Educational Tools

Deliverable D3.2

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Date
29/12/2023

Classification
Public

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1 Introduction

The byDefault project pursues two strategic goals:

I. To raise data protection and privacy awareness among the critical social group of children.
II. To provide Data Protection Officers (DPOs) and privacy professionals with continuous support in their activities, beyond a basic level, aiming towards specialized guidance on selected key sectors.

To this end, with respect to the first strategic goal, byDefault will focus on the following activities and deliver the corresponding results:

1. Development of a comprehensive education program about privacy, targeting children and especially while using electronic services. Based on this program, byDefault aims at training elementary and secondary school students, thereby enhancing their privacy awareness and data protection culture.
2. Provision of training and support to educators (teachers and professors), in order for them to be able to design and enact learning sessions according to the philosophy of the education program.
3. Performance of a set of pilot education activities to several elementary and secondary schools, to assess the effectiveness of the training program.

This work package (WP3) is linked to the strategic objective of raising data protection and privacy awareness among the critical social group of children. It will specifically develop the educational program. It pursues the following objectives: a) To develop the learning resources b) To evaluate and adapt the learning resources taking into consideration pedagogical issues c) To design the learning scenarios, and develop the tools d) To perform a set of pilot education activities to several elementary and secondary schools.

More precisely, for the WP3, the Task 3.1 (Learning resources development) deals with the development of the learning resources for familiarizing children with concepts such as: Personal data and special categories of personal data; Processing of personal data; Data Controller and Data Subject; Lawfulness of the processing; Consent of the data subject; rights of data subjects; Online personal data commercialization; Personal data protection risks and measures.

The Task 3.2 (Learning scenarios) will take over from Task 3.1, in order to design the actual learning scenarios on the basis of the initial learning resources. To this end, this task will first perform the formative evaluation of the learning resources, taking into consideration pedagogical issues, as well as tools that will be adopted, such as interactive games/AR applications /quizzes/use cases /surveys, for elementary school and high school children. Thereupon, this task will perform the design of learning scenarios and the development of the various components of the educational program using the learning resources.

Task 3.3 (Tools Development) will leverage the principles of game-based learning (GBL) and augmented reality (AR) in order to develop the educational tools. Educational software such as ARTutor, an Augmented Reality Educational Platform embracing the UNESCO "Educational for all" initiative, will be used.

The WP3 deliverables will be:

- D3.1 – Learning resources and scenarios
- D3.2 – Educational tools
- D3.3 – Pilot education and assessment

Deliverable D3.1, already submitted, has provided the learning resources and learning scenarios that will be used for the development of the various components of the educational program.

The present deliverable (D3.2) delves into the exploration and utilization of educational tools that play a pivotal role in shaping the digital learning resources aimed at advancing students' knowledge and skills in the critical domain of personal data protection.

The focus of the deliverable extends to three key educational tools that stand at the forefront of modern pedagogy:

1. **iSpring:** Renowned for its versatile authoring capabilities, iSpring empowers educators to craft multimedia presentations, quizzes, and interactive content. In this report, we examine how iSpring is employed to create dynamic role play scenarios, fostering immersive learning experiences.

2. **Vyond:** A dynamic animation platform, Vyond transforms educational content into engaging and visually appealing animated videos. We explore how Vyond is harnessed to impart knowledge on personal data protection in an accessible and captivating manner.

3. **ARTutor:** Embracing the potential of Augmented Reality (AR), ARTutor emerges as a transformative force in education. We delve into its application for creating interactive and augmented learning experiences, particularly in the context of personal data protection education.

Integrating seamlessly into the educational toolkit is Adobe Photoshop, a stalwart in digital image editing. In this report, we showcase how Photoshop is instrumental in crafting game-based learning experiences. The creation of an augmented reality game-board, where images serve as triggers for AR scenarios through ARTutor, demonstrates the dynamic fusion of image editing and AR technologies.

At the heart of these educational endeavors lies the overarching goal of instilling a profound understanding of personal data protection. By leveraging these tools, educators can not only disseminate information but also cultivate a heightened awareness and a proactive approach among students in safeguarding their personal data in the digital realm. As we navigate through the innovative applications and synergies of iSpring, Vyond, ARTutor, in conjunction with Photoshop, this deliverable unveils the potential for a comprehensive, engaging, and technologically enriched educational landscape in the realm of personal data protection.

2 Educational Approach

2.1 Introducing Innovative Role-Playing Scenarios: A Pedagogical Journey

As already discussed in deliverable D3.1, embarking on a pedagogical adventure, we are poised to revolutionize digital learning through captivating role-playing scenarios. Our approach is underpinned by a set of pedagogical principles that not only redefine traditional teaching methods but also harness the transformative power of educational technology. In crafting these scenarios, we adhere to the principles of active learning, placing a premium on student engagement through interactive activities that stimulate critical thinking andproblem-solving. Embracing collaborative learning, our scenarios foster teamwork and communication skills, weaving a tapestry of group projects, discussions, and peer-to-peer learning. Inquiry-based learning takes center stage, encouraging students to be architects of their knowledge, asking questions, seeking solutions, and exploring topics in-depth, cultivating a sense of curiosity and autonomy.

Central to this educational evolution is the seamless integration of technology, where tools like iSpring become our trusted companions. iSpring's robust authoring capabilities empower us to weave a digital tapestry that enhances learning experiences, promotes digital literacy, and grants access to a diverse range of resources. The differentiated instruction is at the heart of our design, recognizing the diverse learning needs of students and tailoring instruction to accommodate various styles and paces. Our scenarios transcend the classroom, linking theoretical concepts to real-life situations, making learning not just educational but also meaningful and applicable in the ever-evolving landscape of the digital age.

As we embark on this journey, the synergy between pedagogical innovation and technological prowess, particularly through tools like iSpring, promises a paradigm shift in the way we cultivate knowledge, skills, and a lifelong love for learning.

2.2 Revolutionizing Learning with an Augmented Reality Board Game: A Multifaceted Approach

At the heart of our transformative educational approach lies an innovative cornerstone — an Augmented Reality (AR) board game designed to engage and inspire young minds. In this dynamic learning adventure, several middle and high school students come together in a classroom to learn about the personal data protection through play. The essence of our methodology unfolds through short role-play scenarios and stories presented as meticulously crafted digital learning resources. Students immerse themselves in these scenarios, absorbing knowledge, honing critical thinking skills, and deepening their understanding of personal data protection. It should be pointed out that, especially for the field of personal data protection, it is essential that education is based on some short role-play scenarios and stories, in order to illustrate in practice the impact of misuse of personal data as well as the relevant risks under somehow realistic use cases.

