

# Lesson program

**AUGMENTED REALITY GAME IDENTIFEYE**



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## Preface

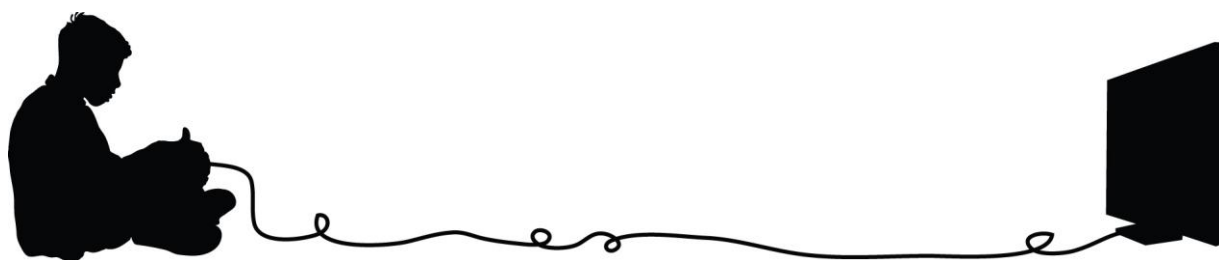
For children it seems obvious that the world offers them the opportunity to use computers, iPads, smart-phones and television for gaming and expanding knowledge. Media is everywhere: billboards, newspapers, magazines, radios. Children are skilled to pick up new technologies and cannot imagine how to live without them. Which asks the questions “how did adults ever live without them?”; “weren’t they bored stiff?” However skillfulness and eagerness do not make for conscious usage.

Children and youngsters can be impulsive. They often do not think through the consequences of their actions, offline or online, or do not see what the problem with the lack of privacy on the Internet can encompass. If it would be up to them they would probably put everything online, ranging from their innermost thoughts and detailed descriptions of their quarrels to their most illicit pictures. They do not realize that the Internet has an iron memory. What would be wise when it comes to media usage? What do we want children to be capable of in this field?

To cope with these questions the IDentifEYE project was initiated that was co-funded by the European Commission. The project is to acquaint children 8 to 14 years of age with the concept of ‘Online Identity’ and to get them to discover how their own behavior contributes to that. Organizations from the Netherlands (Ezzev Foundation and Foundation Mijn Kind Online – My Child Online), from the UK (OAKE Associates) and Cyprus (CNTI) developed a serious game: “IDentifEYE.”

Playing the game and conducting a dialogue on their decisions within the game will stimulate children to make more conscious choices so that they can cope better with online risks. What makes the game special is that it is the first time that Augmented Reality is being applied to these purposes.

This manual will give you a starting point how to easily integrate the game in your lessons. In this document you’ll find lesson program suggestions both for primary education and for secondary education. The proposed lessons will last around one-and-a-half hours. Each section will help you to engage children in a dialogue on a subject about which there is so much to discover. If you’ll find yourself wanting to approach specific subjects more thoroughly you will also find suggestions how to do just that.



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# 1. Introduction

Of all media types it is Internet that currently exerts the most influence on the experience and development of children. Children use the Internet almost if not more often as television but the usage patterns are very different. New media services like Twitter, Facebook – in the Netherlands Hyves - and YouTube are more complicated in nature than television or radio. They are interactive and have commerce often invisibly interwoven within them. Using new media means to make one visible and audible, receiving feedback and contacting people worldwide in order to create something that wasn't there before.

A media literate child is capable of consciously using all the positive options of the new media without harming themselves or others. In order to do that more is needed than acquiring computer skills or learning how to search well on the Internet. Reflection is also an essential base.

This lesson package facilitates reflection on several levels;

- Sharing information
- Interpreting information
- Relationships with others

These aspects will be covered by means of twenty questions that were formulated as a result from research among children aged 8 to 14 in the Netherlands, the UK and in Cyprus.

## **Media literacy by IDentifEYE:**

- Getting to know the value of data
- Being able to interpret Internet data
- Being critical on what personal information to share;
- Being critical with whom to become friends;
- Reflecting on online behavior.

## 2. The IDentifEYE game

IDentifEYE is not a game to win or lose. Playing the game is not about gaining credits or engaging in challenges that require dexterity or analytical thinking. It rather is a kind of questionnaire which provides feedback but not an end. The special thing about IDentifEYE is that it is an interactive set of questions that give students in a direct and humorous way an insight in the consequences of the choices they make in sharing their data online.

This is made possible by using Augmented Reality. By means of this technology virtual content can be added to reality as depicted on a computer screen, so that it seems that a new reality comes into existence.

A recognizable example of this technology occurs during football matches. The viewer at home sees commercials besides the goals that are not present to the viewer in the stadium.

Before playing the game the Teacher takes their place in front of a computer with a webcam. The game can be started up online and once started the Teacher see themselves as if they were standing in front of a mirror. By answering 20 questions virtual elements are added to this reality.

While explaining it to the students you can compare it to a magic mirror. Augmented Reality shows what you normally cannot see. The resulting IDentifEYE image of the student represents their online identity. This identity emerges from the decisions they made while playing the game.

### How does it work?

During the game one has to answer twenty questions by means of multiple choices. To be able to answer the questions “markers” that have printed letters A, B, C, and D on them are essential. They need to be printed out. The questions in the game are answered by showing a letter marker to the camera corresponding to the answer of choice. The software recognizes the answer and then augments reality. Sometimes this is temporary, sometimes the augmentation is permanent. It thus visually illustrates that one can influence one’s online identity – as a result of one’s attitude and behavior. After answering the last question a printout can be made of the resulting image. Also a report consisting of all questions and answers given can be generated. These results will be the basis for dialogue and reflection.

