FUTURE TIME TRAVELLER
Transforming career guidance on future skills, jobs and career prospects of Generation Z through a game based virtual reality platform

Policy message: Technology in learning

"Technology holds significant potential for expanding the range of learning opportunities available to students and for the formative assessment of a wide range of skills for innovation.

The variety of learning opportunities and personalization technology can offer, make education more interesting and enjoyable for students. Besides, virtual world simulations of a future world offer wider range of experimentation and learning-by-doing that is impossible otherwise."

OECD, 2016 - Innovative education and educating for innovation: the power of digital technologies and skills

Policy message: Redesigning education

The key to adequately preparing lifelong learners in a digital world is to "redesign education around participative, digitally-enabled collaboration within and beyond the individual educational institution".
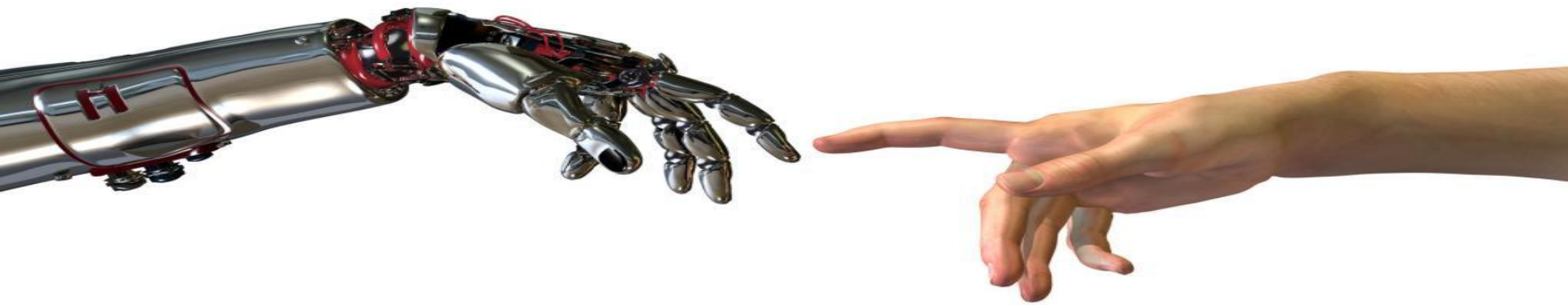
By 2025 this will have become the dominant worldwide educational paradigm, as "technology does not only affect what we will need to learn, but also how we will learn in the future."

European Internet Foundation, 2009 - The Digital World in 2025

Policy message:
Educational games and game design

"In educational gaming, students interact with video games, simulations or virtual worlds based on imaginary or real worlds - also seen as highly interactive virtual environments. Educational gaming includes **collaborative project-based learning experiences** where students themselves become game designers and content producers. **Constructing educational games seems to increase deep learning more than just using existing games.**"

OECD, 2016 - Innovative education and educating for innovation: the power of digital technologies and skills

What do we aim to do?

FUTURE Objectives

Target groups	Objectives (impact)	Results (products)
Young people (Generation Z)	Prepare young generations for the jobs of the future and to develop a future-oriented mindset	• FUTURE TIME TRAVELLER virtual reality platform • Jobs of the Future contest for exploring the future world, understanding LMI, trends, emerging jobs, required skills and career opportunities
Career guidance practitioners and experts	Enhance the capacity of career guidance experts and practitioners for delivering future-oriented career guidance	• Methodology • Workshops • Contest • Best practices e-book for supporting innovative career guidance
Policy makers	Give motivation to innovation and future-oriented policy	• Policy mapping study "Future-looking career guidance" • Impact assessment report (policy evidence)

Objectives of the game-based scenario approach

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To navigate in the world of work, young people …	… recognize their career opportunities … gain knowledge and understanding of labour market developments … research information on new jobs and careers … research information on the skills required in the future … are sensitised to labour market trends … identify credible sources of information on new jobs … are supported in making decisions regarding their career … are supported in developing a positive attitude towards the future … recognize their responsibility, opportunity and their active role in shaping their lives.
To interact with others, young people …	… recognize the need for cooperation … can take on different perspectives … can present their career choices before others
To get the work done, young people …	… enhance their critical skills in assessing professional decisions … expand their analytical skills in relation to the use of information … become aware of the social challenges of digitisation

FUTURE Time Traveller Scenario

- The game starts in 2020. In the local library, the player learns about the arrival of a time machine and receives a mission to act as an ambassador for the future.