The game unfolds as students answer quizzes related to the scenarios, earning points that dictate their progression according to the intricacies of the game rules. The magic happens when the AR board becomes a canvas for augmented reality scenarios triggered by specific images strategically placed on the board. The interactions unfold through the lenses of mobile devices equipped with the ARTutor application, where the real and digital worlds converge seamlessly.

Behind the scenes, our development process is a “symphony” of specialized tools. The creation of digital learning resources finds its home in iSpring, a versatile authoring tool that breathes life into presentations, quizzes, and interactive content. The game-board itself is a masterpiece crafted with precision using digital image editing

tools like Photoshop, where trigger images are curated to unveil augmented content. To culminate this multifaceted approach, customized content seamlessly integrates into the ARTutor app, offering a tailored and immersive learning experience.

As we embark on this journey, the fusion of technology, game-based learning, and augmented reality promises not only to educate but to inspire a generation of learners through an experiential and captivating learning experience.

2.3 Introduction to Rapid Authoring Tools

In the dynamic landscape of digital education, the demand for agile and efficient content creation has led to the emergence and widespread adoption of rapid authoring tools. These tools serve as instrumental resources for educators and instructional designers, offering a streamlined approach to develop engaging and interactive digital learning materials.

Rapid authoring tools are software applications designed to expedite the process of creating e-learning content. They empower users, regardless of their technical proficiency, to generate multimedia-rich educational materials efficiently. The term "rapid" emphasizes the quick turnaround time from conceptualization to deployment, making these tools invaluable for meeting the ever-evolving needs of educational environments (eLearning Industry, 2023).

Key Characteristics:

1. **User-Friendly Interfaces:** Rapid authoring tools are renowned for their intuitive and user-friendly interfaces, minimizing the learning curve for content creators. This accessibility ensures that educators, subject matter experts, and instructional designers can harness the full potential of these tools without extensive training.
2. **Multimedia Integration:** These tools often feature seamless integration of multimedia elements, such as images, videos, audio, and interactive assessments. This functionality allows for the creation of diverse and engaging learning experiences, catering to different learning styles.
3. **Interactivity and Engagement:** Rapid authoring tools prioritize interactivity, enabling the development of content that goes beyond static presentations. Features like quizzes, simulations, and branching scenarios enhance learner engagement and contribute to a more immersive educational journey.
4. **Responsive Design:** Recognizing the importance of accessibility, many rapid authoring tools facilitate the creation of content with responsive design. This ensures that educational materials are optimized for various devices, including desktops, tablets, and smartphones, accommodating the diverse ways learners access content.

3 Creating learning material about Personal Data Protection & Privacy within the ByDefault project

In the context of the ByDefault project, rapid authoring tools become essential instruments for translating complex concepts into digestible and visually compelling content. These tools empower educators to develop interactive modules, simulations, and assessments that facilitate a practical understanding of privacy principles among learners.

This deliverable will explore and evaluate the contributions of two prominent rapid authoring tools—Vyond and iSpring—in the creation of digital learning material specifically tailored for the needs of the project. As the education landscape continues to evolve, the integration of rapid authoring tools proves instrumental in shaping a learner-centric and adaptable approach to disseminating critical information, such as the principles of personal data protection.

3.1 iSpring for Creating Digital Learning Material on Personal Data Protection

iSpring is a comprehensive e-learning authoring tool that empowers users to create interactive and engaging digital learning content (iSpring Solutions, 2023). With a focus on simplicity and effectiveness, iSpring is well-suited for educators and instructional designers aiming to convey crucial information about personal data protection.

Key Features for Personal Data Protection Content:

1. **Multimedia Integration:** iSpring excels in integrating multimedia elements seamlessly into learning modules. Users can embed videos, images, and audio files to enhance the educational experience. This feature is valuable for illustrating real-world scenarios and demonstrating best practices in personal data protection.
2. **Interactive Assessments:** To gauge learners' understanding of personal data protection concepts, iSpring offers interactive assessment tools. Quizzes, surveys, and scenario-based assessments can be easily integrated, providing a means for learners to apply their knowledge in practical situations.
3. **Adaptive Learning Paths:** Personalized learning experiences are facilitated through iSpring's adaptive learning path feature. This allows educators to tailor content based on learners' progress, ensuring that individuals receive targeted information related to personal data protection based on their needs and comprehension levels.
4. **Scenario Simulations:** iSpring's capabilities extend to creating scenario simulations, enabling users to replicate real-world situations related to personal data protection. Learners can navigate through these simulations, making decisions and observing consequences, thereby enhancing their decision-making skills in data protection contexts.
5. **Mobile Compatibility:** Recognizing the importance of accessibility, iSpring ensures that created content is compatible with various devices, including smartphones and tablets. This flexibility ensures that learners can access personal data protection training wherever they are, promoting continuous learning.

Educational Impact:

1. **Practical Application of Knowledge:** iSpring's interactive features allow for the practical application of knowledge gained in personal data protection training. Learners can actively engage with content, reinforcing their understanding and retention of essential concepts.

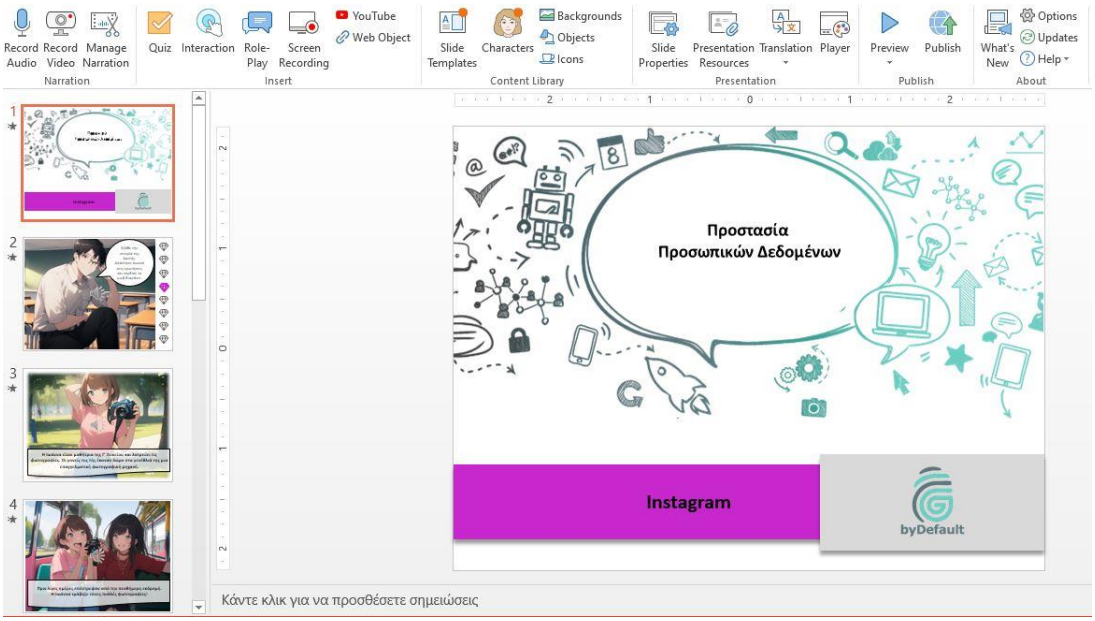
2. **User-Friendly Design:** The intuitive design of iSpring contributes to a positive user experience. Navigating through modules and interacting with content is straightforward, making it suitable for learners of varying technical abilities.

