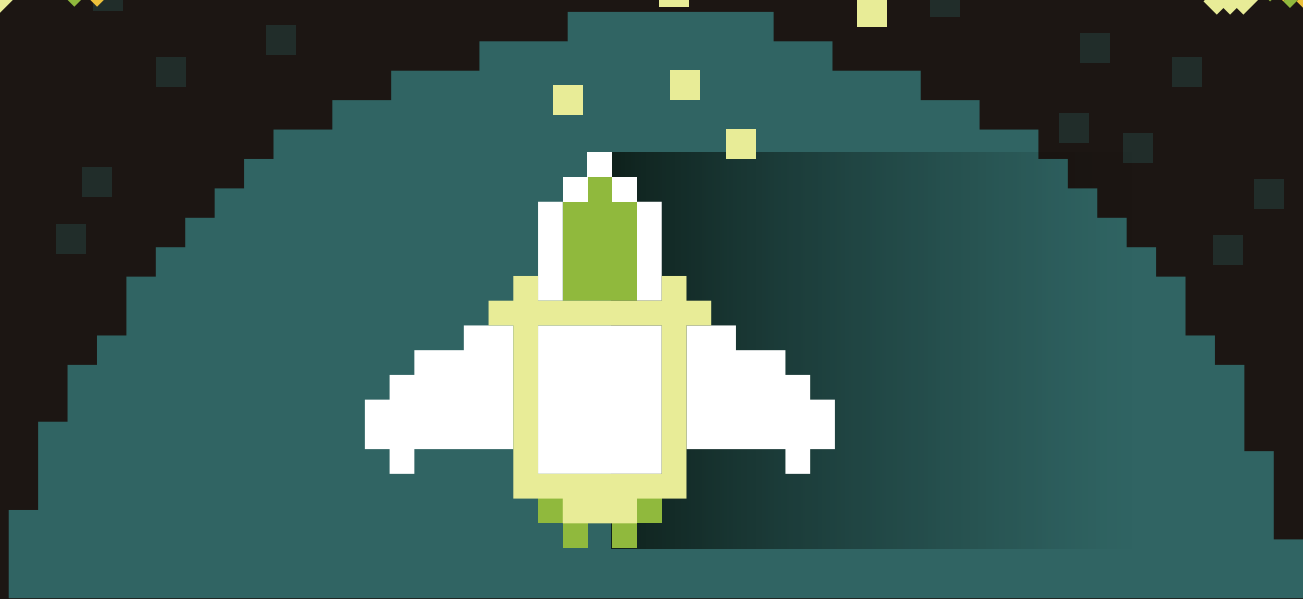
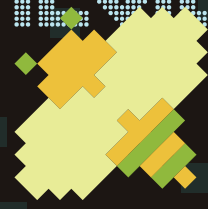




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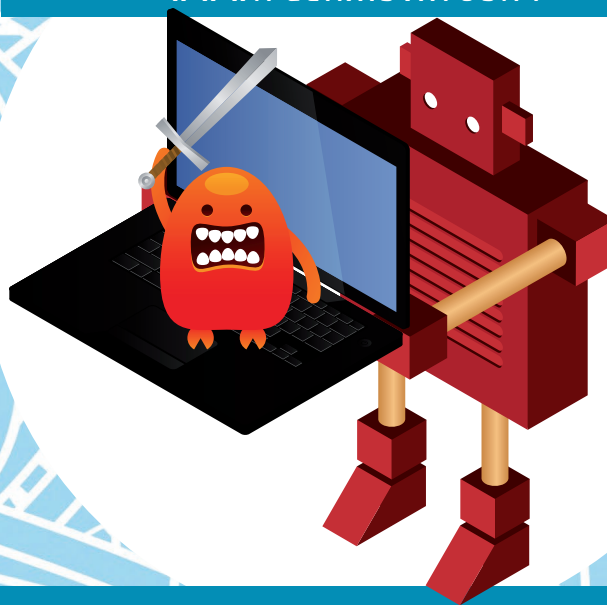


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THE GAME EDUCATOR'S HANDBOOK

REVISED INTERNATIONAL EDITION

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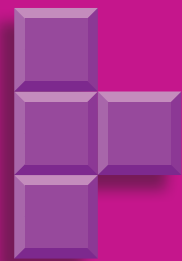
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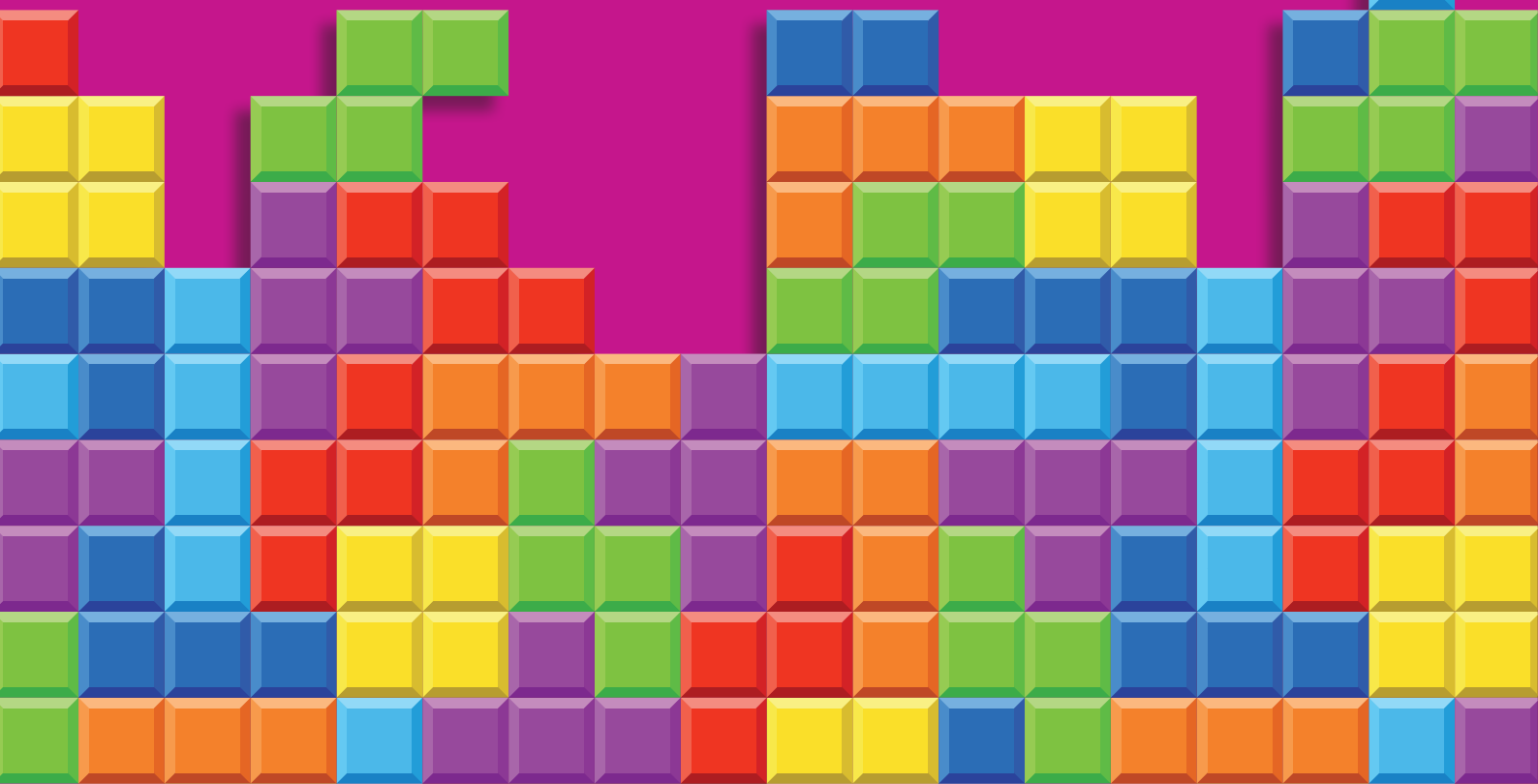
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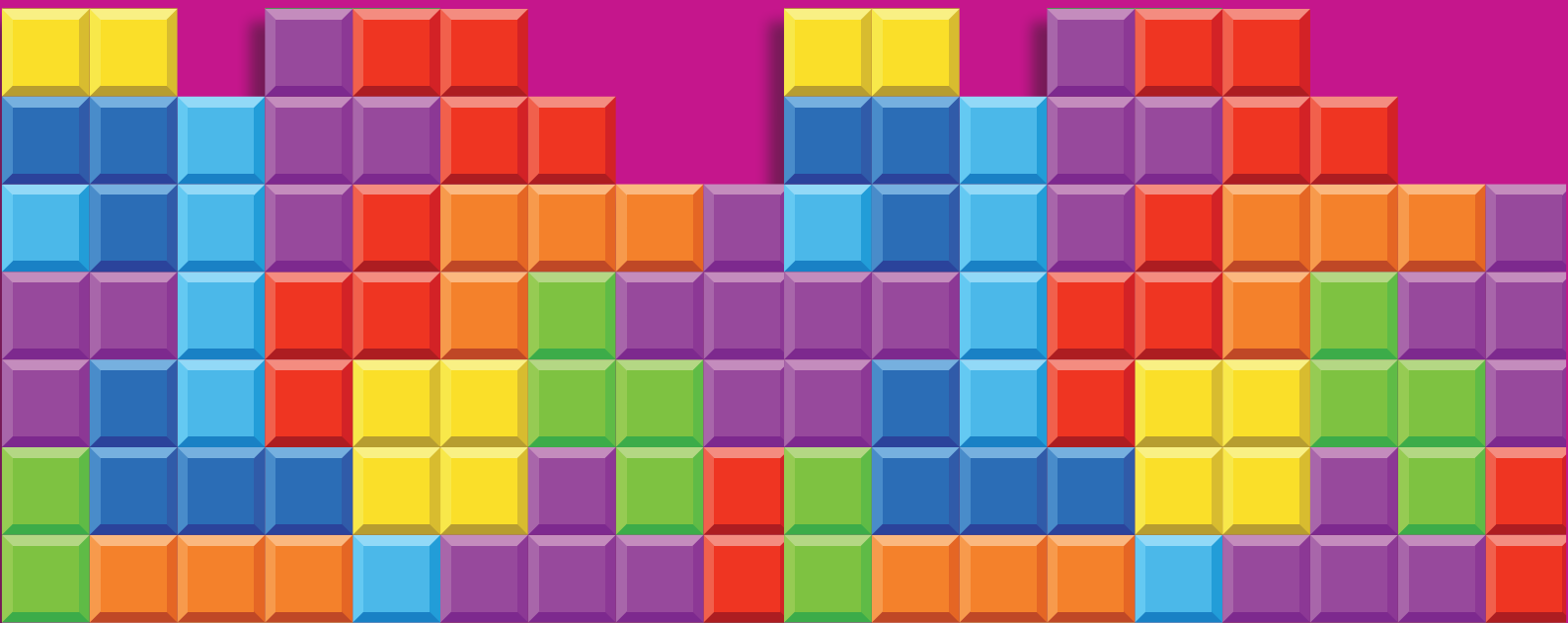
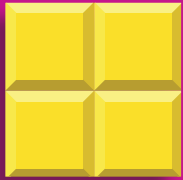
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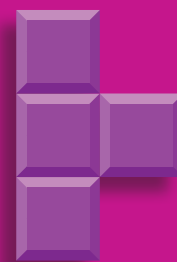
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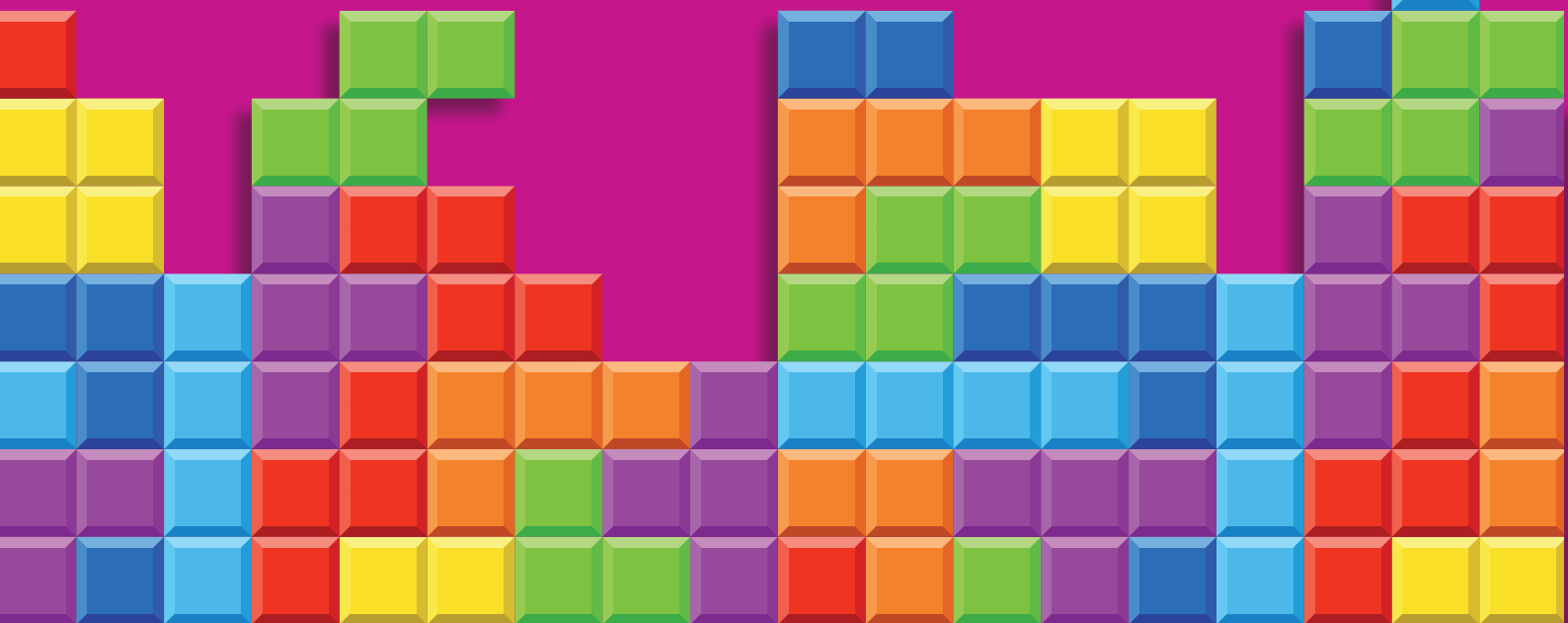
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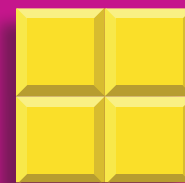
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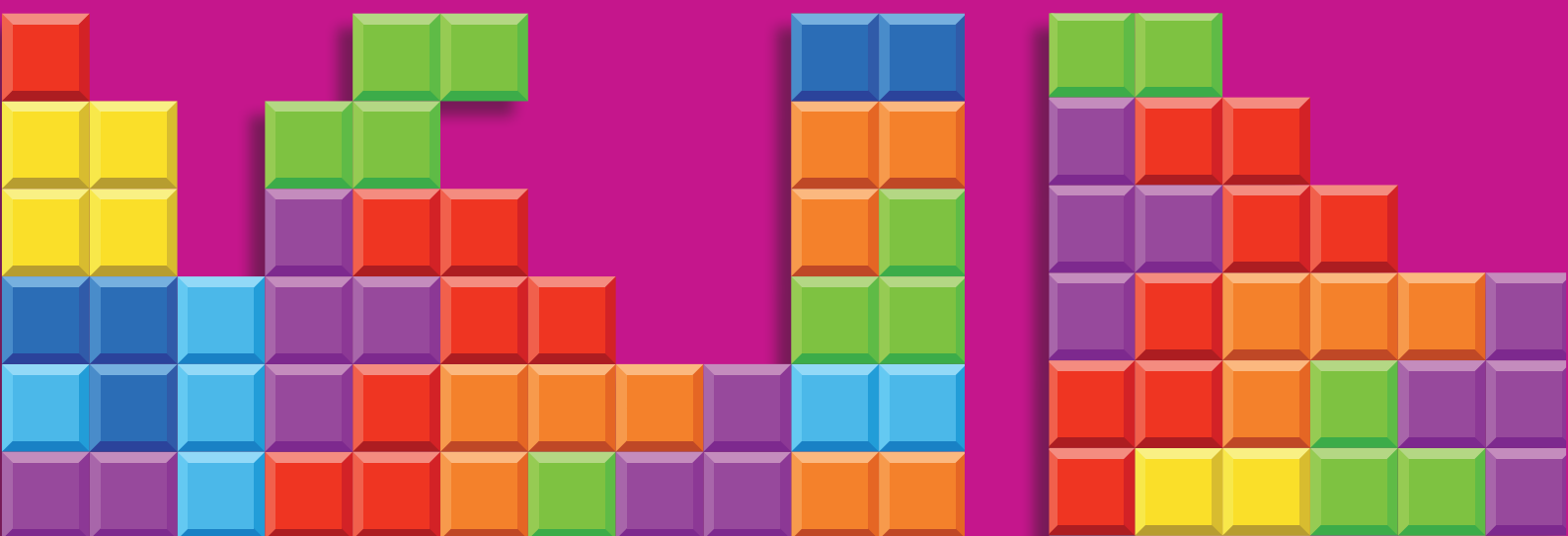


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LEVEL

FIGURE OUT WHAT THIS BOOK IS ABOUT



1. Introduction

This book is intended as an aid for all types of game educators. The target group consists of parents, schools, libraries, youth organisations, and anyone with connections to children, adolescents or adults that play digital games. The aim is to provide expert information, based on research and experience, about what gaming and related phenomena are all about.

This book is a cooperation between gamers, game designers, game educators, researchers and people working with problem gaming, thereby striving for a neutral, objective and helpful end result. When it comes to gaming (as a hobby, a sport, a profession or a potential source of trouble) there's so much bias, so many correct or false perceptions, and conflicting comments that we together want to offer an easily approachable guide. After reading, you will have a better understanding of what gaming is all about, why it interests people, why it's addictive, and why it's at the same time good in many ways.

Any form of voluntary activity with collective rules, that includes performing challenging and worthwhile tasks with a distinctive goal or end result, can be regarded as a game. Some like to make a clear distinction between a game and play, or a game and sports, whereas others think they're all part of the same continuum. Seen from a researcher's perspective Monopoly, Super Mario Galaxy, slot machines, playing catch and a boxing match are various forms of gaming. In this book the main focus is on digital games: games that can be played on computers, video game consoles, smartphones and other devices. When we use the term »gamer« we refer to individuals that at least occasionally play digital games, even though they may not define themselves as gamers.


Digital games are:

- Individual cultural pieces of work that are equivalent to movies, music and literature
- A popular and useful hobby
- A source of stories and a storyteller
- A tool for creating own stories and play
- A subject and a platform for social interaction
- An object of passion and a way of expressing personality
- Technological innovation
- A way of dealing with frightening themes
- A shared activity for the whole family
- Sports equipment
- Useful tools for learning or physical exercise

Digital game culture is a continuum of all other forms of play or games that are present when a child or young person grows into an individual, a member of a peer group and a member of society. These days, people of all ages play digital games. Play and games develop a young person's social and functional skills, and thereby prepare a person for different situations and activities in the growing environment. By playing and incorporating rules a child learns how to interact with others, how to function within a group, and how to communicate and negotiate rules and practises within the group. Play and games work as tools for self-expression and help piece together what activities are allowed by the surrounding norms, to understand how the rules are formed, and what the consequences are if you break rules. At the same time it develops motor functions as well as visual and perceptive skills. As society has become more and more digitalized, play and games have become a part of this digital dimension. Playing in this digital environment teaches children how to function in a digital environment later on: when studying or in working life.

Mankind has a long tradition of competing in various ways. Rules, frameworks and equipment for different games have been developed for ages, in the





forms of board games and sports. When humans started recording history there was already a multitude of e.g. dice games. The oldest preserved dice that we know of today are from an Iranian backgammon game that dates from around the year 5000 BCE. It is assumed that inside caves discovered in Africa people have been playing mancala games at least 500 years earlier. For comparison: the Sumerian cuneiform script and the Egyptian hieroglyphs are considered the oldest writing systems, both developed before 3000 BCE. In other words, games were here to stay a very long time ago. We should therefore keep an open mind for this active, ever-changing culture form that has been present for ages.

In the following chapters we will cover amongst other things game education, age ratings, game designing, the relationship between games and money, games as teaching aids and games in everyday life. In the last part of this book you will find exercises and practical tips for independent exploration of games, as well as a list of sources for suitable additional information about each subject in this book.

We hope that all types of game educators will find this book helpful, regardless of their specific job description.

Sincerely, on behalf of the team of authors

J. Tuomas Harviainen
Mikko Meriläinen
Tommi Tossavainen

2. What is game education and why is it needed?

Digital gaming has an important role in today's culture and society. People of all ages play these games all the time, everywhere. Games and gamification have become more popular in education, physical training and arts.

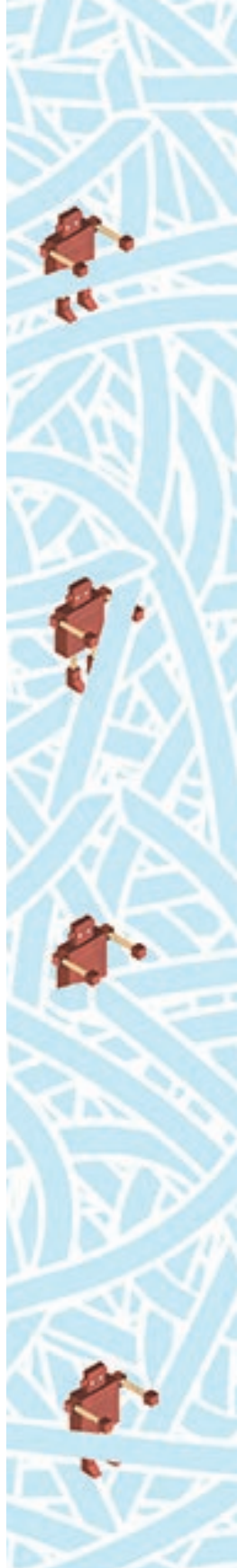
In spite of this, game education has not come a long way: when games are discussed at home, at school or publicly the main focus is on different concerns, with little constructive dialogue. The argumentation is often black-and-white and biased. In other words, games are seen

»GAMES AND SOCIAL MEDIA
HAVE REPLACED THE TV
AMONG CHILDREN AND
YOUTHS.»

as only good or only bad, depending on whom you're asking. The public debate has shown that the subject is often discussed without adequate information or comprehension.

A central part of game education is the concept of game culture, which includes a comprehensive understanding of games and gaming. Game literacy is familiarity with the different sections and properties of games, the ability to perceive gaming as a diverse cultural phenomenon, the ability to interpret the different signals games give out, and being aware of the role gaming plays in today's society. Game education is a tool and method for strengthening this literacy and for promoting a positive game culture. As the cultural significance of digital gaming continuously grows there is also an increased need for game education. Games and social media have replaced the TV (that parents are more familiar with) among children and youths. Game education is an integral part of the broader field of media education, the goal of which is to provide people of all ages with competence to function in today's information society.

Game education is an integral part of the broader field of media education, the goal of which is to provide people of all ages with competence to function in today's information society.






Being interested is more important than being an expert

The world of game education may at first seem unfamiliar and difficult. There is a plethora of different games, and if you are unfamiliar with them you might have a hard time grasping what they're all about. However, the large supply of games is also a resource: games are readily available and easy to explore. Also, the nature of gaming makes an all-round education possible, in which both parties can have their say. Getting to know games together with someone who regularly plays them, regardless of age, can be an educational experience for both. The shared experiences games offer should not be overlooked. Experiences shared with others are always important, and it shouldn't matter if it's in front of a screen or on a sports field.





Being a game educator does not require broad or detailed knowledge of games or game culture, and perhaps not even a great interest in the subject. The most important is being interested in educating and the well being of the other person. Especially children learn many new things from games, both skills and values. By being interested, being present and discussing, the educator can influence how this new information is processed. Game education can also counteract and prevent possible negative effects of gaming more effectively than simple restrictive measures. The younger the child, the more important it is for the parent to know the child's gaming habits and to know what kind of games the child plays. Children may need adult help with e.g. questions that arise from stories within a game. For older children perspectives like time use and life management become more important than questions about game content. Negative effects of gaming and their prevention are covered in chapter 16.