- Upon **correctly sorting sources of information** about future jobs, the player teleports to the year 2050. There, the player will complete several missions:
  - **knowledge check** about the future of work
  - **explore future jobs** and **define the necessary skills and competences** they require
  - **investigate the future of jobs** – which will remain, change or disappear?

  Before returning to 2020, the player consolidates the received knowledge in a **message to humanity**.

- Back to 2020, the player has to create a short, original **description of a future job** that does not exist yet. Then in the final task the player will synthesize the main ideas and insights provoked by the game, in a personal **"Message to myself in the future"**, which will be delivered in a chosen moment in time.

Skills and competences for the future

Throughout the learning journey, users will have to complete various missions, which will help them:

- Improve knowledge of labour market trends that shape the future world of work
- Raise awareness of the challenges of technological development and their impact on emerging jobs
- Improve understanding of the required skills of the future
- Insight into different career opportunities
- Understand their own role for mastering the future
- Develop career management competencies - critical thinking, decision making, problem solving, creativity and flexibility, self-reflectivity, etc.
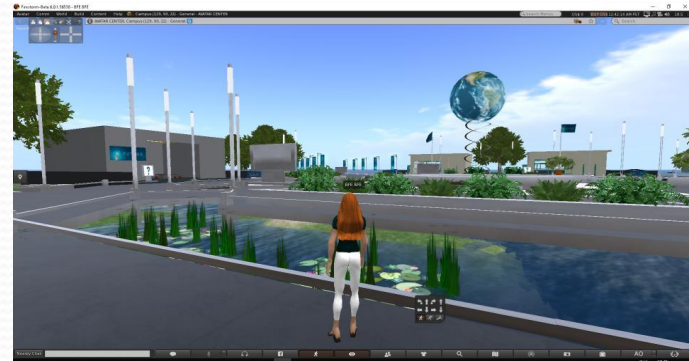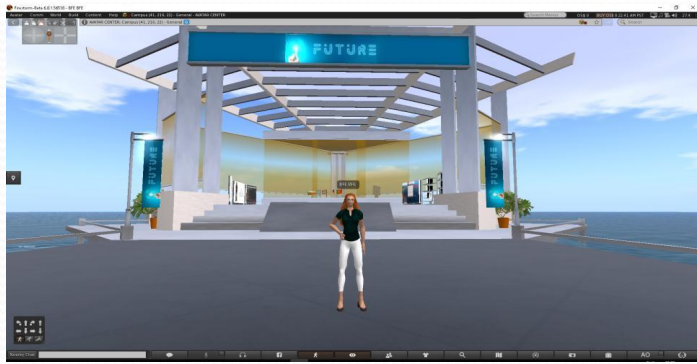
Welcome, Future Time Traveller! You are about to embark on an adventurous journey in 3D virtual world where you will be introduced to the jobs of the future. The virtual world is a three dimensional environment, offering social interaction in new and exciting ways. You participate in the virtual world through your avatar - you can interact with other avatars and bots using text, speech, graphical images, gestures and objects.

Career Innovations Contest
&
Time Capsule "Jobs of the Future"
Facebook contest for young people

- The **Future Time Traveller European Contest for Innovative Career Guidance Tools**; this competition aimed to enhance, recognize and promote good practices of innovative tools, interactive games, scenarios, methods, platforms and other digital and non-digital game-based instruments for career guidance, information and counselling.

- The **Time Capsule "Jobs of the Future" contest** aimed at encouraging young people aged 13-19 to explore their idea of future jobs, explain why they would emerge, how they would look like and what kind of skills would they possibly need.

- A consortium of three representatives in each partner country from organizations in the field of career guidance, education, labour market and the media decided the selection of best practices and ideas; 38 best practices were received from 14 countries and 91 ideas for jobs of the future.

Transformika Coaching Cards

- Transformika Coaching Cards is an award-winning tool based on powerful questions. It opens paths to solving personal or professional challenges.