Integrating iSpring into the toolkit for creating digital learning material on personal data protection enhances the educational experience through its versatile features. Whether through multimedia integration, interactive assessments, or scenario simulations, iSpring empowers educators to deliver impactful content that fosters a deeper understanding of personal data protection principles.

3.2 Using iSpring within the ByDefault project: Elevating Multimedia Presentations with Role Play and Embedded Quizzes

In our commitment to innovative educational methodologies, we leverage the dynamic capabilities of iSpring to transform conventional presentations into immersive multimedia experiences. Using iSpring's authoring environment, educators can seamlessly orchestrate role play scenarios, integrating actors to convey educational content in a compelling and engaging manner. This multimedia approach transcends traditional boundaries, allowing students to actively participate in the learning process.

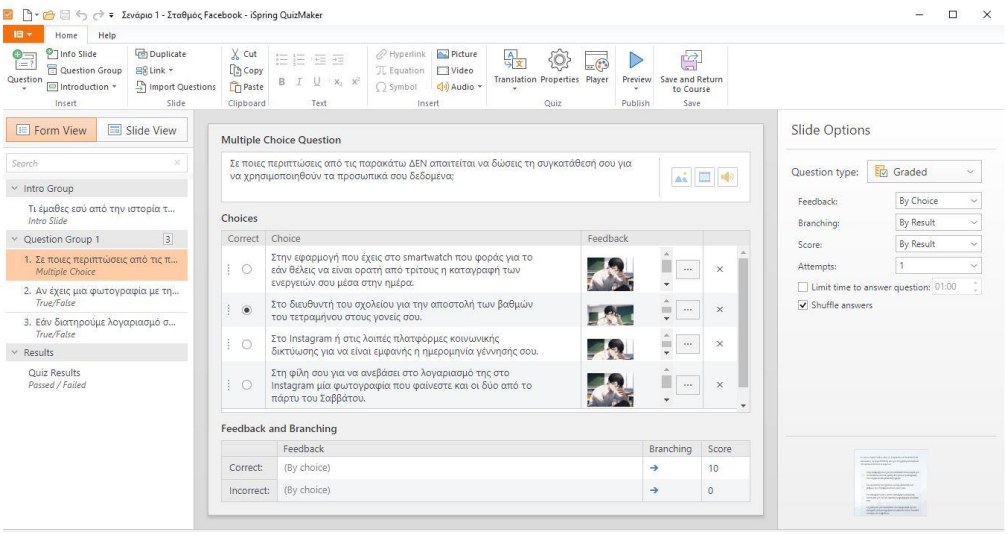
Role Play Scenarios with iSpring: iSpring's intuitive authoring tools empower educators to script and design role play scenarios with ease. Actors can be incorporated to personify concepts, historical figures, or real-world scenarios, bringing the educational content to life. Whether it's a historical reenactment, a scientific experiment, or a literary interpretation, iSpring provides a canvas for educators to infuse creativity and authenticity into their presentations.



Screenshot of the iSpring authoring environment showcasing the creation of a role play scenario.

Embedded Quizzes for Interactive Learning: Taking interactivity a step further, iSpring enables the seamless embedding of quizzes within the multimedia presentation. This strategic integration allows educators to assess

comprehension and reinforce learning objectives in real-time. Whether it's a formative assessment during the presentation or a comprehensive quiz at the conclusion, iSpring's quiz capabilities enhance the educational impact by fostering active participation and knowledge retention.



Screenshot of the iSpring authoring environment displaying the integration of a quiz within the multimedia presentation.

Enhancing Engagement and Assessment: By intertwining role play scenarios with embedded quizzes, educators can create a comprehensive and engaging learning experience. The multimedia presentation becomes a dynamic platform where actors convey content with authenticity, and quizzes gauge student understanding, promoting active engagement and reinforcing key concepts.

Screenshot from a multimedia presentation created with iSpring, featuring a role play scenario and an embedded quiz.

In embracing iSpring's capabilities for multimedia presentations, educators unlock a myriad of possibilities for interactive and experiential learning. The fusion of role play scenarios and embedded quizzes not only captivates students but also provides valuable insights into their comprehension, making iSpring a pivotal tool in shaping the future of immersive education.

3.3 Vyond for Creating Digital Learning Material on Personal Data Protection

Vyond stands out as a powerful tool in the realm of digital content creation, offering a user-friendly platform for developing engaging and informative animations and videos. Its versatile features make it an ideal choice for educators and content creators aiming to convey complex topics such as personal data protection in an accessible and visually appealing manner (Vyond, 2022).

Key Features for Personal Data Protection Content:

- **Customizable Characters**: Vyond allows users to craft characters with specific attributes, making it possible to create scenarios that reflect real-world situations related to personal data protection. Users can tailor character appearances to represent diverse individuals, enhancing the relatability of the content.
- **Scenario Creation**: The tool provides an extensive library of elements, objects, and backgrounds that can be combined to construct scenarios illustrating various aspects of personal data protection. This flexibility enables the creation of realistic and relevant situations that resonate with the audience.
- **Interactive Motion**: Vyond's motion capabilities enable the incorporation of interactive elements within the content. Actions such as data encryption, secure login processes, and privacy settings adjustments can be visually demonstrated through animated sequences, enhancing the understanding of key concepts.
- **Audio Integration**: To complement visual elements, Vyond allows for the integration of sound. Narration, background music, or sound effects can be incorporated to reinforce messaging and maintain engagement throughout the learning material.
- **Export Options**: Upon completion of the content creation process, Vyond offers various export options, allowing users to share their materials in multiple formats suitable for different platforms. This facilitates seamless integration into existing e-learning environments or presentations.

