Memory games based on professions are also popular.

In addition, some mobile apps and online tools are now using GBL elements, resources which are becoming more popular amongst young people who are looking for careers guidance online. These include:

My Tomorrow application

Prometheus mobile apps – mobile instruments supporting career decision making

16 personalities test

E-Portfolio Project

<u>Ucha.se</u> – similar to the Khan Academy where students learn through videos and online exercises

<u>Kahoot.it</u> - GBL tool that offers easily customised quizzes which make learning interactive and fun

Jumpido.com – studying maths through kinaesthetic exercises

There is a growing focus and popularity of GBL initiatives which promote STEM subjects in Bulgaria. This includes **Spaceport.academy** which is the largest interactive portal about Space and helps visitors learn about the universe. Other examples include Robopartans (robotic school), Programming academies (Open University), Architecture Workshop for Children, and the I, Engineer annual event which combines a conference, exhibition and workshops and is led by leading technological and engineering companies.

Another growing trend has been projects run by museums and science organisations. This includes Bio Games (a series of interactive workshops related to natural sciences that take place weekly), Museiko (Children's Science Museum), and the **Sofia Science festival**.

GERMANY

GBL is getting more and more popular, especially in higher education. However, some examples can be also found in secondary and upper secondary levels.

There are a limited number of platforms and projects in Germany which use GBL approaches specifically for careers guidance. An example of this is the Federal Employment Agency's website http://planet-beruf.de which uses drag and drop and memory games (matching professions with pictures etc.).

Additionally, there are some examples of games developed in different sectors and companies which aim to attract young people to specific occupations. One such example is Careers with the Lufthansa Group (https://www.be-lufthansa.com/en/entry-for/pupilsschool-graduates/). The Lufthansa portal offers information about various professions and vocational training. On the portal, there are descriptions of the jobs offered by the Lufthansa Group (e.g. flight attendants, customer service, pilots), as well as information on what vocational options exist for these careers. The portal also lists current vacancies. In the section "Jobs and Apprenticeships", there are detailed descriptions of different professions which include examples of daily duties, videos, a virtual day (pictures with descriptions of daily activities), and details on the application process. Additionally, in the section "About Your Application", a live chat option is offered on selected topics. The live chats are carried out by staff from the Lufthansa Group. Frequently asked questions that might be interesting to other applicants are posted on Facebook. The platform also offers sample tests in a foreign language (English), concentration, arithmetic, vocabulary, analytical tests, and email tasks. There are also roleplay scenarios on issues such as service on board the aircraft and how to react in certain situations. Users can also play a vocational game to know more about the different iobs aet offer(http://lufthansa.cyquest.net/).

Skills assessment tools are also offered by the Jobstairs website (https://www.jobstairs.de/azubi/index.php). The service is available in German and supports career decisions. The test consists of two parts: one is related to the user's interests and the other one to current knowledge. The part on interests includes 90 questions/statements related to technology, art, and organisational skills. In terms of the

a

knowledge section, there are around 20 tasks related to mathematics, logical thinking, and analytical thinking. On the basis of the results, the user receives feedback on their answers and achievements. They are also provided with a list of the most suitable professions and the vocational routes open for these.

FINLAND

The Finnish games industry is growing rapidly. Its revenue was at 2.4 billion euros in 2015, almost 3 times more than it was in 2013. After the release of Angry Birds in 2009, the mobile games market expanded, giving rise to new gaming companies. "Before Angry Birds, mobile games were a niche, just like educational games are right now...it is just a question of who is going to make the 'Angry Birds' of learning." Within the games industry, there is also a steadily increasing industry in serious games as new games companies emerge. Revenue for serious games in 2015 was at 9 million euros, an increase of 5 million from the year before, and it is estimated to reach 17 million in 2016. Finland has a global reputation in education and a strong talent for games development, and while there is potential for serious games, they still face a few obstacles, one of which includes funding. "In our own experience the serious game projects haven't been initiated due to - or rather the lack of - funding." Companies operate on tight budgets and it shows in the quality of games they produce. "Learning games are currently in painstakingly similar situation as mobile games were in 2007; they're a niche product, produced quickly, often with small budgets and inexperienced game design teams."2

HUNGARY

"The game is not a game" – said Karinthy, and it is enough to watch a group of children obliviously playing in order to realise the truth of this sentence.

In order to understand the connection between Lifelong Learning and Lifelong Guidance (whose reputation has been increasing), it is important to accept the fact that Lifelong Learning – generated by the development of technology – brings more decision points to the life of an individual who wants to be successful in the world of work. This

² Laura Vicuna: Educational Games Design: Creating an Effective and Engaging Learning Experience



increased number of decision points also means that counsellor/consultant support is indispensable and has to be part of the entire life of the individual; from a very young age until the end of their active years of employment. This type of counsellor support becomes an accepted, permanent part of life and thus a reliable support tool for people who are at the point of deciding about their future career. GBL is present throughout this and is getting more popular as experts have realised that some tasks can be made more attractive by incorporating playful elements. There are several best practices in Hungary, with 3 presented in this e-book. These practices help both young people and people already active in the labour market make the right career decision, as well as giving them support in other aspects of life. According to the Hungarian Digital Education Strategy, programmes introducing 12-18 year old students to STEM professions via games are highly successful. Another example is the game-based programming course on algorithmic thinking at the Obuda University and King Sigismund College.

IRELAND

There is little evidence of the use of GBL specifically in the field of careers guidance within an Irish context. Initial research pointed to careers guidance portals that incorporated game mechanics for global corporations that have hubs in Ireland, but these were largely developed in the UK or US. In addition, the careers covered by these portal tools were primarily targeted towards financial services or administration in a business context. One example of such is Morgan McKinley which provides a Career Ally Hub³ to deliver careers advice and help users to build the skills and knowledge to advance their career. Tools on offer with this service include a career planner, CV development guide, resources and quizzes to help you evaluate your career choices and an interview simulator.

Much of the desk research pointed more to the use of GBL and game mechanics in the VET sector, to teach particular skills rather than help users in choosing their career path. In addition, empirical research shows that games and virtual environments (such as

³ https://www.morganmckinley.ie/about/career-ally



simulations) are increasingly effective as learning tools when combined with more traditional teaching methodologies rather than as standalone tools⁴ ⁵.

In terms of games specifically targeted to VET, the Cork Institute of Technology recently coordinated the EU project Green Games which aimed to innovate and support improvements related to sustainability education in VET systems and practices in the tourism and hospitality sector. The project developed a mobile game, The Green Hipster Hotel, which required the player to build, manage and upgrade a range of bedrooms, bathrooms, restaurants and gardens in their hotel, as well as growing and managing resources (cash, water, energy), hiring and training staff, managing their menu and food ordering, and growing their hotel to improve its size, capacity and reputation. In addition to building their hotel, players had to make sure that they ran their hotel in as sustainable a way as possible in order to succeed in the game.

The Cork Institute of Technology acted as evaluator on two EU projects related to the assessment of skills and knowledge for career development in the areas of HR (OntoHR) and nursing (Med-Assess). The Med-Assess project⁶ built on the work developed as part of the previous OntoHR project to develop a medical skills self-assessment solution that was adaptable for different medical qualification areas. Med-Assess targeted clinics, hospitals, nursing schools, nursing associations and VET communities. EU healthcare clinics formed part of the project consortium as well as the associated partners.