- The Cards cover 32 topics related to career development. They are designed to help you gain clarity on your goals and challenges. The powerful consecutive questions smoothly guide you through the process. Asking the right questions helps you understand and experience life from entirely different perspectives and brings an abundance of opportunities.

- The set comes in a printed and digital version.

Medi-Control Agents

Germany
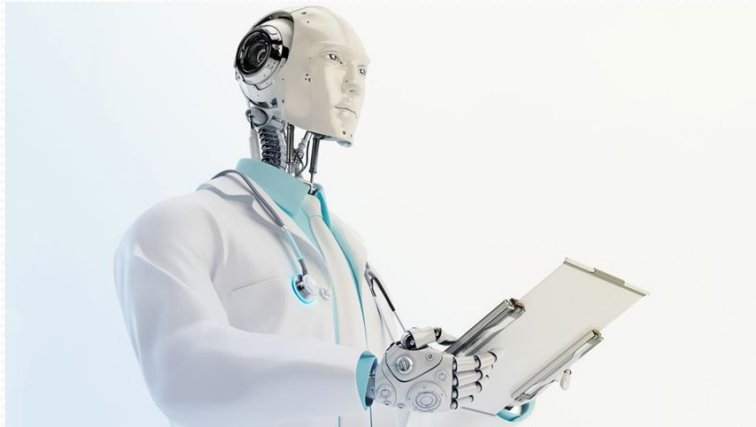
- Doctor-bots, called "Medi-Bots", as substitutes for human doctors for home visits. In rural areas these can cover the shortage of general practitioners. These robots need human personnel to monitor and solve problems. Since for some problems the technology will still not be sufficiently mature in 2050. The "Medi-Control Agents" require a completed training as a general practitioner in general medicine, although large parts of robotics will also be included in the training. Here the agents can work comfortably from an office anywhere in the world. They monitor the different "Medi-Bots" at work via several screens.".

Best Practice in Game-Based Learning

Game-based learning Approach

Game-based learning creates a highly engaging and immersive experience. The combination of game mechanics and learning aspects has the potential to produce motivated, enthusiastic, focused and interested learners.

Benefits of educational games

- Promote students' critical thinking skills, learning by doing, collaborative learning, student engagement and motivation.

- Help students find new ways around challenges, use knowledge in new ways and "think like a professional".

- Enable students to learn about complex topics by allowing them to make mistakes and learn from them.

- Real-life based gaming allows experimentation that would otherwise be too costly or dangerous.

- Foster student engagement and motivation in various subjects and education levels. They offer multiple potential benefits: flexible and lower-cost access, better learning.

Atlas of emerging jobs
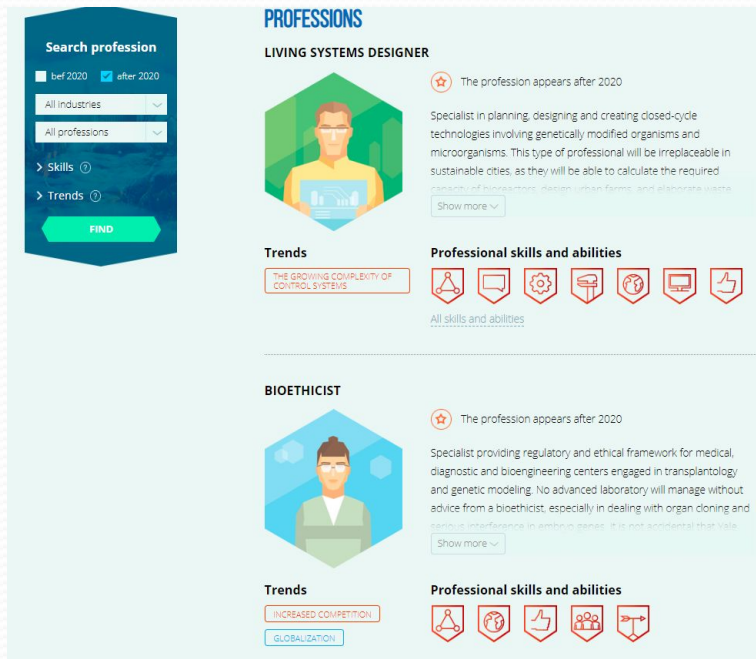
The platform shows how technological developments and other changes will affect jobs across 34 industries. The catalogue contains information about 169 new jobs that are expected to emerge before 2030, the trends that will remain and the skills they will require.