After the game has been played in whole class mode the students can play the game again, but this time individually.

### 3. Learning goals

The aim of IDentifEYE is to familiarize children and youngsters with the concept of “online identity” and to make them discover how their own behavior and the behavior of others contribute to it.

#### **Reflection:**

- How do I evaluate the question/ the subject/ the thesis? (attitude);
- What do I do/ how do I act? (behavior);
- What would I want to change? (action).

#### **Insight:**

- Decide with whom I share what information;
- Information has a value;
- Whatever I show online/ however I act online, determines the images others have of me;
- I cannot influence what others say about me or do with my information;
- I cannot influence how others present themselves;
- An online identity both says a lot and not so much about who somebody really is;
- Information once shared cannot be unshared;
- Defriended people can still contact you when you have shared your contact data with them.

#### **Act (more) consciously:**

- Interpret online information;
- Being critical on sharing information;
- Being critical on the reliability of online contacts;
- Thinking before Acting; reflect on the consequences of one’s own acts.

## 4. Content of the lesson

By walking through IDentifEYE a few themes are presented that can be explored further in a dialogue:

### Privacy

Using online media by definition means sharing information on oneself in several ways; i.e. by telling what you do and where you are, by publishing pictures, by filling out data when asked or simply by entering search queries in Google. Youngsters often do not realize what information they make public or that this information remains online for years to come.

- To what extent others have access to this information and what do they do with it?
- Can you control this and, if yes, how?
- What is privacy to you?
- Is behavioral targeted advertising a service or a breach of your privacy?

### Contact

Hidden behind an avatar, youngsters can present themselves as they please. For instance as a person who is older or of a different gender or more outspoken than in normal life. By seemingly anonymously experimenting with various identities they discover who they are. By means of online forums, virtual worlds such as Habbo, or Facebook online games and profile sites, youngsters come into contact with the whole world as their avatar or out in the open under their own name.

- How do you establish online whether you can trust someone?
- When does a stranger become an acquaintance or a friend?
- When do you trust someone enough to share information?

### Friendship

By means of the internet one is capable to maintain a lot more friendships at the same time than in normal life and that is exactly what children like. Having two hundred or three hundred friends on MSN or Facebook – in the Netherlands: Hyves - is no exception. To some children there can't be enough of them.

- When do you call someone a friend?
- Is there a difference between online friends and real life friends?
- Which information do you share with friends?
- What happens with the shared information after a friendship is terminated?

### Love

A lot of children experience their first loves and sexual experiences on the Internet. To that end they simply use Facebook, MSN or virtual worlds like Habbo. Online flirting is rampant it presents a lot of advantages over real life. They can think about what each is about to say and, because one does not see the other, they are more explicit and the conversations can easier turn more intimate. Youngsters also plan dates through the Internet.

- How do you show that you like someone?
- Is it different than at school?
- What constitutes a limit to you?
- Can you fall in love with someone you only know online?

### Online Identity

Everything anyone does online leaves traces. These are like digital jigsaw puzzles - pieces that together create an image of; who they are, what they do, what their likes and dislikes are, how they look. This is the basis of an online identity. Others add information to that: organizations that save information in their databases, friends who tag in pictures, sports clubs that publish match reviews etc. Everything pieces or patches an image together that one most probably would not expect.

- Do you know what can be found on you online?
- What kind of image you think that strangers have of you?
- How could you influence your online identity?



## 5. Lesson program outline

Time : 90 minutes

Needed : Computer, webcam, Digiboard (or beamer and screen)

The game will be played with the whole class by means of the Digiboard (or a beamer and a screen). The Teacher takes place in front of the webcam and questions are answered collectively. Every question can get a short introduction in the form of a targeted question about the students' experiences. Then all students are stimulated to think about which answer they'd want to choose. The answer that gets the most votes will be chosen and the corresponding marker will be shown to the camera. Together the result on the screen is observed. If required one can focus on the virtual augmentation: What has happened? What could this mean?

The emphasis lies on presenting insights to situations, the choices that are open to choose and the consequences of the choices made. Because the dialogue is performed on a question to question basis it is focused on specific situations to which all students can easily relate. As a result, they will feel invited to tell about their personal experiences and will hear the motivations for the choices of their fellow students. In this way it is easy for the student to see the connection between dilemma, choice and consequence and continually reflect on it.

- One person in front of the cam whose image is displayed on Digiboard (teacher or student)
- Short dialogue per question
- Reflection per question
- Direct insight in the connection between acting and online identity

### 5.1 Implementing the lesson program for primary education

- Collectively walk through the game;
- Dialogue per question and answer;
- Introduction on online identity;
- Reflection by means of producing a drawing.

### 5.2 Implementing the lesson program for secondary education

- Collectively walk through the game;
- Dialogue per question and answer;
- Introduction on online identity;
- Reflection by means of dialogue.

### 5.3 Teacher's role

The Teacher's role is to facilitate the group process. The Teacher's most important goal is to create an atmosphere of trust in which all feel safe to speak their mind. Through this process openings can be created for reflection and focusing on various relevant subthemes. Also the Teacher can actively establish relations between action choices and online identity.

Because the teacher is the one sitting behind the cam they can steer both the pace of the game and the content. Although students might react amused to the virtual changes the Teacher undergoes during the game, this banter can be turned into a light atmosphere in which students open up to talk about personal and often not school-related experiences with greater ease.

When the teacher is confident enough of students being respectful to one another, he or she can also decide to choose one of the students for sitting behind the cam.