It has been used since it can offer educational impact, i.e:

- *Enhanced Engagement*: The dynamic nature of Vyond's animations captures and maintains learners' attention, fostering a more engaging learning experience. This is particularly beneficial when tackling topics as critical and nuanced as personal data protection.
- *Visual Representation of Concepts*: Personal data protection concepts can be abstract and challenging to grasp. Vyond excels in visually representing these concepts, breaking down complex ideas into digestible and memorable visual sequences.

Incorporating Vyond into the toolkit for creating digital learning material on personal data protection adds a layer of creativity and interactivity. By leveraging its features, educators and content creators can develop content that not only educates but also resonates with the audience, contributing to a more effective and impactful learning experience.

3.4 ARTutor - an Augmented Reality Educational Platform

ARTutor is an Augmented Reality Educational Platform developed by the Advanced Educational Technologies and Mobile Applications (AETMA) Research Lab. It is a free platform that allows educators without coding skills to create and view AR experiences. ARTutor aims to enhance traditional educational materials by adding digital content and enabling easy access and interaction with the augmented material. The platform is available for educators and students globally and is designed to support distance learning and "Education for All" initiatives. It consists of an AR authoring tool for educators and a mobile application for students to access the augmented content.

ARTutor is a twice awarded and UNESCO Greece nominated platform, that provides the ability to educators and students to bring books to life using Augmented Reality, by adding digital content and augment specific parts of a book with additional images, videos, audio files and 3D objects (Lytridis, and Tsinakos, 2018), available in ten languages (see Figure below).

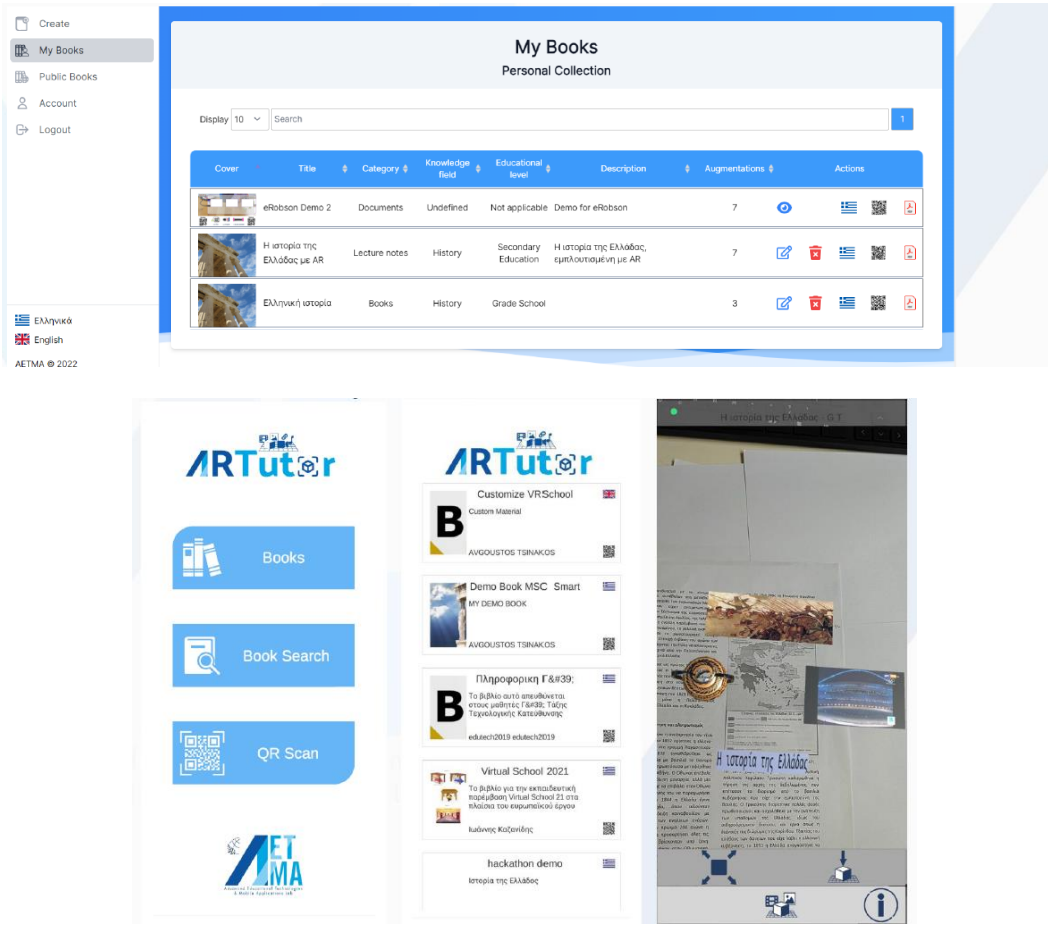
The ARTutor platform offers various features that enhance the educational experience through augmented reality. Some of its key features include:

- AR Authoring Tool: A web-based application that allows educators to create AR experiences by adding 3D shapes, images, videos, quizzes, and location-based content without the need for coding skills.
- Accessibility: Available free of cost to educators and students globally, supporting the "Education for All" vision by providing access to technology-enhanced educational materials.
- Language Support: Operates in English and, in the newer version, supports French and Greek. The new version also aims to support commercial use for publishers, companies focusing on training, and 3D designers.
- Mobile Application: An accompanying mobile application that allows students to access the augmented content created by educators.
- Research and Evaluation: The platform has been the subject of academic research and has undergone evaluation in education, leading to improvements in user interface and functionality based on user feedback. Number of studies indicates the successful use of ARTutor in a variety of domains such as ESL, Chemistry, Physics, ICT, and in a variety of scenarios such as escape rooms, mixed reality games, etc (Tsinakos and Innes, (2019); (Terzopoulos et. all, 2019); (Kazanidis et all, 2019), (Long,. and Tsinakos, 2021), (Lazou and Tsinakos, 2022).

ARTutor https://artutor.ihu.gr/

ARTutor consists of a Web Platform for creating the augmented reality experience while the Mobile Application is used to view the experience in the mobile device (see Figures below). An advanced tool, AR Experience Editor, for creating complex augmentations in the 3D world was added in the latest version ARTutor 4.

With ARTutor, adding digital content to traditional educational books and other texts is possible, which in turn assists both teachers and students' independent studies.



ARTutor Web & Mobile app

Here are just a few of the benefits of using ARTutor to printed material to life:

- Boosts learner engagement and emotional connectivity.
- Equips teachers with limited IT skills the tools they need to develop AR books and create highly immersive educational activities and experiences.
- Improve learner comprehension and knowledge retention.
- Removes accessibility roadblocks by implementing a single mobile application with enhanced digital content.
- Promotes independent, self-paced distance learning.
- Empowers remote learners by giving them the opportunity to act as content creators in the education environment

Thanks to its simplicity, ARTutor can be used by any educator, regardless of their technical know-how or level of programming skills. It can be applied in any domain, from mathematics and history to the arts and philosophy.