Game education for all ages

The term »game education« may sound like it's something specifically for children or youths. However, the target group for game education is much larger, and one should remember that the vast majority of people that play these games, or are in some way involved with digital games, are adults. A positive and sustainable culture for gaming and game education can be achieved when all involved parties interact. Gamers, game developers, gaming media, parents and professional educators all have their own role to play.

Game culture shapes itself, but we can and should also participate in building it. There are many phenomena linked to gaming, both valuable and harmful. Since digital culture changes and grows very rapidly, a person's age does not necessarily correlate with their level of knowledge. Adults may need help dealing with gaming and digital culture to the same degree as children, sometimes even more.



LEVEL 1

THE BASICS OF GAMING



3. Games, industry and money

The game industry as we know it today was born in the early 1970's and became a big industry during the 1980's. The game industry has grown globally by approximately 39.5 % (CAGR) on average per year during the last few years. The trade can be divided into core activities and additional activities; the former refers to activities related to producing games, the latter refers to the lines of business that are indirectly related to producing games or to game culture. The different processes of game production are covered in chapter 4.

There are now new employment opportunities in related industries. For example eSport and LAN events require event management services, as well as officials, judges and commentators. Seen from a global perspective there are a number of competitive gamers whose profession is to compete in electronic sports. It's likely that the number of competitive gamers will increase in the future. During different gaming events there is also a need for professionals in media content production, e.g. for maintaining and updating the web pages of events and competitions, which creates job opportunities for media professionals. There is now a new section in journalism that focuses on reporting about games and gaming. The subjects are also now more visible through traditional media platforms like newspapers and television. Game reviews and related news can be found in papers and their online versions. In addition there is a plethora of blogs, streaming services and discussion forums that focus on examining game culture contents. Some of these are administered by enthusiasts, whereas others are commercial, providing employment for content producers and IT experts.

Consumption, merchandising and real money

Possessions within a digital game are for the owner very similar to physical possessions, which can make the game experience much more enjoyable. Many virtual items can improve the chances of succeeding in the game, or may unlock new game content. Some of these features are purchased with actual money. Players may also sell virtual goods to other players in return for money. Some games have online shops or auctions for this purpose. This type of activity is globally referred to as »real money trade«, or RMT. The same dangers as in any other form of commerce are present in a virtual economy. There is a chance of getting swindled, but a well-thought RMT-purchase should not be regarded as any different than other purchases. However, one should be worried if the purchases lead to financial troubles.

In the 2010's there have been concerns about so-called Free-to-play (F2P) online or mobile games. Technically they are free of charge, but are designed to lure players into spending money in the long run. This is completely normal from a business point of view, but certainly includes undesirable elements. At the same time one should be aware that not all free games follow this logic. Playing F2P games a lot can also be harmless, and even educational entertainment. Therefore it's wise to acquaint oneself with the subject, especially if someone in the household plays a lot of these casual or Free-to-play (F2P) games where money is involved (Hamari & Lehdonvirta, 2010; Hamari & Järvinen, 2011; Paavilainen et al., 2013). A good place to start is the book *Casual Games* (2011) by Jesper Juul, but notice that the book was published before games like the Angry Birds series, Clash of Clans or Candy Crush Saga became hits. Regarding games, money and children parents should look into a few neutrally written, but critical texts. Good examples are the blog entries by Ramin Shokrizade (e.g. 2013a, 2013b). A good thing to remember is that studies do not indicate that spend-

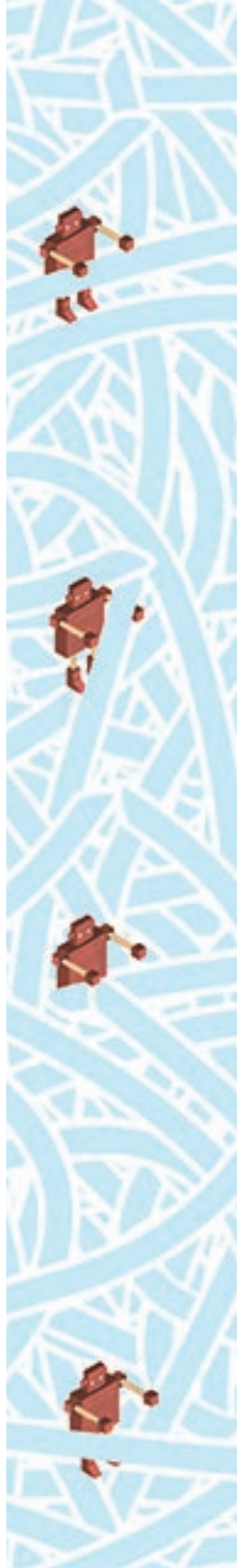
»GLOBALLY THE GAME INDUSTRY HAS GROWN BY APPROXIMATELY 39.5 % PER YEAR DURING THE LAST FEW YEARS.»





ing real money on virtual goods is in any way strange or harmful. Many of us spend money on vanishing experiences like concert tickets or hotel accommodation. Compared to those examples a digital item in your favourite game is more lasting (Castronova, 2005; Lehdonvirta, 2009).

As with movies, digital games have their own merchandise. By purchasing these products you show that you're a fan of the game. It's not uncommon to see someone wearing a Minecraft hoodie or a Portal T-shirt, or to own Angry Birds pillowcases. Merchandising may in fact be an important source of revenue for many game manufacturers.



4. The building blocks of digital games

Producing digital games requires a lot of know-how in different forms of creative work and production skills. Producing big games may require even more production personnel than is needed for a Hollywood movie. At the other end of the spectrum there are individual game developers that can produce games all by themselves.

Game design and programming

The main difference between games and films is the interactive nature of games. There are different elements of game design that greatly influence whether the game is perceived as good or bad. When a player describes a good game, elements such as graphics, music or the story are often mentioned as high quality, affecting or interesting. A player may also find that the game has a good feel to it, great level design, or an especially good game engine. A game may also be described as well balanced. Game design is of great importance for these elements. However, this area of game production receives little attention from the public.

Game engine refers to the elements of a game that require expertise in programming. The game engine is responsible for the »natural laws« of the game: when the player hits the jump button, the game character rises a specific distance from the ground. The game engine and game design also decide what happens when a game character hits another character – will they go straight through each other, or will the movement stop as in a collision? When a character swings a sword into a graphical element that looks like a tree, will the visual appearance of the tree change, and what sound will be heard on impact? These factors are parts of what is referred to as game feel, and affect how the game feel is perceived (good/bad).

A game can also be seen as bad if the difficulty level is too easy or hard. One goal with game design is that, as the game progresses, the challenges presented and the player's skills are in balance. A simple way to achieve such a balance is

allowing the player to choose the difficulty level at the start of the game. Game and difficulty level design has a big influence on how a player experiences the game and the player's relationship to the game. It's one of the most central elements of a great game and game experience.

Visual expression

Practically all games contain graphical elements. Depending on the game, the aim can be photorealism (e.g. *Dear Esther*, *Crysis 3* or *Battlefield 3*), or the end result may be very minimalistic (e.g. *Vib Ribbon*). The visual expression style can be the result of an informed decision to underline the game content, or it may be due to certain hardware limitations or capabilities.

The first steps of the visual expression process of a game usually take place on a »pen and paper« level: game environment, game feel, characters, vehicles etc. Other interpretative methods from the visual arts may also be used when developing characters and environments, e.g. sculpting, photography and various painting techniques. Especially in bigger productions, at this stage the game design process progresses from sketches to concept art and visual scripting. In game production this phase is called game design or conceptualization. The produced documents are at this stage called game concepts or game pitches. Sometimes the game production process ends at this point. Only some games progress to the final stages of production.

**»PRODUCING BIG GAMES
MAY REQUIRE EVEN MORE
PRODUCTION PERSONNEL
THAN IS NEEDED FOR
A HOLLYWOOD MOVIE.«**





After advancing to actual production the next step of visual expression is illustrating the game environment. In addition to various images the visual production includes different character animations and so called cut-scenes, whose purpose is to move the in-game story forward. Cut-scenes are often used to fill up and distract from the loading time between different game levels. Movement modelling is also often used as a method for visual expression, which means using real people's movement as a model for game character movement. Game-related visual art and illustrations can easily be found by using the search term »concept art« together with the name of a specific game.

Music and sound design in games

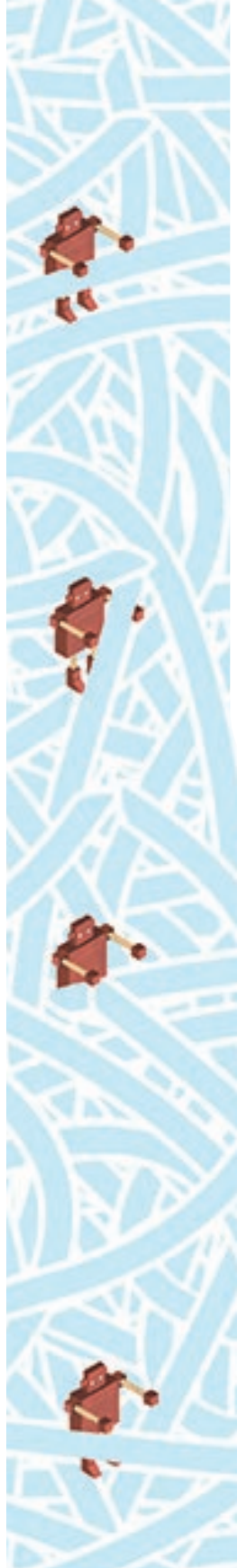
In addition to images, sounds and music are very important in games. Music and sound effects are used to create a certain atmosphere and to strengthen the feeling of interactivity. Game music is often composed specifically for that particular game; hence game content affects what type of music is used. As with visual expression it may also be limited by the available hardware. In addition to music, a variety of background sounds are also produced to create an atmosphere, e.g. wind whistling, birds singing or pattering of rain. Sound effects strengthen the experienced game control and game feel. When pressing a button, the player can see the game character move. At the same time there is a sound or sound effect for that specific movement, like the bouncy sound in Super Mario or leaves rustling under the feet of an adventure game character.

Especially in newer games voice acting is an important part of sound design. Voice acting in its most simple form is that the character's grunts have been recorded. For example the noises the pigs and birds in Angry Birds make have been recorded in the meeting room at Rovio, and the noises are attempts by employees to imitate the sounds of pigs or birds. The other extreme is hours of recorded dialogues, often read by professional voice actors.

Screenplay

Almost all games tell some kind of story. The story can move forward through different tasks, actions, cut-scenes and dialogues. On the other hand the story may be built by simply placing the player in a specific context (image and sound). Then it's the imagination of the player that creates a story for that context. For bigger game productions a big team of screenwriters writes the screenplay, and the game screenplay may be several books long. It's the interactive nature of the games that require long screenplays: while a movie script is linear, it may be necessary to write several storylines for a game, even though the player may or may not experience a specific story.

The dialogues between game characters are big part of game scripts and the perceived game experience. For example the sound designers of Grand Theft





Auto V went out and recorded sound effects and dialogues with the help of actual members of street gangs in order to make the gang members in the game seem more realistic.

In addition to screenwriters, story-oriented games may require a director or producer that uses the screenplay to evaluate how the story should progress and how the scenes and animations should be edited. In bigger productions there may be separate directors and producers for the different sections of the game, whereas smaller productions may have just one person in charge of direction, production and game design.

5. Cultural phenomena connected to games

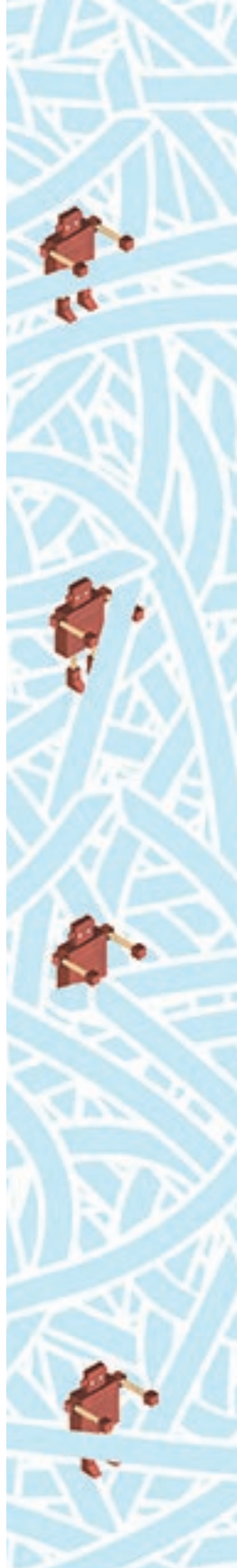
As with many other forms of culture or media, games feed the imagination of people. Therefore games have spread outside their own cultural form and various derivatives have emerged. Some of these are directly linked to digital games, like creating personalised game content. Other cultural forms connected to games take advantage of games as such, or utilise a specific section of a game.

The appeal may be the environment the game presents, or the story it tells. A person may identify with a game character or see the character as a role model, or the character can be interesting because it thinks and acts in a completely different way than the player. In addition to the games themselves and playing them, the social aspect of playing games can be significant. This social activity gives rise to new forms of storytelling, content production and spirit of community.

All the different sections of game content presented in chapter 4 contain elements that have brought about cultural side effects. Some of them are presented in this chapter. The list is certainly not all-inclusive, and those phenomena presented are only described on a general level. Additional information or examples of the character or occurrence of these phenomena can be found by using the titles as search terms.

Fan fiction

Fan fiction generally refers to fictive texts produced by fans of a specific game or game character. Fan fiction related to games is otherwise similar to fan fiction in other areas of popular culture, but it's specifically linked to game environments or game characters. Crossover fan fiction is when characters from different games appear in the same environment, or when characters from different forms of popular culture (e.g. books, digital games or movies) appear in the same environment.





Cosplay

Cosplay is a blend of the words »costume play«, and is usually linked to enthusiasts of Japanese animations and cartoons (anime and manga). In short, cosplay means dressing up and appearing as a character from a game, comic book, or other form of popular culture. It has become more common that game characters are the source of inspiration and the admiration of cosplayers. Do-it-yourself is an important part of cosplay. The costumes are often designed based on own observations, and the sewing and tinkering often takes several hours of work. The game characters may be different human, animal or alien characters, or robots. Cosplay events are often organised simultaneously with other events. Events like Comic-Con are popular among cosplayers. There is often some sort of competi-

tion involved, in which the participant performs as a specific character. Costume details, similarity with the original character, or how well you imitate the character's temperament are factors that decide the winner.

Machinima

Machinima is a blend of the words »machine» and »cinema». Machinima means different media representations that have been produced using 3D or computer graphics engines. Machinima varies depending on genre, and the length ranges from very short clips to full-length movies. As with fan fiction, the media representations may feature characters from different areas of popular culture. There are also remade versions of different Internet memes, TV series and movies. The production processes of machinima are similar to movie production: screenplay, editing, directing etc.

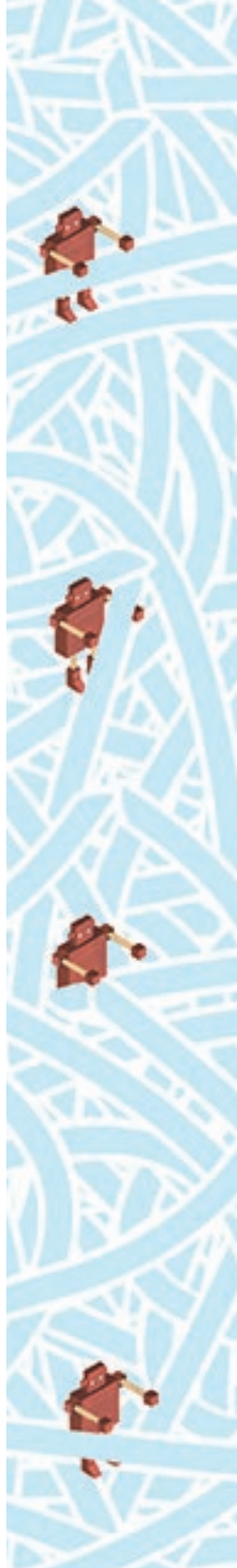
Game videos

Some gamers record material when they play a specific game. The recordings are usually in the form of videos, and the purpose is to record especially good or funny performances, or special occurrences and bugs in a game. There are different types of game videos. Below you will find a few examples.

Let's Play videos are video recordings of someone playing and commentating the game as it progresses. There may be one or several players commentating, and the video content varies. Some videos are presentations of a game or the properties of a game update, or game reviews. They may show some specific accomplishment or a construction that has been built in the game environment.

Walkthrough videos contain instructions how to play a specific game, how to make it through a level in a game, how to find a hidden object, or how to find a hidden area.

Glitch videos are videos that show faults and bugs in games. The occurrences are often caused by a game engine malfunction, and are usually seen as comical situations.





Modding

Modding in game culture refers to the act of modifying games or game hardware. In its most simple form modifying games can mean that the player changes or modifies the original images or sound files of the game. By modifying a game one can create new functions, new story segments or dialogue options. In addition to changing contents in a game, modding also often refers to enhancing the original game, e.g. graphics. From the enthusiast's point of view this is simply continuing from where the original producer left off, when the game was first published. In extreme cases modding has led to situations in which the new modified version of a game has started spreading and reached a lot of users. Sometimes it may have more users than the original game. An example of such an occurrence is when two players of the game Half-Life used the Half-Life game engine to create the game Counter-Strike. Modding game hardware means changing the appearance of the game hardware, or making modifications with the intention of improving the hardware performance. Changing the appearance often includes adding lights or other additional parts, or painting. By modding hardware the player and enthusiast may try to stand out from the rest by making the hardware look impressive.

LAN events

A LAN event or LAN party refers to an event during which a number of people (with their own computers) gather at a meeting place for the purpose of playing multiplayer video games through a local area network (LAN). When playing through a local area network the response time between the different computers is very short, which was originally one of the main reasons to organise such an event. However, the social aspect of such events is the most important factor. The players share a common interest and want to engage in the activity face to face.

During bigger LAN parties the players take part in tournaments, and there may be all sorts of additional events. Even though the main focus lies on computers, LAN parties today are also open for enthusiasts of console games, and may include mobile games, dance pad games etc. LAN parties are events that high-




light the social aspect of eSports. Such events are organised all over the world. The duration of a LAN event ranges from one day to several days, and it may be organised for ten people or thousands of people. Smaller groups of gamers may also organise LAN parties among friends in someone's home.

Competitive gaming is an important part of LAN parties, and has developed into electronic sports (or eSports).

Electronic sports

Electronic sports (eSports or competitive gaming) are a form of competing that utilises information technology. Most eSports games are regular entertainment





games developed for computers or game consoles. Anyone who plays on a gaming device, practicing alone or playing together with others through a network or over the Internet, could be considered a competitive gamer. Seen from an eSport point of view, including another player turns gaming into a form of competitive sports (SEUL, 2013). There are a lot of different genres of competitive gaming, as with games in general. Especially popular forms include real time strategy games, first-person shooter games and big online multiplayer games, but e.g. dancing games are also competitive games. There are a lot of similarities between eSports and other spectator sports. During eSports events there are spectators that watch games being played at the place of the event or through live online streams. An eSport event can be commentated by one or several commentators, and betting also takes place. Recordings of played games may be watched after the event has taken place, with the purpose of analysing the choices the players made (like a post game analysis). Players are also often interviewed before and after a game. Top players are like superstars at these events. Particularly in South Korea eSports culture has long traditions, and there these cultural phenomena are most visible.

Game blogs and wikis

Game blogging refers to content somehow related to game culture, which is produced in the form of blog entries: videos, animations or text. The aim of these blogs may be to present or review different games, hardware, or anything else related to digital gaming. They may contain interviews with game producers, professional gamers, or presenters of new products.

Game wikis are web applications for producing and sharing information related to game characters, tasks and levels. Game wikis and blogs are not only platforms for discussing games, but also tools for storing your own game experiences. They are a part of a broader game experience. For many gamers, reading wikis and blogs is a way to keep the game experience going when it's otherwise not possible – e.g. when waiting for the sequel of a popular game to be published you can discuss and mull over the possible game contents.

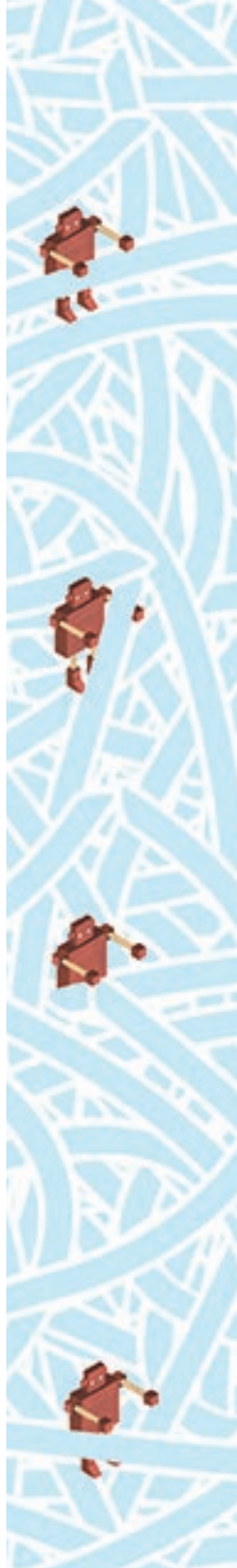
6. The positive effects of games

Gaming and playing have always been important for learning different skills, and digital games are no exception. When considering the positive effects of gaming, learning games and simulations specifically designed for learning and studying are often highlighted. Yet especially when it comes to children and youths a large part of the positive effects of games comes through informal learning, instead of active studying. There are a lot of different digital games, so it comes as no surprise that games also demand and may develop many different skills and abilities. When considering the positive effects one should remember that the skills taught by games are not supposed to replace other forms of learning, but to support and broaden the learning process.

Activating the brain

Developing physical and cognitive skills with the help of games has been studied increasingly in recent years. The results from these studies indicate that there are several beneficial effects. For example improved eye-hand coordination, shorter reaction times and developed perceptive skills. All of these skills are necessary for playing fast-paced action and fighting games; games that are often mentioned when discussing the negative effects of gaming.

The player is often required to process and evaluate a large amount of information in a short period of time. Action and real time strategy games may require the ability to screen through a constant flow of information, to pick out the relevant information and to immediately use that information in the decision-making. For example, the world's top players of the game StarCraft 2 give out up to 300–400 commands to their units per minute, and even beginners may give out dozens of commands. Both in everyday life and at work media and different information structures surround us. Therefore this type of ability to pick out and



manage relevant information and make decisions based on it is becoming more and more important. The brain-activating effects of games have also been noticed within the field of healthcare.

The utilization of games in e.g. work with the elderly is covered in chapter 16 of this book.

Communities across borders

Gaming is a social activity both within the communities formed around games, and within the games themselves. Many games have an important social component, whether it is a Facebook game with the possibility to share a result on one's wall, or an online role-playing game where thousands of game characters share a virtual environment.

The in-game social aspect is concretised in multiplayer games, in which the player is interacting with other players. Games are played together with friends and strangers alike. Often teams of players (often called »guilds» or »clans») in a game turn into close social groups, even though the players may not have known each other before or outside the game.

A growing proportion of everyday communication takes place in some form online, which has blurred the distinction between circles of online and offline friends. The dividing line is by no means clear-cut: digital games are often played together with classmates and other friends from face-to-face contexts, whereas friends met in-game may also eventually become offline friends. Since people of various ages

»GAMES MAKE IT POSSIBLE TO PUSH THE BOUNDARIES OF EVERYDAY LIFE, AND TO EXPERIENCE THINGS THE PLAYER COULD NOT OR WOULD NOT WANT TO EXPERIENCE.»