## 6. Lesson preparation

### 6.1 Presupposed level of knowledge

You don't need to be an expert on the Internet or be in the know on Augmented Reality. The background information that this manual and the accompanying documents provide should in principle be sufficient to conduct the lesson.

This does not mean, of course, that knowledge on the Internet and understanding on the role this medium plays in the lives of children is unimportant. There might be questions asked, if you cannot answer a question, tell them honestly. Be open to what children can teach you. Ask children for their opinions and let others react to that. You will find out that the dialogue will not so much be about social media and the Internet but that the essence comes down to social interaction forms, trust and critical thinking. On this, as a Teacher you have something to say but foremost you can teach them as an educator.

In appendices I, II and III you will find background information on Augmented Reality, Online Identity and Privacy.

### 6.2 Playing the game yourself

It is advisable to play the game yourself before the lesson. This will not only give you a good indication on the duration of the game and the questions and answers but it will also let you experience how the Augmented Reality application works. Also, importantly, it gives you the opportunity to fine-tune the game settings to your specific surroundings. Therefore, it is important that you will test the game at the exact same location where your lesson will take place.

In case more instructions are needed, please have a look at the instruction videos: <http://www.ezzev.eu/identifeye/film>.

Once you have walked through the game you can familiarise yourself with all the game options and their accompanying effect in the Storyboard document. And you can read through the Explanation of the augmentations document to learn about the logic behind the concrete feedback the game provides.

Now you will be able to prepare yourself on the content:

- What questions would you want to ask your students about what are you curious?
- Which game questions would you want to focus on?
- What augmentation would you like to highlight and how will you do that?
- What do you need?
- What do you need to arrange still?

## 6.3 Technology checklist

In the preparation of the lesson it is crucial that you prepare the technology well. Elementary prerequisites are:

- Computer with a webcam
- Browser with Silverlight 4+ plugin
- 2+ GHz CPU
- 1+ GB RAM
- Internet connection
- Digiboard (or beamer with projection screen)

For any technology related issues, please read the Guide document.

## 7. Didactics

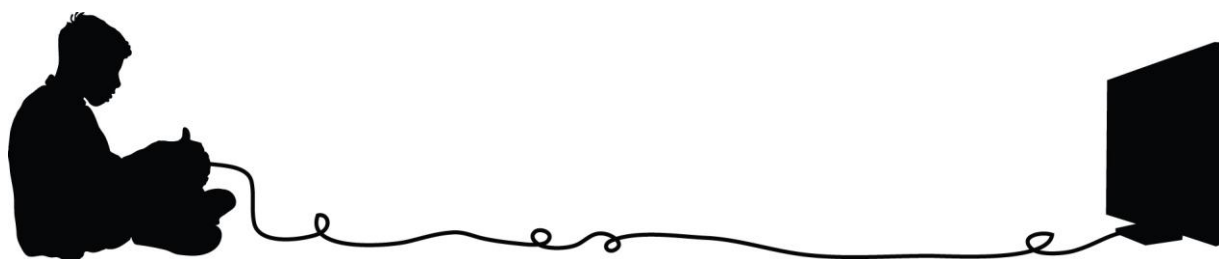
Different didactic options are open for the lessons. These few hints might help you:

- Make sure during the preparations that, because it is you who takes place behind the webcam, you will be positioned in such a way that you are highly visible to the children so that you are capable to make uninterrupted contact with them.
- Whilst playing the game in a class setting, you are leading in time, content and questions. You will actively listen to the children's remarks so that you can anticipate.
- Stop them the moment they are presenting an explanation that is too general. Take a specific situation or explain the theory.
- Before the lesson create an atmosphere of trust in which children can vent their experiences or ideas. It could always happen that a student experiences troubles explaining themselves or explains something wrongly, so that others might laugh.
- Agree on the following rules with the class before the game starts (you might consider giving these as a handout):
  - No one laughs at another;
  - No one gets hurt;
  - There is no right or wrong;
  - All decide for themselves whether they will tell something personal. It is allowed just to listen;
  - All what will be discussed stays in the group (no gossiping).

- Be aware that students have online lived through a lot more than you probably imagine. It is very possible that a student will share these experiences during the lesson or will talk about them in private after the lesson.
- If a student talks about an unpleasant personal experience, establish with the rest of the group that no one asks for further details when the student does not want to. Thank the student who shares the personal experiences and thank the group that the student feels safe enough to share them. Before the group gets the chance to come up with follow-up questions on details, ask the student whether they agree that the class will proceed on their story. If yes, do that gratefully. If not, then note that it indeed is hard to discuss personal topics in a group. If the student wishes to talk about it after class, indicate the options (with you after class, with a mentor or a trusted school person etc.). Stress the confidential nature of these kinds of conversations. Chances are that children will be afraid to talk about their experiences in class, but will approach you after class. Be prepared for that.
- Listen to students and let them finish what they have to say. Take them seriously in explaining the augmentations.
- Try to avoid asking why questions as much as you can. The danger is that these questions might seem negative. Rather use phrases like: "Please tell...", 'please explain...', 'what do you mean by that?'.

## APPENDICES

- I. Augmented Reality
- II. Online identity
- III. Privacy
- IV. Scenario primary education
- V. Scenario secondary education
- VI. Work sheet primary education



## APPENDIX I AUGMENTED REALITY

Augmented Reality (AR) is a technology where virtual objects are added to reality. AR applications have been used in many disciplines ranging from medicine, military, industry and marketing. In the field of education, several AR applications have been developed in the past decade but its wider use in this field is far from complete.