The website also describes 57 occupations that are expected to emerge in the next decade.

The informative cartoons help users explore future jobs and make decisions about their career.

Job Simulator: The 2050 Archives

It's the year 2050, and robots have replaced all human jobs. Yet, the machines have provided humans with some amusement: a simulation of what having a job used to look like. The virtual reality (VR) game allows players to experience what it was like to hold a 9 to 5 job and relive the glory days of working in an office. The game has a comedic element, as robots who have imagined the simulation often misinterpret facets of office life for humans.

Velocity

Virtual World (VW) learning environment for job interviewees.
It contains 7 scenarios, including:

- Preparation for interview,
- Apply for job opening,
- Accept/reject job offer,
- Behavior on interview,
- as well as simulation of the most used types of job interviews - face to face, competence based and panel interview.
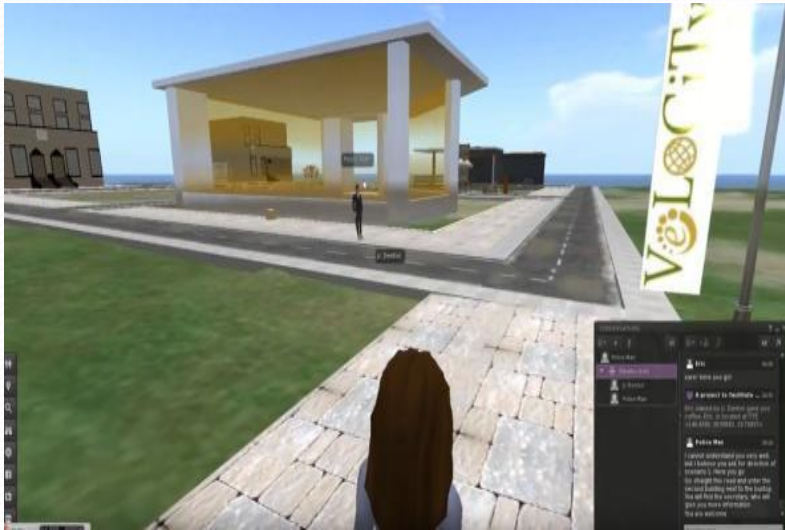
The [Social Seducement](#) project aims to develop the key competences and skills of adults with disadvantages, and in particular those who are unemployed, to help them start up a collaborative enterprise.

This is done by:

- Developing and testing an online role-play platform to discover, enhance and promote entrepreneurial skills

- Increasing learning retention by immersing learners in realistic scenarios and challenges

- Enabling formal and informal learning that overcome the boundaries of time and place

- Empower learning in nonconventional methods making it more accessible to marginalised individuals

Panjango

- Panjango is a world of experiential learning, both online and offline, that connects learning to life and equips young people with the practical knowledge, skills and experience to find their purpose and fulfil their potential.

- Panjango's games and resources are targeted at young people aged 8-13 (the transition phase between primary and secondary school). We aim to give young people's learning greater meaning, help them find their purpose and equip them with the practical knowledge and skills to not just survive, but thrive in life after school.

OpinTori online
career guidance service
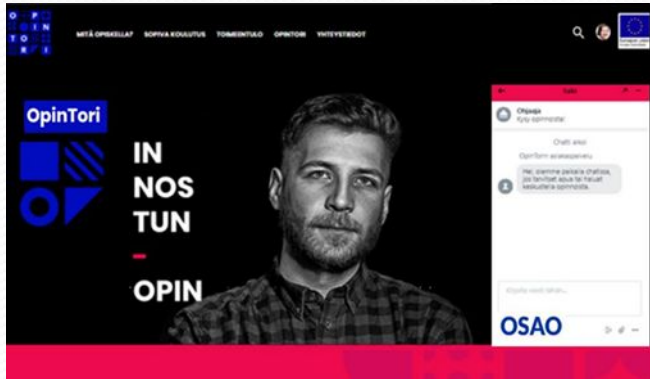
- OpinTori online career guidance service (opintori.info) is open to all interested in career planning and education in the region of Northern Ostrobothnia, Finland.