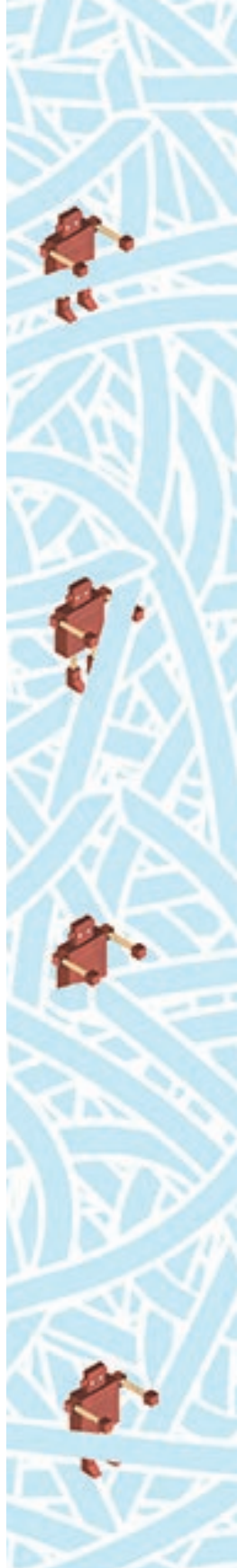
and backgrounds play these games together, friendships develop that would not necessarily have developed in everyday life. The age dispersion is also large: at the time of writing, the average age among gamers is somewhere between 30 and 37 depending on the statistic. A mutual gaming hobby and shared experiences bind a group together in the same way as with other groups of friends. The virtual environment may also make it possible to become members of communities for those who otherwise have a hard time making friends. For example young people with weak social skills, who are bullied or live in sparsely populated areas may form important social contacts through gaming. The virtual world also makes it possible to break cultural boundaries. When there is a lingua franca – usually English – the people you play games together with may technically be from any corner of the world, and nationality, native language or ethnicity does not matter.

Functioning in a group requires, and teaches, many different skills. In multi-player games the player must be able to cooperate and communicate in an effective way in order for the group to reach its goals. A player that does not behave properly will be left out sooner or later. Groups that function well together will also be the most successful. Even though working as a team may lead to social pressure, it also teaches a person to assume responsibility for the common good of the group.

Games also bring people together outside of gameplay. Games are discussed both face-to-face and online, and game videos such as live streams, reviews and different walkthroughs or guides are very popular on video-sharing websites. The gaming hobby is an important part of many active gamers' self-image, and belonging to a group reinforces one's own positive self-image. Because gaming is so commonplace, not playing any digital games may even socially isolate a young person from their peers.

Experiences, successes and disappointments

Games are usually played for entertainment purposes. Games make up a diverse cultural form: from simple problem solving games and casual games, to massive role-playing and adventure games with complex stories. Different games offer dif-





ferent rewards and experiences. In this sense one could compare games to books or films: they entertain, feed the imagination, and evoke feelings and thoughts. Since they are fictive, games make it possible to push the boundaries of everyday life, and to experience things the player could not or would not want to experience in a real world context. The in-game stories allow the player to experience feelings such as grief, fear or anger in a safe environment.

Due to their interactive nature, games can offer challenges and experiences of success in a different way than the above-mentioned books and films. A simple example is winning a game of solitaire: the player overcomes the challenge by using their skills. Multiplayer games on the other hand offer the possibility

»IN MOST CASES,
A GAMER SETS THEIR OWN
GOALS RATHER THAN TRYING
TO MEET THE EXPECTATIONS
SET BY THE PARENTS,
A TEACHER OR A COACH.»



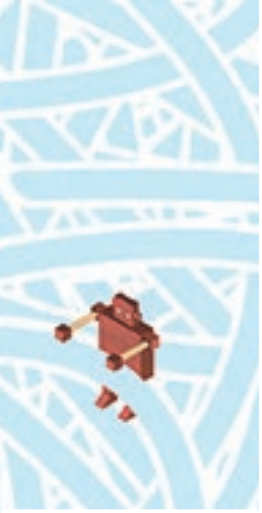
to compete with other players, or to reach mutual goals together with others. In addition to the interactivity of games, the audiovisual splendour of games today may in itself be an amazing experience. Succeeding in a game produces positive feelings, which in turn promotes a person's overall mental well-being. Due to the importance of positive feelings, the purely entertaining aspect of games should not be overlooked. If a gamer enjoys a game, that in itself can be seen as a positive effect.

As a counterbalance to succeeding, games also teach a gamer to handle disappointment. This is especially important for younger gamers. The social environment enables the gamer to bond with others, and to experience the highs and lows of friendships through succeeding and failing. Failing with the in-game challenges might cause short-term frustration and anger, but at the same time it is a way of learning how to deal with disappointment. While the majority of games offer continuous challenges, they also provide the player with the chance of trying again until successful.

Being absorbed in the game and escaping reality are often seen as purely negative, but for many gamers it is, if anything, an activity that reduces stress and promotes well-being. It pays to remember that gaming is rarely an accountable activity. In most cases, a gamer sets their own goals rather than trying to meet the expectations set, for example, by the parents, a teacher or a coach.

As more focus is being put on game writing, the potential of games to broaden a gamer's worldview is increasing. Games may challenge players to ponder ethical issues and





force them to make moral decisions, often showing the consequences. Games also offer the possibility to experiment with different identities. In the game world you can, in a safe environment, try out different social roles or characteristics: a real life troublemaker can be the understanding and empathetic negotiator within the game environment, or the other way around.



7. Age ratings and game content


What are age ratings?

In most countries there is an attempt to protect children from media content that is regarded as detrimental to the child's development. How harmful different contents are regarded largely depends on the local culture. In this book we will focus on the European age rating system for computer games, PEGI. PEGI, or Pan European Game Information, is a European age rating system for evaluating contents in computer games.

The purpose of age ratings is to help parents make informed decisions on choosing media content for children. However, a low age rating does not automatically mean that the media product is aimed at children, or that children would find it interesting. An age rating is always a sign of that a game contains violence, sex, or other harmful content. In the home, parents may choose to negotiate a year or two depending on the child's level of development, but a professional game educator should always comply with the age ratings.



» THE OLDER A PERSON IS WHEN STARTING TO WATCH PROGRAMMES OR PLAY DIGITAL GAMES CONTAINING HARMFUL CONTENT, THE SMALLER THE RISK OF POTENTIAL HARM LATER ON IN LIFE. »



»THE MOST VIOLENT GAMES ARE ONLY SUITABLE FOR ADULTS. EDUCATORS SHOULD MAKE SURE THAT CHILDREN AND YOUNG PEOPLE IN SOCIETY DO NOT CONSUME MEDIA CONTENT THAT IS ONLY INTENDED FOR ADULTS, BEFORE THEY ARE OLD ENOUGH TO PROCESS THE MESSAGES IN SUCH MATERIALS.»

On a general level, the purpose of all age ratings (e.g. for driving a vehicle or consuming alcohol) is to protect minors until they are ready to bear the consequences of their own choices. A child's ability to understand and interpret media is dependant on the child's emotional and cognitive skills. These skills develop with age. However, there are individual differences.

Therefore, when evaluating how

harmful something is, it is assumed that the child's development is »typical«. The older a person is when starting to watch programmes or play digital games containing harmful content, the smaller the risk of potential harm later on in life.

The ability to tell fact from fiction is a prerequisite for processing frightening media content. This ability develops gradually, starting before school age. Children who are already in school have a more developed ability to evaluate and question different media content, to analyse consequences, and to know right from wrong. When entering adolescence there is a pronounced need to experience strong feelings of excitement, but one's own tolerance is often overestimated.

A game educator should not generalize one's own experiences and apply those to others. Even if a parent has been able to process harmful media content as a child, one should not assume that it is alright to expose one's child to harmful content. The educator can help young people to handle media content by discussing with them and by teaching them how to interpret the messages in media.

The most violent games are only suitable for adults. Educators should make sure that children and youths in society do not consume media content that is only intended for adults.

A quick look at the symbols

VIOLENCE



Games marked with this symbol require that the gamer hurts or kills other characters in the game. Most action games contain violence, but there are examples of completely non-violent games. In games with a low age rating this can mean e.g. bouncing on another game character (in platform games), and in games with a high age rating there may be mutilation of body parts in slow motion or exploding heads. When it comes to age ratings, killing enemy soldiers usually leads to a lower age rating (16), whereas killing civilians, torturing and exaggerated violence lead to a higher age rating (18).

SEX

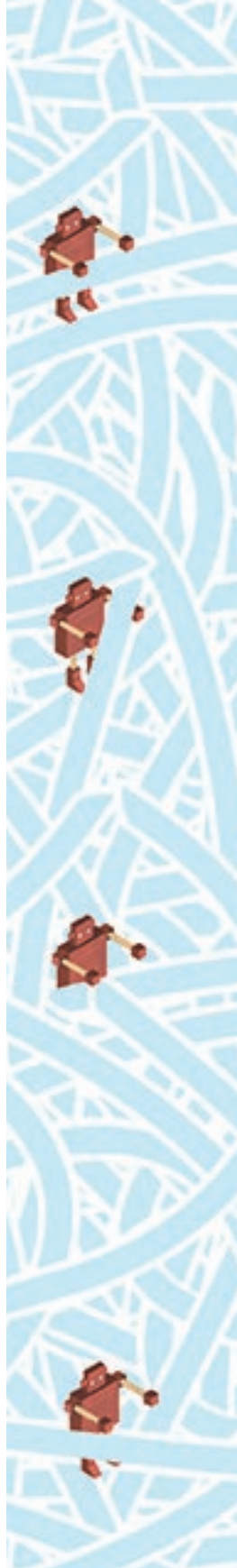


Sex in games is usually mild due to the fact that sex is viewed negatively in the United States, the most important marketing area for video games. But this only applies to game publishers. There are many available player-made modifications for games that increase the amount of simulated sex or remove the characters' clothing. Age ratings do not take such modifications into account.

HORROR



In the PEGI-system, games that intend to scare the player receive the symbol for horror. Survival horror is a trending game genre and that is also popular in the mobile market (e.g. Five Nights at Freddy's). Needless to say, horror games can be extremely frightening for people of all ages.



DRUGS



The most common examples of substance abuse in games include smoking, drinking alcohol or taking painkillers to heal a game character that has been hurt. Occasionally drugs are a part of the plot, e.g. in games that depict a criminal lifestyle. The drugs may be sold, destroyed or used in the story. There are only a few games that specifically focus on drug use or drug dealing.

BAD LANGUAGE



Swearing in a videogame can significantly raise the age rating. Producers of dance games may be forced to edit songs in order to market a game with the age rating 12. If a game contains words like »fuck» or »cocksucker» it will automatically lead to an age rating of at least 16.

DISCRIMINATION



This symbol is used if a game contains discrimination. Discrimination can mean stigmatising specific nationalities, or presenting them in a bad light. A gamer does not always have freedom of choice, but is forced to accept a certain view. For example, in war games the enemy is usually presented using generalisations and belittling. In some role games the main character can also hunt, enslave and sell other characters.

GAMBLING



Many games offer gambling and betting. These games often contain modified versions of common card games, and the main character's life or money can be at stake. However, in-game gambling is often made easier than in real life to increase the chances of winning and to keep the gamer interested.

ONLINE GAMEPLAY



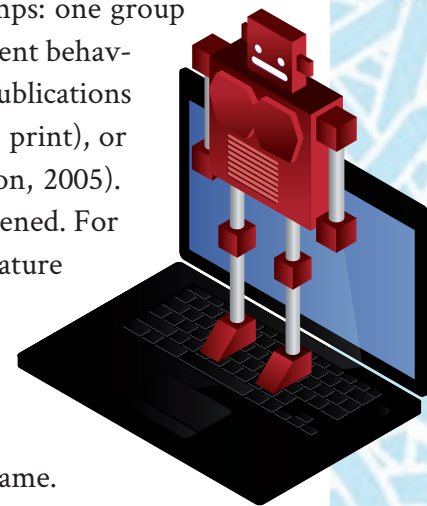
This symbol indicates that the game can be played online. The online gameplay symbol is not a warning of harmful content, but a notice to parents that it is possible to play the game with others over the Internet. When playing against characters controlled by other people it is impossible to predict how they will behave. In games popular among adolescents there is a bigger risk of being bashed or embarrassed by other players.

Does playing violent games cause violent behaviour?

The link between games, game violence and real life violent behaviour has been thoroughly studied the past few years, but with little results. Researchers are generally divided into two camps: one group thinks there is a causal link between video game violence and violent behaviour, and the other group does not. Suggested literature includes publications by Chris Ferguson from the »no«-side (e.g. Elson & Ferguson, in print), or by C.A. Anderson from the »yes«-side (e.g. Carnagey & Anderson, 2005). As a result of this debate, the different viewpoints have also broadened. For example, it has been noticed that for some people the competitive nature of games, rather than the violence in games, may explain the link to aggressive behaviour (Adachi & Willoughby, 2011). According to research by Miguel Sicartin (2009), who has studied the ethics of video games, players are not so called moral zombies that would change their behaviour simply because of the »evil« video game. The majority of people are able to distinguish the in-game moral codes from real life rules (sometimes these two can be very far from each other).

In 2012, the Swedish Media Council published a review of 106 empirical studies on the link between game violence and aggressive behaviour, conducted between 2000–2011. The review found no causal link between digital violence

More information about
age ratings can be found on
www.pegi.info



and violent behaviour in everyday life. In the review they stated that even though such a link cannot be ruled out altogether, its potential effect is small compared to other factors that have been shown to cause violent behaviour, such as domestic problems (Statens medieråd 2012).

»IN A LARGE REVIEW OF STUDIES BY SWEDISH MEDIA AUTHORITIES, NO CAUSAL LINK BETWEEN DIGITAL VIOLENCE AND REAL LIFE VIOLENT BEHAVIOR WAS FOUND.»





THEORY

FROM THEORY TO PRACTICE

8. Games and everyday life

The following four cases are fictive, but based on actual events.

CASE 1: »NOT NOW DAD.«

Tia, 16, is in the middle of a video game, and is sitting on the couch in the living room with her headset on. She exclaims with enthusiasm as her team scores a goal, and talks to the other player through the microphone. Tia's father sits down on the couch next to her. He smiles and comments the game, trying to start a conversation about gaming. As always, Tia replies »Not now dad«, and keeps on playing. Tim remains seated for a while to watch the game before getting up. An hour later, Tia stops playing.

What happens from the parent's point of view:

Tia is playing a hockey video game and is absorbed in the game. When Tim tries to show interest and start a conversation, she rejects him once again. Her parents understand that gaming is an important hobby for Tia, but they wish the interaction and communication within the family would work a little better. They decide to discuss the matter at dinner, when the whole family is gathered.



What happens from Tia's point of view:

Tia, together with her teammate from South Korea, just advanced in an international tournament. The two players were in audio contact with each other through the consoles and microphones, and Tia complimented the other player for the goal. Tia's father sat down on the couch in the middle of the game to comment on the game, but at a crucial moment Tia didn't have time to focus on what he had to say. Next week, Tia's team will be competing for a spot in a tournament in Canada, expenses paid. She decides to tell her parents about this opportunity at dinner.

As planned, the family has dinner together. Tia tells them about the opportunity to travel to Canada together with her teammate to take part. At first her parents are a bit sceptical, but warm up to the idea when Tia explains what it is all about.

CASE 2: »IN A MINUTE!«

14-year-old Maria has been playing a popular online role-playing game for over an hour. Maria's mother is making dinner. When dinner is served, her mother repeatedly asks Maria to stop playing. Every time she replies »in a minute!« or »Just a sec!«. After a while her mother simply shuts off the router because the food is getting cold. Maria goes completely crazy, locks the door to her room, and refuses to eat dinner.

What happens from the mother's point of view:

Maria didn't obey when she asked her. Nothing happened in spite of several requests. The mother removed the distraction, and can't understand the rage.

What happens from Maria's point of view:

Maria has been playing a healer in an online role-playing game. The character has been developed for a long time, and Maria has joined an in-game guild



of players. The character is the guild's dedicated healer with the assignment to heal damage other characters have suffered. Maria's guild has decided to carry out a quest that takes more than an hour, ending with a difficult final battle. The fight requires seamless cooperation from the group, and they have been preparing for months. Each player and character have their own role in the quest. Maria plays the only healer in the group, and therefore carries great responsibility: the other gamers trust their healer, and the whole quest depends on Maria healing the other characters and keeping them alive. They have been playing for an hour and are close to succeeding. Unfortunately, carrying out the quest takes a little bit longer than planned.

As the mother, without warning, shuts down the Internet, the other players are left in the final battle without a healer. One hour worth of work is lost as the remaining characters die without their healer. The other members of the guild are mad at Maria, and exclude her.

CASE 3: »@*#!«

17-year-old Joey has a video game console in his room. A week ago he got a new game that he has been wishing for his birthday. After school he usually heads to his room to play the game. The door to his room is open, and in the evening shouting and swearing can be heard from the room.

What happens from the father's point of view:

Joey's father can hear shouting and swearing, and wonders what is wrong. Who is he shouting at? When Joey's father goes to see what is happening, he finds Joey shaking his fist at the TV. Is he ok?



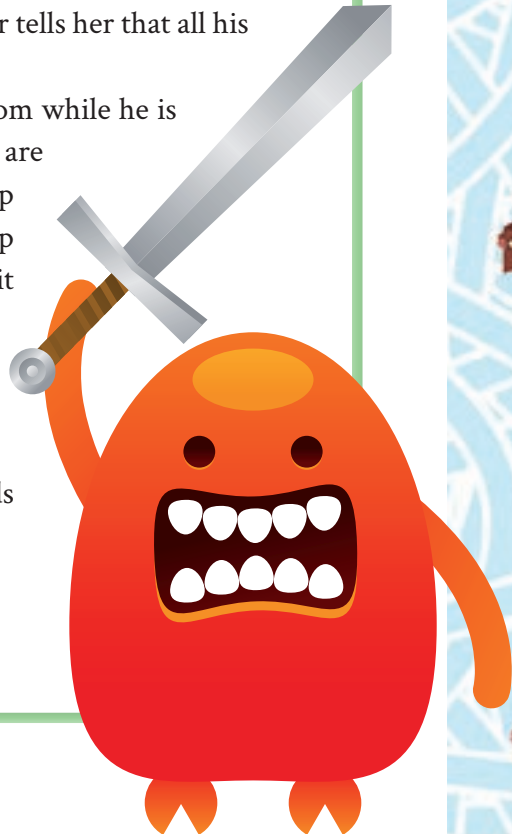
What happens from Joey's point of view:

This new game is great! Joey has been playing the game for about a week, and he is advancing towards the end of the game. He is completely immersed in the well-written game, and the surprising plot twists elevates the story to epic proportions. The difficulty level increases constantly, and Joey feels good about himself because he manages to succeed in spite of this. In the game story the world has to be saved. At the end of the game, the game becomes really difficult and Joey's character dies over and over again. All of the sudden Joey's father enters the room and looks at him. What on earth is wrong with him?

CASE 4: »OH MY GOSH, WHAT ARE YOU PLAYING?«

A new super popular game has been published, and 13-year-old Peter wants to have it. However, the game is labelled PEGI 18 due to its violent content, and the seller at the game store won't sell it to Peter. Peter has a birthday coming up, and asks his mother to buy him the game as a present. His mother is a bit sceptical due to the price tag. But she ends up buying it when Peter tells her that all his friends already have it.

A few days later his mother happens to enter the room while he is playing his new game. On the screen, blood and limbs are flying, and the dying scream as Peter shoots at a group of enemies. His mother is shocked and asks Peter to stop playing instantly. She confiscates the game and returns it to the store, which makes Peter angry. Later at a parents' meeting at school Peter's mother complains to other parents about the terrible material that is offered to children these days. She is confused when one of the other parents wonders how a 13-year-old got their hands on a game only suitable for adults.





What happens from the mother’s point of view:

The mother thinks video games are just for kids, and hasn’t read up on age ratings. Therefore she is surprised by the raw violence in Peter’s new game. She is so shocked by what she saw that she immediately gets rid of the game – who knows how such a game will affect a child? Later at the parents’ meeting she relieves her feelings, but is forced to admit that she didn’t get to know the game before purchasing it for her son.

What happens from Peter’s point of view:

The new game is the topic of the day at school. A lot of his friends at school have older siblings who have bought the game, and therefore his friends have also been able to play the game. His friends praise the game at school, and Peter is bothered by the fact that can’t be a part of it. Since he can’t buy the game, he relies on his mother’s lack of knowledge. When his mother finally confiscates the game it annoys Peter: he is unable to finish the game, and he is afraid he will be treated like a wimp at school for not being allowed to play the game.

Video games in families with children

The above-mentioned stories are typical examples of everyday occurrences in families with children. Digital games are often seen as a hobby for the kids, and the parents don’t always have the time or interest to learn about the games. Parents may be completely unfamiliar with digital games if they were born before the 70s. Their generation had very little access to digital games during their childhood.

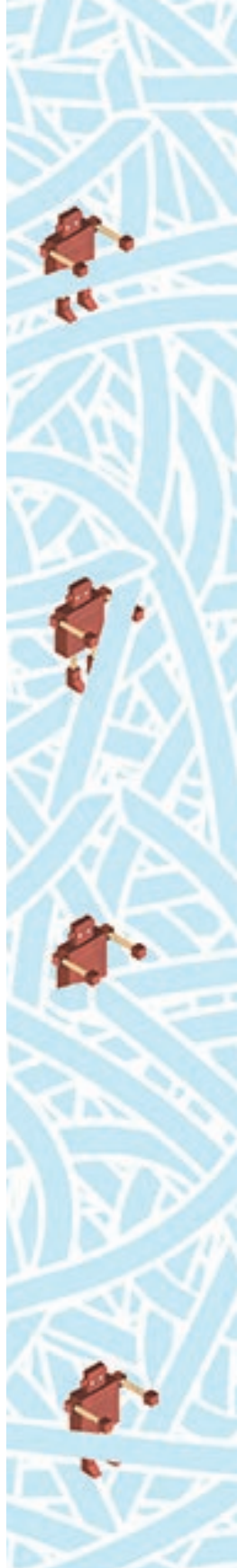
Media content that a child gets used to, is still consumed later on in adulthood. If you as a child have been watching films and reading books, it is likely that you will enjoy films and books as an adult. On the other hand, if you didn’t read much or didn’t play any digital games, it is more likely that you won’t find them interesting later on.

Learning new things is more difficult for adults than for children. Therefore it can at first be a real challenge to get involved with a child's gaming. But learning new skills is a rewarding experience, and giving time and attention to a child or adolescent is extremely valuable. If you learn the basics of the games a child plays it becomes easier to respond to situations the gaming to which leads.

The games children play can be similar media products and storytellers as films or books. It is better to watch or play exciting stories together with an adult than alone in the bedroom. The in-game stories may also lead to all sorts of reactions, like irritation or frustration. Always observe the emotional states of the gamer. If a gamer's frustration does not wear off after the game is over, there might be some other underlying reason.

»PARENTS CAN KEEP TRACK OF A CHILD'S GAMING HOBBY IN THE SAME WAY AS WITH OTHER HOBBIES, LIKE SPORTS OR MUSIC.»

Playing any game together with a child, be it a board game or digital game, is quality time spent together and strengthens the interaction between the child and the parent. Since you can immediately observe the causes of emotional reactions, playing a game together can be eye opening. A game can also be a good discussion topic. It is important to play games together, even if the parent does not find the game that interesting. In adolescence, gaming can transform from media consumption to a hobby. Since an adolescent has a lot more time to spend on the gaming hobby, it is impossible for the parent to stay in an equal position in relation to games. At this point the parent should accept the new role as the one who supports the hobby, rather than being a gaming buddy. Even though the parent is no longer able to take part in the same way as before, they can listen, discuss gaming, and make sure that gaming does not negatively affect everyday life in the home.





Practical tips for the home

Parents can keep track of a child's gaming hobby in the same way as with other hobbies, like sports or music. The parents should know the age ratings and what games the child is playing, because not all games are suitable for people of all ages. They can get to know game content by playing together with the child, or by observing. The parent does not have to be an expert. Being interested and actively involved in the child's gaming is more important. By playing together the parent is able to understand the games better, and how the child feels about games.

Gaming can and should be discussed, even if there are no actual concerns, and the parents should show interest if the child wants to discuss something. Even though children are able to handle technically challenging games, the gaming world might raise feelings and thoughts that should be discussed with an adult. Parents can also remind the child about how to behave in online games – bad behaviour is always bad behaviour. An open and conversational atmosphere in the home makes it easier to tackle potential problems.

Gaming is a good hobby, and is largely a social activity – according to children and adolescents the best part is specifically playing with your friends. There are also online gaming friends, and social networking services online offer the possibility to interact. However, it is important that a gamer has friends and hobbies outside the world of Internet and games. If a child becomes too absorbed in this activity and ignores other hobbies and friends, the matter should be discussed.