Augmented Reality takes reality as a 'starting point.' This reality is augmented with virtual elements like 3D animations, video, image, sound and, or other file types. The virtual elements are presented within the frame of reality. Although reality is changed, it remains our point of reference. The augmentation does not change its fundamental nature it just adds one or more virtual layers.

In order to experience Augmented Reality a few prerequisites have to be in place to mix reality and the virtual augmentation. Both reality and augmentation have their own sets of prerequisites. To start with, we need a camera to register reality in real-time. It does not matter where the camera registers reality: the stream may be locally rendered or imported as a live streaming. If there is a stream from elsewhere, there naturally will be a (small) delay in the image because of the network and hardware involved but conceptually this delay is unimportant. Also noise will be rendered but also this noise is conceptually not relevant. The camera can be a web cam, a smart phone camera, a professional analogue camera or any other cam that digitally delivers an output signal that can be translated to a digital stream.

To be able to process the digital stream we need hardware. This can be a computer, a smart phone or any other carrier. Next, the processed stream needs a screen so that we can see the real-time image of reality. This screen can be a computer or smart phone screen but might as well be the surface of special goggles – HMD, head mounted devices – or a car windscreen.

To generate and support the virtual components of Augmented Reality we need relevant hardware and software in place.

Augmented Reality has started to reach a mainstream audience as a handheld application. AR browsers like Layar or Wikitude are more often than not, pre-installed on new smart phones. More recently other carriers such as tablets (especially iPad 2) and game consoles (like Nintendo 3DS) have followed this trend. Augmented Reality on stand-alone computers or on computers over the Internet are rare. Special devices like goggles or car windscreens are very rare.

Currently, many people associate Augmented Reality with black and white squares that trigger Augmented Reality elements. These black and white squares are called markers.

Popular type of markers is the QR (Quick Response) code or Semacode. A QR code is a two dimensional bar code that allows its content to be decoded at high speed. While a QR code triggers the online opening of pages or files, they are not Augmented Reality markers. QR codes do not trigger virtual content that is mixed with reality in real-time; they are merely linking the real world and the virtual world as a kind of real world hyperlink.

Augmented Reality a marker typically is a square image that has a black frame around it that is about one-tenth of the image size. Showing the marker to the camera invokes the virtual augmentation of reality, more often than not on the exact place where the marker should have been visible on the screen. At the place of the marker the augmentation appears. But theoretically the augmentation is triggered by the marker that can be projected anywhere on the screen.

Markers function in the same way a 'get'-command functions in code: they trigger an event to happen. Theoretically anything can trigger this 'get'-command: any picture, any sound or even any smell.



## APPENDIX II ONLINE IDENTITY

### What is an online identity?

All personal information that you leave behind on the Internet is part of your 'digital' or 'online' identity. The pictures, messages, blog postings, reactions on Twitter that you post yourself but, also what others say about you determine who you are and even more how you are perceived by others. This is for instance of great importance when applying for a job. A major part of the potential future employers Google's their potential employees! They base their judgment partially on what they will find on social media. If you have a weblog or if you are active on Twitter or Facebook, and your information is openly accessible, this in part determines how you are being seen.

This can have negative consequences. If you are a journalist and you want to work for a serious news magazine it could be negative if you profile yourself as a huge fan of Benny Hill and present yourself in Benny Hill style after you leave your work. If you are a teacher with a past as an erotic model – and the pictures still make the rounds on the Internet – it can be used against you, even though it is unfair.

It can also have positive consequences. If you are a history teacher and you contemplate switching schools then it will be an advantage if you actively blog on a historic subject on which you conduct lively discussions and exchange information with history teachers from other countries. This does not have to give you the decisive leverage you will still need your diplomas and good references from other schools but, a better reference than other history teachers who online express their praise for your expertise will be hard to find.

### How is it shaped?

Children should learn at an early age that to communicate equals to publish. By communicating with others, in social networks, they publish information, even if they do not mean to. Everybody can read what you say and everybody can share what you say. You might have been at a nice party where you did not drink alcohol but then held a bottle of vodka up as a joke. The picture that was made then by a smartphone and that was placed on Facebook might give the impression that you're a drunk.

That reality asks a lot of children. They have to learn to think about what they share with others on social media. Count to ten when they share information. At the same time they need to learn how to think and how to get a perspective. How someone comes across online is not necessarily the same as how that person is in real life.

### **How do you influence your own image?**

Everyone who is active in social media in fact manages their own image. How? First of all, you can check what is being said about you on the Internet. You can Google yourself and check what is being said about you on Facebook or Twitter. If it is negative and unfair, and you detect it early, you might still succeed in getting it removed. If someone posts a video on you against your will on YouTube, you can flag it – mark it as unsuited. YouTube will then remove the video. If someone persists nevertheless in posting the video, you could file a complaint at the police as a violation of your privacy.

You can also try your best to post positive information on yourself on the Internet. Create your own image and make sure that the first search results will refer to your material in case somebody Googles you.

## APPENDIX III PRIVACY

### **Privacy? What's it to me?**

Lately one hears more about the threats to our privacy. If someone's data is leaked, it is a privacy issue. When the government wants our finger prints in the passports, this is a breach of our privacy, according to some.

### **What is privacy?**

What is privacy exactly? If you express it, it appears it is not that easy. Even legal specialists have trouble with it. Some people refer to the lock on the bathroom door; sometimes you want privacy. Others immediately think of the Internet and tell you that privacy is dead because the Internet has the memory of an elephant. Everything you put online will stay there forever. You can try to delete it but it has probably already been copied in the mean time, for instance to Google's servers.

