VIRTUAL YOUTH WORK GUIDELINES

Contents

1   Background.

From Fuzzball and Pool, Scrabble and Draughts, Energisers and Icebreakers to more purposeful games such as the Game of Life, and the Trading Game, games have long been used as a mechanism for youth engagement, motivation and encouraging interaction in a youth work context.

Fig 1..The Game of Life, produced by Hasbro

Computer games have a growing level of popular engagement and technical capability enabling interaction and collaboration on a global level. Many, if not most of the more prolific games involve role play and simulation similar to those used in youth work and development education. While there are many structural and values related challenges within the online games industry, there is a growing movement in games design and development looking at "Serious", "Real World" application of gaming. There has been considerable work done on the application of gaming in education and training (Games Based Learning), and in addressing social issues (Games for Change).
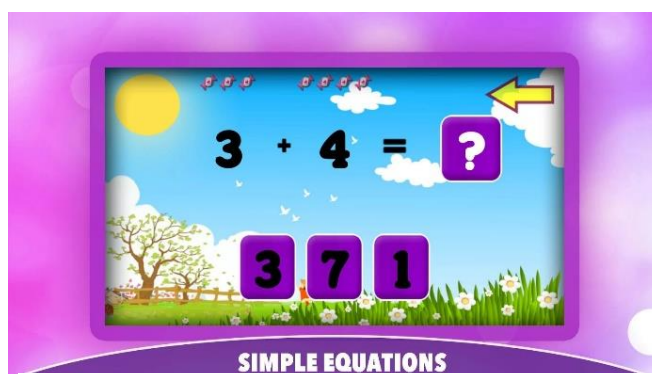
Fig 2. Example of an Educational Puzzle Game

The first questions we must ask ourselves before committing to the use of games and gamification in youthwork, is why? What are your objectives and are there three good reasons that we want to use games to achieve it? Have you explored alternative methods? The danger is that the emphasis might be too much on the Fun and not on the youth work and that the motivation behind engaging with games is because everybody, particularly young people, love games. This is obviously not the best place to start.

Once you have decided that you want to use games then you need to assess whether there are realistic expectations of this project. As with any project in youth work the expectations need to be achievable however the very mention of games can throw all rational expectations out the window, expectations about levels of engagement, extent and pace of behavioural change on the part of young people, parents expectations about their children's abilities with regard to games and technology and the underestimation of the level of planning and input needed to make such games work effectively. Games and Gamification is not something to be taken on lightly if it is to move beyond a superficial application of games in a youth work context.

Fig 3 Team and activity-based games in youth work

Hopefully this guide will provide useful information and guidance for those looking to use games in their practice.

2   Games and Youth Culture

Gaming is now considered the world's fastest growing entertainment sectors it is estimated by the industry stats tracker "Newzoo" that it will be worth 180 billion annually by 2020. According to Flanagan & Nissenbaum, 2014 Video games exercise an increasingly widespread influence on mainstream global culture and have become the medium paradigm of the 21st century. In another measure of how established eSports is becoming, the 2024 Paris Olympics is in talks to include gaming as a demonstration sport. (Irish Examiner, "Gaming plays out a 1.25bn Industry", May 2018).