- The Online Service is open 24/7 in the internet. Career counsellors work weekly from 8 am to 16 pm. People can use smart self-help, chat, leave messages in different ways, use social media, call or come to meet counsellor face-to-face. Use of the digital platform has changed the work of counsellors and taken the guidance service and customer satisfaction up to date.

Career Map

- Career Map is a free tool supporting the implementation of topics in the field of educational and vocational counselling at school in Poland. At www.mapakarier.org they develop a database of professions (over 500) and ideas for classes from kindergarten to the final exams.

- They are constantly developing materials to work with their tool in offline mode - such as printed competition cards or games published in PDF files that make consulting classes more attractive.
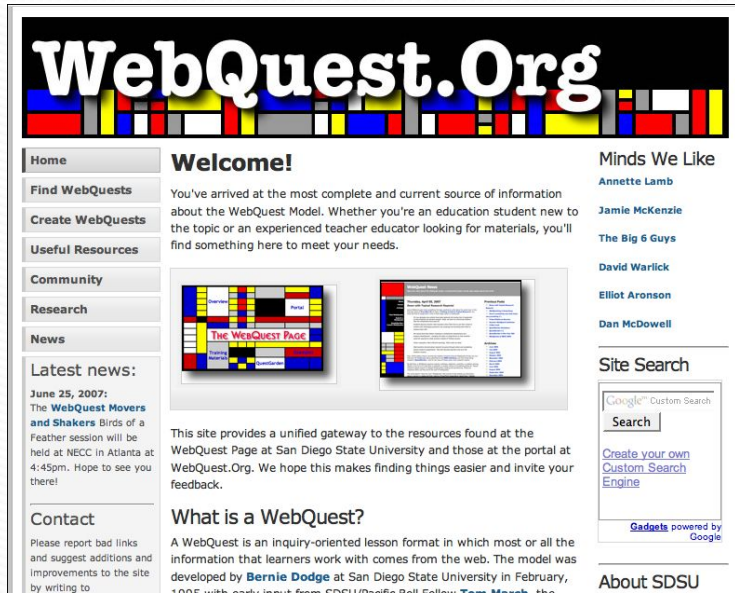
- Internet-based scavenger hunt or trace search. WebQuests give students a task that allows them to use their imagination and problem-solving skills.

- The answers are not predefined and therefore must be discovered or created. Students must use their own creative-thinking and problem-solving skills to find solutions.

- Kahoot is a game-based learning platform where you can design multiple-choice quizzes and include videos, pictures or other graphics.

- Particularly suitable for group work, e.g. in school classes. The learners can work on the quiz questions with their own devices (laptop, smartphone). Learners can design their own Kahoots and improve their skills in other ways.

Guidelines for career games scenario development

What makes a game good?