### **Basic right**

The most important to know is that privacy is a basic right: citizens have the right to be left in peace by the state. In the law it is phrased as: "respecting the personal sphere of life" or, put differently, how you live, what you believe, whether you are hetero or homosexually oriented, what you eat, what you like, with whom you associate, what books you read, for which party you vote – those are things with which official state organizations or anybody else have nothing to do.

This also means that no one, including representatives from state organs, can just enter your house, open your letters, tap your telephones or take away parts of your body. But this is getting less obvious because our governments assume quite a few rights when there are conflicts or when they try to prevent conflicts. Think of house searches, eavesdropping, preemptive searching, body scans on the airport or collecting fingerprints. The reason? "Safety". After '9.11' our privacy has deteriorated and not everybody is happy with that.

### **Worth money**

Personal information is worth money. A lot of "free" websites, games and networks like Facebook make their money like this; they collect a lot of data on their visitors and sell that data to companies. Sites are so clever in collecting personal information that they dare to state that they know their users better than people know themselves...

On these first two forms of privacy – versus the state and versus companies – quite a lot is arranged by means of law, even if it does go wrong often.

### **Let's share?**

There is a third kind of privacy, one that is quite new in history: The right to privacy versus other citizens. By law nothing has been arranged on this kind your ex partner, your mother-in-law, your neighbours and your friends can tell all sort of details about you and thus violate your privacy. Only if you can prove that this causes you harm, you can go to court (for slander). Quite a few celebrities do that. In this way they try to keep something of a private life in place.

We therefore gladly decide ourselves what we share with others, or don't we? If one looks what people put online one gets the impression that they want to share a lot with others. That they sometimes really have nothing to hide. How is that for you? Do you have anything to hide? No? Would you share your bank or Facebook login data? Do you dare to walk the streets naked?

## APPENDIX IV SCENARIO PRIMARY EDUCATION

Level	: Primary Education	
Time frame	: ar. 90 minutes (plus teacher preparation)	
Needed	: Laptop (or stationary computer) with webcam and Internet connection, Digiboard or beamer with projection screen	
Time	What	Remarks
BEFORE	<ul style="list-style-type: none"> <li>• Start-up the computer;</li> <li>• Go to URL <a href="http://identifeye.ezzev.eu">http://identifeye.ezzev.eu</a></li> <li>• Load the game (automatically)</li> <li>• Test webcam and game</li> <li>• Use the debug functionality to tweak the game to your surroundings (and to you)</li> </ul>	For the debug functionality, please read the Guide document
15 min.	<b>Preparation</b> <ul style="list-style-type: none"> <li>• Start-up the computer;</li> <li>• Go to URL <a href="http://identifeye.ezzev.eu">http://identifeye.ezzev.eu</a></li> <li>• Load the game (automatically)</li> <li>• Test webcam and game</li> </ul>	

15 min.	<p><b>Introduction on the game</b></p> <p>1. Introduction round: How do children make use of the computer?</p> <p>Shift focus to the webcam:</p> <ul style="list-style-type: none"> <li>- Who uses this?</li> <li>- Why would you use it?</li> <li>- What programs make use of the webcam?</li> <li>- The webcam is important for the game</li> </ul> <p>2. Introduction on 'Identity' in its relationship with online</p> <ul style="list-style-type: none"> <li>- Make the definition of Identity clear in interaction <ul style="list-style-type: none"> <li>• What is identity?</li> <li>• How do others know that you are you?</li> <li>• What makes them recognize you?</li> </ul> </li> <li>- Make clear that online identity also stems from interaction: <ul style="list-style-type: none"> <li>• What do you do online? Where? Name social media like Facebook, Twitter</li> <li>• How do others know you are you?</li> <li>• What makes them recognize you?</li> <li>• Do you know what others think of you?</li> </ul> </li> <li>- Food for thought: <ul style="list-style-type: none"> <li>• Are you someone else online than in real life in the class room or at home?</li> <li>• Ask students about their avatar. Does it look different than in real life?</li> </ul> </li> </ul> <p>3. Introduction on IDentifEYE</p> <ul style="list-style-type: none"> <li>- We will play the game using a special technology: Augmented Reality (AR). We will look in a magic mirror. We will see ourselves like we are online. (Our online identity.)</li> <li>- Normally you can't see that online identity but by means of AR you can...</li> <li>- There will be 20 questions on what you do on the Internet and the answers you will give will add elements to your online identity. Some will be temporary, others will be permanent.</li> <li>- Today we'll play the game together.</li> </ul> <p>Stress that no data as entered in the game will be stored anywhere, neither on a central server nor on the local computer.</p>	<p>Hint: discriminate between hardware (devices) and software (Internet, games, downloads, etc.)</p> <p>The game is perfectly safe when it comes to data handling.</p>
5 min.	<p><b>Preparation on playing the game</b></p> <p><b>Rules</b> (Creating a safe atmosphere)</p>	