UNITED KINGDOM

There is a growing investment in digital tools within career guidance in the UK – including in GBL resources. However, whilst the ideas around the tools are welcomed by professionals and championed by national bodies, there remains a limited number of useable examples that have been developed beyond prototype stage. Therefore, it could be said that interest in the potential of GBL is high but it remains underutilised in everyday careers guidance. Instead, traditional offline approaches remain more popular.

⁶ http://www.med-assess.eu/



⁴ Shaffer, D. W. (2006). How computer games help children learn. New York: Palgrave Macmillan

⁵ Schito, J., Sailer, C., & Kiefer, P. (2015): Bridging the gap between location-based learning and teaching. In: Proceedings of the 18th AGILE Conference, Lisbon, June 9–12, 2015

Research on GBL in careers specifically is limited but there has been an increase in interest around topics related to digital and online careers guidance for young people more generally. The Careers and Enterprise Company is funded by the UK Government to provide research for the sector and it recently published a report called "The Evidence Base for Careers Websites: What Works?" which summarises well the current thinking and research around online career provision (including GBL). As the conclusion to the report states; "There is some evidence to suggest that using careers websites as part of broader careers education provision can impact positively on young people's career readiness and the quality and diversity of their social networks for careers purposes."

In addition to those discussed in detail below, some national best practices include:

<u>Are You Ready?</u>— an interactive online skills assessment questionnaire which helps guide young people making decisions around academic progression at age 13/14.

<u>Chick in the City</u> – an online game where young people answer questions to learn the skills needed to live independently (both practical and job-related).

<u>Interview Trainer</u> - interactive learning tools, providing interview simulation which combines typical interview questions with advice videos from real life interviewers.

<u>Panjango</u> - a virtual learning environment which helps young people understand the world of work through interactive challenges.

<u>Grofar</u> - online careers information and guidance platform which allows young people and advisors to track their careers guidance journey. Young people can also use a student passport to collate action plans, work experience logs etc.

https://www.careersandenterprise.co.uk/sites/default/files/uploaded/what_works_careers_websites_report.pdf



BEST PRACTICES FROM BULGARIA

NATIONAL CAREERS GUIDANCE PORTAL - BULGARIA



The National Careers Guidance Portal is a comprehensive source of information for careers guidance in the school system, as well as an open source of career development tools for students. It contains career education curriculum, which integrates online material, videos, online career self-assessment instruments, 80 interactive exercises and a large number of offline career instruments.

Target groups:	Students
Type of practice:	Online careers information and guidance platform; Interactive learning tools; Assessment and self-assessment instruments;

The National Careers Guidance Portal was launched in 2015 by the Ministry of Education and Science as a part of an EU funded initiative "Development of the National Careers Guidance System". The platform addresses two target groups: (1) careers guidance practitioners (school advisors, psychologists and teachers) to whom it provides a comprehensive methodological framework for careers education and guidance (including resources for those who work with students at risk of dropping out or with special needs); (2) students (at any age) – who can freely use a large number of resources (assessment instruments, interactive exercises, videos, etc.).

The portal is accessible at http://orientirane.mon.bg (in Bulgarian only) and contains a comprehensive career education curriculum, which integrates numerous training materials and tools, developed by a

publication reflects the views only of the author, and the Commission cannot be held

responsible for any use which may be made of the information contained therein.

consortium of education and careers guidance experts, including BFE. There are more than 30 videos, an online career self-assessment instrument adapted to different age groups, 80 interactive exercises and more than 100 offline career tools.

The 80 interactive career guidance tools are specially designed for students from V to XII grade (10 topics for each grade), tailored to each group's age and needs. The tools apply game-based elements to provide information about job trends, career choices and decision making. This is complemented by videos, online assessment instruments and other useful material. The aim is to help young people improve their self-awareness and gain careers information in a more engaging way.

The interactive tools can be used independently by young people or during careers guidance sessions. They contain infographics, tables, charts, and various GBL elements (crossword puzzles, word games, anagrams etc.). The effectiveness and impact of the portal was assessed during the one year piloting with over 7,600 students and more than 100 careers guidance practitioners and experts. The collected feedback was highly positive. The large majority of students consider the careers guidance activities extremely useful, interesting and important for their own future:

"I have learned a lot of things which are not taught in the other subjects."

"It was interesting and different from everything else at school."

"I learned a lot about the labour market, the jobs in demand and the professions which I can do with my impaired vision."

"I am so impressed that I will become a career guidance advisor – this is a job of the future."

Website: http://orientirane.mon.bg

Contact Person: Sonya Naidenova - Project Coordinator, Ministry of Education and

Science

Contact:

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EPORTFOLIO FOR YOUR FUTURE



ePortfolio for Your Future is a collection of online tools which support students to improve their self-awareness and career planning. The tools include the ePortfolio, the 4YF game and a motivation test. By helping young people become more self-aware, the risk of early school leaving is reduced.

Target groups:	Students; Graduates; Early school leavers/students at risk of dropping out
Type of practice:	E-portfolio; Interactive learning tools; Assessment and self-assessment instruments

The game was developed and launched in 2008 under the Leonardo da Vinci project ePortfolio for Your Future, coordinated by the Students Computer Arts Society in Bulgaria. The specific objectives of the project are:

- To help careers advisors identify those at risk of early school leaving through the development and monitoring of personal ePortfolios by students
- To enable students to identify their skills and competences in an engaging and fun way via the eGame
- To promote a comprehensive interactive self-assessment and reflection tool to key stakeholders that reduces the mismatch between education and job entry for students.

ePortfolio for Your Future is accessible in English, German and Bulgarian at: http://my-eportfolio.org/index.php?option=com_content&view=article&id=53&Itemid=2&lang=en. It consists of 3 tools that complement one another, building a unique and comprehensive training resource. The tools address young people (teenagers). There are no specific requirements and accessibility provisions for

users with special needs.

• Student ePortfolio tool – a student planning guide, depository of student accomplishments and academic growth, and a job seeking tool which links with potential employers. After signing into the

ePortfolio system, users are able to create, manage, update and develop their own ePortfolio.

• The 4YF game is a career game in which users experience various dreams. When the user has gone

through all the tasks and questions in the dreams, a personality profile is created, based on their

responses and performance. It contains suggestions for suitable careers, to which the user has shown

aptitude based on the game results. The profile highlights users' abilities and skills, strengths and

weaknesses etc. These statements aim to improve and encourage users' self-awareness and help users

find out what is the right job for them. It is possible to print out the results, so they can be later

discussed with a careers advisor.

• Motivation test – an interactive self-assessment tool to identify student competencies (self-discovery

web-based game). There is an emphasis on the advantages of ICT and multimedia and a web-based

test which assesses if there is a risk of early school leaving.

The tools have been used by career professionals and young people in Bulgaria, Austria, Ireland and

Liechtenstein. The app is free to access. However, it does not currently seem to be updated regularly.

Contact:

Website: http://my-

eportfolio.org/index.php?option=com_content&view=article&id=53&Itemid=2&lang=en

17

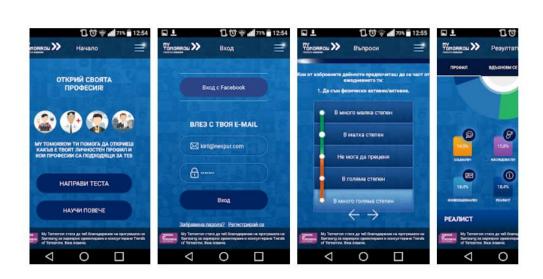
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MY TOMORROW MOBILE APPLICATION



My Tomorrow is a mobile app that aims to help young people make career choices.