2012-2021 GLOBAL GAMES MARKET
REVENUES PER SEGMENT 2012-2021 WITH COMPOUND ANNUAL GROWTH RATES
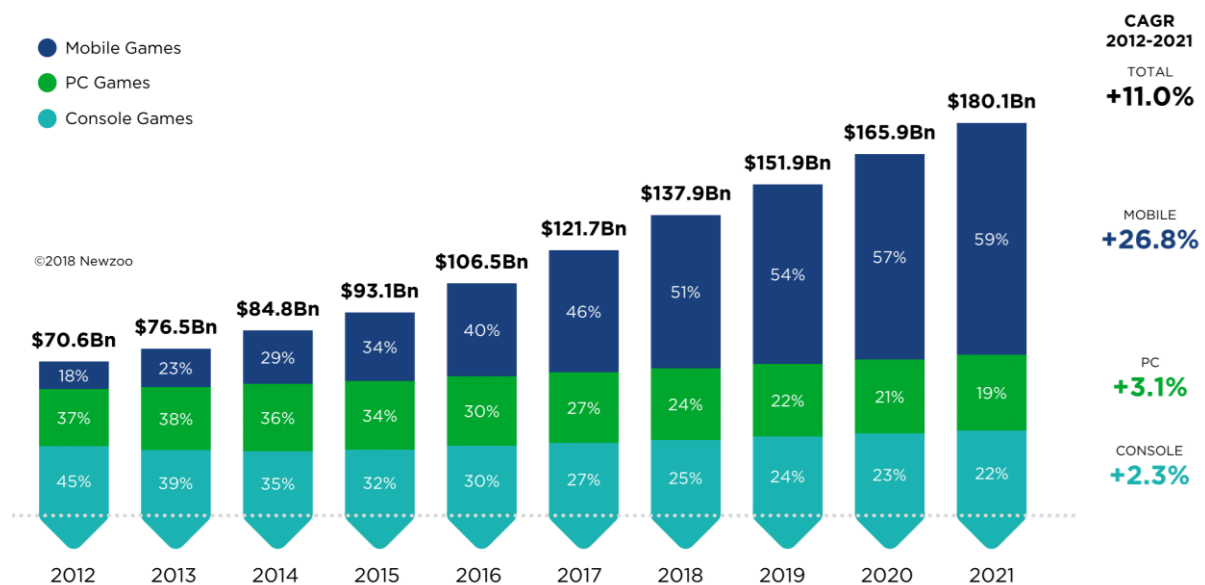
Table 4 , Game revenues both historic and projected showing the Mobile, PC and Console income, by Newzoo (2018)
https://newzoo.com/insights/articles/global-games-market-reaches-137-9-billion-in-2018-mobile-games-take-half/

The growth in participation in gaming over the past twenty years and the interactive capabilities that online gaming provides is nothing short of revolutionary. An article published by Mind Shift (2016) states that over 97% of children in the US play games. Jane McGonigal documents the 183 million gamers in the US spending on average 13 hours per week on their PCs, consoles or smartphones. This figure is mirrored across the developed, and indeed the developing world, with 100 million active gamers in Europe and twice that number in China.

A recent European Commission report highlights the fact that while 90% of European 11-14 year olds play online games, the level of participation by the overall 11+ population stands at 35% in the UK, France 46%, Germany 25% and Spain 29%. EU Commission JRC (2013; 17).

Age	11-14	15-24	25-34	35-44	45+
France					
Female	89%	75%	59%	43%	23%
Male	87%	86%	72%	53%	23%
Germany					
Female	81%	62%	39%	41%	15%
Male	83%	75%	52%	49%	21%
UK					
Female	75%	49%	36%	37%	17%
Male	85%	66%	51%	45%	17%

Table 5, Gamer rates by gender in France, Germany and the UK, ISFE (2012) as cited in Commission JRC (2013; 17).

The report goes on to highlight findings by the Entertainment Software Association documenting the growth in engagement by women in gaming with 46% of US gamers now being female, a trend reflected in the EU. As illustrated in table 2.

In the current climate of technological innovation within digital games and youth culture there are constantly new and evolving trends, Virtual Reality Games, Augmented Reality Games, Second life, Battle Royale Games, Multiplayer Online Role Play Games, the list goes on and on. Many such games and platforms have the potential to encourage dialogue and collaboration between young people, to promote creativity and individuality and to develop skills and strategic thinking. Many can be negative both in the game narrative and the interaction it encourages between players. The extent to which young people play games has led to discussion regarding such behaviour being addictive and the negative dynamic and conflict within families that games can spark is also well documented in the popular media.

However, for most young people games are simply a way of having fun, engaging with friends and escaping from the routine of their daily lives. Youth Work starts where young people are at, and certainly many young people are spending a lot of their time at games, it would therefor seem obvious that youth workers should engage actively with the medium and develop a systematic approach with young people. The use of games to develop awareness, skills and a positive engagement with digital games, has the potential to form an important part of how we do youth work. A conference organised as part of an EU project by the National Youth Council of Ireland found that..

> "The existing practice of games in youth work is as a response to a need identified within this sector". (Screenagers international seminar, 2014)

Some of the key concerns voiced at the screenagers seminar amongst youth workers was the fact that some youth workers felt "disempowered to help young people." This is because of their disconnect from current cultural trends and limited experience and expertise in the digital gaming realm. The following section will give an overview of the evolution of digital games and outline some of the issues related to them.

3   What's A Game?

Games have emerged as the media paradigm of the 21st century, surpassing film and television in popularity they have the power to shape work, learning, health care and more. Games gives us a chance to enact our most basic relationship to the world- our desire to prevail over adversity, to survive our inevitable defeats, to shape our environment, to master complexity and to make our lives fit together. Games have the ability to enrich our understanding of how deep seated; sociocultural patterns are reflected in norms of participation, play and communication.