	<p>The one who will be sitting in front of the cam will look quite different during the game. Therefore we need to agree on the following:</p> <ul style="list-style-type: none"> <li>• No one laughs at another</li> <li>• No one gets hurt</li> <li>• There is no right or wrong</li> <li>• All decide for themselves whether they will tell something personal. It is allowed just to listen.</li> <li>• All what will be discussed stays in the group (no gossiping)</li> </ul> <p>The Teacher (or student) takes place in front of the cam</p>	<p>You might consider handing out these rules.</p> <p>Precondition is that you position yourself in such a way that you maintain good visibility with the class so that you are able to interact with the students.</p>
30 min.	<p><b>Playing the game</b></p> <p>The Teacher sits in front of the webcam and shifts the attention to the game. At hand is a form to fill out. The Teacher asks:</p> <ul style="list-style-type: none"> <li>• Do we fill the fields out?</li> <li>• If yes, do we fill them out truthfully?</li> <li>• If yes, what data do we enter?</li> </ul> <p><b>Walking through the game</b></p> <p>The whole class will be involved in answering the questions. All students are stimulated per question to think what they would do. Some questions are a good starting-point for interactions because:</p> <ul style="list-style-type: none"> <li>• You can sketch out various more detailed situations</li> <li>• You can pose concrete questions about experience</li> </ul> <p><b>Summarizing the opinions:</b></p> <ul style="list-style-type: none"> <li>• Who chooses answer A? Who B? C? D?</li> <li>• Why?</li> </ul> <p>The answer with the most votes will be chosen and the corresponding marker will be shown to the webcam. All observe what happens next.</p> <p><b>Interaction:</b></p> <ul style="list-style-type: none"> <li>• Pause at the augmentations and changes in the tickertape: <ul style="list-style-type: none"> <li>○ Observation: What happened?</li> <li>○ If needed, explain the symbolism</li> </ul> </li> <li>• What do you think?</li> </ul>	<p>Keep the documents Storyboard and Explanation of the augmentations at hand to be able to briefly explain what happened in case it is unclear.</p>

	<p><b>Important:</b></p> <p>Don't spend too much time on one single question. Know which question will come next so that you won't already elaborate on questions still to come...</p> <p><i>Hint: Choosing answer 8B is a good help to start with the reflection</i></p> <p><i>Hint: Choosing 9A, 9B or 9C might need explanation.</i></p> <p><i>Hint: Answer 12A will trigger a reflection when given in combination with 19A.</i></p> <p><i>Hint: Answer 13B might also give rise to reflection</i></p> <p><i>Hint: Augmentations of question 15 might need explanation</i></p> <p><i>Hint: Choosing answer 20A is a good help to start with the post-game reflection</i></p> <p>Presentation of the end result</p> <p>Generate the report with questions and answers and the final image.</p> <p>This is the starting-point to get in deeper and add reflection to the concept of Online Identity and move onto some theory:</p>	<p>The tickertape is the upper field in which texts might appear</p> <p>Answer 8B seems to warrant the expectation that a non-happy augmentation will appear, but rather a smiley appears. Read the Explanation of the augmentations document to find out why.</p>
10 min.	<p><b>Online Identity</b></p> <p>Analysis/establish online identity</p> <ul style="list-style-type: none"> <li>○ What are we looking at?</li> <li>○ Who is this?</li> <li>○ What do you notice?</li> <li>○ What does it tell you?</li> </ul> <p>Connect to a bit of theory</p> <p>We are looking at an online identity...</p> <p>Whose online identity is this?</p> <p>-&gt; Not the Teacher's, but the class'! The Teacher was just the face but the identity has been formed by the answers that we've just been giving collectively.</p>	<p>For theory see Appendix I, II and III</p>



	<p>Theoretical introduction (presentation mode)</p> <ul style="list-style-type: none"> <li>○ Description of online identity</li> <li>○ How is it formed? (attitudes/ behavior)</li> <li>○ What one can influence is...</li> <li>○ A part you can't influence ...</li> </ul> <p>At this point you could share the game URL with the students so that they can play the game themselves as well.</p>	
20 min.	<p><b>Individual reflection by students</b></p> <p>All students draw a drawing of their own online identity. They are free to decide what symbolic elements they add to their online identity and what that means.</p> <p><u>Supporting material:</u></p> <p>All students get an A4 with the outline of a head on an overview with themes that hide under the central question "Who am I and what are my attitudes and actions"</p> <ul style="list-style-type: none"> <li>○ Friendship</li> <li>○ Love</li> <li>○ Sharing information</li> <li>○ Interaction with others</li> </ul>	<p><i>See worksheet Primary Education</i></p> <p>Be aware that some students might want to depict something but don't know how. Some children might want to draw too realistically. Remind them of the augmentations in the game.</p>
10 min.	<p><b>Collective feedback.</b></p> <ul style="list-style-type: none"> <li>● Who wants to say something about their drawing?</li> <li>● What does the drawing mean?</li> <li>● Is there something you will change after today?</li> <li>● Would you like to find out how your online identity looks like? Play the game yourself!</li> </ul>	
<p><b>Rounding up</b></p> <p>It is most likely that the collective feedback will show that one or more topics give rise to a follow-up session in a next lesson. You could make an inventory on what topics students would want to know more.</p>		