A parent can draw up a contract together with the child regarding gaming and computer use. Adults in the family should include their own rules for computer use in the contract to make it fair. It is easier for the child to follow rules that have been agreed upon together. Below you will find an example of household rules for gaming.

Specific time limits for gaming prevent pointless fighting. You can define how long one gaming session can take, and how often gaming is allowed. You can use a clock as an indicator of when game time is over, or when it is time to take a break. Also remind that the time is about to run out in advance. Especially smaller children have a hard time to keep track of time, and will need the help of a parent. You can have a gaming log close by or online and keep track of how much time has been spent gaming. This makes it easy to observe the time spent and how the gaming time develops over time. A game log provides solid proof, which makes it easier to discuss gaming time.

Using different parental controls parents can restrict children's access to specific web pages, games and applications. They also offer the possibility to set time limitations for computer use. There are a number of tools and programmes for monitoring the use of computers and video game consoles. If such restriction tools are used, parents should tell their children about them and discuss why these tools are necessary. The parents need to remember that the children have a right to privacy.

»AN OPEN AND CONVERSATIONAL ATMOSPHERE IN THE HOME MAKES IT EASIER TO TACKLE POTENTIAL PROBLEMS.»





Mutual rules for gaming

- Gaming times and family meals are known by everyone in advance.
- Inform about unusual arrangements well ahead of time, and several times if needed.
- Discuss why gaming and other things related to everyday life at home are important.
- Agree on a common practice for when to stop playing, e.g. half an hour after a warning.
- In online games it is completely acceptable to inform other players that a long mission or quest isn't possible at the moment, or that you will have to stop playing soon.
- Gaming should not interfere with other duties or tasks like schoolwork.
- Everyone is responsible for the everyday life to go smoothly.

Discussion topics on gaming

With children

- Which is your favourite character?
- Is this game scary?
- What is fun about this game?
- What is the aim of this game?
- What happens in the game story?
- What is good about this game?
- What is difficult about this game?

With adolescents and adults

- What is the game's age rating, and why?
- What is the main character like?
- How is the opposing side depicted?
- Is the depiction realistic?
- Are the main character's actions justified?
- Can you advance in the game without violence?
- What are the female and male characters like?
- Is the game environment credible?
- Do you have freedom of choice in the game?



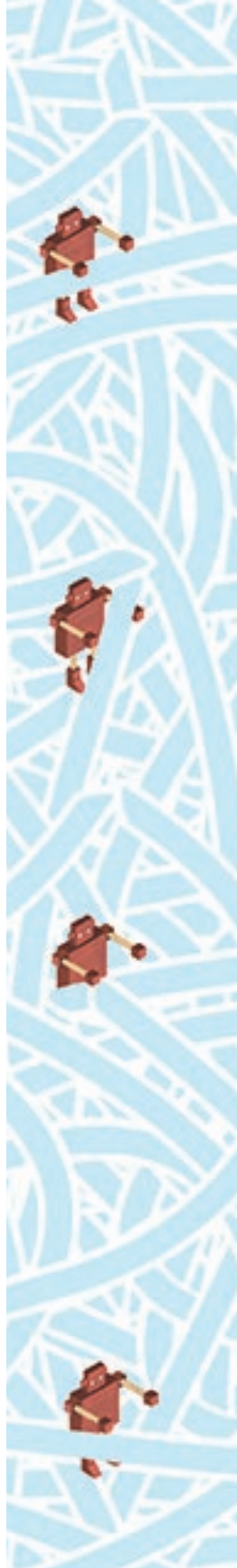



9. Digital games before school age

Small children and digital gaming

For children under school age today, digital gaming is becoming a more important part of childhood and play. Digital games are in a way the toys and playground of the digital age. They deserve more attention from researchers, educators, and policy-makers alike. About a third of children aged 3–7 play digital games, and gaming seems to increase after preschool and elementary education (Kangas, Lundvall & Sintonen, 2008). According to a barometer on media consumption among children, about half of children aged 0–8 play digital games at least occasionally, and one third on a weekly basis. Boys start playing regularly at an earlier stage than girls, and they are also much more active gamers than girls (Suoninen, 2011).

Children are fascinated by the interactivity of games, and the possibility to be in control, tackle challenges, and the joy of succeeding (Ermi, Mäyrä & Heliö, 2005). When it comes to interactivity, the majority of adults are happy settling with televoting, or sending an SMS to a TV company to express their opinion. For the younger generations, interactivity means being able to directly influence media content and events, and to get feedback on their own actions (Suoninen, 2004). The interactivity of new media means the possibility to choose content, manipulate pictures and texts, play games, or to share thoughts and opinions with other people. The reader can become the writer, the listener the debater, and the observer the artist (Mustonen, 2001).





Bergström (1997) concludes that children have fallen for computers and virtual worlds because they offer so many possibilities for all sorts of activities. In virtual realities and the computers' game worlds they are able to play, experiment and travel to other dimensions where natural laws and logic don't apply. The child's imagination can run wild within the computer world, and the computer world can be an inspiration for continued play elsewhere.

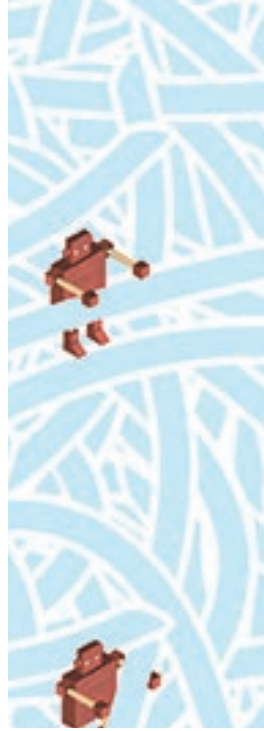
»FOR CHILDREN,
GAMING IS A FORM OF
PLAY.«

In games aimed at children there may be an educational aspect, but they are mainly designed as entertainment (Fullerton, Swain & Hoffman, 2004). Even though games share certain traits with learning, gaming and playing are valuable activities by themselves: a game is played because of the game, usually without thinking about any possible benefits. According to research by Ermi, Mäyrä and Heliö (2005) the fantasy worlds in games are particularly important to children. The more possibilities it offers the player, the better the game world is seen. The ability to distinguish play and fantasy from reality develops at a very early age, and perhaps one of the most important aspects of the fictive game worlds is, according to children, the possibility to do things that for them are impossible in the real world or real life.

Especially children under school age are keen to use media platforms and content that allow them to primarily socialize for example with other members of the family or their friends. The games are played by turns: when one person is playing the others sit by and offer advice on how to solve the challenge. In such situations the entertainment factor is secondary to the cosy and social aspect (Suoninen, 2004). According to Ermi, Mäyrä and Heliö (2005) children usually see gaming as entertainment or a nice hobby that becomes especially appealing when there is nothing else to do. In such situations games can temporarily replace friends, but the common and stereotypical view that a child who is gaming alone is marginalised does not seem to correspond with reality. Digital games are often played together with a friend, also single-player games.

Digital games and children's playing worlds

The heroic figures from the media and games are strongly present at the playground, and the stories are further developed into new adventures, through imagination (Salokoski, 2006). According to research by Uusitalo, Vehmas and Kupiainen (2011), children's media games focus on familiar programmes, video games and fantasy characters. When they play they use unmodified plots and situations depicted in the media, or create own adaptations. In addition to portraying different roles, toys and merchandise related to audiovisual programmes or other media content are an important part of children's games. Ruhala and Niinistö (2006) state that media games are not a separate form of play, since children incorporate many different elements from everyday life, their imagination and media when playing games.



»THE GAME WORLD OFFERS APPEALING PLAYING OPPORTUNITIES, AND THEREFORE CHILDREN'S OPPORTUNITIES TO USE COMPUTERS AS TOOLS FOR PLAY IS ONE ASPECT EDUCATORS SHOULD TAKE INTO CONSIDERATION – THERE IS MORE TO IT THAN SIMPLY PROTECTING THE CHILD.»



According to Karimäki (2007), interactive media creates a new, interesting and appealing playing environment for children under school age, and enables them to play using a computer. For the children, gaming is a form of play. The machine, in the same way as a playroom with toys, can be the child's playing environment. Various forms of play are always present in a child's life, and play is connected to and influences other activities in the child's world. Children can incorporate play into almost anything, whenever they feel it fits in naturally. Play can therefore also be incorporated while using the computer, as a part of interaction between children. Kalliala (1999) points out that a digital game itself may not interest a child enough, and that a game that progresses according to adults' rules is only a starting point for play.


Pennanen (2009), who has studied media play, states that educators often find media play in kindergartens, that is based on television programmes or digital games, to be content-wise inappropriate or disturbing. It is thought that media play is repetitive, restrictive for the children's imagination, and detrimental for their development. But from the children's point of view, media play is a form of play that requires social interaction skills, and that offers the possibility to deal with and examine one's own media experiences together with peers.



Games' role in the field of education

The game world offers appealing playing opportunities, and therefore children's opportunities to use computers as tools for play is one aspect educators should take into consideration – there is more to it than simply protecting the child. New media forms have always frightened educators, and today the evolving information technology, including digital games, is seen as a threat. For small children however, media and digital gaming is only a new playing environment. They master it with ease and through play turn media stories into their own. Digital games should therefore also be seen as something that enriches the child's world and playing culture. Perhaps adults should be more open and take part in these playing worlds. That way we can better understand how meaningful this form of play is, and what kinds of experiences it offers to children (or even adults).





Since gaming is an important part of childhood today, it is important for the educator (e.g. parent or day care professional) to understand the virtual world the children spend their time in. The earlier you start openly discussing gaming together with a small child, the more likely it is that you can keep discussing it openly as the child grows. When the adult's attitude towards gaming and digital games is open and interested, it is easier to discuss game content, game stories, characters, and game related rules or agreements together with the child. An open and positive discussion atmosphere can lead smaller children into thinking about limitations and rules, age ratings, or what to do if you face something frightening in a game. Tips for how to start a discussion can be found in chapter 8 of this book.

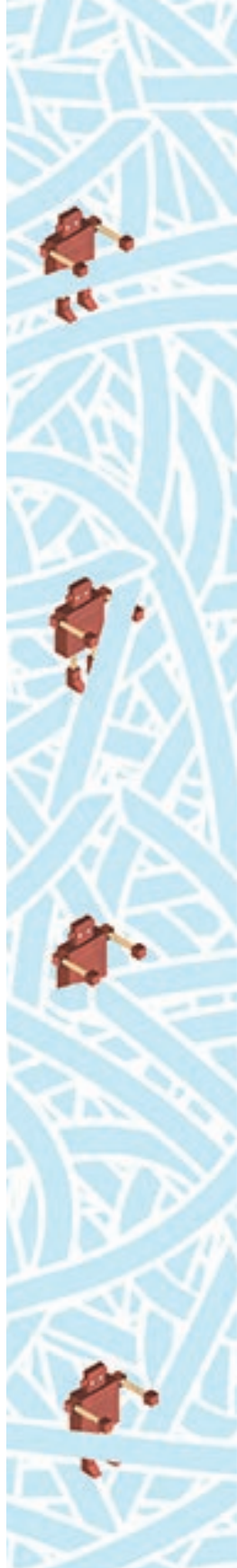
At a nursery school there was once a good example of how children can sometimes educate their parents. During the spring a group of 4- to 5-year olds discussed gaming a lot while playing together, and often brought digital games to the nursery school to show others. The point was not to play the digital games, but to show them to their friends and to discuss game content. One day they started wondering what the number on the back means. Together it was concluded that it is the game's age rating. The children became interested in age ratings, and together everyone thought about why there are such limits. Later it turned out that several children had brought up the subject at home together with their parents, what the number on the back stands for, and that they said things like »I should not have been allowed to play this game (PEGI-rating 7 or 12) because I'm only four.«

In addition to a child playing digital games alone, or together with siblings or friends, digital gaming can be a shared pastime for the whole family. Children also like to play digital games together with their parents, and playing games together offers a parent the possibility to get to know something the child is interested in; perhaps discover a new common hobby for the whole family. In addition to traditional computer or console games there are a lot of different exercise, dance or singing games – surely something for everyone. Game contents are present in children's play in many ways, so that way an adult can get a peek at the child's world. You can enter the game world together with a child

outside actual gameplay and experience game themes in other (real life) environments.

In one nursing school group a specific game had been very popular for a while, especially among the boys. Gaming was discussed on a daily basis, and the characters were always present (clothing, toys, stuffed characters and play). One boy suggested that they could make a concrete, real life version of the game. So, with the help of one of the educators, the group of boys spent weeks working intensively on their own board game: building the board, working on the characters, developing the rules and planning how the game would progress. Working on the game led to a lot of discussions about the game itself, and digital gaming or media reality in general.

Because the game world is present in children's everyday life, it requires attention and interest from the educator's side (both parents and professional educators). Game themes can be included in everyday life: instead of sitting by the computer, the game environments, characters or other elements can be included in everyday life situations, play, or be consciously analysed. By including digital game worlds in everyday life, and by working together with the child to create a new form of media culture, you can understand media reality and analyse it in a whole new way.



10. Games as teaching aids – theory and research

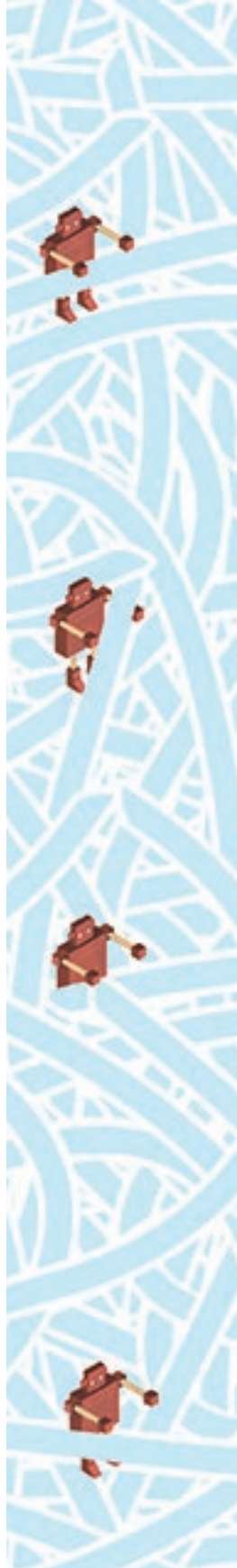
The use of games in teaching and learning has a long and prestigious history. The first known game clearly designed for educational purposes, von Reisswitz's Kriegsspiel, was finished in 1812 and 'published' a decade later, but we can assume that games such as chess have been used to teach strategic thinking much earlier (Keys & Wolfe, 1990). As military officers retired and moved on to other duties – traditionally to commerce or governance – they took the idea of training with games



with them to their new fields. This appears to be how the current tradition of game-based education was created (Lainema, 2003). Educational games are an integral part of today's business schools' curriculums, and board games, role-playing games and digital games are utilised by teachers in different environments in other fields as well.

Moreover, the majority of research on game-based learning comes from the field of management and business studies. Other major producer of research studies are the defence forces of different countries, but the contribution of schools continues to increase. Because of this, it may easily seem that the publication of studies regarding game-based learning has little to do with whether one's own child or a young person learns something from the entertainment games on which he or she spends time. There are, however, several works available in which one can find, with moderate effort, needful additional information on where the authors have successfully applied the knowledge of that professional field. An excellent place to start is the book *Learning with Digital Games* (2009) by Nicola Whitton, which examines the usefulness of ordinary commercial and free online games in the teaching of teenagers at school. The ideas set forth in the book can easily be applied to other environments as well. A classic particularly worth noting is *What Video Games Have to Teach Us about Learning and Literacy* (newest edition 2007a) by James Paul Gee, a book which is read and applied extensively by people other than game researchers and pedagogues as well. Games can also teach participants about exercise, so it is not wise to believe the myth that gamers automatically turn into couch potatoes (e.g., Holsti et al., 2013).

The idea of games being nothing but a useless waste of time is quite new, as is how some games are referred to as »serious«, that is, suitable for educational use (e.g., Abt, 1970). In reality, a game does not educate, nor is it even really a game, if it is entirely serious (Klabbers, 2009). It has been known for a long time that in order to teach a certain planned content, a game has to be challenging enough but not too much so (Carlson & Misshauk, 1972), and entertaining enough but not too much so, either (Henriksen, 2008). A good educational game motivates to play with its own gamefulness, offers clear, iterative education content, and includes an instructed debriefing and feedback discussion after the game experi-



ence, allowing the instructor to ensure that the learned material also/ at least includes what the game is supposed to convey according to the curriculum (Whitton, 2009; Crookall, 2010; Harviainen, Lainema & Saarinen, 2014).

A teacher cannot rely on the game itself alone being motivating enough to teach. Despite what Prensky (2001) claims, we cannot trust stealth learning produced by games (Whitton, 2009). In fact, we have no certain understanding of how and what games actually teach (Klabbers, 2003). Game-based teaching, like all other teaching, must be professionally instructed. It is also important to find games suitable for the group: young people accustomed to cutting-edge graphics may think many educational games look ridiculous compared to commercial games due to their small budgets. Correspondingly, those commercial games are rarely suitable for teaching, as they have been designed for entirely different use. Both obstacles can be overcome, however, if the teacher focuses on the instruments and gives thought to what they could – as far as their limitations allow – convey (Whitton, 2009). A more difficult matter is that some people dislike gaming altogether and to many others, a »game« almost automatically means a competitive setting. Teaching these people with gaming requires special measures (Harviainen, Lainema & Saarinen, 2014).

If learning with games is so difficult, then why even use them? The first and clearest reason is that even though we do not know how they work, we do know that they do function as efficient teaching tools. We also have a few educated guesses as to why they do so (Gee, 2007a, 2007b). A teacher who overlooks games as nothing but entertainment forgets that they have been very successfully deployed for teaching for more than two centuries, in highly demanding fields such as the conduct of war and cor-

»GAME-BASED LEARNING HAS BEEN RESEARCHED AT UNIVERSITY LEVEL FOR OVER 60 YEARS NON-STOP AND EVEN THE MOST CRITICAL RESULTS SHOW NUMEROUS POSITIVE FEATURES.«



»GAMING APPEARS TO BE ESPECIALLY SUITABLE FOR YOUNG PEOPLE WHO HAVE DIFFICULTIES CONCENTRATING IN TRADITIONAL SCHOOL TEACHING»




porate management (Keys & Wolfe, 1990). Game-based learning has been researched at university level for over 60 years non-stop and even the most critical results show numerous positive features. With a good presentation and skilled defusing, even a short game can provide quality learning material – for example as a training environment, or as a basis for discussion, or to anchor through simulated practice that which was learned earlier.

Gaming appears to be especially suitable for young people who have difficulties concentrating in traditional school teaching. Furthermore, many others find it a more enjoyable way to learn, even if it does not improve their results. To the highly cramming-oriented, game-based learning does not appear to be as suitable (Hyltoft, 2010), but it may at times also inspire them to share what they know with others. In such cases, they themselves learn by looking at the topic from a new perspective, and the other players benefit from the extra teaching (Harviainen & Savonsaari, 2013). generally, a well-planned focus and covert repetition of the essential matter in a game help the learning process, but are not mandatory for it to work (Henriksen, 2010).

Games have been successfully used in teaching almost all subjects at the secondary education level (e.g. Whitton, 2009; Hyltoft, 2010). For some of them, only verbal anchoring is required, meaning that the teacher and the students verbally recapitulate the educational contents after the game. For others (crafts, home economics), practical training to apply the theory learned in the game is required, but this can be obtained during the game as well. There are already a large number of physical education games, and they continue to develop, which facilitates kinesthetic learning as





well (e.g., Holsti et al., 2012). At the university level, games have yielded excellent results in, for example, kickstarting the contemplation of highly complex causal relations and strategic thinking (Harviainen & Lainema, 2013). Businesses use them as well, both in developing their personnel (Harviainen, 2012) and improving their service capabilities (Boess, Saakes & Hummels, 2007).

There are really only two challenges in game-based learning: first, it inevitably requires that the teacher has time and enthusiasm to focus on a new form of work in addition to their traditional textbook teaching. Secondly, assessing game-based learning is often difficult. Grading the game performance itself as such, although still popular, gives unreliable results (Harviainen, Lainema & Saarinen, 2014). The so-called Serious Games school of thinking, which has stood strong especially in game education in management and business sciences, has usually relied on highly traditional performance-centred criteria when measuring learning results. In many cases, the most useful method is to take advantage of the game as a learning environment, as a place to practise and test previously learned content, and/or as a way to recapitulate contents through practice. The necessary evaluation, comparable to other groups, can then be performed with, for example, a traditional test after the last game session, reflective essays written between and after game sessions, or learning diaries written along the way.

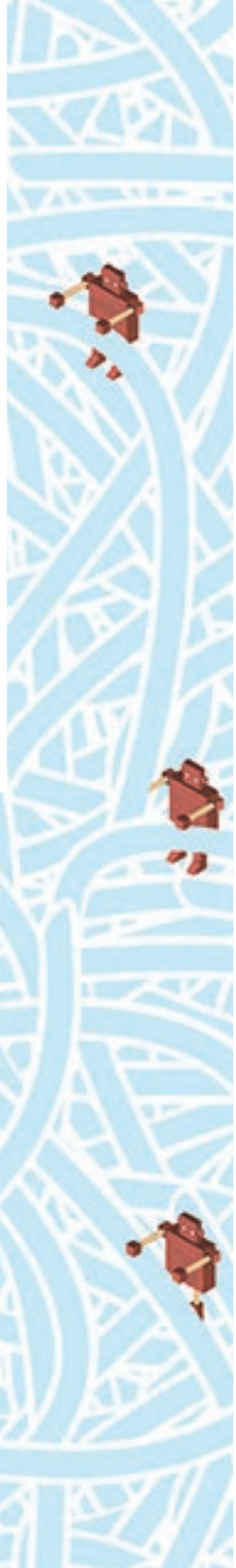


11. Educational games

Around the world teachers are using games as teaching aids. Many are likely to be familiar with games that focus on a clear lesson topic, such as learning prepositions, addition or recognising plants. However, there are currently many games that can be used to support teaching and to generate discussion about the topic.

If not already familiar with games, the teacher may find using them in teaching difficult or even intimidating at first. The school computers may also present challenges in using games in the classroom. However, there are many good websites that provide instructions for using games in teaching. Different publishers also offer their own digital games to support textbooks. By getting acquainted





with the materials, the teacher can bring new things to the teaching and add an opportunity to use different learning methods for the students.

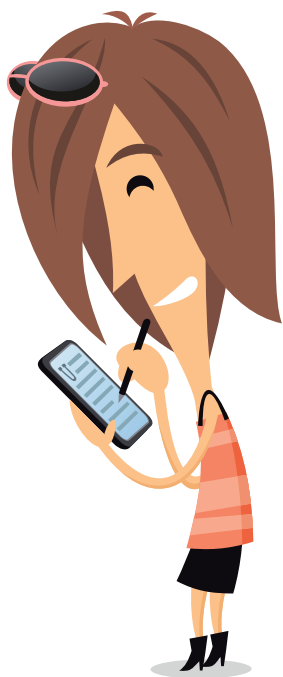
Utilising games in teaching has been researched for a long time, and their use in teaching has been justified on different grounds. Here are a few thoughts regarding the use of games in teaching:

1. Using games in teaching is a motivating way to learn for some students.
2. Most young people today are familiar with games, facilitating learning in a different environment that is familiar to young people.
3. Using games in teaching can be versatile and rewarding, but it may require a lot of planning by the teacher.
4. Many educational games are free, and they are readily available.

Teaching in a school environment continues to often be one-sided, meaning that the teacher disseminates information to the students as fact, and the opportunities to discuss the matters are few or require the students to be well versed in the topic. In games, the information is provided in small portions in accordance with the students' learning capabilities (Gee 2007a). Taking risks in the games increases the excitement of the learning situation without a true fear of failure, which can hinder the student's performance in situations such as tests (Kangas et al., 2009; Ahvenainen et al., 1994).