Target groups:	Young people including high-school and university students
Type of practice:	Mobile application

18

The application was launched in 2015 by Samsung Bulgaria and <u>JobTiger</u> – a HR company and career site, who have adapted the content of the app. The app was created within Samsung Electronics Bulgaria's education and mentoring campaign <u>Trends of Tomorrow</u>. This aimed to support young people to make future decisions, including giving them an opportunity to start their career with an internship.

The free mobile app lets you understand what your personal attributes are and what professions are right for you. Your profile is determined on the basis of a short test which assesses basic personality traits and the professional fields in which you are most likely to have a successful career. The results can be discussed with careers guidance specialists, in order to gain clarity about occupations, career choices and education. Alongside information about different professions, users can also learn about the qualifications required. For inspiration, videos of successful Bulgarians are offered together with other useful pieces of information.

The app's diagnostic test has been developed using the Dutch RIASEC approach. More than 1,200 tests have been carried out so far.

"The MyTomorrow mobile application is an opportunity to help young people at an important moment, and with technologies that are very close to their everyday life. Given the high youth unemployment in Bulgaria, choosing the right profession is key to a successful career" said Christina Shtereva, Marketing Manager of Samsung Bulgaria. The mobile app reached over 1,000 downloads in just two weeks after it was made available to consumers.

The app is available for free in the Google Play Store (in Bulgarian). However, it does not seem to be being regularly updated.

Contact:

Link for download: https://play.google.com/store/apps/details?id=com.nexpur.vocational

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PROMETHEUS MOBILE CAREER TOOLS



5 mobile tools addressing various aspects of career development and management – self-awareness, decision making, job-search, and planning a mobility.

Target groups: Young people, marginalised groups and the unemployed

Type of practice: Mobile application

The Prometheus mobile application was launched in 2016 as part of the <u>Prometheus project</u>. The project was funded under the Erasmus+ programme and coordinated by the Business Foundation for Education in Bulgaria. The Prometheus mobile app addresses a wide variety of target groups – young



people, unemployed people, and adults wishing to change their career. It contains 5 tools which describe various aspects of career development and management – self-awareness, decision making, the job search, and planning a mobility.

- At my workplace supports the self-evaluation of professional values. The user is given a list of statements, each one describing opportunities and situations at the workplace and has to mark whether the respective statement is valid for them. At the end of the exercise, the user receives a short report with information about the workplace values that are of greatest importance for them. This includes recognition, leadership, money, creativity, teamwork, achievement, independence, risk and variety.
- What type of decision maker am I helps users discover their decision making type rational, intuitive or addictive and how this affects their career decisions. The user marks different statements as valid to them (or not). Once completed, they receive a short profile with a description of their decision making type and some tips and suggestions about how it may be improved.
- Ready for Mobility helps clients define their readiness for mobility. The clients fill in the selfassessment questionnaire and mark whether each statement is valid for them or not. The results show to what extent the user possesses the necessary personal traits, skills, aptitudes and experience for living abroad. The user also gets recommendations on how to prepare better for a mobility.
- Which Jobs Are Suitable for Me the main purpose of this self-assessment instrument is to improve users' self-awareness about their own career interests, preferences, attitudes and values and to provide perspective on suitable jobs. The user rates statements related to four different areas - People and Relationships; Procedures and Systems; Communications and Arts; Science and Engineering.
- Self-Assessment of Job Search Skills and Strategies the tool enhances users' awareness about effective job search methods and approaches and provides tips on how to develop these further.

The mobile app is available in 5 languages - English, Bulgarian, German, Greek and Italian – and can be downloaded on Android and tablets until the end of 2021. Further technical development is not foreseen.

Contact:

Link for download: https://play.google.com/store/apps/details?id=com.wprometheusapp

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VELOCITY JOB INTERVIEW SIMULATION



3D learning environment (VLE) which simulates job interviews, real-life scenarios, and interview processes in order to familiarise users with the different interview and selection methods used across Europe.

Target groups:	Students, graduates, job seekers
Type of practice:	Virtual reality platform

21

The platform was launched in 2017 as part of the Erasmus+ project VeLoCiTy. The target groups include adult jobseekers, NEET young people, careers guidance practitioners and training organisations.

The platform has been developed using Open Simulator. Access is open, although the user first has to download a special viewer (free of charge) and register on the platform.

The VLE in the 3D world context allows the learner to explore independently and interact with a friend (educator) within the world. It also supports collaboration inside a group. The different scenarios combine diverse learning methods and approaches - discovery learning, learning through discussion and debate, inquiry-based learning, learning by doing.

In some of the scenarios, players may receive assistance through pre-programmed tips, have a real-time discussion with a careers guidance practitioner (providing the training session is scheduled in advance) or interact with other users. The user does not have to follow this advice and can take decisions independently.

LEVEL UP - GAME-BASED LEARNING IN CAREERS GUIDANCE E-BOOK

The Virtual Learning Environment contains 7 job interview case scenarios. They take about 20-30 minutes each and help learners to familiarise themselves with various types of interviews. This includes preparation for the interview, common questions in face-to-face interviews, understanding competency-based and panel interviews, and how to behave during the process.

By presenting this information via a virtual reality simulation, users can practice and learn about interview techniques within a safe environment. Some of the limitations of this technology include: only an English version is available for tips, the technical requirements for the additional game viewer creates barriers, the need to schedule a session with careers advisor in advance. However, otherwise the service and the software are completely free and give a chance to users who are at a distance to receive career support. Also, careers advisors and user can communicate in their native languages.

Website: http://velocity-project.eu/

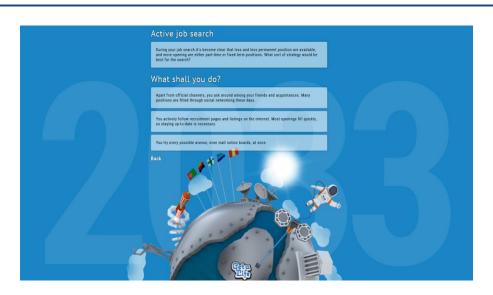
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BEST PRACTICES FROM FINLAND

TULEVAISUUSOHJAUS / FUTURE GUIDANCE: GET A LIFE SIMULATION



Get a Life is a future-oriented career simulation tool for university students, which promotes future-oriented thinking, proactivity and career planning in order to anticipate future directions of work life and society. It allows users to explore and imagine their future career and educational paths.

Target groups: Students, early school leavers/students at risk of dropping out; young adults Type of practice: Interactive learning tools; Assessment and self-assessment instruments

The concept and tools of Futures Guidance are the result of the Finland Futures Research Centre's various projects that have focused on the subject since 2009. In Futures Guidance, the future is seen as an open phenomenon with many different possibilities. The methods and tools of Futures Guidance are suited to a wide variety of guidance settings and types of young people. There are many tools, exercises and simulations, which can be used individually, in workshops or in guided groups.

The Get a Life simulation is one of the Future Guidance tools. The simulation is based on combining futures studies theories and methods, theories of experiential learning and future-oriented counselling, as well as the use of simulation in a novel way. The result is an online, open-access tool promoting personal future cognition, self-awareness, and proactivity.

The simulation has been created with the GAL2 Game Making Tool - an open source, available to download for free. There are no specific requirements. It is suitable for all those who are interested in

thinking about the future.