## APPENDIX V SCENARIO SECONDARY EDUCATION

Level	: Secondary Education	
Time frame	: ar. 90 minutes (plus teacher preparation)	
Needed	: Laptop (or stationary computer) with webcam and Internet connection, Digiboard or beamer with projection screen	
Time	What	Remarks
BEFORE	<ul style="list-style-type: none"> <li>Start-up the computer;</li> <li>Go to URL <a href="http://identifeye.ezzev.eu">http://identifeye.ezzev.eu</a></li> <li>Load the game (automatically)</li> <li>Test webcam and game</li> <li>Use the debug functionality to tweak the game to your surroundings (and to you)</li> </ul>	For the debug functionality, please read the Guide document
15 min.	<b>Preparation</b> <ul style="list-style-type: none"> <li>Start-up the computer;</li> <li>Go to URL <a href="http://identifeye.ezzev.eu">http://identifeye.ezzev.eu</a></li> <li>Load the game (automatically)</li> <li>Test webcam and game</li> </ul>	
15 min.	<b>Introduction on the game</b> <ol style="list-style-type: none"> <li>Introduction round: How do children make use of the computer?           <p>Shift focus to the webcam:</p> <ul style="list-style-type: none"> <li>Who uses this?</li> <li>Why would you use it?</li> <li>What programs make use of the webcam?</li> <li>The webcam is important for the game</li> </ul> </li> <li>Introduction on 'Identity' in its relationship with online           <ul style="list-style-type: none"> <li>Make the definition of Identity clear in interaction               <ul style="list-style-type: none"> <li>What is identity?</li> <li>How do others know that you are you?</li> <li>What makes them recognize you?</li> </ul> </li> <li>Make clear that online identity also stems from interaction:               <ul style="list-style-type: none"> <li>What do you do online? Where? Name social media like Facebook, Twitter</li> <li>How do others know you are you?</li> <li>What makes them recognize you?</li> <li>Do you know what others think of you?</li> </ul> </li> </ul> </li> </ol>	Hint: discriminate between hardware (devices) and software (Internet, games, downloads, etc.)

	<ul style="list-style-type: none"> <li>- Food for thought: <ul style="list-style-type: none"> <li>• Are you someone else online than in real life in the class room or at home?</li> <li>• Ask students about their avatar. Does it look different than in real life?</li> </ul> </li> </ul> <p>3. Introduction on IDentifEYE</p> <ul style="list-style-type: none"> <li>- We will play the game using a special technology: Augmented Reality (AR). We will look in a magic mirror. We will see ourselves like we are online. (Our online identity.)</li> <li>- Normally you can't see that online identity but by means of AR you can...</li> <li>- There will be 20 questions on what you do on the Internet and the answers you will give will add elements to your online identity. Some will be temporary, others will be permanent.</li> <li>- Today we'll play the game together.</li> </ul> <p>Stress that no data as entered in the game will be stored anywhere, neither on a central server nor on the local computer.</p>	<p>The game is perfectly safe when it comes to data handling.</p>
5 min.	<p><b>Preparation on playing the game</b></p> <p><b>Rules</b> (Creating a safe atmosphere) The one who will be sitting in front of the cam will look quite different during the game. Therefore we need to agree on the following:</p> <ul style="list-style-type: none"> <li>• No one laughs at another</li> <li>• No one gets hurt</li> <li>• There is no right or wrong</li> <li>• All decide for themselves whether they will tell something personal. It is allowed just to listen.</li> <li>• All what will be discussed stays in the group (no gossiping)</li> </ul> <p>The Teacher (or student) takes place in front of the cam</p>	<p>You might consider handing out these rules.</p> <p>Precondition is that you position yourself in such a way that you maintain good visibility with the class so that you are able to interact with the students.</p>
25 min.	<p><b>Playing the game</b></p> <p>The Teacher sits in front of the webcam and shifts the attention to the game. At hand is a form to fill out. The Teacher asks:</p> <ul style="list-style-type: none"> <li>• Do we fill the fields out?</li> <li>• If yes, do we fill them out truthfully?</li> <li>• If yes, what data do we enter?</li> </ul>	

	<p><b>Walking through the game</b></p> <p>The whole class will be involved in answering the questions. All students are stimulated per question to think what they would do. Some questions are a good starting-point for interactions because:</p> <ul style="list-style-type: none"> <li>• You can sketch out various more detailed situations</li> <li>• You can pose concrete questions about experience</li> </ul> <p><b>Summarizing the opinions:</b></p> <ul style="list-style-type: none"> <li>• Who chooses answer A? Who B? C? D?</li> <li>• Why?</li> </ul> <p>The answer with the most votes will be chosen and the corresponding marker will be shown to the webcam. All observe what happens next.</p> <p><b>Interaction:</b></p> <ul style="list-style-type: none"> <li>• Pause at the augmentations and changes in the tickertape: <ul style="list-style-type: none"> <li>○ Observation: What happened?</li> <li>○ If needed, explain the symbolism</li> </ul> </li> <li>• What do you think?</li> </ul> <p><b>Important:</b></p> <p>Don't spend too much time on one single question. Know which question will come next so that you won't already elaborate on questions still to come...</p> <p><i>Hint: Choosing answer 8B is a good help to start with the reflection</i></p> <p><i>Hint: Choosing 9A, 9B or 9C might need explanation.</i></p> <p><i>Hint: Answer 12A will trigger a reflection when given in combination with 19A.</i></p> <p><i>Hint: Answer 13B might also give rise to reflection</i></p> <p><i>Hint: Augmentations of question 15 might need explanation</i></p>	<p>Keep the documents Storyboard and Explanation of the augmentations at hand to be able to briefly explain what happened in case it is unclear.</p> <p>The tickertape is the upper field in which texts might appear</p> <p>Answer 8B seems to warrant the expectation that a non-happy augmentation will appear, but rather a smiley appears. Read the Explanation of the augmentations document to find out why.</p>
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	<p><i>Hint: Choosing answer 20A is a good help to start with the post-game reflection</i></p> <p>Presentation of the end result</p> <p>Generate the report with questions and answers and the final image.</p> <p>This is the starting-point to get in deeper and add reflection to the concept of Online Identity and move onto some theory:</p>	
10 min.	<p><b>Online Identity</b></p> <p>Analysis/establish online identity</p> <ul style="list-style-type: none"> <li>○ What are we looking at?</li> <li>○ Who is this?</li> <li>○ What do you notice?</li> <li>○ What does it tell you?</li> </ul> <p>Connect to a bit of theory</p> <p>We are looking at an online identity...</p> <p>Whose online identity is this?</p> <p>-&gt; Not the Teacher's, but the class! The Teacher was just the face but the identity has been formed by the answers that we've just been giving collectively.</p> <p>Theoretical introduction (presentation mode)</p> <ul style="list-style-type: none"> <li>○ Description of online identity</li> <li>○ How is it formed? (attitudes/ behavior)</li> <li>○ What one can influence is...</li> <li>○ A part you can't influence ...</li> </ul> <p>At this point you could share the game URL with the students so that they can play the game themselves as well.</p>	For theory see Appendix I, II and III
20 min.	<p><b>Dialogue and reflection "What do you think?!"</b></p> <p>Reminder of 'the rules'</p> <p>Students will reflect and conduct a dialogue on the various themes that were part of the game. This could be started off by a description of a recognizable every-day life situation, by a targeted question or by focusing on an element of the end result which stimulates students to think:</p>	