Another standout benefit is that this versatile platform supports all levels of education, whether it's at the Primary, Secondary or University level.

The ARTutor platform is available for download, free of charge, via Google Play and the IOS App Store. With ARTutor one can add digital content on top of printed material or on top of electronic material!

In the ByDefault project, we will add digital learning content created using the iSpring and Vyond as augmentations that are displayed when a trigger image is detected by the camera of the mobile device. All types of augmentations are fully interactable and touch gestures can be used to play with the augmentations.

Finally, a unique educational feature of ARTutor is the ability for teachers and students to work collaboratively (as active instructional designers and content creators) in order to create an AR enhanced book or educational activity. Therefore, multiple users can now edit the same AR experience collaboratively.

3.5 Integration of Photoshop for Board Creation

In the seamless orchestration of augmented reality (AR) experiences, the inclusion of Photoshop emerges as a valuable asset, particularly when crafting a visually captivating and pedagogically rich board for the AR game. The following steps outline the integration of Photoshop into this creative process:

1. **Designing the Board Layout:** Utilizing Photoshop's extensive design capabilities to conceptualize and craft the layout of the game board. Consider the strategic placement of markers, symbols, and visual cues that will trigger AR scenarios when scanned. The aesthetic appeal and clarity of the board layout play a pivotal role in enhancing the overall user experience.
2. **Incorporating Visual Elements:** Leveraging Photoshop's advanced image editing tools to seamlessly integrate visual elements extracted from the learning material and quizzes created with iSpring and Vyond. Ensure high-quality resolution and harmonious integration to create a visually cohesive board that aligns with the educational content.
3. **Optimizing Images for AR Recognition:** Fine-tuning images within Photoshop to optimize them for efficient AR recognition. This may involve adjusting contrast, brightness, and colours to enhance the clarity of markers or triggers that will activate specific AR scenarios. This optimization contributes to the overall functionality of the AR game.
4. **Creating Interactive Zones:** Designating specific areas on the board as interactive zones, where scanning triggers will initiate learning material or quizzes associated with iSpring and Vyond. Utilize Photoshop's precision to demarcate these zones clearly, ensuring a seamless transition between the physical and digital realms during gameplay.
5. **Ensuring Consistency and Branding:** Maintaining a consistent visual theme and branding across the board, aligning it with the overall educational context. Photoshop provides the tools to harmonize colours, fonts, and visual elements, contributing to a cohesive and immersive AR learning environment.

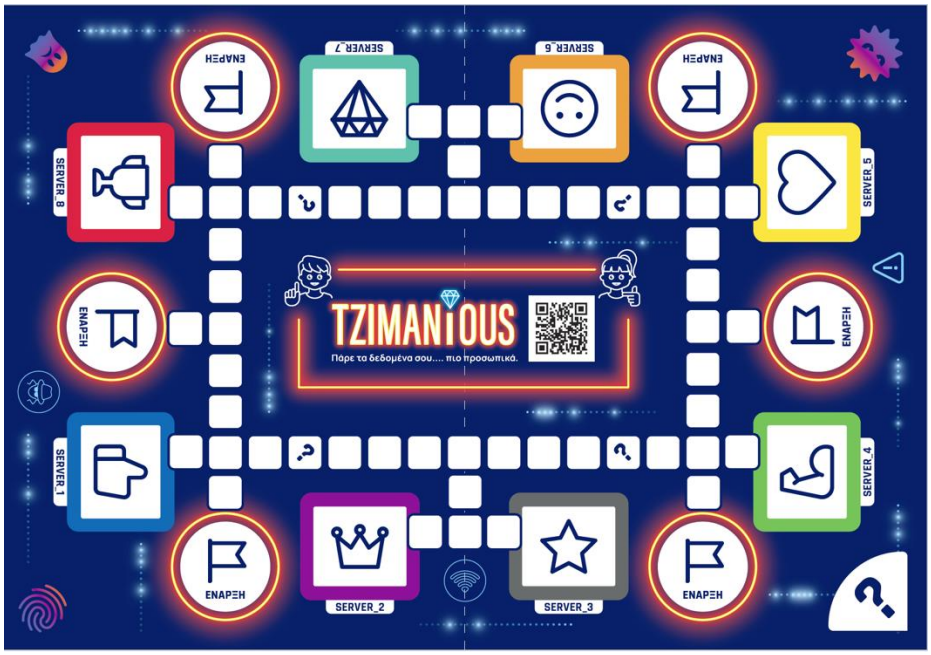
Photoshop stands as an exceptional tool for our purposes due to its unparalleled versatility and robust feature set. Its advanced image editing capabilities empower educators and instructional designers to meticulously craft visually captivating and pedagogically rich game boards for augmented reality experiences. With an extensive array of design tools, Photoshop facilitates the creation of intricate layouts, the seamless integration of diverse visual elements, and the optimization of images for efficient augmented reality recognition. The precision offered by Photoshop is invaluable for demarcating interactive zones and ensuring a harmonious fusion of physical and digital realms during gameplay.

Additionally, Photoshop allows for iterative testing and refinement, ensuring that the final product aligns seamlessly with learning materials and quizzes created with iSpring and Vyond. Its user-friendly interface

coupled with the ability to maintain visual consistency and branding makes Photoshop a standout choice, offering ByDefault team the flexibility needed to create an immersive and cohesive augmented reality learning environment realms for an enriched educational journey. The integration of Photoshop into the creation of the AR game board enhances not only the visual appeal but also the functionality and educational impact of the augmented reality experience.