The simulation begins from the year following the actual current year and continues for 20 years. The context is Finnish society and the life of a student who is about to graduate from university. The futures-orientation of the simulation is built on five alternative scenarios that are the result of a process that involved professional futurists, public and private employers, as well as contributions from many interest groups such as teachers, students, and employment professionals. The scenarios were formulated into five futures images that serve as the simulation's storylines. These storylines each depict an image of the future: a snapshot of Finland in 2030. These images include several aspects of work life: societal, technological, economic, environmental, and cultural, giving the user a view on alternative possibilities for future events. A timeline and a number of future news headlines based on each image provide the future horizon element and give a sense of time passing during the simulation run.

The Get a Life simulation gives an opportunity for users to go on an adventure into the work- and study life of the future. With the simulation tool, students can safely map and test future scenarios and create various future paths for themselves. Thus, they develop self-assessment and reflection skills, which are very important in working life and in career planning.

"The person is better prepared for surprising changes when they have thought about the future" – Leena Jokinen

Contact:

Website: http://tulevaisuusohjaus.fi/english/

Contact Person: Leena Jokinen - Head of Education, University of Turku

Email: leena.jokinen(a)utu.fi

MANSIKKAPAIKKA / THE STRAWBERRY FIELD



Mansikkapaikka is an online career planning platform aimed at students.

Target groups:	Students
Type of practice:	Online careers information platform; Interactive learning tools; Skills assessments

The website is managed by <u>Economic Information Office TAT</u>, which strives to promote the future needs of Finnish industries and the service sector. The game allows players to take their future into their own hands by demonstrating that a good life is made up of good choices. Mansikkapaikka has a 5 step approach with the main question being what would you like to be?

1st Step: What kind of person you are? There are 3 tests (one measures how ready you are to make career choices, one analyses your skills, and one helps you find out what type of person you are).

2nd Step: Clear your options! When you know your options you can understand both the bad and good aspects of your choices. This section includes a survival kit with information on interviews, who to contact and who works in certain professions.

3rd Step: Make your choice? This section explains two decision making methods; designed choice and hazard

4th Step: Negotiate your place! How to find a place at an employer or school

5th Step: Develop yourself! Helps young people understand how to continue to develop during their career by drawing inspiration from people such as co-workers and parents who live the life these young people aspire to.

Website: http://www.uramyrsky.fi/Mansikkapaikka/

POSIVIITINEN CV / POSITIVE CV



Positive CV, or PCV, is a curriculum vitae of a broad range of skills that helps a child to learn to recognise their various abilities. Evidence of skills used in different environments, such as at school, at home, within hobbies, and among groups of friends, is saved on the PCV. The PCV is shaped according to the child's own needs, and grows into youth along with the child, starting from kindergarten.

Positive CV is a versatile platform which offers a CV covering a broad range of skills. It helps young people begin to document their abilities and strengths together with those closest to them.

Target groups:	Young people
Type of practice:	E-portfolio: Skills assessments; Positive feedback from relatives, school etc.

26

The PCV has been developed through collaboration with professionals in early childhood education, teachers, and Finnish universities providing teacher education. It has been piloted by students from three comprehensive schools and a first version of the electronic PCV platform will be ready during 2018.

The PCV is aimed primarily for use in schools (from primary upwards) and has been designed to foster co-operation between the various stakeholders in a child's life. Everyone benefits from collecting information on an easy-to-use platform. However, this helps young people the most as positive feedback is not something to be taken for granted.

The significance of the PCV is heightened during transition periods, such as when the child starts school, moves from elementary to secondary school, and when comprehensive school finishes. Only a few young people recognise their own strengths or the skills necessary for working life. The PCV can act as a guide, both when moving on to start one's career, and more broadly, in finding one's place in the world.

LEVEL UP - GAME-BASED LEARNING IN CAREERS GUIDANCE E-BOOK

On the website there is lots of teaching material on this topic, including resources to help young people understand their strengths.

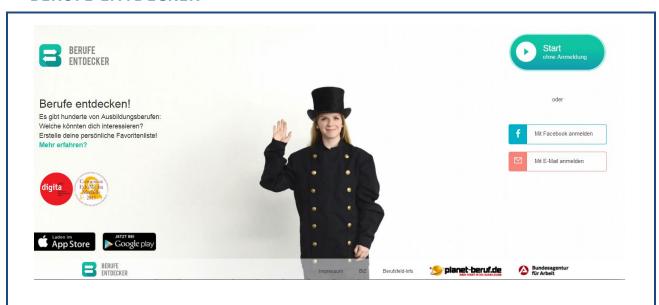
The website is freely accessible in Finnish (part of the information is in English).

Contact: Website: https://www.positiivinencv.fi/en/



BEST PRACTICES FROM GERMANY

BERUFE ENTDECKER



This platform was launched by the Federal Employment Agency in 2015 with the aim of presenting various professions and vocational educational pathways. The tool allows users to both find information and create a checklist of their own preferences. It can be combined with an online tool to assess interests and competences within the context of selected professions.

Target groups:	Students; School graduates; Early school leavers/students at risk of dropping out; Migrants
Type of practice:	Online career information and guidance platform; Mobile app; Self-assessment instruments

The tool gives an overview of the different ways to choose a profession and is mainly targeted at young people who have completed secondary school. Approximately 500 professional paths are presented. Information on the professions is attractively presented, with a lot of pictures, videos, interviews, case studies (of people working in different areas). However, there is a lack of interactive activities.

The assessment tool includes various steps. In the first, you can select your current situation in regards to careers; 1. You know what your dream job is, 2. You have no idea what to do, 3. You know what field you would like to work in. Users are then presented with hundreds of pictures related to different professional fields and have to select those which are attractive to them. On the basis of which pictures

LEVEL UP - GAME-BASED LEARNING IN CAREERS GUIDANCE E-BOOK

are selected, a list of potential jobs is generated. Users can then move on to explore the tasks that are related to these sectors, understand the education requirements, and to watch interviews with experts and those already working in the field. After selecting a specific profession, users can use an online tool to assess the extent to which their own interests and competences fit with the selected profession. https://set.arbeitsagentur.de/teaser.

The platform is accessible (in German) on a PC for free, as well as via an app for smartphone and tablet, which can be downloaded at Google Play and the App Store. It is compatible with HTML5 and Javascript.

The tool can be used individually by learners or with support of teachers or parents at home. It can be accessed via a Facebook account, email or as a "guest". When accessing as a guest, information and data is not saved.

According to the website's usage data, the platform receives approximately 3.7 million users and around 32 million page views every year.

Link:

Website: http://entdecker.biz-medien.de/

BEWERBUNG: FIT FÜRS VORSTELLUNGSGESPRÄCH / APPLYING FOR A JOB: GETTING FIT FOR THE INTERVIEW



The new app "Applying for a job: Getting Fit for the Interview" helps users prepare for job interviews. It also guides people on how to apply for an apprenticeship. By combining use of the app with a complementary website, users can learn how to write a CV and covering letter. This helps users become more aware of their own competences, skills, strengths and weaknesses.

Target groups:

Pupils (in particular those who apply for a vocational apprenticeship); School graduates; Marginalised groups (students at risk of dropping out; young adults; NEET; unemployed; disadvantaged users; migrants)

Type of practice:

Online careers information and guidance platform; Mobile application

The service was launched by the Federal Employment Agency in 2016 and is available in German as a mobile app. It is targeted at young people who are still at school and looking for an apprenticeship, but it can be used by a range of young people. The aim of the service is to support young people preparing for a job interview.

The app can be downloaded for use on mobile phones or tablets. There is a similar version (in terms of content) available online via a website. The app is free and there is no age limit or special accessibility provisions for users with special needs. The app is only available in German. An internet connection is required to play the videos. The app allows users to improve their understanding of the job/apprenticeship interview process (e.g. body language, voice and behaviour during the job interview,

presentation skills, tips for the interview etc.).