	<ul style="list-style-type: none"> <li>• How do I evaluate that question? (attitude)</li> <li>• What do I do? (behavior)</li> <li>• Would want to change that?</li> </ul> <p>It is advisable to divide the dialogue in three parts. Time allocation is dependent on the time available, the level of the students and the dialogues that have preceeded. The teacher can start the dialogue off by one of the options below:</p> <ul style="list-style-type: none"> <li>• Reflection on action by a recognizable every-day life situation</li> <li>• By an analysis of the elements of the end result</li> </ul> <p><b>I What parts of yourself do you show? (Sharing)</b></p> <p><b>Reflection on action by a recognizable every-day life situation</b></p> <ul style="list-style-type: none"> <li>○ Who uses Facebook, Twitter or something similar?</li> <li>○ What information do you put there?</li> <li>○ Who can view that information?</li> <li>○ What can others do with it?</li> <li>○ What do you think: A holiday picture of yourself in swimming gear on the beach... Would you show it to you best friend? To people in the street? To me?</li> </ul> <p>Moving towards the next part:</p> <p>Let's have a look at a characteristic of the identity that we have created.... It is about how others see you and how you see others.</p> <p><b>II Looking at others (Interpreting)</b></p> <p><b>Focusing on an element of the end result</b></p> <p>(mouth/ nose/ ears/ brain)</p> <ul style="list-style-type: none"> <li>○ Explain the symbolism of the augmentation</li> <li>○ What do you think: Does this person have a lot of friends? Why yes or no?</li> <li>○ When does a friend become a friend?</li> </ul> <p>(buttons with slideshow)</p> <ul style="list-style-type: none"> <li>○ Explain the symbolism of the augmentation</li> <li>○ Do you know all your online friends in real life?</li> </ul>	
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**From the buttons with  
slideshow you cannot**

	<ul style="list-style-type: none"> <li>○ When does a stranger turn into an acquaintance or a friend?</li> <li>○ How do you know whether someone can be trusted?</li> <li>○ Who has ever defriended someone?</li> <li>○ Who has ever got messages from a person even after they were defriended?</li> </ul> <p><b>Reflection on action by a recognizable every-day life situation</b></p> <ul style="list-style-type: none"> <li>○ Who has online friends who are not that close?</li> <li>○ What do you think of that? How does that feel?</li> <li>○ Would you want to change that? If yes, what?</li> </ul> <p>Moving towards the next part:</p> <p>Let's have a look at another characteristic... That is about how much influence you can exert on your identity, like others can too! Look at the button with the (nerd/peace/cyberbully) sign.</p> <p><b>III Influence on and by others (Understanding)</b></p> <p><b>Reflection on action by a recognizable every-day life situation</b></p> <ul style="list-style-type: none"> <li>○ Think back to the question that has earned us this button: 'You can change someone's identity'...</li> <li>○ Does one of you have an example of how to do that, for instance on Facebook? (related to online bullying, respect)</li> </ul> <p><b>Focusing on an element of the end result</b></p> <p>(nerd/peace/cyberbully buttons)</p> <ul style="list-style-type: none"> <li>○ Explain the symbolism of the augmentation</li> <li>○ Do you remember what happened when we gave our answer? We received a button but also a message that someone changed our identity too...</li> <li>○ How did that feel? What do you think of that?</li> <li>○ How could you prevent that?</li> </ul> <p>(Half blackened augmentations)</p> <ul style="list-style-type: none"> <li>○ Explain the symbolism of the augmentation</li> <li>○ The question was if you wanted to clean your profile up by unsharing. Yet not everything has disappeared. Why is that? If you put something on the Internet you should be able to remove it as well, shouldn't you?</li> </ul>	<p><b>interpret who are friends and who are not.</b></p>
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	At this point you could share the game URL with the students so that they can play the game themselves as well.	
15 min.	<p><b>Reflection by the students</b></p> <p>All students get the chance to reflect what the most important element of their own online identity might be. To help them along, provide them with themes:</p> <ul style="list-style-type: none"> <li>○ Friendship</li> <li>○ Love</li> <li>○ Sharing information</li> <li>○ Interaction with others</li> </ul> <p>Reflective questions:</p> <ul style="list-style-type: none"> <li>● Would you want to change something? If yes, what?</li> <li>● Would you want to keep something? If yes, what?</li> <li>● Would you like to find out how your online identity looks like? Play the game yourself!</li> </ul>	
<p><b>Rounding up</b></p> <p>It is most likely that the collective feedback will show that one or more topics give rise to a follow – up session in a next lesson. You could make an inventory on what topics students would want to know more.</p>		



## APPENDIX VI WORKSHEET PRIMARY EDUCATON