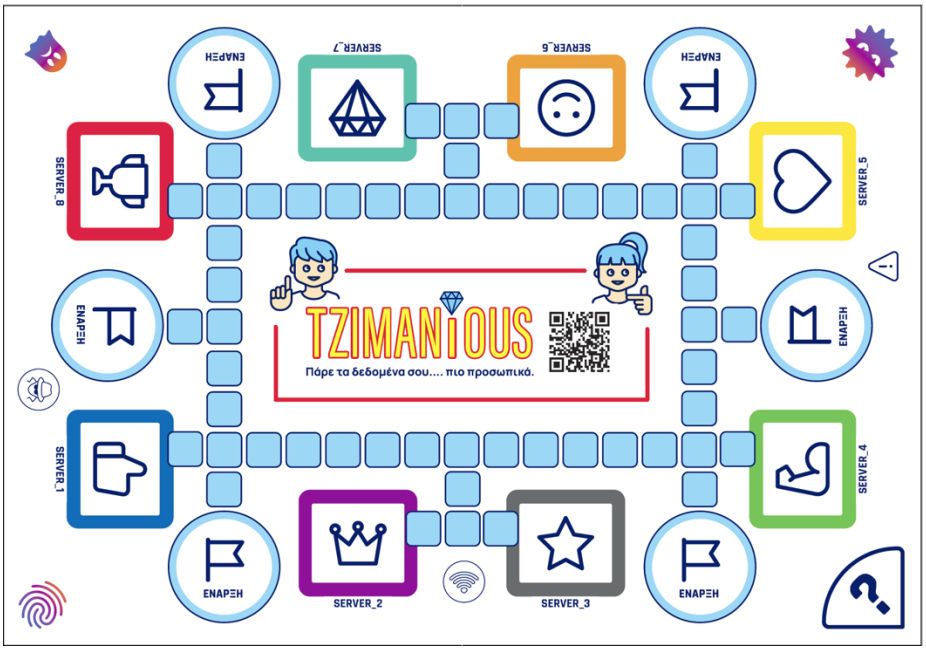
4 Augmented Reality Board Game: A Visual Journey

Embarking on the integration of cutting-edge educational technology, we present an augmented reality board game meticulously crafted using Adobe Photoshop. The visual richness and intricate design of the game board are tailored to provide a seamless blend of physical and digital learning experiences. The high-resolution coloured version, crafted with precision in Photoshop, ensures a professional and visually immersive encounter. Every detail, from strategically placed markers to interactive zones, is optimized to trigger augmented reality scenarios seamlessly. The vibrant hues and crisp details not only elevate the aesthetic appeal but also contribute to a dynamic and engaging educational setting.

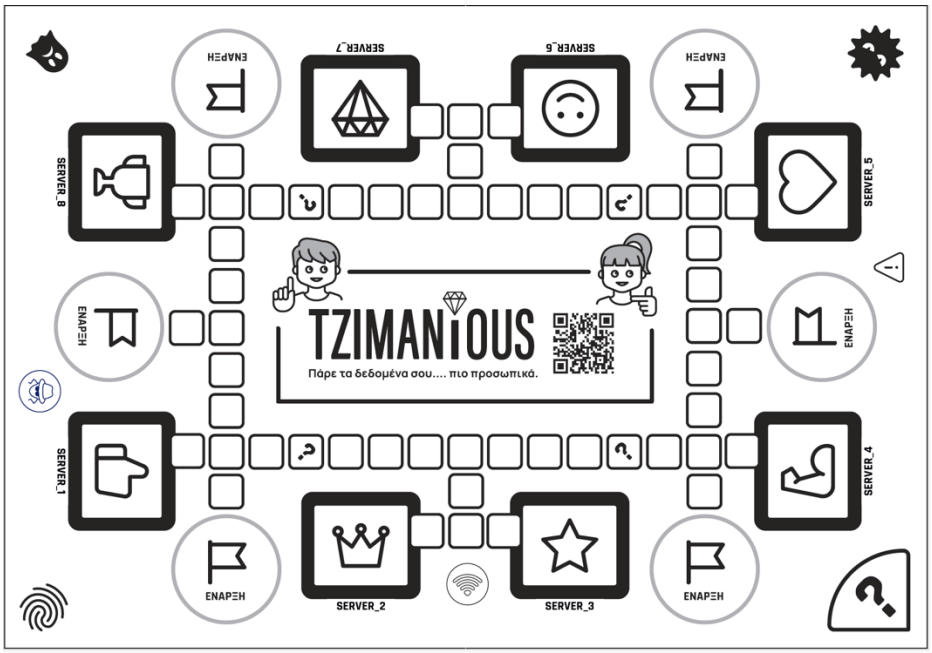


Draft version of high-quality coloured image of the board game for professional printing

In recognizing the diverse needs of educational environments, we extend our commitment to accessibility. Hence, an equally compelling black and white version has been thoughtfully designed for cost-effective printing within school premises. This version, while mindful of printing constraints, retains the clarity and functionality of the original. Teachers can effortlessly reproduce the game board, aligning with the resource constraints of educational settings, without compromising on the educational impact.



Draft version of less coloured version of the board game suitable for low-cost printing by teachers



Draft version of black and white version of the board game suitable for low-cost printing by teachers

The adaptability of the design, evident in both high-quality and cost-effective versions, underscores the versatility of Adobe Photoshop as an indispensable tool for creating visually captivating and accessible augmented reality learning materials.

5 Conclusions

In conclusion, this deliverable unveils a multifaceted exploration into the integration and utilization of cutting-edge educational tools, namely iSpring, Vyond, and ARTutor, along with the indispensable support of Adobe Photoshop, in shaping a comprehensive educational landscape focused on personal data protection. The collaborative synergy of these tools brings forth innovative pedagogical methodologies that transcend traditional boundaries and redefine the learning experience.

The educational journey begins with the versatile capabilities of iSpring, a stalwart in digital content creation. By seamlessly integrating iSpring into pedagogical strategies, educators can not only impart knowledge but also foster a profound understanding of personal data protection principles. The creation of immersive role-play scenarios and interactive quizzes enhances engagement and promotes active learning, marking a paradigm shift in traditional teaching methodologies.

Vyond, with its dynamic animation platform, emerges as a powerful ally in conveying complex concepts like personal data protection. Its customizable characters and scenario creation capabilities enable educators to develop visually appealing content that resonates with learners. The incorporation of interactive motion and audio integration enhances engagement, providing a unique and impactful learning experience.

The deliverable further introduces ARTutor, an Augmented Reality Educational Platform, as a transformative force in education. Through AR experiences created without coding skills, ARTutor brings traditional educational materials to life. Its features, including the AR authoring tool and mobile application, offer a seamless and accessible way to enhance learning through augmented reality. The collaborative aspect of ARTutor empowers teachers and students to actively participate in content creation, fostering a sense of ownership and engagement.

Adobe Photoshop, renowned for its image editing capabilities, takes center stage in crafting visually captivating game boards for the Augmented Reality Board Game. By seamlessly integrating visual elements from iSpring and Vyond, Photoshop ensures a harmonious fusion of the physical and digital realms. The adaptability of the design, presented in both high-quality and cost-effective versions, underscores the versatility of Photoshop in catering to diverse educational settings.

In essence, this deliverable showcases not only the individual strengths of iSpring, Vyond, ARTutor, and Photoshop but also their collaborative potential in creating a transformative educational landscape. By leveraging these tools, educators can instil a heightened awareness of personal data protection, fostering a proactive approach among students in navigating the complexities of the digital age. The innovative applications presented herein promise to inspire a generation of learners through immersive, engaging, and technologically enriched educational experiences.