There are four different sections within the app:

"Appointments" - This section allows users to store information about upcoming job interview appointments. The applicant can enter the date, as well as the company's name, contact person, address, phone number and web address. The app also allows users to go directly to the website or to call the company contacts. If the reminder function is turned on, the applicant can receive a reminder three days or one day before the appointment, as well as on the day of the appointment. Furthermore, the applicant is automatically provided with an interview preparation checklist. Within the section "My Appointments", the applicant can learn more about the profession and company, as well as review the interview afterwards. Follow-up evaluation and feedback is provided.

"Typical Questions" - This section gives examples of frequently asked interview questions (e.g. "person specification questions", "job-related questions" and "questions about the company"). The applicant can understand what to expect from the job interview and so can prepare more specifically for it.

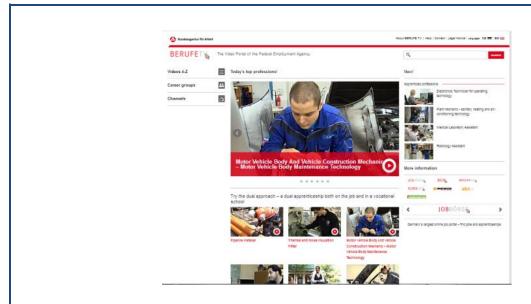
"Checklists" - The checklists cover "14 days before the interview", "3 days before the interview", "1 day before the interview", "On the day of the interview". They help the applicant to check whether they have completed all the essential preparation and tasks in the build-up to the interview (e.g. choosing suitable clothes).

31

"Videos" - The applicant can watch videos on topics such as "What does body language tell you about a person?" and "Stages of a job interview" to help familiarise them with the process. They can also click through to further information about applying for a job on planet-beruf.de

Link: Link to download app: http://planet-beruf.de/index.php?id=19885

FEDERAL EMPLOYMENT AGENCY'S VIDEO PORTAL



This website aims to provide information on apprenticeship and degree professions, and is targeted at young people looking for information related to their future careers.

Target groups:	Young people
Type of practice:	Online career information and guidance platform; Mobile application

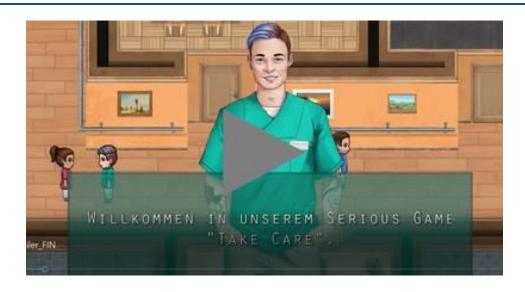
The service is free to access as either a mobile app or website. The website is more focused on awareness raising, future career options and the job application process.

The information presented on different professions is very practical, as it shows concrete examples and case studies. The TV channel includes videos on a range of careers, at different levels. The videos also offer subtitles in English, so users with low level German language (e.g. migrants) can also get some information. As well as job-specific videos, there is also information on training pathways, skills needed, advantages, salaries etc. A lot of useful information is provided in a simple way that can be used by a range of different groups. However, it is not interactive, which reduces the engagement of users.

The video library is linked to other services offered by the Employment Agency, such as how to write a CV, how to prepare for job interview, skills assessments etc.

Website:	http://www.berufe.tv/

GABALEARN PROJECT – GAME-BASED LEARNING IN NURSING



This ongoing project focuses on the development of digital case simulations, which enable playful learning in the area of vocational nursing education. The focus is on complex, authentic scenarios that provide a realistic presentation of work processes in occupational nursing. Using the example of a residential nursing home, GBL scenarios are presented in line with the wider aims of nurse training.

Target groups: Nursing students

Type of practice: Serious game

The project uses simulations of care scenarios to add a GBL element to the vocational training offered to nurses. Users control an in-game avatar that moves from one scenario to the next, creating a game flow that improves learning.

During the game, the learner's skills and knowledge around real-life care situations are increased without them realising. Self-reflection as a way of solidifying this new knowledge is encouraged, with a feedback function aiding this. This information is made available to tutors, with blended learning content also developed for use alongside the game in order to add value to the game learning.

The digital learning environment has been designed to be a fully adaptable recreation of authentic work environments, linked to the wider vocational curriculum This allows learners to gain experience of real-life scenarios which they will meet in their later professionals work.

Website: http://eduproject.eu/gabalearn/resultate/



BEST PRACTICES FROM HUNGARY

SOCIOPOLY / SZOCIOPOLY



The board game Sociopoly was based on the model of Monopoly, with the difference being that in this case you do not have to deal with millions, but with minimal income in deep poverty. The main goal of one of the creators of the game, László Bass (a poverty researcher), was to make people who are not directly affected by poverty more sensitive to its problems

Target groups:	Young people and a range of other service users and professionals
Type of practice:	Board game

In 2010 a game was developed which allows people to experience the financial constraints of poverty, the welfare system, the tension this causes, and the physical and psychological struggles experienced while accessing the resources. Sociopoly provides a good opportunity to consider all the questions (and stereotypical responses) that arise when thinking about poverty, with these tested during the game.

The game was originally made for young people, but games have been organised with different ages, with mayors and inmates. Professionals working in this field have also shown an interest in the game. Sociopoly can be used as a familiarisation tool which develops social competences.

With 4-5 teams or players, the game takes approximately 45-60 minutes to play. Experience has shown that after playing the game, it is worth discussing the experience in order to compare the game-play

LEVEL UP - GAME-BASED LEARNING IN CAREERS GUIDANCE E-BOOK

with real situations. For larger groups, non-players can be involved in the process.

Topics covered in the game include:

- Employment, unemployment, job search, jobseeker's allowance, public employment,
- Illegal (undeclared) work,
- The black market
- · Having children, family support system,
- Welfare scheme in Hungary: employment substitution support, regular child protection allowance, extraordinary municipal support, state pension, nursing allowance, disability allowance, health and childcare support
- · Household maintenance costs,
- Food costs, healthy lifestyle,
- Schooling.

Sociopoly also highlights wider social issues related to poverty, such as the exclusion of children. Causes and solutions to poverty (mobility, vocational training) can be highlighted by the referee. The game strengthens social skills, empathy and tolerance.

Sociopoly is available in table-top and floor versions. The only disadvantage of the game is the recommended presence of a referee. They resolve any in-game conflicts, can provide information, provoke players and answer questions raised (although the game can be played without a referee). Value is added if the game is played in teams as this naturally creates discussions.

GYERE – Gyerekesély Közhasznú Egyesület

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Email: szociopoly.gyere@gmail.com

AZ ÉN UTAM / MY WAY



Brief description

This board game helps students make career decisions by encouraging critical thinking and helping them to think about decision points related to career progression with the help of careers advisors.

Target groups:	Young people, job seekers, careers practitioners
Type of practice:	Board game; Interactive learning tools; Assessment and self-assessment instruments

The aim of 'My way' is to help people understand the impact of career decisions. During the game, players go through the different stages a career (e.g. education, the world of work and career changes). They can win or lose points based on several main categories (Money, Experience, Reputation, Health, Time and Happiness). There are no wrong answers. Each decision helps to develop the player's self-awareness and experiences. The unique feature of the game is that players can simulate real-life experiences, get concrete feedback on their decisions and evaluate their self-awareness. The careers and employment group discussions which take place during the game mean alternative points of view can be explored and questions asked. The disadvantage of the game is that it takes time, usually lasting between 1-1.5 hours. This is at the limit of the concentration threshold for many.