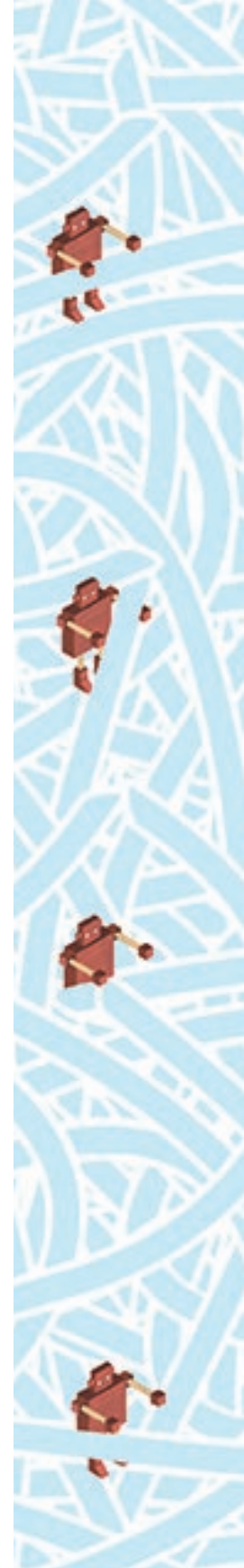
One approach to utilising games in schools is the use of educational games, with which the pupil can practise a specific topic such as addition, naming plants or grammar. Edugames can be good opportunities to differentiate or divide the class. Educational games are usually designed to support teaching, and using games in teaching can be a good way to motivate the students – the use of a game in class alone can inspire some students to study more diligently. However, it is worth bearing in mind that a game alone without good instruction is very likely to be an inefficient way to learn. Many educational games are free and available to anyone. Before searching for an edugame, it is recommendable to carefully consider what purpose the game is needed for and what type of game would be suitable. The teacher must be sure of the content of the game and consider whether

»GAMIFICATION OR LUDIFICATION CAN BE A GOOD AND NOVEL WAY TO APPROACH A LESSON AND ITS TOPIC.«



it is suitable for the subject of the lesson (Saarenpää, 2009).

Another kind of opportunity is to consider the gamification of the teaching. Gamification of the teaching does not have to have anything to do with digital applications, but rather utilising games' mechanics and reward models in teaching. Gamification means including operating modes and features used in games, such as excitement, fun, sociability and rewards for reaching set goals, in work, consumption and learning. Hypermedia professor Frans Mäyrä of Tampere University prefers the use of ludification, a term closely related to gamification, because it challenges the simplified idea of what a game is and takes gaming better into account as an attitude and state of mind (Mäyrä, 2011). Gamification or ludification can be a good and novel way to approach a lesson and its subject. Researcher Sonja Ängeslevä (2013) has produced material related to games and learning which supports the teacher in taking games into account as part of planning the teaching and learning. The idea of Ängeslevä's material is not to bring games to schools, but rather to shape the planning of teaching so that the game nature and gamefulness are taken into account first and foremost as a structure. This way the entire class situation can be turned into a game and motivational gamefulness can be transferred to all learning.





12. An example of a gamified learning process

This chapter introduces a gamified learning process, which contains elements of free play and play with rules and which utilises the work methods of progressive inquiry in contact teaching and online. The work means modelling reality, processing it utilising role-playing and educational games and a multifaceted use of progressive inquiry work methods. The goal is that the learners are immersed in the learning context embedded in the story through a character they have created themselves. The learners are engaged in the life of their characters with story events created by the writer, meaning the teacher. Sometimes the players study in the role, other times as themselves.

The game-based learning process first defines the goals of the learning. The simplest way is to choose them from the curriculum by outlining the subject phe-

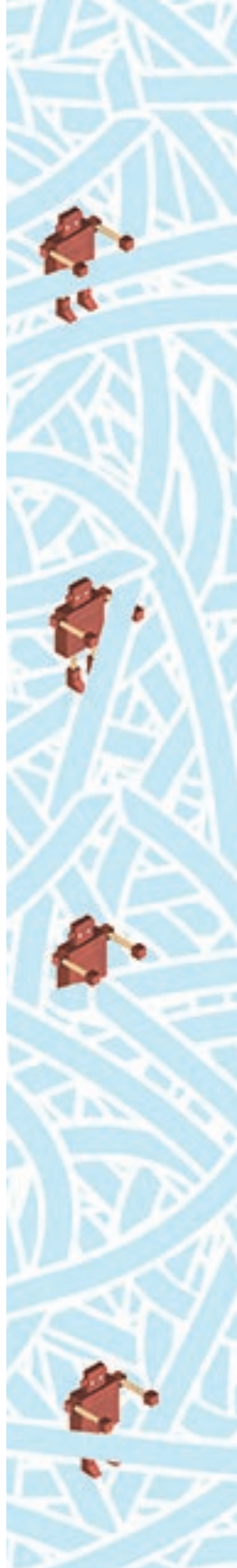
nomenon and by presenting the questions that guide the learning process. The story should be written as a script, defining the developments of the story in the process. In different operational stages of the story, the learners are instructed to wonder, share and define the questions that direct the work themselves. Sometimes they examine the questions as themselves, other times from their characters' point of view in developments created by the storyline of the game. Gamefulness follows the same constructivist principles as other forms of learning. The content and the story should be somehow related to the learner's prior experiences.


A well designed lesson can be gameful, whereupon the goals, rules and feedback system engage the learner in good learning. The traditional ways of segmenting a school day are not always compatible with the new culture gamefulness brings to the school. Sometimes the facilities have to be turned into another reality. The game situation cannot always be paused for break time. Sometimes different groups are at different stages of role research and the computers would be needed for the entire day.

It is central to the game-based learning process that the choices made by the player affect how the game continues. The player makes those choices based on his or her own understanding within the framework of the story. Through situations involving a choice designed for the



»SOMETIMES THEY EXAMINE THE QUESTIONS AS THEMSELVES, OTHER TIMES FROM THEIR CHARACTERS' POINT OF VIEW IN DEVELOPMENTS CREATED BY THE STORYLINE OF THE GAME.»





games, the player makes progress towards his or her goals. A feedback system designed for the game by the designer, meaning the teacher, is important for the player's gaming motivation. It provides the player with information about his or her progress.

The teacher also attaches information retrieval assignments or work collaborative information retrieval work methods to the choice situations. The choices further affect new choices made by the player or the player team. At the same time, the player develops his or her character while also telling and writing about it to others or to him or herself. In multiplayer games, the choices made by the player involve social interaction and social, information- and information retrieval related practices developed through the game.

At its best, the game-based learning process allows one to examine the world from a new perspective, to be someone else. The engaging effect of gaming is also based on the social and collaborative dimension of games. They are one form of being together. When the gameful process is based on the character's perspective, it can be used to hand out research assignments related to the game world. Discussion during the game also serves as a way of telling the story through dialogue. The character's, as well as the player's, history, present time and future are present in the discussion. The character is built like a tree branching out, and the player gradually creates a role around which a small community as well as a game-wide community has been created through interventions developed during the process (Laakso, 2013).

Learning during the game can be supported with the game's internal media. These media may include a TV or film production group inside the game, as well as newspapers reporting in-game developments to the game characters inside the game world. These can bring new developments into the game and handle the game's problem solving process from the character's point of view. During the game, »fictfact« is created, meaning fictional content that is real in the game world. This content can be, for example, diaries by the characters or game world news. At its best, the game-based learning process can even result in an entire book.

»DURING THE GAME, »FICTFACT»
IS CREATED, MEANING FICTIONAL
CONTENT THAT IS REAL IN THE
GAME WORLD.»

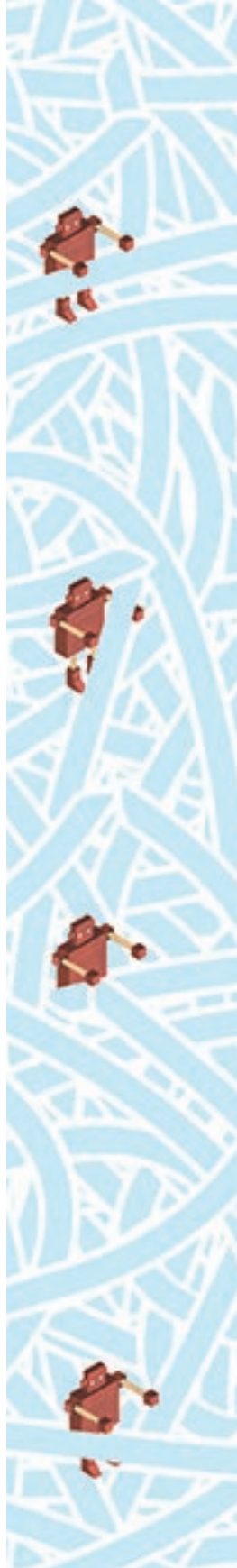



In narrative learning, the starting point is the learner's own knowledge. At the same time, knowing and telling develop the learner's own identity (Bruner, 1971). Through telling, the learner processes his or her feelings and knowledge in a cultural context. Learners also rearrange the aforementioned elements and create new stories. The process can be interpreted so that the learners create new truths about themselves, the time and the environment in the culture they live in. The story is a tool for comprehending the environment.

The story creates a case to be examined. At the same time, a need to retrieve information is created. The best way to find information is to interview the character's role model or to examine the surrounding reality. Findings about the environment are refined into an interpretation and fused with the prior story, and they further serve as a basis for new findings. At the same time, two dimensions of the cycle of experiential learning (Kolb, 1984) are realised: conceptualisation and the level of experience and action.

An integral part of the nature of games is following rules. However, their interpretation makes it possible to adjust them. Thus, new practices are gradually created and the game is developed through playing. In progressive inquiry, learners test in practice and develop hypotheses by retrieving information, testing and creating new work theories. In a game, players act within a framework of set rules and through action, they test the functionality of the rules at the same time.

As the process goes on, the players also learn new methods and solution models for acting in the environment and understand, through reflecting on action and experience, how a phenomenon works. At the same time, the goal is to





understand the connection between practical action and the results and consequences. Thus the action is critical and the players understand the relationships between the activity and the tools (Barab et al., 2010).

As an essential part, the game-based learning process can include »traditional« lessons that serve as an information retrieval situation in the game-based process. They also include agents of the surrounding society in the learning process. In the game-based learning process, different individual games can be used to motivate the learners to write about or discuss a particularly noteworthy matter. On the other hand, a separate game can be used to direct the examination towards to a phenomenon in the game's story.

The cultural environment surrounding the school has an important role in storytelling and role-playing. The actions of corporations and communities can be modelled by getting acquainted and collaborating with them. At the same time, cases from their operating methods can be selected for examination and turned into a part of the game's story. When the teacher creates an in-story case that the players must react to in the game situation or through storytelling, they act on their own knowledge and thus contribute to their characters' lives. The creation of information is even more efficient when the players themselves write the script to their own game.

Game-based learning must not confine learning to a box in which the teacher is externalised into a helpless observer. The significance of instructing is emphasised in the planning of the entire game-based learning process and segmenting the related story. The process involves the dimensions of future know-how, the content of learning and an appropriate integration of the contents. The teacher acts as an active game director who helps the learners to tell their own and the game's story.

**»THE TRADITIONAL WAYS OF
SEGMENTING A SCHOOL DAY ARE
NOT ALWAYS COMPATIBLE WITH THE
NEW CULTURE GAMEFULNESS
BRINGS TO THE SCHOOL.«**

13. Games in libraries

From a library perspective, games are primarily cultural products that belong in the library both as services and as a part of the collection.

Games as culture

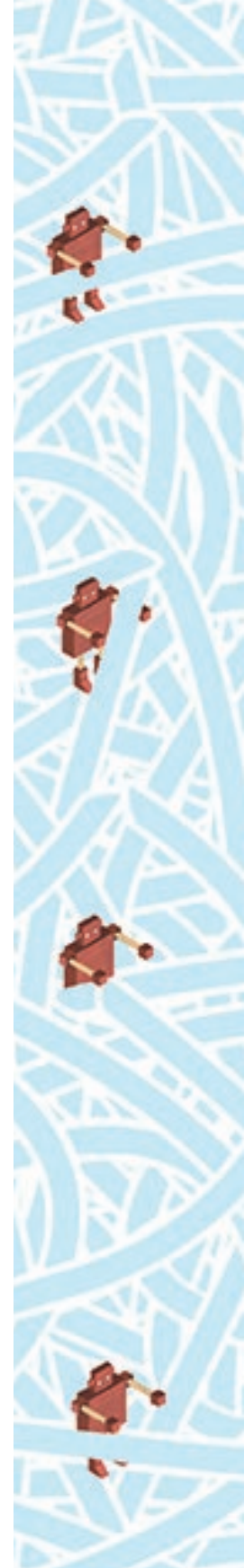
Almost everyone consumes stories in some form: one reads books or magazines, another one watches films or series, plays games or listens to stories in opera or audio book form. The role of libraries as a source of stories has been strong for a long time.

Furthermore, the library offers an opportunity, feeds the imagination and encourages users to create their own stories, for example in the form of role-playing games and short stories. The writers of the future will most probably have played their share of games and may prefer to publish their works entirely in a digital form. This can be observed in literature already.

As the acknowledgement of games as a story form increases, a great information void is created, with a need for new information and material. As people want their stories in game form, libraries must be able to rise to this challenge. In the library, the user has access to the sources of information. When this is realised properly, games are regarded as being like books. Consider the following dialogue, for example:

»I borrowed an excellent game with a brilliant dystopia depiction from you last month. Could you perhaps recommend something similar?«

»Sure thing. Here we have the speculative fiction section that contains a number of similar works. The game you borrowed last month is here, too. It's actually part of a game series that has two parts already, and a third part will be released in the autumn. If you like dystopian worlds and stories in particular, this is the section for you.«





Library assistants' expertise includes the ability to recommend cultural content other than books as well. Films, books, music and games are all of equal value.

Libraries, media education and game education

Expertise related to gaming is a central part of libraries' media education operations (Sallmén, 2009), and as cultural institutions, libraries should set an example regarding how games are viewed. A library is also a place for gaining civic skills and engaging in joint participation, as well as a necessary floodgate with filters for the information flow. Age restrictions related to digital games and the various forms of games are not yet common knowledge. Meeting the need for information regarding games and improving game literacy are part of the libraries' area of operation in this respect as well.

For example, providing information about matters related to the age restrictions is a necessary form of improving game literacy. However, the age restrictions

are not useful if they are not known or understood. The library can be helpful in this matter. As a well-known and trusted institution, the library can easily offer information and guidance to educators struggling with game-related questions. Many age groups gather in libraries for gaming as well, and thus libraries are subjected to expectations about expertise related to gaming and games. Libraries actively strive to meet these expectations.

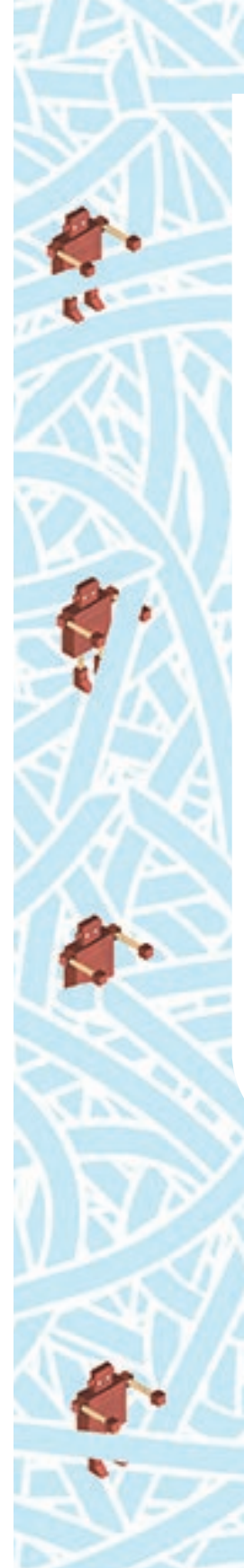
Media education and game education as a part of it are an important part of libraries' basic operations. In most libraries, the personnel monitor the screen time and online content used by children and young people more closely than those of adult customers. The customer computers at the libraries have no filters or blocking software, as these would block the access to numerous useful websites as well.

Libraries as gaming sites

Libraries arrange gaming activities quite commonly. The selection varies from game consoles available for playing to instructed role-playing and board game clubs. The game collections and activities in libraries across are diverse and serve both beginners as well as active gamers. Games have become an increasingly significant part of library collections in recent years, and many libraries arrange various activities for gamers of different ages. Gaming events by libraries can sometimes be found outside the library facilities as well: for example in Helsinki, the library game bike delivers games all over the city and parks in the summer. It is easy to gain new gaming friends in the relaxed atmosphere of libraries' events.

Digital games have been played in libraries for a long time. CD-ROMs played on the libraries' computers have nowadays been replaced with a collection of games available for borrowing. The material available for borrowing consists mainly of console games due to the difficult copy protection policies of PC games. The library collections contain games designed for the most common consoles, for both children and adult gamers.

Libraries also offer guidance for gaming. Many libraries arrange regular game evenings and clubs both by themselves and by collaborating with different part-





ners. Pupils' afternoon activities often include gaming sessions as well, and many gaming events are commonly arranged, especially during school holidays. The annual International Games Day in November is celebrated in over a thousand libraries around the world with various local activities arranged by the libraries.

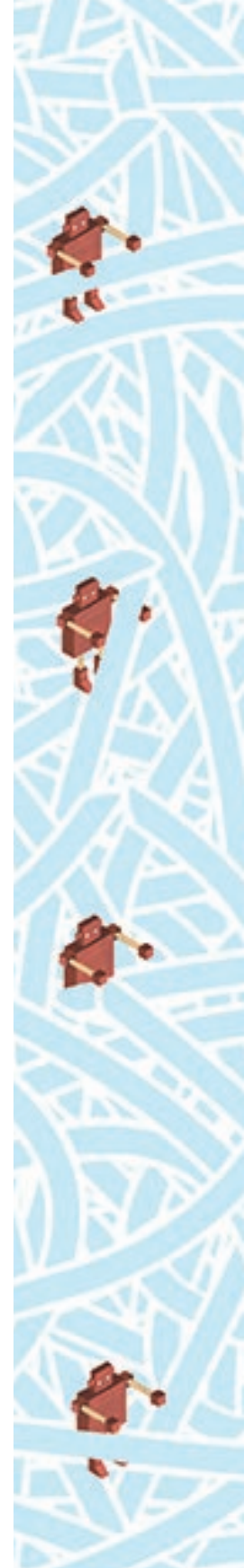
Libraries' customer computers are often used for gaming. Customers play various browser games while using the computers. The rules concerning gaming with library computers are usually library-specific. Many libraries follow the age restrictions carefully, so that only games for all ages can be freely played in the open library facilities.

The gaming areas and game consoles are often placed next to the children's and young people's book sections. Some libraries also have a separate game room or other space reserved for gaming during certain hours. A separate space facilitates playing games rated for adults as well.

Other game forms in libraries

Lately many libraries have taken role-playing games and board games into account as well when procuring games. There are rule books and add-ons for role-playing games available for borrowing. The collection includes games for both traditional tabletop role-playing game enthusiasts and live-action role-players. In addition to beginners and casual players, long-time role-players can find material to borrow among, for example, obscure indie role-playing games and self-published games. For beginner game makers, the library is an excellent place for getting their games seen and tested, even if the edition is limited.

For the most part, board games have previously been playable only in the children's and teenagers' sections. Nowadays more board games are being procured for adult use as well. The age labelling of board games indicates how complex and long they are. However, board games can be borrowed by people of all ages. Some libraries even offer board games that can be borrowed and taken home. Both role-players and board game enthusiasts have discovered the library facilities that provide a good setting for playing. Larger libraries have many rooms in which gamers and gaming parties can gather. Some libraries may collect a rent for separate, larger conference rooms. Detailed information can be found on each library's own website. Because gaming is a social activity, it naturally affects the library's soundscape. In small libraries, distributing the space can





prove impossible, so the available time or space must be divided between loud and quiet activity.

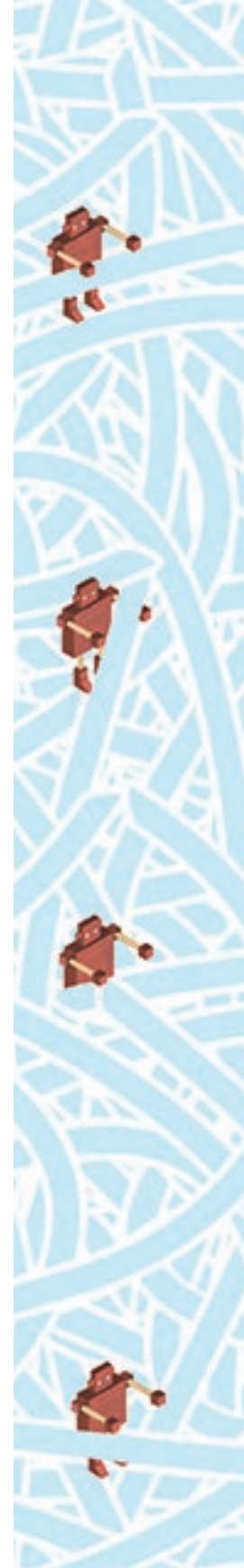
Some libraries offer outdoor games and sports equipment as well. People play croquette or other games such as pétanque in the park, at the beach or even on the library's own outside space, or throw frisbees with equipment borrowed from the library. Casual players often borrow their tennis rackets or footballs from the library.

In addition to games, library collections include game-related literature and magazines in different languages. Many gamers read the library's magazines for game reviews before deciding on a purchase. Libraries gladly accept tips and wishes regarding games that have proven their worth. If the collection is missing an interesting game, whether it is digital or not, one should mention it while visiting the library or submit an electronic purchase requisition.



14. Games as a part of youth work and support groups

Youth work is the promotion of active citizenship in young people's leisure time, the social empowerment of young people, support for their growth and independence and interaction between generations. Playing and games have been a part of these goals since the early stages of the youth work profession, and they have been widely used to reach various goals. For example, when the goal is to get a group of young people acquainted with each other, a playful atmosphere has been used



»IN THE EARLY 2000S, DIGITAL GAMES WERE VIEWED DICHOTOMOUSLY: ON ONE HAND, THERE WERE FEW OBJECTIONS TO ACQUIRING THEM FOR YOUTH CLUBS, BUT ON THE OTHER HAND, THE WORKERS WOULD SOMETIMES OPENLY CRITICISE THE YOUNG PEOPLE'S GAMING.»



to »break the ice», thus making it easier to both get to know an unknown young person and to create more communal activity groups. Playing and games are used in various adventure education and expressive education-related group activities as well as extensively in open youth work. Games being played at open youth work events include various board and card games, role-playing games and digital games. Digital games began to emerge in youth clubs in the early 1980s in the form of various game consoles, and in the 1990s the consoles became youth club staples, similar to billiard tables, for example.

Unlike board games, digital games and gaming in youth clubs has generated some critical discussion. In the early 2000s, digital games were viewed dichotomously: on one hand, there were few objections to acquiring them for youth clubs, but on the other hand, the workers would sometimes openly criticise the young people's gaming. The negativity often came from the workers' fears regarding the amount of time young people would spend gaming as well as common misconceptions about the possible negative effects of gaming. There were arguments attached to gaming that were born from the fear of the unknown, and similar arguments had been attached to previous new forms of technology and culture, such as the Internet, VHS tapes or rock music. However, digital games have been utilised in youth work more and more extensively, and they are generally seen as a good part of youth culture and as an opportunity and asset for youth work. Games and gaming are seen as a significant and meaningful part of a young person's own environment when growing up, as both a hobby and a possible study or career

option. In the field of youth work, utilising games is a part of a larger field of cultural youth work.

In youth work, games are used on different levels. On the equipment level, various games and game equipment serve as an attractive element for youth clubs and youth activity, for example. Acquiring new games and game equipment equalises the young people's chances of getting acquainted with different devices and various games more extensively than is possible at home. The equipment also facilitates self-motivated activity for the young people – the youth clubs' equipment can offer opportunities to youth groups that lack shared facilities and the required technical equipment. Digital gaming devices, especially computers, also facilitate other types of activity in which various media content is processed and produced.



On the activity level, games and equipment are utilised to arrange activities, making them tools for reaching youth work goals. Increasingly common activities related to gaming in youth work are LAN parties, game tournaments and competitive gaming. In addition to this, there are various good practices, such as making games as a small-scale youth group activity or small group activities in which game culture knowledge acts as a connecting factor for socially shy individuals.

The activity environment level refers to activities in which workers take part in the young people's activities in the world of a digital game. In practice, this means working together with a youth group on a game server. Operating in the game world can emulate a shared club room in, for example, sparsely populated areas in which meeting an instructor would otherwise require travelling several miles. Even though youth workers have engaged in active work in environments such social online communities, working within digital game worlds and communities is still very rare.