Why are certain games played for pleasure?
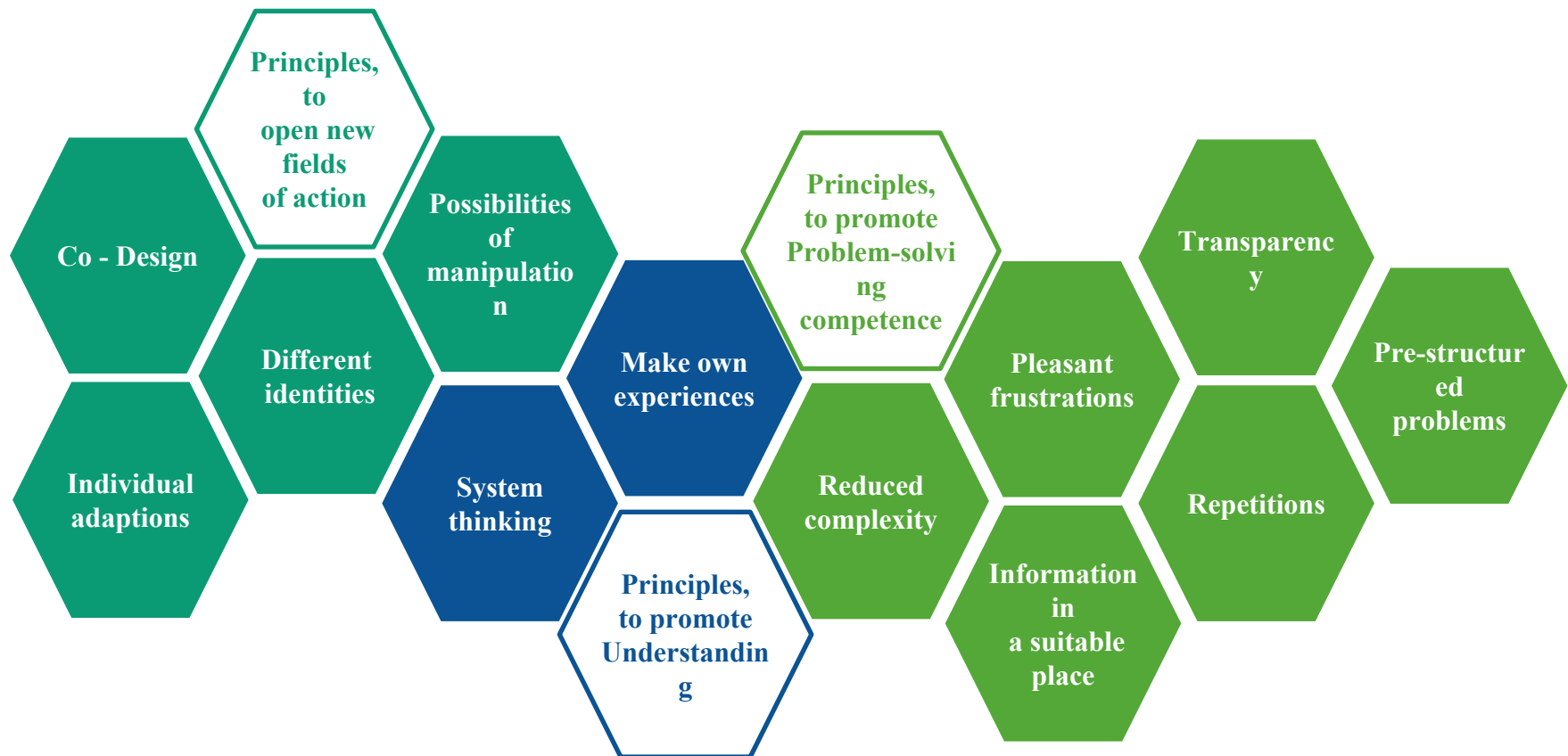
What makes learning in the game successful?

Learner's motivation

Fantasy
Rules and goals
Sensory stimuli.
Challenge
Mystery
Control

Learner's Judgement

Interest
Enjoyment
Task involvement
Confidence.

Learning outcome

Skill-related knowledge
Cognitive knowledge
Affective Knowledge

Feedback

Learner's behaviour

10 Guidelines for scenario development

1. Complex Problem Solving
- Adaptation of the challenges to the target group and the intended learning objectives.

2. Critical Thinking
- Offer opportunities for reflection, comprehensive feedback and debriefing of content.

3. Creativity
- Encourage proactive, independent actions and activities to motivate and engage players.

4. People Management
- Incorporate challenges, that require the cooperation of several players/people.

5. Coordinating with others
- Promote joint brainstorming and solution finding and cooperation in general.

6. Emotional Intelligence	• Encourage the players to deal with triggered emotions through success and failure.
7. Judgment and Decision Making	• Decide at an early stage which factors should determine the judgement and decision making in the game.
8. Service Orientation	• Be transparent and clear in tasks and learning intentions.
9. Negotiation	• Incorporate elements into the game that make people present and communicate themselves and their learning process.
10. Cognitive Flexibility	• Deliberately create unknown scenarios and contexts that lead people to leave conventions and their comfort zones behind.

The benefits of digital games are obvious, but …

… the technical implementation usually lies outside the competence of the career consultants, as this requires extensive know-how from the IT sector.

So how can the potentials of serious games be used in career guidance even if both the technical know-how and the time and financial framework are not available?

How can serious games be integrated into career counselling? And how can consultants (possibly in collaboration with young people) create their own serious games?

Get involved!

- Share your ideas and inspiration!
- Benefit from the developed project resources and information on the website future-time-traveller.eu and Facebook page
- Take part in the piloting and send us your feedback
- Promote the project to colleagues and young people
- Help spread the information about the contest for young people!
- Take part in the innovation contest and make your best practices publicly recognized!

Hope to see you again in the Future!