6 Appendix: Digitized Learning Scenarios

Deliverable D3.1 has presented in detail the learning resources and learning scenarios that have been adopted for the development of the various components of the educational program.

Using the educational tools introduced in this deliverable, the learning material has been digitized in order to be used together with the Augmented Reality Board that has been presented in section 4 above (the educational game has been described in detail in deliverable D3.1). The material is categorized into thematic units and each station of the game corresponds to one of them.

The digitized learning scenarios for each one of the eight game stations can be reviewed through the following links. It is noted that since the pilot schools, that will test the educational program including the game, are in Greece, the material (text, and sound) is in Greek. However, by visiting the following links, the reader can get a very good feeling of the game philosophy and the material developed (videos, narration, combination etc).

6.1 Station 1: Good and Bad Practices

- How to respond to threats through electronic mails
  - https://new-acc-space-7816.ispring.eu/app/preview/d3a02cf2-7d4a-11ee-abe1-1a328444d78a
- How to respond to threats through electronic messages (SMS)
  - https://new-acc-space-7816.ispring.eu/app/preview/3bd56b9a-7d4e-11ee-bece-c2456758860a
- How to respond to threats through the Chat of on-line games
  - https://new-acc-space-7816.ispring.eu/app/preview/b9a89328-8c60-11ee-b79c-3a5347d01b7f
- How to respond to personal messages through Instagram
  - https://new-acc-space-7816.ispring.eu/app/preview/d7fb9416-8c69-11ee-bcc9-ea024a014726
- Handling “special offers” through social networks
  - https://new-acc-space-7816.ispring.eu/app/preview/922133b8-8c9d-11ee-b345-9ad1dae0f892
- Sharing photographs through the social networks
  - https://new-acc-space-7816.ispring.eu/app/preview/ae459ea2-8ca3-11ee-924b-ea024a014726
- How to deal with cases of malicious comments on my posts in social media
  - https://new-acc-space-7816.ispring.eu/app/preview/8dcf5726-8ca8-11ee-8da6-3a5347d01b7f
- How to deal with cases of threatening messages through social media
  - https://new-acc-space-7816.ispring.eu/app/preview/e4311e16-8cf7-11ee-8c8e-3617f8914681

6.2 Station 2: Tik Tok

- I have uploaded a story in Tik Tok with me dancing. How to handle messages from people who appear to be looking for talents
  - https://new-acc-space-7816.ispring.eu/app/preview/b06f938c-648e-11ee-a8fa-a6a08bc38916
- What I need to consider before uploading photographs, videos etc

    - https://new-acc-space-7816.ispring.eu/app/preview/7a8ef45a-805a-11ee-9adc-02cff223dccb
- Risks that arise later in life from posting personal information and/or photos when we were still young
    - https://new-acc-space-7816.ispring.eu/app/preview/3dace56e-8885-11ee-90e0-dea3317cb1cc
- What should I do if I find a fake profile with my details?
    - https://new-acc-space-7816.ispring.eu/app/preview/8c4f1682-888b-11ee-83ec-dea3317cb1cc
- The dangers of publishing personal photos and videos
    - https://new-acc-space-7816.ispring.eu/app/preview/4ce029e2-888f-11ee-8cd2-6250c9248ee2
- The dangers of publishing where we are and with whom we are. What precautions should we take?
    - https://new-acc-space-7816.ispring.eu/app/preview/6998b1e2-8896-11ee-969d-26429335e5d4
- How should we react if we perceive bullying behaviours?
    - https://new-acc-space-7816.ispring.eu/app/preview/20706ffa-889b-11ee-8531-26429335e5d4
- What rights do I have if I see negative comments posted about me?
    - https://new-acc-space-7816.ispring.eu/app/preview/461b00de-88a6-11ee-ab2d-dea3317cb1cc

6.3 Station 3: Instagram

- The dangers of publishing details about our vacations.
    - https://new-acc-space-7816.ispring.eu/app/preview/119d95ae-6409-11ee-be6a-a6a08bc38916
- What should we do in order to minimize the risk of identity theft (creating a fake profile) in social networks?
    - https://new-acc-space-7816.ispring.eu/app/preview/29eb9c88-8050-11ee-8090-5231ab4457bf
- Risks from entering our credentials on fake websites (phishing). What should we watch out for?
    - https://new-acc-space-7816.ispring.eu/app/preview/62c3971e-88b0-11ee-8c00-6250c9248ee2
- Cases where posting photos on social networks may lead third parties to draw wrong conclusions about our behaviour.
    - https://new-acc-space-7816.ispring.eu/app/preview/50769676-88bd-11ee-898e-6250c9248ee2
- Cases where the consent of third parties is required before we publish material (e.g., photos) that includes them
    - https://new-acc-space-7816.ispring.eu/app/preview/f320ff5c-8952-11ee-9d48-b63491b7d11f
- The risks of having my profile Open
    - https://new-acc-space-7816.ispring.eu/app/preview/44440b9e-8959-11ee-a0a6-4a274414d94b
- We must always keep in mind that we can never be certain about the identity of an unknown person who has created a profile. They may misrepresent characteristics with the goal of gaining the trust of minors and causing harm to them.
    - https://new-acc-space-7816.ispring.eu/app/preview/b641fdd2-8963-11ee-bb26-aa6b1a415306

- The personal information we share (clothing brands, financial status, etc.) in combination with location information (where we live, where we are, etc.) is material that criminals can exploit to harm us.
    - https://new-acc-space-7816.ispring.eu/app/preview/07e83ca0-8978-11ee-b5e3-aa6b1a415306

6.4 Station 4: Facebook

- Problems that may arise when our profiles are public (open). The information available there can allow malicious users to even guess our passwords
    - https://new-acc-space-7816.ispring.eu/app/preview/2df0dab4-5b7f-11ee-8a83-3e5340e940b3
- Why it is important not to include in our list of “friends”, persons that we don’t know.
    - https://new-acc-space-7816.ispring.eu/app/preview/b186237c-69a1-11ee-8fe5-8619b24b3232
- The use of 'inappropriate' language on social media carries many risks. One of them is the potential extraction of (possibly) incorrect conclusions about a person's personality and character by, for example, a future employer
    - https://new-acc-space-7816.ispring.eu/app/preview/c3b68f7c-69f7-11ee-a368-1214000cbc79
- Dangers that lurk when we receive (even from friends) advertisements for very large product offers/discounts.
    - https://new-acc-space-7816.ispring.eu/app/preview/3bde44ca-81f6-11ee-8ba9-9adabc35cf48
- Problems that may arise when our profiles are public (open) and at the same time many personal details were public on their profile
    - https://new-acc-space-7816.ispring.eu/app/preview/18bb2136-821c-11ee-a4dc-5231ab4457bf
- Settings on our profile to prevent strangers from sending us messages (which, in any case, should be ignored)
    - https://new-acc-space-7816.ispring.eu/app/preview/bf04c40a-8836-11ee-9fcb-5a8f8a851377
- The choice of our password on social media should not be derived from the information present in our profile
    - https://new-acc-space-7816.ispring.eu/app/preview/52d7a782-883d-11ee-83fa-5a8f8a851377
- We should be particularly careful about the individuals we accept as friends on social media
    - https://new-acc-space-7816.ispring.eu/app/preview/48df6078-8854-11ee-ad08-e63c13c57ad5