The game was based on a version developed by the Lithuanian Euroguidance Centre and was published in Hungary by the national Euroguidance centre in 2016.

Progression through the game is via the roll of a dice. The game board presents the elements of a career pathway (learning, job-seeking, employment, changing a career). During the game, players

present personal experiences gained during their individual career pathway. When landing on certain squares, players have to draw a card ('Difficulty', 'Challenge', 'Question'). The questions are related to career decisions, professional processes and the labour market. The quizmaster/moderator monitors the answers. The game ends, when all players reach the 'finish' square. The most important element of the game is the discussion during and/or after the game, when the players summarise their individual experiences. No specialist equipment/programme/application is required to play.

The number of participants is limited to 4 (either individuals or groups).

The game requires the presence of a moderator (quizmaster). The moderator has to be able to lead a group discussion and to support consensus building. Based on experience so far, the board game is best suited to small group sessions, e.g. group careers guidance sessions or job-search clubs.

Contact:

Nemzeti Szakképzési és Felnőttképzési Hivatal, Euroguidance Magyarország (National Institution for Vocational Education, Euroguidance, Hungary)

Website: http://www.euroguidance.hu/#!/tanacsadas/tarsasjatek

Email: eg@nive.hu

37

NATIONAL CAREERS PORTAL - HUNGARY





The National Careers Portal contains comprehensive information on understanding skills, career decision making, possible career routes and various career tools.

Target groups:	Young people, job seekers, other professionals
Type of practice:	Online career information and guidance platform; E-portfolio; Interactive learning tools; Assessment and self-assessment instruments

The National Careers Portal (https://palyaorientacio.munka.hu/) was developed as part of the 'Content and Methodology Development of the Career Guidance Systems' project. It was supported by the European Union, financed through the European Social Fund.

The portal contains information to help people make career decisions.

The aim of the project is to create a career information system that:

- covers the entire career lifecycle, providing services which correspond with decision points and pay particular attention to critical transitions
- facilitates access to up-to-date career information tools (particularly in the classroom) via cutting-edge digital technology
- provides consistent quality careers guidance services
- establishes a network of stakeholders interested in career orientation.

The content is available in Hungarian which means that everyone can access tools and information according to their age and circumstances. The portal can be viewed without registering, but there are more functions after registering.

The e-portfolio function can be used as a personal folder after registration. Important and useful



information, favourite content etc. can be saved here. The portal also contains a skills-assessment questionnaire which helps users understand their skills and values in order to build a successful career. There are also questionnaires for institutions to help them to measure the effectiveness of career guidance services.

Under 'keresők' ('search'), there are 8 different search functions that helps to make sure different user groups can find the relevant information that they are looking for (occupations, vocational qualifications, institutions of higher and public education, wage search, counselor search, employment department search).

More than 400 short videos have been made with people from different professions. These films provide an insight into the everday life of those working in a specific sector and highlights information on the skills, competences and qualifications needed for certain occupations. These are complemented by more than 500 job profiles which help users better understand different occupations. This includes information on the average tasks and activities carried out, working hours, working environment and salaries

The biggest disadvantage of the portal is that its content has not been updated since 2015. Some important functions of it (e.g. the virtual community of counselors) are not currently available.

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Nemzetgazdasági Minisztérium (Ministry for National Economy)

Website: https://palyaorientacio.munka.hu/

BEST PRACTICES FROM IRELAND

THE GAME OF LIFE APP



The Game of Life app is a digital version of the popular board game of the same name. The game simulates a person's journey through life based on their choice of attending college or starting a career.

Target groups: Students, young adults

Type of practice: Mobile application

The Game of Life app begins by allowing the player to choose how they will play, whether they wish to play against the computer, against friends on Facebook (13+ years), against other online users, or in a face-to-face manner by passing between people after each turn.

The main objective of the game is to become more "successful at life" than your opponents by gathering more money and assets as you make your way through the game. Once every player has moved through the game and retires, the wealthiest player is deemed the winner.

The game can provide the opportunity to pursue different paths and to see results of these by asking the player to choose between college and starting a career at the beginning of the game. Choosing college, for instance, offers more career and salary opportunities, but takes extra turns and puts you in debt immediately. Most of the game is based on luck or chance but you are presented with some opportunities to make decisions, e.g. the choice of career, what car or house to buy, etc.



The game play is similar to the traditional board game, in that you spin the wheel, albeit digitally, and land on tiles which offer a variety of choices related to life and career, such as pay increases, taxes, getting married, having children, losing jobs, retirement, etc. The mobile application takes advantage of the interactivity of the digital platform by including 3D animation and mini-games within the larger gameplay.

The mobile application has two different modes, full mode, which matches the traditional gameplay, and fast track which is a shorter version of the game due to the use of a random victory condition.

The app is available on iOS and Android and costs €2.99.

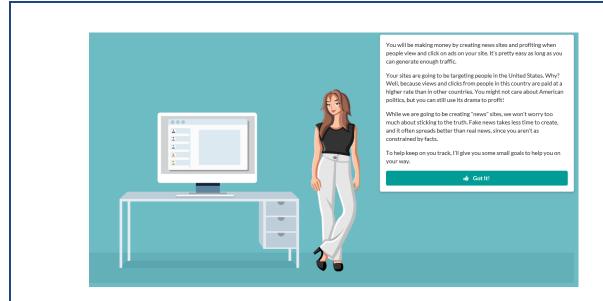
Link:

iOS: https://itunes.apple.com/us/app/the-game-of-life/id1117405948?mt=8

Android:

https://play.google.com/store/apps/details?id=com.marmalade.golmobile&hl=en

FAKE IT TO MAKE IT



Fake It to Make It is a simulation-style game where players take on the role of someone creating and distributing fake news for profit.

Target groups: Students, young adults

Type of practice: Online career flash game



This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

This game is quite relevant in the current climate and is featured on the Games for Change website where games that "engage contemporary social issues in a meaningful way" are listed.

The game involves players learning how otherwise accurate information can be manipulated for maximum impact and how people can be deliberately targeted with this misinformation. Ultimately, it aims to educate players on how to spot fake or falsely emotive news and help reduce the spread of these items.

Unlike many other games, when you access the Fake It to Make it website you are encouraged to start the game before reading any guidance or information to gain the greatest impact. Once you have done this, you then learn more about the tricks and dangers behind the creation of fake and manipulative news.

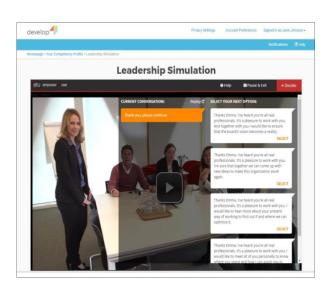
The player is required to create or acquire articles and share these based on a series of goals or tasks. For instance, the first task you need to complete is to create a website to share news, and the goal of this task is for the site to have a credibility rating of at least 30. While this sounds relatively innocent, as you move through the game you realise that a site that is politically divisive, with news targeted towards sympathetic groups, is more advantageous. Ultimately, this highlights the main concepts of misinformation and emotional targeting.

The creator of the game, Amanda Warner, hopes that this game will educate people to be more aware of fake news. She states that "by making players more aware of how and why fake news is written and distributed, that they will be more sceptical of what they encounter in the future".