Instructing in a game

In order to bring utilising game worlds to the activity or activity environment level, youth work training should provide youth instructors with the necessary skills. In youth work training, people have begun pondering what instructing in a game environment means and what kinds of competences this new environment demands from an instructor. The following examines the game environment and instructing in it through the professional skills requirements and the following five basic questions:

1. What is the goal of the activity?
2. What is the instructor's role in the game environment?
3. What special characteristics does the environment set for instructing?
4. What are the available instructing methods?
5. What skills and knowledge must the instructor have in order to operate in the game environment?

The basic skills for operating in the game environment and for quality gaming activity are constructed through these questions. The instructor's expertise can be transferred to the new youth work environment largely with professional reflection and an open-minded attitude.

The goal of the activity

The professional skills requirements for the instructing methods state that the instructor should »use the selected instructing method to create stimulating and goal-oriented (education) activity in which meeting and interaction are facilitated» (Finnish National Board of Education, 2009). In this sense, a game console in the corner of a youth club does not meet the criteria for youth work-related game activity or online and media instructing.

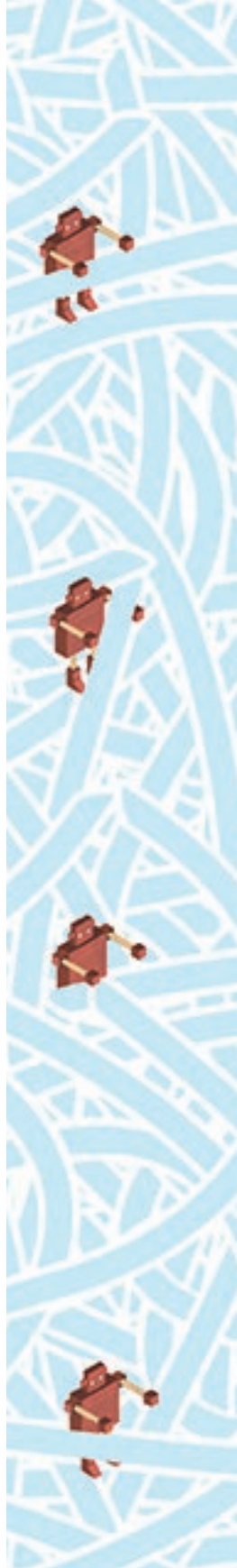
Good, high-quality youth work-like game activity aims at making the game activity planned, goal-oriented and having the instructor present in the activity without leading it. The starting point of the operation is, in addition to the

instructing itself, the resources needed for having up-to-date and appropriate equipment. However, this does not mean that a lack of cutting-edge equipment makes it impossible to start the game activity. It is good to chart what it is possible to do with the existing equipment or small additional investments. The instructor's task is more to facilitate game activity formed from the young people's starting points, in which good interaction is present and which supports the young people's life skills as well as their media and game literacy.

The purpose of the goal-orientation is also to make sure that the game activity is more than the young people merely operating the game equipment without interacting with the instructor and that the game activity is not just certain young people playing without the others having a chance to participate. The experience of communal gaming alone can be very significant to a young person. Depending on the purpose of the activity, the goals can vary from light and simple ones to more extensive and long-term goals. General educational goals can be, for example, learning shared game rules, promoting fair and equal gaming, working in a team and practising social skills. Game-specific goals and themes can be, for example, concepts of morality, environmental education, judicial education or civic education.

Games can be a common link in a group of young people otherwise wary of each other, opening possibilities for interaction outside the game environments as well. Experiences and stories generated from gaming can be used to create various activities focusing on producing media contents. These can be activities, such as forming an editorial hobby group focusing on game reviews, modifying games, producing additional internal stages or resources for games and making videos such as the machinima or Let's Play videos described in chapter 5. Instructed game activity can also involve discussion about the limits of healthy gaming, eating habits related to gaming and encouraging players to have small breaks while gaming.

Games contain a wide variety of different forms of media, such as sound, visuals, animations and storytelling. Additionally, designing and implementing good and balanced gameplay mechanics is central in game design. It is possible to make games the centre of a variety of activities aiming to improve media lit-



eracy by researching games or making games of one's own, for example with the methods mentioned in the previous chapter. In this respect, media education would be built on the observation in which making media by oneself develops not only media literacy, but media production skills that would benefit the young person in other areas of life as well. The cultural capital gained through functional media education improves the young person's opportunities regarding both studies and work.

The instructor's role

Youth work-related game activity is a part of cultural youth work, and this operation often attracts youth workers who have gained competence through their own expertise, or volunteers. However, the requirement for high-quality game activity is not the instructor's own expertise regarding games, but the understanding that on one hand, games and game equipment can be a very important subject to young people, and on the other hand, they can serve as tools for reaching a goal set for youth work. The instructor's role in the game environment can vary from a bystander to a general peace keeper or playing an active role in the game. The role varies greatly depending on the nature of the game or the goal of the operation. However, young people often find the availability of a reliable adult in the game environment reassuring, especially if the game world appears based on everyday experiences, as an environment governed by children and young people, to which those who are just practising the rules of team play in the real world have come to bring order. This can lead to side effects such as foul language or damaging others' games or game-related property. The presence of an instructor pacifies the game environment, as the participants can

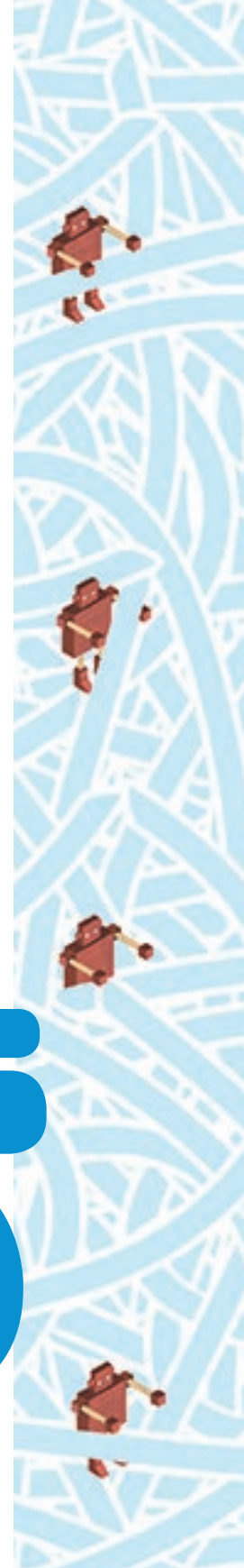
» YOUNG PEOPLE SPENDING A LOT OF TIME IN THE GAME ENVIRONMENT CAN FIND IT A NATURAL ENVIRONMENT FOR TELLING AN ADULT ABOUT ANY MATTERS THAT MIGHT BE TROUBLING THEM. »



rely on someone to put a stop to unacceptable behaviour. Young people spending a lot of time in the game environment may find it a natural environment for telling an adult about any matters that might be troubling them.

Game activity can also serve as a method of supporting inclusion. Inclusion refers to the young person's chances of affecting their own action environment and the culture in which they act. The game activities of youth work aim to facilitate activity from the young person's own starting points and goals. The young people's own expertise and interest in game culture is often enough for starting the activity, whereupon the instructor is not necessarily required to have a deep knowledge of games. Interest in the young person's expertise and passions makes it easier to meet the young person by utilising a subject important to him or her. Expertise, that of a young person or a youth worker, is also central when procuring games to be used in the work by both an open youth club and small groups, and when working with young people's parents and representatives of other professions. In the activity, game skills and understanding are useful when, for example, playing with young people and arranging events and competitions. Club activities directed towards making games and editorial activities related to game culture also include a strong element of inclusion. As with other cultural youth work, game activity can be used to get a young person more acquainted with a culture he or she is interested in, thus supporting aspirations regarding wishes about hobbies, studies or work related to the game industry. For inclusion, it is possible to use gaming as one tool for opening the concepts or ideas of inclusion. A central element in games such as role-playing and board games is negotiating the rules. This setting could be utilised as method of practising dialogue as well as negotiation and argumentation skills with a group of young people. Furthermore, it is possible to use role-playing games for simulating and practising situations related to society, whereupon the concepts of inclusion are formed more through experience. Live action role-playing games like this are described more extensively in books such as *Nordic Larp* (Montola & Stenros, 2010).

»EVEN THOUGH THE INSTRUCTING
TAKES PLACE VIRTUALLY IN THE
GAME ENVIRONMENT, THE SOCIAL
REALITY IS CONSTANTLY PRESENT.»





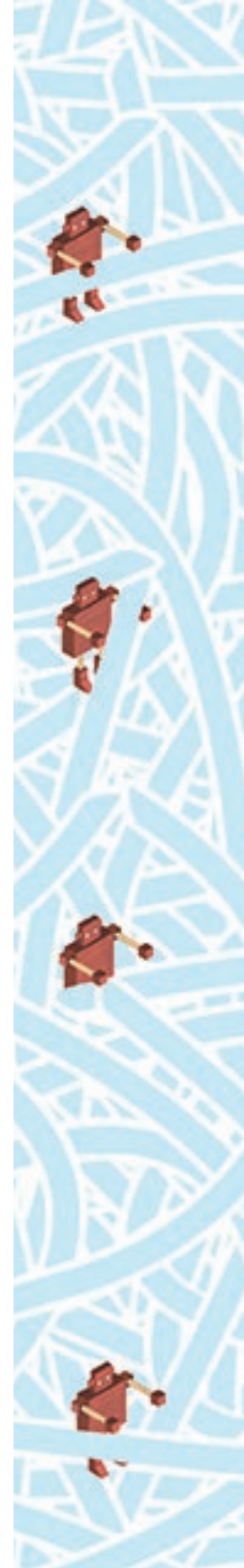
In arranging game activity, like in all other instructed activity, the education is often related to the practices and limits mutually agreed upon, inside which the activity is kept equal, high-quality, providing positive experiences and safe for all parties. In the common rules, it is possible to pay attention to fair gaming, sociability in gaming and the speech culture emerging alongside gaming.

The methods of game instructing and the special characteristics of the environment

The criteria for the basic degree in youth and leisure time instructing state that the instructor should be generally familiar with the principles of different instructing methods and their suitability for working in the youth and leisure time field (Opetushallitus, 2009). With reference to the aforementioned classification of the levels of game-based youth work, one dimension of game instructing could be expanding the perspective from the instrumental use of games towards operating environment thinking. As established above, the field of youth work has utilised games in its operations for quite some time now, but games themselves are not yet often seen as the operating environment of instructing. In online youth work, the practice is often a chat-based service in which the work focuses on discussion either between individuals or in a group. It would be possible to develop functionality-based online youth work alongside it, and game environments offer one possibility for this.

As instructing environments, game environments contain characteristics similar to other virtual instructing environments, such as social media or services like Second Life. Game-based environments greatly emphasise functionality and sociability. The discussion can often be strongly related to experiences and observations obtained from the activity, whereas others are motivated to enter the game environment mainly by social interaction. Even though the instructing takes place virtually in the game environment, the social reality is constantly present. Factors such as what the visual style of the environment is like, what instructing methods it allows for and what kind of language is used in the environment are significant to using the instructing environment.

When operating on a game server, one should also consider whether the activity takes place on one's own, self-governed server or a commercial server. When operating on a commercial server, there are other groups operating in the environment with a very different motivation or goal for gaming than that of someone striving for the goals of youth work. Different game environments use age restrictions, which must be taken into account when planning the activity.





The special characteristics of a virtual instructing environment can be divided into starting points of virtual interaction and special characteristics brought about by the virtual nature. The aforementioned division is based on examining the differences and similarities between online and face-to-face interaction and analysing the possibilities and challenges of online interaction (Ukkola, 2012). Furthermore, the game environment sets, among others, game-specific special characteristics for instructing.

The basic starting point of online interaction is reaching, meeting and instructing the young person and supporting his or her growth and development, as well as the presence of an adult. The availability of an adult in an online or game environment is important to both children and young people. However, this requires the instructing adult to be open, react quickly to the young person's messages and be familiar with the young people's world and the online environment (Ukkola, 2012). The game environment poses its own challenges to the instructor, as it can be hectic and hard to grasp. Game reading skills are improved by gaming, however, and getting a grasp of the operation environment becomes easier with gaming experience. There are also games that have been developed to be suitable for education and instructing activities in particular. For example,

»ONE'S ATTITUDE AND KNOWLEDGE CAN EASILY BE DEVELOPED BY BEING INTERESTED IN CHILDREN'S AND YOUNG PEOPLE'S GAMING – BY ASKING, WATCHING AND TRYING.»

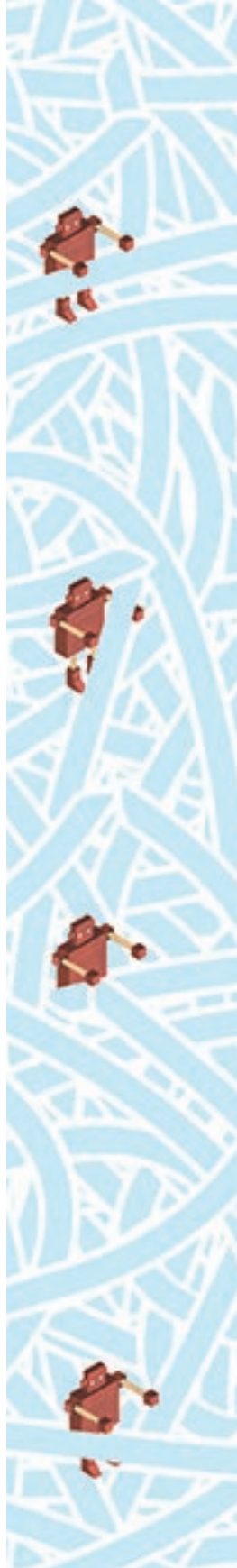



there is a version of the popular game Minecraft designed for educational use, called MinecraftEdu.

The game environment allows the choice of whether the instructing is text-based using a chat function, or whether a dedicated speech server is created for the environment. The instructor can also utilise in-game or related speech options and applications (such as Ventrilo) in the work. Text-based communication creates new ways of self-expression for both the instructor and the young person. The communication and the interaction can be more direct, shorter, more provocative or authoritative. In the absence of gesture-based communication, there is a great chance of misunderstandings. Verbal expressions of emotion can be surprisingly strong. On one hand, the instructor's duty is to not be drawn in by emotional turmoil and to remind the young people of the importance of adhering to good manners and common rules in the game environment as well. On the other hand, an instructor working within the game world may better understand the emotions raised by the game and thus not only offer understanding, but also teach ways of channelling and processing strong emotions. Online and game environment often use their own form of language that is somewhere between written and spoken language, with many

English game terms and abbreviations. The instructor must be able to understand the phrases and abbreviations used in games, and, to a certain extent, use the same game language with the young people in order to communicate efficiently in the game environment.

If a speech server is chosen alongside text, its use must be taken into account when creating one's own rules. A speech server decreases the pressure of using





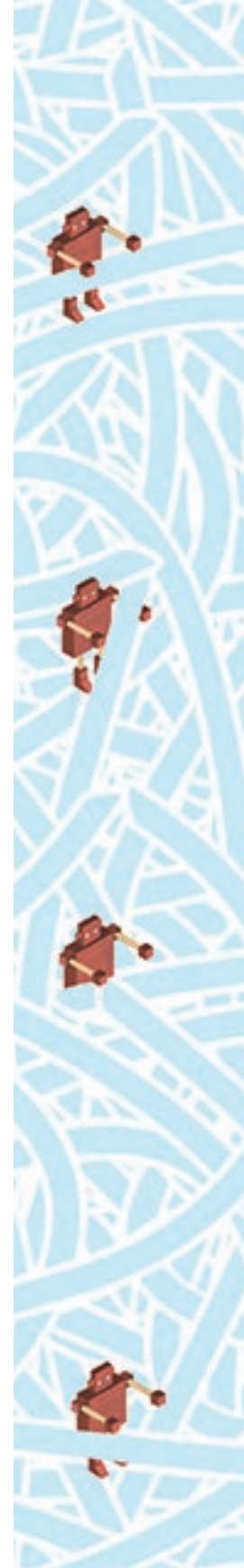
text-based communication, but does not eliminate it entirely. Some of the players may not want to use the speech server, whereupon the instructor must consider communication on both the speech and the text level. The use of multi-sensory communication requires practice and concentration, but the skills improve with use. One of the challenges of virtual interaction in the game environment as well is the lack of social clues, meaning that the player has far fewer observations to help with interpretations than in face-to-face communication. Unruly conduct is harder to control in an anonymous game world: it is easy to behave however one wants behind a username and to say things one would not otherwise say. On the other hand, the lack of social clues can give more confidence to otherwise introverted or shy children and young people, and it may be easier for them to interact through technology.



What skills and knowledge must the instructor have in order to operate in the game environment?

The instructor must have some understanding of the game culture and the importance of games as an environment in which young people spend their leisure time. Gaming can be an important hobby to young people, and it can even be done on an international competitive level. It can serve as an important arena for succeeding in some young people's lives, and it can be detrimental to a young person's self-esteem if adults and youth work professionals show a dismissive attitude towards the activity. One's attitude and knowledge can easily be developed by being interested in children's and young people's gaming – by asking, watching and trying. Knowledge of the game culture is developed by giving the young people a chance to be the experts in their own gaming and having the patience to take the position of a learner. If the instructor is not already familiar with the phrases and abbreviations used in the games, it is recommended that they turn to the experts, i.e. the young people, to get acquainted with them. By listening to the young people's speech in the game or observing the written texts, one can easily get a grasp of the most common expressions.

There are certain special IT skills related to gaming, such as skills required for controlling the game and the playing itself. It is also important to have knowledge of hardware, software and online communication. However, one can manage even with lacking skills, and practice is the best teacher. Improving IT skills increases the options regarding the instructing and the methods and helps when planning future operations. Even for non-world-class players, there is bound to be an abundance of eager teachers if a game activity is suggested to the young people.



15. Games and gaming within the field of health

Digital games in the field of health include games that develop cognitive skills, exercise-related games, games designed for managing chronic illnesses and games related to healthy nutrition, as well as games related to the professional expertise and knowledge of professionals in the field of health. Digital health games can be divided into videogames played on a computer, console games and virtual worlds or online games played on networks.

Health games and simulations can also be divided into medical and health games and simulations. Some of the games and simulations have been designed to be used by professionals and students, whereas games for the general public are usually intended for promoting health and well-being by their nature. Additionally, mobile applications produced for monitoring one's physical condition, such as HeiaHeia or Sports Tracker, can be classified as health applications.

What separates the so-called serious games from other games is that they emphasise education, teaching and conveying information instead of entertainment (e.g. Michael & Chen, 2008; see chapters 10 and 11 of this book). The difference between gaming and simulation is small – both are related to computer-aided learning. In games, the objective is to reach new levels or to collect points. When simulating a certain task or problem, the objective is to embrace the matter, not to compete with other players or one's self. In serious games in the field of health, the goal is to utilise elements of the visual narrative, which is used to provide information about complex matters in a visually understandable way. The visualisation of information helps users to understand and to form clear entities from complex information processes (see e.g. Charlier, 2013).

Massive online multiplayer games are, by their nature, social games in which the players interact with each other in a virtual game world. Games have been used in particular in tasks requiring social skills at a very demanding level, for example at NASA. Social virtual worlds closely related to gaming have been used



in particular in the United States for training in the fields of health and medical science. Second Life in particular contains plenty of health and medical training, even though its availability and reliability are sometimes problematic.

A relatively new branch is formed by augmented reality applications, in which virtual elements are superimposed on »top« of the real world, using mobile technologies in particular. For example, it is possible to obtain additional information about an object by pointing a smartphone at it. They are simulated in health training in the virtual world with computer-generated 3-dimensional objects such as healthcare equipment in video and image form, for example.

Augmented reality displays are more developed than those emphasising other senses. So far, displays based on hearing, feeling, smelling or tasting remain almost unheard of. Touch-based displays are known, and they have been used in medical research, especially in the fields of surgery and dentistry (Moog, 2013). With these, the user can feel through a computer how it feels to hold a dentist's drill, for example. Training-related gaming and simulation has often been justified by its efficiency and patient safety. They can be used to practise matters such as health-related functions, the testing or learning of which would otherwise be difficult to arrange.



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FACE THE CHALLENGES



16. The adverse effects of games and how to prevent them

Problematic gaming

Many parents, teachers and other educators are concerned about the possible adverse effects of gaming on children's and young people's development and well-being. Harmful content and the possible addiction potential of games are a cause for concern.

For most people, games are fun entertainment and sharing an activity with friends. However, for some, games cause varying adverse effects such as headaches, neck and shoulder problems, sleep problems, diminished control of everyday life and narrowing of life outside the game world. Many of these adverse effects are temporary and can be solved with practical procedures, such as regular breaks, better ergonomics or lighting. It is important to be able separate small gaming-related adverse side effects from actual problematic gaming.

There are no established practices for identifying or defining digital gaming problems. At the moment, international disease classifications (ICD-10 or DSM-5) do not have a separate diagnosis for problematic digital gaming or game addiction (not including gambling), as there has not been sufficient research evidence available. In international studies, the problems caused by digital games vary considerably depending on the target group of the study and how problematic gaming is defined.


When talking about problematic gaming, the discussion is often centred around time and how it is used. So when can gaming be considered excessive or



problematic? Four hours of regular and continuous gaming a day is often considered a risk threshold, but it is impossible to define exact limits for problematic gaming. Studies indicate that the use of time is one central factor when diagnosing addictive behaviour, but is not unambiguous, as use of time is always relative. Use of time as an indicator of addiction is based on the idea that the gamer is missing something essential and important because of the gaming. Excessive gaming often indicates enthusiasm and commitment to the game, and sometimes gaming involves »binging», whereupon a new game, for example, is being played very intensively for a period of time. It is important to understand the situation as a whole when managing gaming. The odd gaming session going on well into the night is not a sign of uncontrollable gaming if the gamer's everyday life is otherwise in control.

Individual gamers differ from one another greatly, and it is more important to examine the adverse effects caused by gaming and how well the individual is in control of his or her gaming. Gaming can be considered problematic when





it begins to hamper the gamer's life, such as relationships, studies, health or finances, and when cutting back is difficult despite the adverse effects (e.g. Luhtala et al., 2011). Childhood and youth involve learning social skills, controlling one's emotions and managing everyday matters such as school and chores. For this reason, young people's and adults' gaming cannot be assessed with the same criteria. In children's and young people's gaming, the essential factor is how it affects both their current well-being and future opportunities.

Problems with computer and console gaming are often part of a larger set of problems, and they can be caused by a variety of challenges related to emotional and social well-being (Lemmens et al., 2011; Griffiths, 2000; Haagsma, 2012). Parallel problems related to problematic gaming include depression and anxiety disorders, problems with school, social problems and sleep disorders (e.g. Desai et al., 2010). It is difficult to distinguish cause and effect and the origin of the problem from this often complicated morass. For a problem gamer, the gaming is usually not a cause or an effect, but it can be both a solution model that makes the situation more difficult and a safe environment which provides the young person with positive and self-esteem-boosting experiences in a difficult situation.

What makes games addictive?

Every gaming event is different and affected by both the player's personal characteristics and various environmental factors. Together these form a unique gaming experience. It is essential for games to be able to immerse the player into the virtual world and maintain that immersion. Positive matters for gaming, such as challenge, visuality, interesting stories and interactivity are features that make a game addictive. Every person reacts to these features in his or her own individual


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way. Some players are at a higher risk for gaming-related problems. Risk factors include poor self-esteem, weak social skills, attention disorders and various mental health problems, especially depression.

In addition to the game's features and the player's characteristics, the development of a potential gaming problem is affected by situational and environmental factors. For example, if a gamer has no other hobbies, gaming can become a primary or even the only way to function and spend time. Social relations both in the game and outside it also affect the amount of gaming. For many, gaming is part of social activity and friendships started through gaming can be very important and meaningful for a gamer. This makes gaming attractive and can also make detaching from a game difficult, as it may also disrupt communication with the gaming community. Studies indicate that a game's sociability is three times more important than other factors in the potential addictiveness of a game (Hull, Williams & Griffiths, 2013). Additionally, minimal friendships outside the games emphasise the importance of the gaming community.

The world of games can offer a place to escape troubles or loneliness, and, for example, a young person bullied by others in school can be successful in the virtual world as a valued member of the community, or someone unhappy with his or her looks can build a character to match his or her ideals. It is human to seek situations in which one can succeed and feel accepted. If the real world fails to offer competing positive experiences or feelings of success, the games' characters and sociability can become so attractive that gaming begins to produce adverse effects and become a problem. In situations like this, it is important to find positive content in one's life and experiences of success outside games as well.