> "*A game is a system in which players engage in an artificial conflict defined by rules which result in quantifiable outcomes*" Salen, K. and Zimmerman, E. (2005).

Jesper Juul adds to this definition, agency on the part of the player, noting that depending on how the player interacts with the game, and the extent of the effort they invest this will result in quantifiable positive or negative outcomes.

> "*The player therefore feels attached to the outcome, and the consequences of the activity are optional and negotiable.*" (Juul, 2003).

Because of the agency inherent in such games players relate emotionally to what happens. Thus Unterhalter (2009) points out that such games can have consequences for real life, both in terms of the understanding and behaviour of those playing the game but also for the potential to address the practical issues being represented in the game.

In parallel with this explosion in popular engagement, there has been a number of technological paradigm shifts in gaming which has seen the genre move from the single player arcade style games of the 1980s, to mobile and massive multiplayer online role play games (MMORPG). Such MMORPGs typically involve players embarking on quests, or missions within a virtual world and there encountering puzzles, obstacles and opponents that need to be overcome

Figure 6. A typical Clan in world of Warcraft a MMORPO which hosts 7.2 player/members million players globally.

These games have the added dimension that players construct an online personae for themselves from a menu of characteristics and they often join a clan or a tribe with whom they collaborate. Such collaboration can be enhanced by text communication or by audio chat between otherwise anonymous players. In the course of play, players are typically encouraged to interact with other clans or individual players in a confrontational or

collaborative mode. McGonigal points out that, "*every single day, gamers worldwide spend a collective 30 million hours working on world of Warcraft*". (the largest global MMORPG)" McGonigal (2011;60). According to Cecile Pearce this intensive, prolonged, interaction can generate a strong sense of community and collective identity which she describes as a 'CoLiberation', Pearce (2006).

The second significant technological advance in the hardware of the gaming industry has been the technical capabilities and proliferation of hand held mobile devices. This has facilitated the emergence of real time interactive games which link with players locations and social media profiles. Games such as Farmville, illustrated in Figure 7, and Candy Crush, both of which mimic real-world work tasks and accomplishments and integrate collaboration and interaction with friends into gameplay. This ability to play with, and assist, real world friends in such a casual and accessible manner can build the social connections of players.

Figure 7 Farmville which hosts 40 million active users as played on a mobile phone. Image www.games.com

Two further concepts which are important in the contemporary gaming context are Virtual Reality and Augmented Reality Games. These produce a further layer of immersive and collaborative potential and have become more accessible in recent years with the ongoing popularisation of Virtual Reality Headsets and Location based Games which utilise the Geographic positioning Systems in Mobile phones. Virtual Reality (VR) has been defined as

> "*a three-dimensional, computer generated environment which can be explored and interacted with by a person. That person becomes part of this virtual world or is immersed within this environment and whilst there, is able to manipulate objects or perform a series of actions.*" Virtual Reality Society (2017).

Headsets such as The Oculus Rift and Microsoft HoloLens can be connected to a PC giving visual immersion for players. Google produce a cardboard headset into which most smart phones fit in order to produce a 3-dimensional effect, while Samsung is marketing the VR Headset alongside its Galaxy S8. The immersive experience produced in VR can be within a computer-generated environment typical of the MMORPG genre, it can also enable users to interact with real world spaces either through recordings or in "real time" using 360 degree camera technology. This type of technology is being developed and used within Education and Training

as well as in a range of commercial applications, most prominently in Architecture and urban Planning, The Health Sciences and in Tourism.

Augmented Reality (AR) Games are a genre which combine the real world with fantasy. They have, in recent times harnessed technology to seamlessly integrate both physical and computer generated environments in games such as Pokémon go. This AR game produced a cartoon-style map of the user's real world location and then superimposed Pokémon creatures which the player had to pursue and capture. While this game may seem quiet frivolous, its developers envisaged it as a game to promote physical activity and mental well-being. Maged et al (2017). It's popularity, with 65 million monthly active players 9 months after its launch, Tassi (2016), demonstrated the technical capabilities and the level of engagement that such applications can command. The educational value of using Augmented Reality has been reviewed by Fombona et al (2017) who conclude that the benefits of such applications lie both in more engaged individual learning but also in facilitating collaborative interaction.