The Fake It or Make It game is available online through http://www.fakeittomakeitgame.com/

Link: http://www.fakeittomakeitgame.com/

DEVELOP PROJECT - DEVELOPING CAREERS THROUGH SOCIAL **NETWORKS AND TRANSVERSAL COMPETENCIES**



The aim of the DEVELOP project is to deliver a learning environment that tailors the exploration, comprehension, and planning of learning opportunities and career paths in medium and large companies for individuals. It facilitates learning through reflection on transversal competencies and social capital, as key enablers of career development, and assesses transversal competencies such as leadership and collaboration using game-based assessment techniques combined with social network analysis evidence.

Target groups:	School graduates; University students; Young adults
Type of practice:	Online career information and guidance platform; Interactive learning tools; Assessment and self-assessment instruments

The Develop (Developing Careers through Social Networks and Transversal Competencies) project, funded by the European Commission, began in 2016 and will run until 2019. The aim of the DEVELOP project is to deliver a learning environment that tailors the exploration, comprehension, and planning of learning opportunities and career paths in medium and large companies for individuals. It facilitates learning through reflection on transversal competencies and social capital, as key enablers of career development, and assesses transversal competencies such as leadership and collaboration using gamebased assessment techniques combined with social network analysis evidence.

While the project is still in progress, the consortium has developed a leadership game incorporating a combination of reflection and game assessment which will be piloted in late 2018. The intention of the game and associated resources is to apply planning techniques in order to identify learning interventions to help the user to progress in their career paths and recommend learning opportunities for career development. The aim of this is to support the user in finding career opportunities and to enable companies to leverage existing resources and improve employee engagement and aspirations.

The game itself is a simulation, allowing the user to experience an "authentic workplace" through story-driven scenarios, providing opportunities to interact with a virtual team and practice leadership styles. The user is also provided with an opportunity to reflect on their leadership and then analyse their perception of their style with their actions in the game. The game uses algorithms to compare the user's intentions with their behaviour, allowing them to practice leadership styles, replay moments and experience the consequences of their decisions to improve their behavioural development.

While the project is still ongoing, the methodologies and research are useful additions to the field of GBL, particularly in the context of career opportunities and highlight the effectiveness of simulations and narrative in the development of soft skills.

Contact:

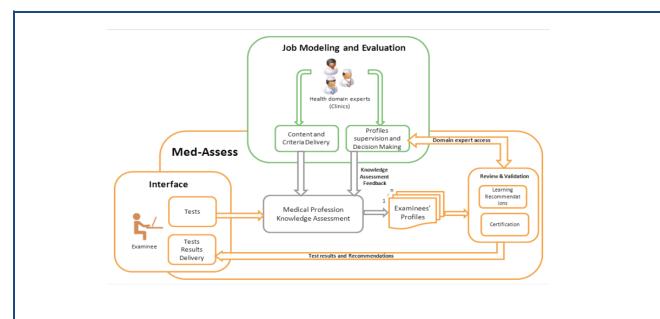
Website: http://www.develop-project.eu/

Contact Person: Greg Carey – Develop Project Coordinator, Learnovate Centre,

Trinity College Dublin

Email: greg.carey@learnovatecentre.org

MED-ASSESS EU PROJECT



The Med-Assess project ran from 2012 to 2014 with the solution and methodologies since having been transferred and continued in another EU project, Pro Nursing.

Target groups:	University students; Unemployed; Employed
Type of practice:	Assessment and self-assessment instruments

Med-Assess aims to provide a solution where nurses can assess their knowledge and skills to get an insight into the areas where they might need refreshment or further training. Additionally Med-Assess aims to support management in medical institutions with regards to recruitment drives for new employees, by measuring knowledge, abilities and competencies of current employees, as well as providing learning content or material for VET on-the-job training. The project target groups were clinics, hospitals, nursing schools, nursing associations and VET communities.

The assessment tool is available as an online application, accessible through a browser. This self-assessment application interrogates an ontology related to the field of nursing. The application is adaptable for different medical qualification areas, allowing clinics the ability to create individual Med-Assess measuring knowledge bases (neuroscience, internal medicine, sport medicine, etc.).

The application is free and accessible online through a standard browser. Users are required to create a profile before using the tool. When their profile has been created, the user carries out a self-assessment to determine their level of skills and knowledge in the field of nursing. Ultimately, their

assessment helps to determine if they are suitable for particular jobs or if they require more training.

While not a typical GBL application, the Med-Assess application uses the game mechanic of self-assessment to determine the user's skill level and match this with training or job roles.

The ontology and solution developed as part of this project was based on a previous project, OntoHR, refined and targeted towards the medical field for this project and subsequently developed further for the EU project Pro Nursing. This highlights the effectiveness of the solution for this field and the potential of the solution to help match skilled employees to jobs, identify opportunities for further training or indeed the potential for progression in careers.

Med-Assess EU project consortium

Website: http://med-assess.eu/

Contact: Contact Persons: Dr. Fazel Ansari & Mareike Dornhöfer

University of Siegen, Institute of Knowledge Based Systems

Email: info@med-assess.eu

BEST PRACTICES FROM THE UNITED KINGDOM

JOB INTERVIEW GAME



Career Wales's Job Interview Game aims to help young people with interview preparation through an online role play game. It highlights what to wear, bring and think about before an interview, as well as the best way to answer some key interview questions.

Target groups:	Students; Young adults
Type of practice:	Gamified learning platform/MOOC; Interactive learning tools

47

This free online game is accessed through the Careers Wales website and available in both English and Welsh. It is primarily available on a computer but the game is accessible on any device that supports Adobe Flash Player.

The game walks you through the day of an interview; starting from when you wake up until the end of the interview. To do this, it uses a combination of mini-games and question-and-answer tasks, providing advice and feedback at regular intervals. In addition, checklists and summaries are provided to help reinforce the most important messages. As the game is short – only taking 5-10 minutes to complete – the user is able to stay focused throughout the game, aided by the constantly changing format of the mini-games.

The interactive nature of this game helps the user to learn vital skills for themselves. The follow-up of short text in the form of bullet points and checklists helps to reinforce the game's objective. This enables the user to learn the necessary skills and desirable attributes needed for an interview without having to read long paragraphs.

The interview section itself is fairly short with only 3 questions asked, but the questions cover a wide range of topics commonly discussed in interviews and provide useful feedback, detailing the strengths of your answer and how it may be improved.

The game can help develop young people's career prospects by helping them feel more prepared for an interview and so increase their confidence. The Careers Wales website is a well-used resource (both within Wales and more generally across the UK) which means that the game has the potential to reach a large audience of young people looking for careers support.

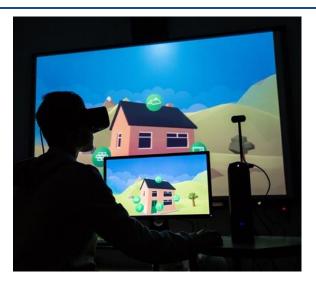
Careers Wales

Contact:

Website: https://www.careerswales.com/en/tools-and-resources/games-and-

activities/job-interview-game/

VIRTUAL PROJECT MANAGER



Virtual reality app which helps young people learn more about careers in construction by placing them in charge of building new houses.

Target groups: Students

Type of practice: 3D Simulation of jobs, Virtual reality platform; Gamified learning platform/MOOC

Virtual Project Manager was developed by Skills Development Scotland (the national careers guidance provider for Scotland) as part of their My World of Work Live! programme. This initiative looks to build on the digital careers guidance found within the My World of Work website by providing interactive, hands-on experience for young people. Virtual Project Manager was one of three mini-games linked to



construction which were developed to be used by young people either as part of careers lessons or independently.