Even though games contain elements that take hold of the player, various individual risk factors are the most important in terms of the causes of problems. One central factor for the development of problems appears to be the motive for gaming. For problem gamers, the most prominent motives include escapism (Seay, 2006; Caplain et al., 2009; Hussein & Griffiths, 2009), emotional control (Caplain et al., 2009; Haagman, 2012; Hussein & Griffiths, 2008) and a strong focus on performance and the need to belong in a group (Yee, 2006).

When is there reason to be concerned?

Problematic gaming is usually not visible on the outside, and identifying it can be challenging. The problems can therefore develop for a long time without anyone knowing to intervene. Problems related to gaming can show themselves in many ways in everyday life, and when assessing them one must take into account the individual's circumstances in life as a whole and not just focus on any single symptom.

Signs of excessive gaming

- The player spends a lot of time on the computer or console and forgets to take breaks
- Lack of gaming causes restlessness and irritability
- Restriction of gaming causes a strong negative emotional response
- Relationships outside the game world are dismissed or narrowed down considerably
- Various duties are left unfulfilled due to gaming
- Gaming disrupts the circadian rhythm
- Gaming causes absences from school or work
- Other hobbies are dismissed because of gaming




Intervening in problematic gaming

If concerns regarding gaming have arisen, one should first find out what the person feels about his or her own gaming, well-being and life management. The purpose is to engage in discussion to find a shared view of the situation and to motivate the player to think about his or her own gaming and its effects on life.

Excessive gaming can act as a way to offload or escape other problems. This must be taken into account, and the situation should be assessed as a whole instead of focusing on gaming alone. The assessment should always consider other individual and social factors of the gamer as well, such as his or her personality characteristics, susceptibility and sensitivity to outside influences, state of mental health and effects of the environment. It is also important to identify other contributing problems, such as loneliness, depression, problems with school or domestic problems. It is essential to think about the motives for gaming and what kinds of emotions the gaming arouses. Is gaming a way to escape problems or the only thing producing experiences of success in the gamer's life? Some young people have a





high threshold for leaving the computer or console to meet others face-to-face. Sometimes, it is good to focus on lowering this threshold instead of just talking about games or restricting screen time.

Gaming can be thought about with questions such as the following.

- Do you think you play too much?
- In what situations do you play?
- Do you feel you are in control of your gaming?
- Are there situations in which gaming is difficult to control?
- Do you repeatedly play games to escape your problems?
- Have you tried cutting back on your gaming?
- Have you missed work or school because of gaming?
- Do you become anxious or irritated if you do not get to play?
- Have you neglected your own well-being because of gaming?
- Have those close to you been worried about your gaming?
- Do you meet with friends outside the virtual world?
- Has gaming remained fun and exciting?

The questions are not meant to be a diagnostic tool, but anyone can use them to think about their own relationship with gaming. It is essential to think about the underlying reasons for excessive gaming and the factors that make controlling gaming difficult. Keeping a gaming diary is a good tool for outlining one's own gaming habits.

Youth is a time of growth, development and great changes, which often involves strong emotions and impulsive behaviour. For this reason, young people are especially susceptible to developing gaming problems, but on the other hand, they also recover from them more easily than adults.

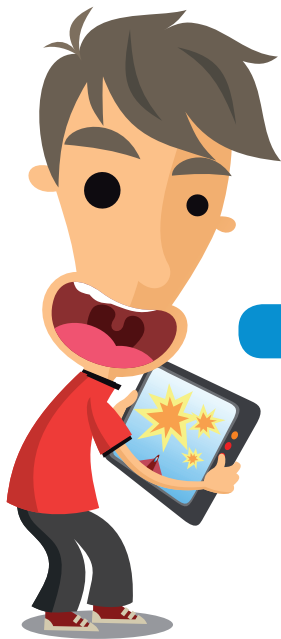
»IT IS ALSO IMPORTANT TO IDENTIFY OTHER CONTRIBUTING PROBLEMS, SUCH AS LONELINESS, DEPRESSION, PROBLEMS WITH SCHOOL OR DOMESTIC PROBLEMS.»

Hope that the situation will improve is important for a young person's ability to cope. Awareness of the issue, goals set for oneself and support from friends and family are often enough to help. It is usually not necessary to quit gaming altogether, but it is important to change the gaming habits so that they no longer hamper one's control of life or well-being. For young people, pupil and student care and youth stations offer support in situations in which controlling the gaming by one's self or with the support of close ones fails.

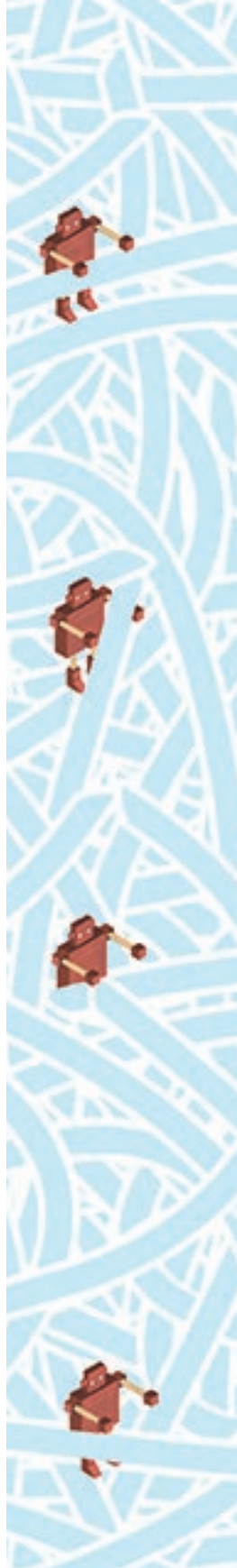
Preventing adverse effects of gaming


To a parent or professional unfamiliar with games, gaming can easily appear primarily as a threat. Digital games are an increasingly important part of today's world, leisure time and social life. Games are being played everywhere and all the time, alone, together and alone together. In light of contemporary research, the beneficial effects of games are undeniable. For instance, studies have shown that games develop eye-hand coordination as well as language skills, and there is strong evidence of the socialising effect of online multiplayer role-playing games.

Excessive fear and the strict prohibition and demonising of games it can lead to are not a sustainable solution for preventing adverse effects of gaming. Strong confrontation hinders constructive discussion on both a societal level and an individual level in situations in which problematic gaming could be discussed.



»EXCESSIVE FEAR AND THE STRICT PROHIBITION AND DEMONISING OF GAMES IT CAN LEAD TO ARE NOT A SUSTAINABLE SOLUTION FOR PREVENTING ADVERSE EFFECTS OF GAMING.»





The role of homes and educators in preventing adverse effects of gaming is significant. Even though games are an environment for acting that is familiar to young people, the game world also contains risks from which a young person cannot be shielded with technical skills alone. A positive game culture requires an active and aware approach to games from educators. Knowledge of games and game culture help the educator to support the young person in assessing his or her own gaming behaviour and relating it to other goals and duties in life.

In preventing adverse effects of gaming, it is important to affect the varying and individual factors that either increase or decrease the gamer's risk of problems. Most of these are not directly related to gaming. Improving self control and emotional skills, offering substitute activity opportunities and reinforcing social relationships are an essential part of preventing problems. The effective ways to prevent problems are simple – having more breaks while gaming, adhering to the times and limits set for gaming and being aware of the amount and effects of one's own gaming.

Practical measures in schools and other communities

Schools and different forms of youth work are important education communities, which together comprehensively reach the entire age group. This makes these communities a good environment for game education and thus for preventing adverse effects of gaming. Practical measures at home are described in more detail in chapter 8, whereas youth work is discussed in chapter 14. Even though the examples below focus on school, they can be easily applied to environments such as various clubs or other hobby or civic association activities.


Various **GAME EVENTS** and game days make it possible to discuss the game theme through action as well. The game day can either be aimed at the pupils exclusively, or it can be designed to be aimed at the entire family. An event for the entire family can also encourage the pupils' parents to think about gaming and to take a more active role in their children's gaming. The game day should contain a suitable ratio of information, activity and entertainment, keeping it interesting and facilitating discussion of the topic without a preaching tone. Having the pupils



participate in designing and implementing the event increases both inclusion and interest in the event in relation to other pupils. If possible, arranging a larger event in particular should also utilise the parents' association, local organisations and businesses etc. The game day can consist of, for example, various game spots, workshops (game design, crafts from old computer parts, game-themed quizzes etc.), lectures and round table discussions.

INSTRUCTED GAME ACTIVITY in the form of the school's own game club, for example, is a good way to add to the young people's hobby opportunities, IT skills and inclusion. It also allows for activity which promotes children's and young people's media education and understanding of digital gaming. At the centre of





the activity is its goal-orientation. Instructed game activity is not gaming just for fun or passing the time, but it actively utilises gaming in education. The Pelitaito project asked gamers for tips regarding controlling gaming at the Assembly Summer 2012 event. The tips below are direct quotes from the answers they gave:

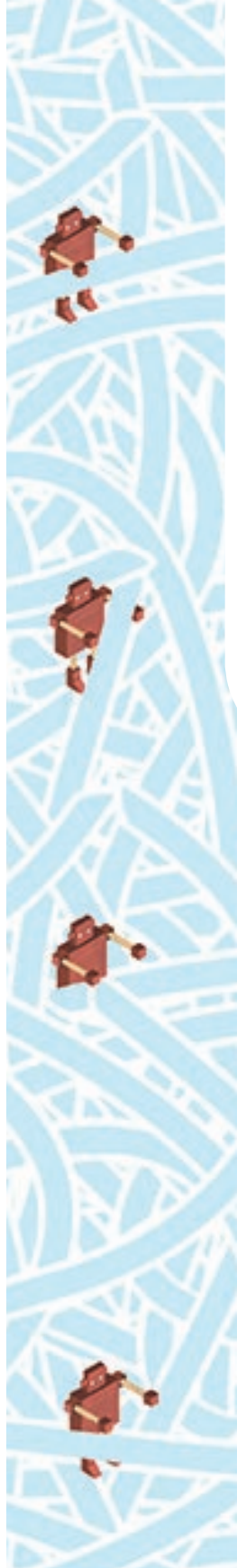
- You enjoy games more if you remember to take breaks and see people face-to-face.
- If gaming is primarily entertainment, you should take care of other duties before it. Relaxation is at its best when you can really kick back without having to worry about deadlines or project assignments.
- Make a schedule for yourself, in which you gradually decrease the amount of time you spend gaming to a reasonable level. Stick to the schedule, it's there for a reason.
- Start gaming with friends and begin to slowly shift the activities with friends to those outside gaming as well, such as movies, concerts etc.
- Can you find the same feeling from somewhere outside computer or console games, or could you try other types of games – team games in the form of exercise, board games with a group, live action role-playing? Cutting back on gaming must not mean losing good feelings and pleasant activities. You just have to find them somewhere else.
- Have breaks. They can help a lot if you can't seem to get away from the computer or console. On the other hand, I also recommend exercise. You'll enjoy gaming more if you've worked for it.

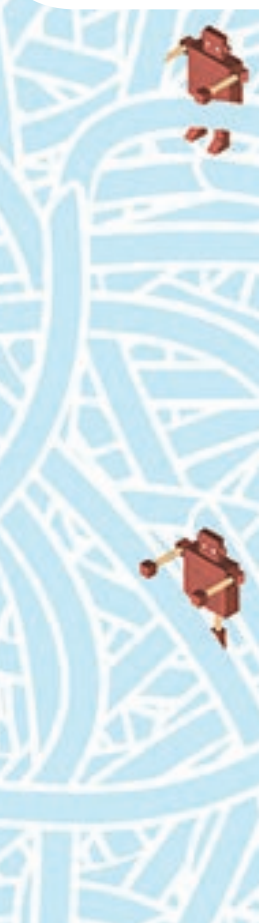
17. Gaming and physical health

All physical exercise is good for everyone's health. The reason is simple: humans are not made for sitting down for long periods of time. The latest study related to this matter was published in the UK, at the University of Leicester in October 2012 (Wilmot et al., 2012). The study compiled 18 different studies related to sitting, with a total of 794,577 participants. According to the study, those who sit for long periods of time daily have a doubled risk for contracting diabetes and heart diseases and dying prematurely. Particularly noteworthy is the fact that the amount of exercise engaged in cannot rectify or eliminate the effects of long-term sitting. It is a good idea to stand up and take a walk while gaming every once in a while, in other words to have a break. It is also a good idea to frequently change one's position while also paying attention to not sitting in a bad position or »slouching» on the chair or sofa. Long-term sitting in a bad position affects one's posture.

What can a lack of physical activity cause? First of all, it slows down the metabolism, as without movement and exercise a person's muscle mass decreases and weight increases. The body's immune systems weakens, allowing a cold to set in without warning, for example. Exercise and the exertion caused by it help to maintain the heart and vascular system as well. With low activity, the heart has to work more and the blood pressure increases. Additionally, type 2 diabetes, osteoporosis and an increased cancer risk are among the risks of long-term exposure. Therefore, daily gaming sessions of many hours expose the body to several health risks in the long run (Lindholm, 2012).

It is easy to forget a regular and varied diet while gaming. One-sided nutrition combined with long-term sitting slows down the metabolism and causes weight gain. A healthy diet is too often replaced with snacks and energy drinks at the computer or game console. When energy drinks are used in moderation, they are not believed to cause serious adverse effects in adults. However, excessive





consumption is not recommended, as the combined effects of the caffeine, taurine and other ingredients they contain have not been researched. Energy drinks are not recommended at all for minors. They also contain large amounts of sugar, much like regular sodas. Constant snacking and sugary drinks also erode the teeth by causing continuous acid erosion. Water still remains the best quencher of thirst. It should be drunk every day (Terveyskirjasto, 2013).

Long periods without sleep cause problems. The effect of just 24 hours without sleep has been found to be equivalent to a blood alcohol content of one per mille. The motor skills of the entire body and reaction speed slow down and thinking becomes hindered. One can feel irritable and the tolerance for stress is clearly lowered (Partinen, 2012).

A question that is frequently asked to nurses is: how long should a young person be gaming in one day? With 24 hours in a day, the young person spends eight hours in school and travelling to and from school, the recommended amount of sleep for a growing young person is nine hours, and two hours a day should



»LONG PERIODS WITHOUT SLEEP CAUSE PROBLEMS. THE EFFECT OF JUST 24 HOURS WITHOUT SLEEP HAS BEEN FOUND TO BE EQUIVALENT TO A BLOOD ALCOHOL CONTENT OF ONE PER MILLE.»

be spent on general activity. This leaves a total of five hours, and with one hour spent on peaceful eating, only four hours remain. Homework, washing and other hobbies take their time as well, unless gaming is the young person's only hobby. No recommendation for an exact amount of »allowed« time can be given.

However, the timing and rhythm of the gaming are important. One should agree with the child or young person on common rules that are also adhered to. An example of an effective practice is »buying« screen time minute for minute, meaning 30 minutes of outdoor activities, chores or other agreed activities for 30 minutes of game time. Gaming should be stopped well before bedtime, allowing the brain to sufficiently prepare for rest. The computer or console should be shut down at least an hour before preparing for bed.

Gaming is a good and versatile hobby, as long as it remains reasonable and is one part of a full life. When gaming is exciting and increases one's alertness, it can, at its best, lead to a state of flow which feels pleasant and leads to good relaxation. It can serve as a good way of relaxing and reducing stress for an adult as well (Työterveyslaitos, 2012b).

»GAMING SHOULD BE STOPPED WELL BEFORE BEDTIME, ALLOWING THE BRAIN TO SUFFICIENTLY PREPARE FOR REST.»

18. Gamification

Games have begun to seep into our everyday life: we log in to coffee houses (Foursquare), run away from zombies while exercising (Zombies, Run!), wake up at a time optimised by a sleep gauge (Fit-bit, Jawbone Up), and our car computer sets us consumption goals (Nissan Leaf), rewarding us for reaching those goals. We no longer merely sit in front of a personal computer or a TV playing games. With new technologies, our everyday life is becoming »gamified«. In recent years, gamification has become one of the biggest trends in marketing and technology. Major consulting companies predict that a large portion of the world's businesses will gamify their processes by 2015 (Gartner, 2011). In this chapter, we examine what gamification really is, what it is based on and whether or not it can be assumed to actually work.

In essence, the idea of gamification stems from the assumption that because games are fun, any other system that is made to resemble a game will also become more fun and enjoyable. Therefore, gamification can be defined as design that aims to evoke psychological responses similar to those produced by good games. Beyond invoking fun experiences, gamification commonly strives to encourage beneficial behaviours (such as learning, exercise, or greener consumption). In order to understand gamification more broadly, gamification can be broken down into three elemental aspects: 1) the design, 2) the desired psychological effects or experiences and 3) the desired behaviour (Huotari & Hamari, 2012).

In its most basic form, gamification is a process similar to game design. It primarily utilises the same elements as games, such as goals, points, awards and storytelling. However, there is a major difference in gamification when compared to conventional game design. Game design aims primarily to make the game as good as possible, whereas gamification aims to increase the value of another system or service and make it more motivating. For instance, the gamification of education is discussed in chapters 10–12 of this book. If and when gamification strives to

motivate, there is reason to ponder what makes games engaging and enjoyable. Game research indicates that the attractiveness of games stems from such experiences as mastery, autonomy, immersion, excitement and social relatedness (see e.g. Ryan et al. 2006; Yee 2006; Hamari & Tuunanen 2014). The goal of gamification is to evoke similar experiences in other contexts.

Gamification has been employed especially to motivate behaviours that are believed to be beneficial the individual, but difficult to begin and maintain for various reasons. Activities such as these (studying, healthy living or sustainable consumption) are connected by the fact that their overall benefits are not realised until later. Thus, gamification can be seen as »soft paternalism» (see Thaler & Sunstein, 2003). It strives to encourage people to engage in activities that they themselves would like to engage in, but are unable to carry out without support and encouragement. On the other hand, gamification has also been used as a part of marketing as well as a tool for engaging customers.



»THE IDEA OF GAMIFICATION HAS BEEN CONSIDERED SO ATTRACTIVE THAT IT HAS OFTEN BEEN BELIEVED TO ALMOST AUTOMATICALLY MAKE MUNDANE ACTIVITIES ENGAGING. HOWEVER, IT IS WORTH BEARING IN MIND THAT NOT ALL GAMES ARE GOOD AND ENGAGING FOR EVERYONE.»





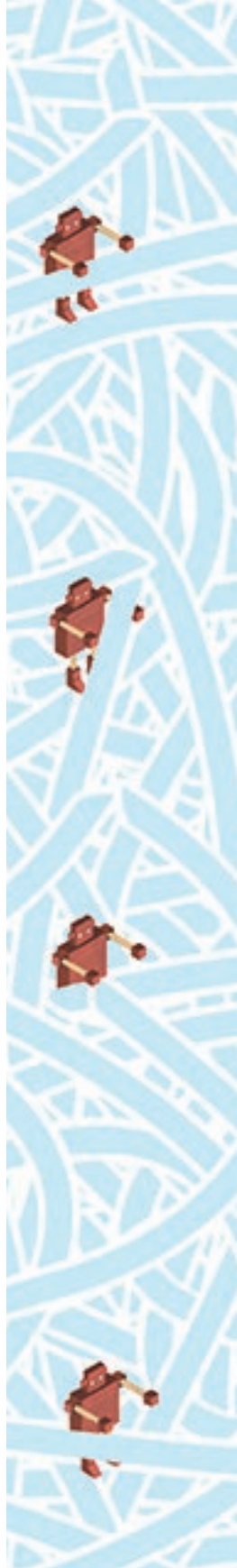
The idea of gamification has been considered so attractive that it has often been believed to almost automatically make mundane activities engaging. However, it is worth bearing in mind that not all games are good and engaging for everyone. On the other hand, gamification has so far been applied in many contexts by simply adding elements such as points to services, which can be earned from activities in a service that the service developer has deemed important. However, studies show that these mechanisms do not necessarily have much of an effect in the long run (Hamari, 2013; Farzan et al., 2008; Koivisto & Hamari 2014; Hamari et al., 2014), with the gamification remaining little more than a tacked-on curiosity. At the same time, consulting companies have revised their optimistic reports into having a more pessimistic tone, stating with good reason that the majority of gamification applications will not live up to the expectations (Gartner, 2012). Gamification should be thought of in more holistic terms, as a design permeating the entire service or activity. It should be perceived as a goal to increase the attractiveness of the service or activity in the long term instead of just rewarding the user for every function the developer regards as useful. From all this we can deduce that gamification is still being shaped both as a theoretical concept and as a practical application.

19. Games, gaming and gender

Different games are an important part of children's and young people's culture regardless of age and gender. As with other media, the significance of gender in games and game culture is emphasised as the phenomenon becomes more common. Namely, digital games in particular are often considered to belong to boys. For instance, when the dangers of gaming and violent games are discussed in newspaper or magazine articles and studies, the focus is usually on boys and young men. The game industry continues to be quite male-dominated, and this shows in the content and design of the games. It is therefore important to consider how the gendered features – in games in general and in children's and young people's games in particular – should be taken into account.

In light of studies, the stereotype of games as a boys' thing is not entirely true. For instance, according to the INGA study conducted at the University of Tampere (Kallio, Kaipainen & Mäyrä, 2007), both girls and boys play digital games, but partly different games. According to the study, digital games were played by approximately half of the population aged 15–75, and the youngest age groups were the most active gamers. In the series of digital games, the most popular game was Solitaire on Windows, but after that, men and women had different favourite games. Women played the life simulator game *The Sims* the most, whereas men were most likely to play action, strategy and sports games. The popularity of digital games has increased in recent years with various mobile and Facebook games, and according to some reports, almost half of the people playing digital games are women (e.g. Entertainment Software Association, 2013).

Discussion about games' gender issues and portrayal of women has been active in recent years. The discussion has brought up the negative aspects of gendering games: digital games aimed at adults in particular deal with gender in caricatured and stereotypical ways, and even children's toys show a strong gender division. Such stereotypical and narrow depictions of gender can have an effect on both





girls' and boys' self image. Studies also indicate that objectifying depictions of femininity are concretely harmful to women's well-being (see Szymanski et al., 2011).

So how should these study results be taken into account? In other words, should girls' and boys' gaming be viewed differently? In short, yes and no. No, because the significance of gender in gaming applies to boys as well. How games portray masculinity and femininity matters to boys as well as girls. Yes, because gender matters culturally, and there are different social perspectives related to girls' and boys' gaming. As long as gaming is considered primarily a boys' hobby and many games are designed first and foremost for boys and men, there is reason to take the significance of gender into account and even support girls' gaming in particular.

Depending on the age level and the game, gender can appear in different ways in games. One important form of visualising gender is the gender of the character controlled by the player, although not all games feature a constant playable character, or there can be several characters. In games aimed at young children, the playable character can be a genderless figure or an animal character, for example.

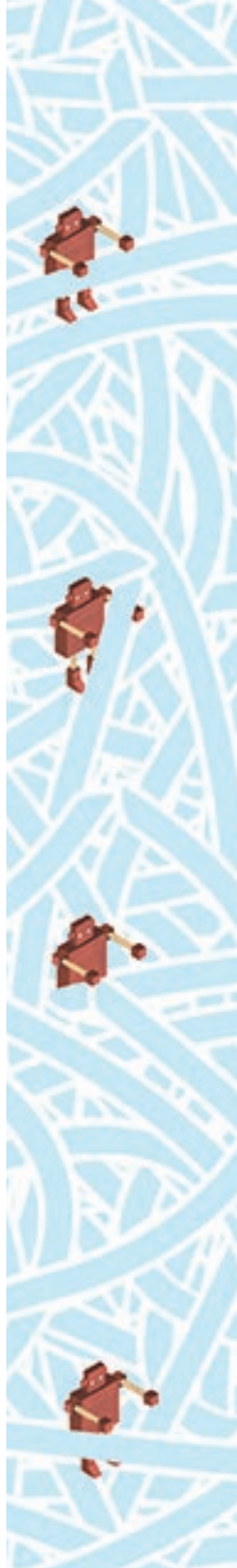
»GENDER SHOULD NOT BE MADE AN ISSUE BY, FOR EXAMPLE, MAKING JOKES ABOUT A BOY'S PETITE ELF GIRL CHARACTER OR BEING SURPRISED BY A GIRL'S INTEREST IN ACTION GAMES.»