6.5 Station 5: Definitions

- What are: Personal Data, Processing of Personal Data, Consent
    - https://new-acc-space-7816.ispring.eu/app/preview/1a8e12b2-5b7e-11ee-8f0f-fe1da36dfd87
- What are: Personal Data, Processing of Personal Data, Consent
    - https://new-acc-space-7816.ispring.eu/app/preview/787d4faa-8a22-11ee-8052-ea024a014726
- Examples of Personal Data and Digital Traces
    - https://new-acc-space-7816.ispring.eu/app/preview/a8b5200e-8a3a-11ee-b144-9ad1dae0f892

- Personal Data and Privacy
    - https://new-acc-space-7816.ispring.eu/app/preview/ce1cb106-8a47-11ee-b502-9ad1dae0f892
- What are: Cookies and Digital Traces
    - https://new-acc-space-7816.ispring.eu/app/preview/f294c01c-8b61-11ee-b6d0-ea024a014726
- Examples of Personal Data Processing
    - https://new-acc-space-7816.ispring.eu/app/preview/9e9ee0ee-8b7c-11ee-b5f7-ea024a014726
- More examples of Personal Data Processing
    - https://new-acc-space-7816.ispring.eu/app/preview/f206a14e-8b87-11ee-8928-9ad1dae0f892
- Examples of Consent
    - https://new-acc-space-7816.ispring.eu/app/preview/80b1f896-8b9f-11ee-b0c7-9ad1dae0f892

6.6 Station 6: Cookies, Influence and Goal Setting

- What happens every time we accept all cookies?
    - https://new-acc-space-7816.ispring.eu/app/preview/a6d62fc8-71d8-11ee-bee0-323752c0045f
- What should we do in order to avoid targeted advertisement?
    - https://new-acc-space-7816.ispring.eu/app/preview/550427e0-8d4e-11ee-a842-3a5347d01b7f
- How do cookies monitor our interests?
    - https://new-acc-space-7816.ispring.eu/app/preview/a2bdb50e-8d54-11ee-9624-3a5347d01b7f
- In which way can the internet (including the social networks) can influence the user?
    - https://new-acc-space-7816.ispring.eu/app/preview/96202bd0-8d66-11ee-9d73-66b322895dd7
- What can happen if we constantly see staged and flawless photos and videos of people on social media?
    - https://new-acc-space-7816.ispring.eu/app/preview/1c9faf64-8dbc-11ee-a328-2ea15a99b398
- Promotion of unacceptable behaviours/habits as a solution to various problems we may face.
    - https://new-acc-space-7816.ispring.eu/app/preview/df38d93c-8dc7-11ee-9d68-2ea15a99b398
- How can repeated exposure to advertisements and videos on social media affect the behaviour or perceptions of a user?
    - https://new-acc-space-7816.ispring.eu/app/preview/9e159790-8e05-11ee-94d1-06f4dc2efdd3

6.7 Station 7: Rights

- Right to Erasure
    - https://new-acc-space-7816.ispring.eu/app/preview/91ae496c-66db-11ee-ad4b-22517bb0f564
- Right to Access
    - https://new-acc-space-7816.ispring.eu/app/preview/0c9fc616-8d04-11ee-a359-ea024a014726

- Right to Access, Rectification, Erasure, Restriction of Processing
    - https://new-acc-space-7816.ispring.eu/app/preview/f0713f54-8d0a-11ee-b52b-3a5347d01b7f
- Right to Object
    - https://new-acc-space-7816.ispring.eu/app/preview/984a0a84-8d16-11ee-8fea-3617f8914681
- Example of exercising the right to access
    - https://new-acc-space-7816.ispring.eu/app/preview/9f1f0de8-8d1e-11ee-a369-3a5347d01b7f
- Example of exercising the right to erasure
    - https://new-acc-space-7816.ispring.eu/app/preview/0a8437f0-8d26-11ee-81a3-3a5347d01b7f
- Submit a complaint to the Data Protection Authority
    - https://new-acc-space-7816.ispring.eu/app/preview/489db374-8d38-11ee-be74-ea024a014726
- Example of exercising the right to access
    - https://new-acc-space-7816.ispring.eu/app/preview/7a44dd46-8d40-11ee-a022-ea024a014726

6.8 Station 8: Privacy Settings

- Security and Privacy Setting on Social Networks' profiles (scenario 1)
    - https://new-acc-space-7816.ispring.eu/app/preview/c6385c10-63f5-11ee-9981-daac0b0fd0ce
- The need to regularly check our "friends" in the social networks
    - https://new-acc-space-7816.ispring.eu/app/preview/35066d44-8aed-11ee-8290-3a5347d01b7f
- Security and Privacy Setting on Social Networks' profiles (scenario 2)
    - https://new-acc-space-7816.ispring.eu/app/preview/9388e16c-8ba6-11ee-9bc1-9ad1dae0f892
- Security and Privacy Setting on Social Networks' profiles (scenario 3)
    - https://new-acc-space-7816.ispring.eu/app/preview/d4c9b08c-8bad-11ee-9977-ea024a014726
- Security and Privacy Setting on Social Networks' profiles (scenario 4)
    - https://new-acc-space-7816.ispring.eu/app/preview/de83b62a-8bdc-11ee-b88e-ea024a014726
- Privacy Policy, Data Controller, Data Processor, Right to Rectification
    - https://new-acc-space-7816.ispring.eu/app/preview/3018bb10-8be3-11ee-bbf8-ea024a014726
- Security and Privacy Setting on Social Networks' profiles (scenario 5)
    - https://new-acc-space-7816.ispring.eu/app/preview/eb5e2aa2-8bea-11ee-a794-9ad1dae0f892
- Security and Privacy Setting on Social Networks' profiles (scenario 6)
    - https://new-acc-space-7816.ispring.eu/app/preview/9eafcee6-8c48-11ee-9169-ea024a014726

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