Young people are able to download the app free of charge from the Google Play store. To play the game, a VR headset is required as young people enter a virtual simulation of a real life construction site. They are placed in charge of building new homes and must complete a number of tasks to successfully carry this out.

The idea behind the app's development was that Skills Development Scotland wanted to provide careers information via a medium which is already being used by young people elsewhere in their daily life. Hence, as VR/GBL is seen more by young people as an immersive piece of entertainment, it was felt that the app's approach to guidance could add further impact to the existing My World of Work resources available via the website.

However, one disadvantage of such an approach is that not all schools/young people have access to VR technology. Therefore, there are potential additional costs and barriers for young people to overcome before they can use the app, something which could limit reach and impact.

Feedback from young people who have used the app has been that the VR approach is an effective one, as they find it easier to learn when fully immersed in an experience. This feedback also highlighted that the app demonstrates well the different (and often unexpected) careers available within contemporary construction. The app's success was demonstrated by the fact that it won the award for use of technology in careers guidance at the 2017 National Careers Awards.

49

Skills Development Scotland

Contact: My World of Work website: https://www.myworldofwork.co.uk/
Link to app: http://bit.ly/LiveVRP



SHAPE YOUR FUTURE



Online regional LMI guide for young people which combines skills and job information with information on growth sectors and major employers.

Target groups:	Pupils (aged 13-18)
Type of practice:	Other – Online LMI Resource

The Shape Your Future resource was produced by Careers Yorkshire and the Humber as part of their work to deliver the National Careers Service across the Yorkshire and the Humber region. The booklet aims to provide an overview of the regional job market and industry sectors to young people, as well as outline the key skills, attitudes and experience required. To aid the regional focus of the resource, four different versions were produced, with the information and sectors covered tailored to the different geographic regions found across Yorkshire and the Humber.

This free online booklet is easy to access via computer, tablet and smartphone as well as being available to download as a pdf. Each page focuses on a particular sector, alongside statistics about employment trends and future projections of job availability. In addition, useful skills and study routes are listed, as well as earning potential for certain positions within that sector, local employers, and links to useful websites.

One downside is that the tool is very static and so fails to fully exploit the potential of being offered digitally. At the same time, its learning approach is heavily focused on reading, which means that its impact with lower skilled/engaged groups (e.g. NEETs) may be limited. To address this, supplementary

quizzes are available on the Careers Yorkshire and the Humber website but these are only available as word files and not interactive online quizzes.

The booklet enables the reader to think more extensively about the career path that they may wish to pursue and what qualifications and experience may be needed. It is also helpful for those unsure of what career they wish to follow as it provides high-level summaries of the skills, subjects and attitudes required for each sector. To aid impact, hard-copies of the booklets have been distributed to schools across Yorkshire and the Humber.

Contact:

Careers Yorkshire and the Humber

Website: http://careersyandh.co.uk

Contact Person: Rachel Percy

Email: rachel.percy@aspire-igen.com

METYCOON



MeTycoon is an educational game which was developed to help young people start to think about their future career and job prospects.

Target groups: Students

Type of practice: Online career game

MeTycoon is a roleplay game which enables users to simulate their career progression – this includes



making decisions around training options, job roles etc. in order to enjoy a successful career.

The game has been designed to:

- Enable students to learn about the implications of various life choices on their future careers and discover a wide variety of job options that they may not have previously considered
- Provide an exciting online experience for players to practice and understand the importance of developing transferable personal, technical and people skills in order to pursue their career goals
- Allow students to discover the changing nature of the job market and potential areas of future growth
- Help students to imagine their future and understand that careers today do not always have a linear progression
- Encourage users to seek new opportunities for learning, developing skills and gaining experience
- Make users aware that their choice of employment will have a direct impact on their lifestyle, personal happiness and satisfaction

The original MeTycoon game was made available via iCould.com and was heralded as a best practice in the field in several academic papers. However, as of 2018, the game is no longer assessable to play (although a demonstration video and lesson plans remain available).

Link:	Website: http://playgen.com/play/me-tycoon/
	Serious Games Institute, University of Coventry, UK



BEST PRACTICES FROM ELSEWHERE IN EUROPE

L'AVENIR S'IMAGINE / "THE FUTURE CAN BE IMAGINED!" (FRANCE)



This online competition helps to raise student awareness around jobs of the future.

Target groups:	Students
Type of practice:	Online Contest Game

53

Launched by the French Ministry of Education, this game has now evolved into a comprehensive digital tool, presently on its fourteenth edition. The game aims to support students by promoting an active approach to their job search and reinforcing the need to make positive choices.

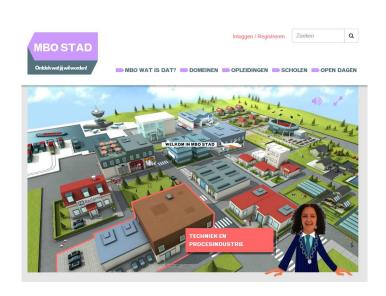
The online competition allows users to think more about their possible career path and not limit their choices. It starts with a game that presents a mission to help the inhabitants of another planet in 20 years' time. Users must then utilise digital tools to produce a blog, video or slideshow describing a trade in 20 years. Student entries are then submitted to a jury and can win prizes. Users are also able to explore different training options and ways of accessing the labour market.

The competition expands users' professional horizons by showing them an egalitarian society and questioning representation and gender stereotypes. Users must use their own initiative to research different forms of employment and therefore, the game also aids the development of students' personal autonomy.

Link:

http://eduscol.education.fr/cid108845/-l-avenir-s-imagine-un-concours-en-ligne-et-un-jeu-serieux-sur-l-orientation.html

MBO STAD (NETHERLANDS)



The virtual tool introduces young people to job profiles, training opportunities and labour market information.

54

Target groups:	Students
Type of practice:	Virtual tool

The service was launched by MBO Raad, the Dutch vocational training council. Users explore an interactive city where they can enter a range of workplaces in order to learn about the jobs which exist in different industries. These job profiles also cover study routes and so can be used as a method of introducing students to the range of vocational options available.

The website shows a virtual city with a variety of job opportunities available. Users can select different characters and locations to find out more about specific job roles and routes to employment. Video clips of people currently working in different industries are also included.

The tool's graphics enable users to easily follow links to more detailed information on VET courses. Additionally, the design of the game helps to break down stereotypes of traditionally male and female job roles by featuring characters of different genders completing a variety of tasks.



Contact:

Website: https://www.mbostad.nl/

Email: info@mboraad.nl

ATLAS OF EMERGING JOBS (RUSSIA)



The website identifies industries expected to generate future jobs due to technological developments.

Target groups: Students; young people

Type of practice: Online resource

The website identifies 25 industries where personnel and career changes are expected in the future, due to technological developments. The site predicts an emergence of new professions as other job roles become obsolete. Atlas of Emerging Jobs assists users in making their choice of occupation and discovering the route to it.

This website is free to access (in English and Russian) and allows users to explore the jobs of the future – users follow embedded links which direct them towards more details about how the labour market is expected to change. The website also includes informative cartoons aimed at students exploring different professions and job-related issues. These 'Navigatum: Jobs Kaleidoscope' cartoons are adapted to suit different age groups and are intended to



offer vocational guidance and provide ready-for-use recommendations.

The Atlas of Emerging Jobs conveys which industries will develop and correspondingly, which competencies are required by students aiming to join a particular profession in the future.

Website: http://atlas100.ru/en/

Contact Person: Dmitry Sudakov - Project Manager

Email: atlas@atlas100.ru

Contact:

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