Because gamers often see the character as an extension of themselves in the game world, the character may be male for boys and female for girls. In light of studies it has been noted that children develop the experience of gender during their first few years.

On the other hand, children need models from adults regarding the meanings of gender (Puolakka, 2012; more extensively MacNaughton, 2000). Therefore, an adult should not reinforce stereotypical ideas of a character's gender – or draw attention to the character's gender at all. Furthermore, it can be a good idea to seek characters representing the different genders for the child to play: the child's own gender, the »opposite» gender, or gender-wise ambivalent characters such as Tinky-Winky from the Teletubbies.

In games aimed at older children and young people, the characters are usually more human-like. Thus the character's gender is often depicted by numerous small details in the character's design, and female characters in particular can be exaggerated in their femininity. On the other hand, gamers may also play characters representing the opposite gender for a variety of reasons: the characters may have different functions in the game, main characters of different genders may have access to different storylines and side stories as the game goes on, or the player may want a change. For some reason, it is more acceptable for girls to read boys' books and identify with male heroes, but for boys, the reverse is sometimes frowned upon. However, this division into »boys' stuff» and »girls' stuff» is detrimental to both the children and the entire field of gaming. Gender should not be made an issue by, for example, making jokes about a boy's petite elf girl character or being surprised by a girl's interest in action games.





As with games in general and their values, it is good to know what a child is playing with the gender issue in mind as well. Digital games can be a hobby just like any other pastime, and the games' contents should not be dismissed with a shrug of the shoulders. This goes for games' gender issues as well. If a game contains troublesome features – for example, if the female characters are always victims or damsels in distress – the issue should be brought up for discussion. So-called AAA games designed expensively by major studios in particular follow the same logic as Hollywood blockbusters: they are made with a large budget with the intention of reaching as many people as possible, and their gender depictions tend to be stereotypical or even sexist. Sexist depictions are a problem mostly with adult-oriented PEGI 18 games, but the matter should given attention regarding entertainment for minors as well – including games specifically aimed at girls. Games for girls such as Top Girl, that focuses on selecting clothes and a boyfriend, can be just as sexist as the worst action titles.

»BECAUSE DIGITAL GAMING IS OFTEN CONSIDERED A BOYS' HOBBY, THIS WAY OF THINKING MAY SUBCONSCIOUSLY AFFECT ALL OF US.»

It should also be borne in mind that different people enjoy different games and different ways of gaming, and this goes for children as well. Some play Angry Birds for 15 minutes a week, others would prefer to play a console adventure for several hours a day. Gender dictates neither gaming preferences nor gaming activity, and the most important thing is to take the child into consideration as an individual. Therefore it is essential to think about everyday life and the social context of gaming as well. Because digital gaming is often considered a boys' hobby, this way of thinking may subconsciously affect all of us. This is why the issue should be given some critical thought. If there are several children in a family or a group, it is a good idea to pay attention to how gaming is treated for girls and boys. Do boys get more play time on the shared computer, or do they receive games as presents more frequently? Is the computer always placed in the brother's room regardless of the children's own preferences and activity?

20. Games in the future

The report *Digitaaliset pelit pähkinänkuoressa* ('Digital games in a nutshell') (Kangas, Lundvall & Tossavainen, 2009), written about four years before the first edition of this book, offered a brief overview of the future of gaming. That overview predicted that games would develop as follows:

Gaming has always been a social activity, but in the future, the significance of sociability will be more diverse, as all IT devices can be connected to the Internet. As young people become more technologised, various IT devices will become common and expand the ways to keep in touch with gaming friends or to play regardless of place, with a device available at the time. Researchers talk about ubiquitous computing and pervasive gaming, which, at its best, will turn the everyday environment into a game environment. Young people can engage in gaming with their phones in a shopping centre or on their way to school.

Smartphones are permeating the age group of children and young people, and mobile gaming is increasing explosively. Pervasive games, which purposefully mix gaming with reality, have become common (e.g. Montola, Stenros & Waern, 2009), and games utilising location information have become popular enough to be commercially successful. Shifting one's attention from the real world to the mobile phone decreased the pervasive games' immersion, but it does not seem to hinder the players of games like *Ingress*. In the next five years, as augmented reality applications move games from smartphones to our field of vision, gaming will be transferred into the environment we inhabit. On the other hand, the develop-

»HUMANS PLAY
REGARDLESS OF AGE,
AND PLAYFULNESS IS
A NATURAL ACTIVITY
TO US.»





ment of virtual environments hides our habitat, stopping it from disturbing the gaming experience: immersive displays filling our field of vision and projectors projecting images on every wall of the room will make the physical environment virtual.

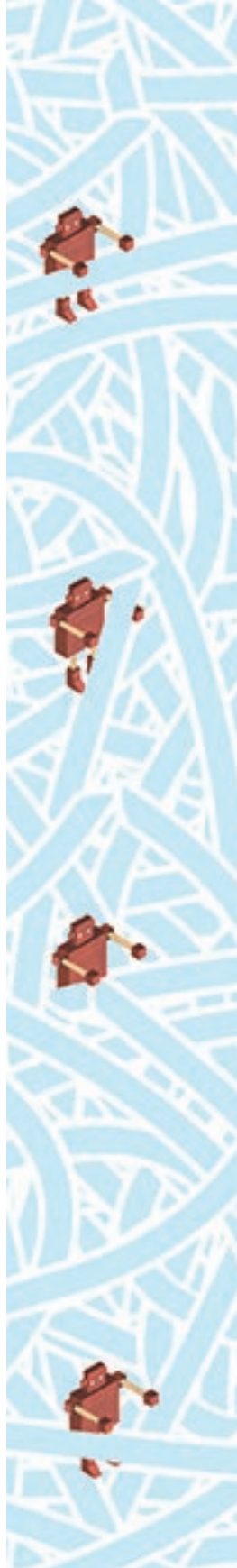
Two other development trends related to gaming are turning games from products into services and transferring game development from the designers to the players. In 2009, the future was discussed as follows:


Gamers are already able to produce additional content for games, to build levels, to modify the games' rules, to affect how the story progresses or to expand the virtual world with ready-made tools. Self-produced content, such as clothes for the virtual character, can be sold to other players for real money.

More and more gamers want to make games of their own, and many of them even dream of becoming professional game designers. Those interested in the profession should look into design theory and the state of the industry in addition to coding guidebooks. A good source of information regarding the theory of the sector is the core book *Rules of Play* (2004) by Katie Salen and Eric Zimmerman. A good depiction of the game industry is provided by Ville Vuorela in his books *Pelintekijän käsikirja* (2007) and *Elämäpeli* (2009), which offer instructions for work as well as an image of what it can be like to work as a professional in the industry.

In the following years, gamers are likely to have access to more easy-to-use tools for building entire games. Some are already available, such as the Scratch development tool suitable for children and Unity for professionals. Commercial parties will change their operating models and give gamers room to create payable content for their own platforms and take a cut of the profits generated by the content produced by the gamers. The development of games based on location information will take place without a computer by moving from place to place and creating movement-based adventures for other gamers.

From exercise and promoting health, games are likely to move to working life next. Efficiency monitoring and profit sharing will be gamified. Learning new





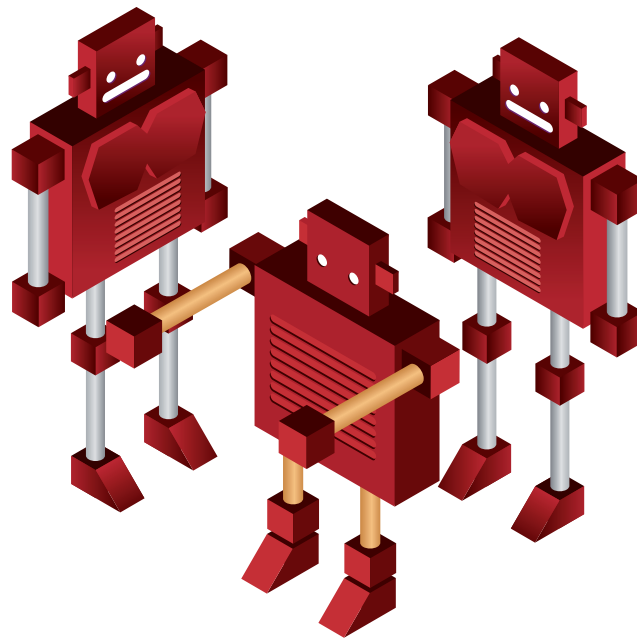
things with games and applications will increase with constant news about companies in the game industry creating innovations. Discussion about the dangers of games will be replaced with discussion about games' possibilities and gaming will permeate all ages and social classes. Games will be classified as adults' and children's games based not on their harmfulness, but their perceived usefulness. In children's games, the story will be the priority, whereas adult games focus on a goal to be reached.

Humans play regardless of age, and playfulness is a natural activity to us. Östman (2011), who has studied adults' use of the Internet, states that a large part of digital gaming and playing is adults' play. Interactive game worlds offer new possibilities for play, and these possibilities need to be examined in greater depth regarding both adults' and children's playing and gaming. To grandiosely quote Bergström (1997), »a playing society, in which creativity and development are allowed to flourish in the form of play in both children and adults, is the best solution for us all and our life, now and in the future.«



PRACTISE, PRACTISE...

Digital gaming as a phenomenon can be discussed and utilised in education in many ways. This chapter complies practical tips, assignments and exercises that can be used, for example, in youth work, leisure time activities and in schools and educational institutions. The stories of games can be continued, the questions they raise pondered and their different elements brought from the digital world to the physical world. At its best, the world of games can offer many new perspectives, learning experiences and ideas for schoolwork and leisure time for the educator as well as children and young people. Operational assignments facilitate natural discussion about media education and reasonable gaming. The assignments can be freely applied and modified to suit each target group.



Assignments and events

TINKERING WITH COMPUTER COMPONENTS

Gaming and recycling can be combined in a fun way by utilising old computer parts in crafts.

ASSIGNMENT: Acquire old, discarded computer keyboards from home, from people you know, from friends or from recycling centres. The keyboards can be used to make items such as key chains, necklaces, bracelets, earrings, magnets or badges.

EQUIPMENT: scissors, tweezers, pliers, super glue/hot glue, ribbon, rubber bands, magnets, badges, key rings, earrings, foam clay, felt etc.

DESIGNING YOUR OWN GAME

The goal of designing a game is to think about matters such as the goals of games, harmful content and age restrictions.

ASSIGNMENT: Design a new computer or console game with a partner or a group. Take the following matters into account:

- What device is the game played on?
- What is the objective of the game?
- The main character(s) of the game?
- Other important characters in the game?
- In what kind of a world does the game take place?
- Who is the game aimed at?



Choose a suitable genre for the game:

- Driving game
- Physical game (such as sports or dancing)
- Puzzle-solving game
- Teaching or serious game
- Role-playing game
- Strategy game
- Simulation game
- Action game
- Action-adventure game
- Quiz game
- Something else, what?

What is the game's age limit? Why is the age limit what it is?



If the game contains harmful content, choose the suitable symbols for them. Think also about whether or not the game can be played online (online symbol, not harmful content).



You can find information about age restrictions and content symbols at www.pegi.info and www.ikarajat.fi. If you have enough time, you can draw pictures of the characters. Each pair or group will finally present their game to the others.

WRITING GAME REVIEWS

Game reviews are helpful when choosing games, and they offer a good opportunity to think about a game's content.

ASSIGNMENT: Write a review of a game you have played. The review can consist of matters such as the following:

- What made you choose this game?
- What is the genre of the game, for example sports, driving, role-playing, adventure etc.?
- What ages is the game suitable for and why?
- How many players is the game for?
- What is the idea or storyline of the game?
- How is the game segmented and how did you like it?
- What can you say about the playability or controls, good and bad aspects?
- How do you like the sound effects or music in the game?
- How are the characters, environment and graphics built?
- How interesting or creative is the game?
- How do you find the quality and price-to-quality ratio of the game?
- How is the game's duration?
- Would you recommend the game to your friends?
- What score (e.g. 4–10 or 0–100) would you give the game?

A GAME-THEMED PANEL AND DEBATE

The game phenomenon offers many opportunities for panel discussions and debates. The topic can be one of the following, for example:

- Is gaming a better hobby than watching TV?
- Which is better, 15 hrs of gaming or 15 hrs of exercise a week?
- Are age restrictions necessary?



- Is gaming more useful or harmful?
- Are games too violent?
- Are games art?

First, a chairperson who moderates the speeches is appointed for the debate or panel. Depending on the age group, matters can be discussed in a variety of ways:

A DEBATE between two teams consisting of 4–5 people, with the teams either choosing a side or defending a side assigned to them. Others observe the debate and may ask questions from the audience. Finally, the debate is summarised by the panellists and the audience.

A PANEL consisting of five speakers, for example. As with the debate, the panel can either have a ready-made stand or it can take its own stand. Both the panellists and the audience can have looking into the topic beforehand as a homework assignment. After about 15–20 minutes of panel discussion, the discussion is continued between everyone.

A SPEED DEBATE, in which the class is divided in two and both sides are given an opinion on the topic at hand. The chairperson will moderate the speeches, allowing both sides to speak in turns and keeping a record of the points. Each well-based argument is awarded a point. After the speed debate, the discussion can be continued with personal opinions.



CLAIMS REGARDING DIGITAL GAMES

There are various myths and beliefs related to gaming. The claim assignment is suitable for various events and fairs in addition to lessons, and it can be carried out independently as well.

Equipment:

- True/false cards, 3 pcs
- Adhesive tape
- Two-sided claim cards with the answer on one side
- Beads or different colours
- Small containers (such as glass bowls or drinking glasses), 8 pcs

ASSIGNMENT: The claim cards are placed on a table. Two containers are placed for each card, one for 'true' and one for 'false' answers. The participants respond to each claim by dropping a bead into the container they think is right. After answering, the claim cards are turned over and the right answers and their bases are read out.

Literal instructions for the assignment: Do you know about games?

1. Read the claim.
2. Pick a bead from the bowl and drop it into the bowl you think is right.
3. Check the right answer on the other side of the card.

Example claims with answers:

1. Most people playing digital games are at least 18 years old.

ANSWER: TRUE. The average gamer is 35 years old, and 74 percent are age 18 or older.



- 
2. More than half of the digital games available on the market are rated for adults.

ANSWER: FALSE. Only approximately 5% of PEGI-rated computer and console games on the market are rated for adults.

3. Digital gaming is mostly a boys' and men's hobby.

ANSWER: FALSE. Nearly half (44 percent) of gamers are female and women over the age of 18 represent a significantly greater portion of the game-playing population (33 percent) than boys age 18 or younger (15 percent).

Source: <http://www.theesa.com/about-esa/industry-facts/> and <http://www.pegi.info/en/>

GAMES IN THE MEDIA

Getting acquainted with how the game theme is discussed in various types of media improves media literacy and reflecting on the material.

ASSIGNMENT: Think about how games and gaming are presented in the media. Who is talking about games, why and with what sort of tone?

1. **RESEARCH.** What kinds of game news can you find, what is good, what is not? There is no reason to limit the research to the Internet, as TV is an important news medium and newspapers and magazines are still being printed.
2. **PONDER.** Pick a news story or two. What questions do they raise? What do they leave you thinking? Was a certain item an error or a purposeful choice?
3. **ASK.** Come up with one or two questions. Who can or who would you like to answer them? There are plenty of game researchers, reporters and other professionals to consult.

A PRESENTATION ON YOUR GAMING HOBBY

A small presentation on gaming encourages participants to think about their own gaming from different perspectives.

ASSIGNMENT: Give a small presentation on the subject 'My gaming hobby'. If you are not a gamer, interview a friend, acquaintance or family member who is for the presentation.


Questions to help with writing the presentation:

- How much do I play?
- What is my favourite game or character and why?
- Who do I prefer to play with?
- How do my parents feel about gaming?
- What do I think about the age restrictions?
- What is the best/worst thing about gaming?
- What is my best/worst gaming memory?

A GAME DAY FOR THE WHOLE FAMILY

The goal of a game day for the whole family is to encourage parents and children to play together. Utilise the school, a youth club or an organisation's event to arrange a game day for the whole family that welcomes parents as well. A good time can be, for example, a Saturday working day at a school, or a youth work or organisation theme day. In school, you can invite the parents' association and students to participate in the planning and implementation of the game day.





Activities for a game day for the whole family: Operational points, which the children and young people explore with the educators

- Game quiz
- Claims regarding digital games
- Design your own game
- Crafts point
- Exercise game point, using e.g. XBOX Kinect, the Nintendo Wii or PlayStation Move
- Sports game point
- Music or singing game point, using e.g. the Guitar Hero, Rock Band or SingStar games
- Board game point
- Outdoor game point

Panel discussion about children's and young people's gaming

It is good to have different representatives involved in the panel discussion (such as a teacher, a parent, a young gamer, a representative of a game organisation, a representative of the game industry, a game developer, an organisation representative and the moderator of the panel). Questions are collected from the audience beforehand, and the moderator presents these questions to the panellists. The audience can also ask additional questions during the discussion. The moderator oversees participants' turns to speak.

A GAME TOURNAMENT

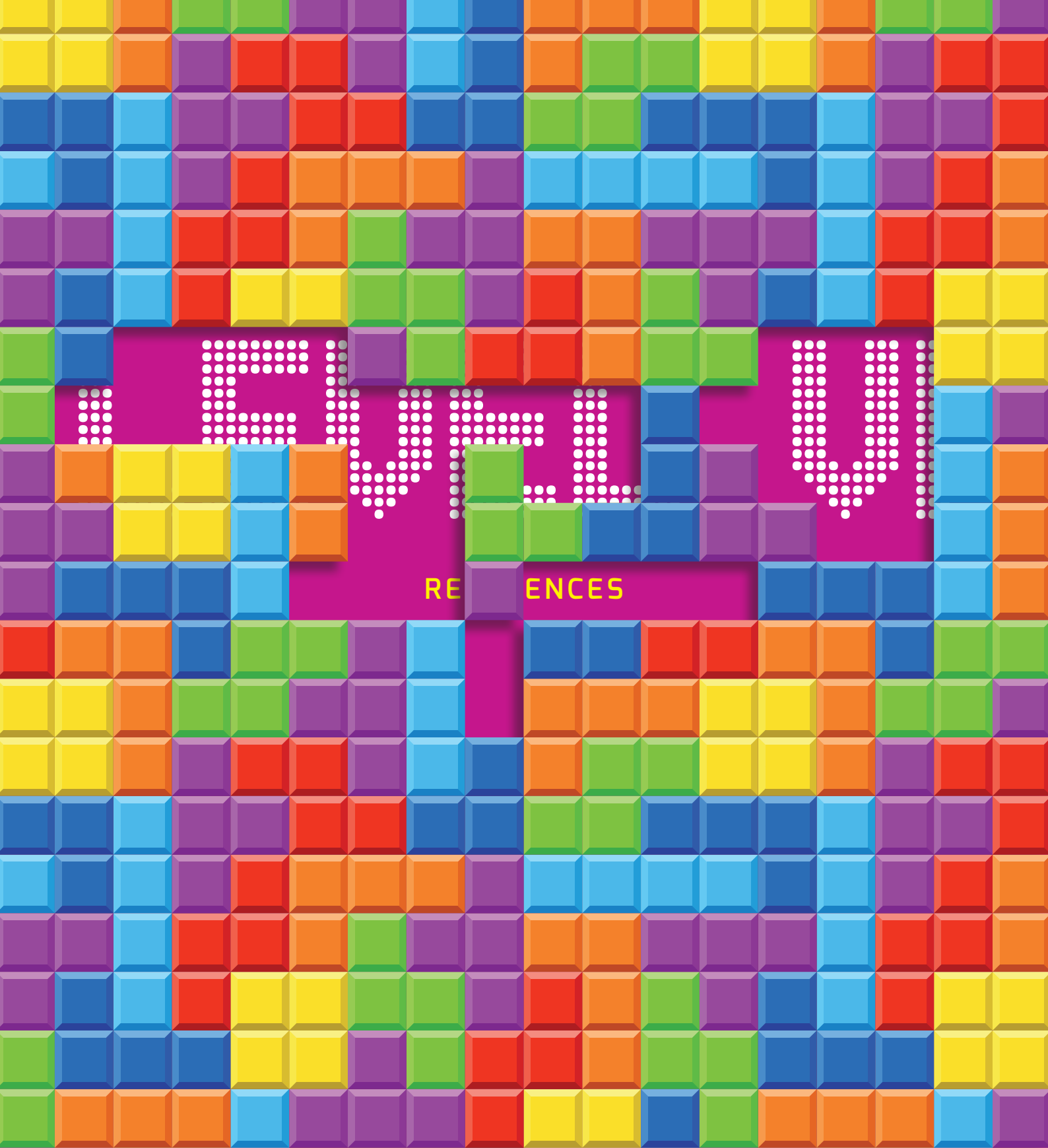
Arrange a console or computer game tournament at the school or a youth club. The tournament should be carried out using games in which the individual turns are short and which it is possible to score or in which the winner is declared immediately (such as sports and driving games). If there are plenty of willing participants, more time can be reserved for a qualifying round so that everyone who wants to play gets to try it. Those with the highest scores / winners of the qualifying rounds get to play in the tournament, which can include, for example, 2, 4, 8, 16, 32 or even 64 players, depending on how much time is available. If necessary, there can be preliminary qualifying rounds in the days before the game day. If the school has no console or games, local game stores can be asked to sponsor the tournament. If the game allows two players to play against each other simultaneously, each participant can be chosen or drawn an opponent and the winner gets to advance to the next round. The tournament consists of heats, play-offs and the final. In school, the games can be played during break time or free periods.

What is needed?

- A facility suitable for the tournament, such as a vacant classroom
- A game console or a computer, the game to be played and necessary controllers
- A tournament schedule, a booking calendar, result tracking and tournament rules on the door / a wall outside the room
- A screen and a video projector (+ speakers, an HDMI cable) or a large widescreen TV







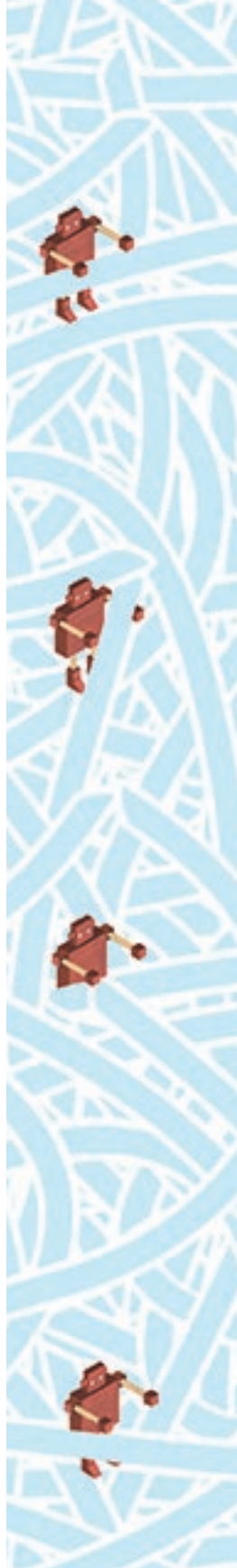
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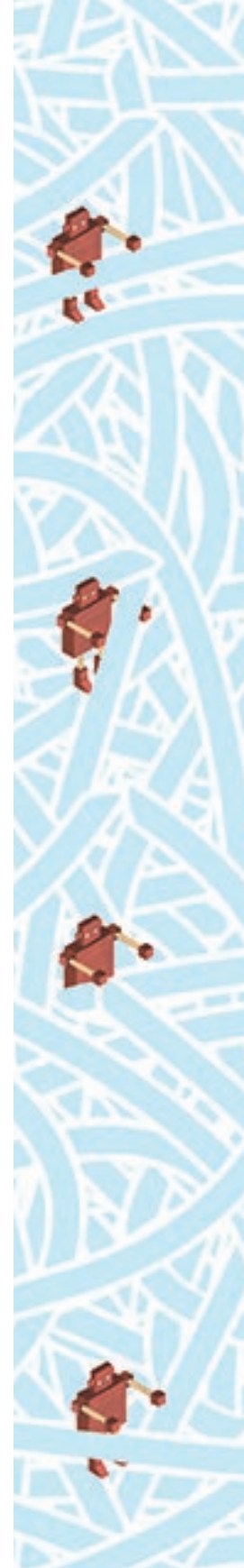
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