Links to Virtual Youth Work Project: Blizzard Entertainment the company which developed world of Warcraft delivered two workshops as part of the project, they facilitated a workshop on Gamification in youth work and one on encouraging young people to study STEM.

4 Towards a Higher purpose; Games for Social Change

While the proliferation of multi user and Social media games sets the context for the use of games in youth work, the vast majority of games are designed, produced and marketed for commercial purposes. They provide little, if any, public good and indeed many researchers highlight the negative social values inherent in many such games. Attributes such as racism, sexism, exploitation and greed, aggression and the erosion of empathy. The leading industry forum "Game Developers Conference" held in March 2014 did acknowledge the problem with a keynote address by Manveer Heir focusing on

> '*misogyny, sexism, racism, ethnocentrism, nationalism, ageism, ableism, homophobia, transphobia, queerphobia and other types of social injustice.*' He challenged the industry to … " *use the ability of our medium to show players the issues first-hand, or give them a unique understanding of the issues and complexities by crafting game mechanics along with narrative components that result in dynamics of play that create meaning for the player in ways that other media isn't capable of.*" EuroGamer (2014).

There are emerging movements challenging the emphasis on "trivial play" within the games industry. *Serious Games*, Social Games and Social Impact Games have all emerged as initiatives whereby the main purpose of the game is other than to provide entertainment. Marsh (2011) highlights some of the alternative objectives that games have been developed to serve within the business, health, military and education sectors.

One of the challenges associated with serious games is the diverse and often incompatible purposes to which the principles of serious games are applied. This is illustrated in Figure 3. reflecting Marches contention that that applications for serious games lie in the commercial and governmental sectors. An alternative movement within the serious gaming genre would argue that the thing which distinguishes such games is not their format nor their gameplay attributes but rather the values which inform their design and development.

With roots in both a feminist reaction to the misogyny within games and the critical analysis inherited from radical initiatives such as The New Games Movement which surrounded the 1960s California counterculture, Critical Gaming, Activist Gaming and Games for Change are initiatives promoting the use of games for positive social change. Flanagan and Nissenbaum (2007). Crocco (2011) defines Critical Gaming as games where the principles embodied by games are used to promote critical thinking about hegemonic ideas and institutions rather than to propagate them.
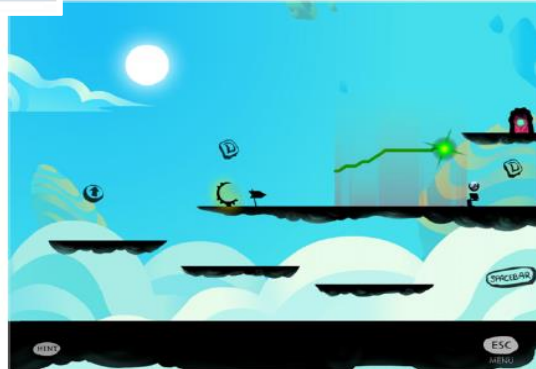
Figure 6 Shows different applications of Serious Games, from Public Health, Education and Military sectors. Marsh (2011; 64)

Drawing from this radical tradition Flanagan and Nissenbaum (2007) observe that, progressive game design and underlying technology should emerge from progressive social values. They propose a framework, Values at Play (VAP) which encourages designers to consider issues such as, Diversity, Justice, Creativity and Expression, Inclusion, Cooperation, Equality and Gender Equity when conceptualising and developing games.

Flanagan (2010) reinforces the potential of the "activist game" or "Critical Gaming" and documents the emergence of games that address social issues in such a way as to explore notions of agency on the part of those who are marginalised and of the gamer in addressing injustice in the real world. This critique is contained in her book "Values at Play in Digital Games" (2014) where she chronicles in detail the elements of games design and highlights examples of where positive values have been integrated into games. Games such as those illustrated in Figure 5.

While on the surface these games may appear quite superficial, according to Greitemeyer and Osswald research shows that playing them can heighten ones awareness of the issues being addressed and increase empathy and positive behaviour towards those being portrayed. Greitemeyer and Osswald 2010).

Clockwise from the top left, **September 12ᵗʰ**: Players are encouraged to explore the complexity of "the war on terror" **Layoff** Players are exposed to the impact of redundancy on families and communities, **McDonald's** Exploring the social and environmental consequences of an unsustainable commercial beef production **Spent** Developed to encourage a better understanding of the choices that parents on welfare must make on a daily basis.
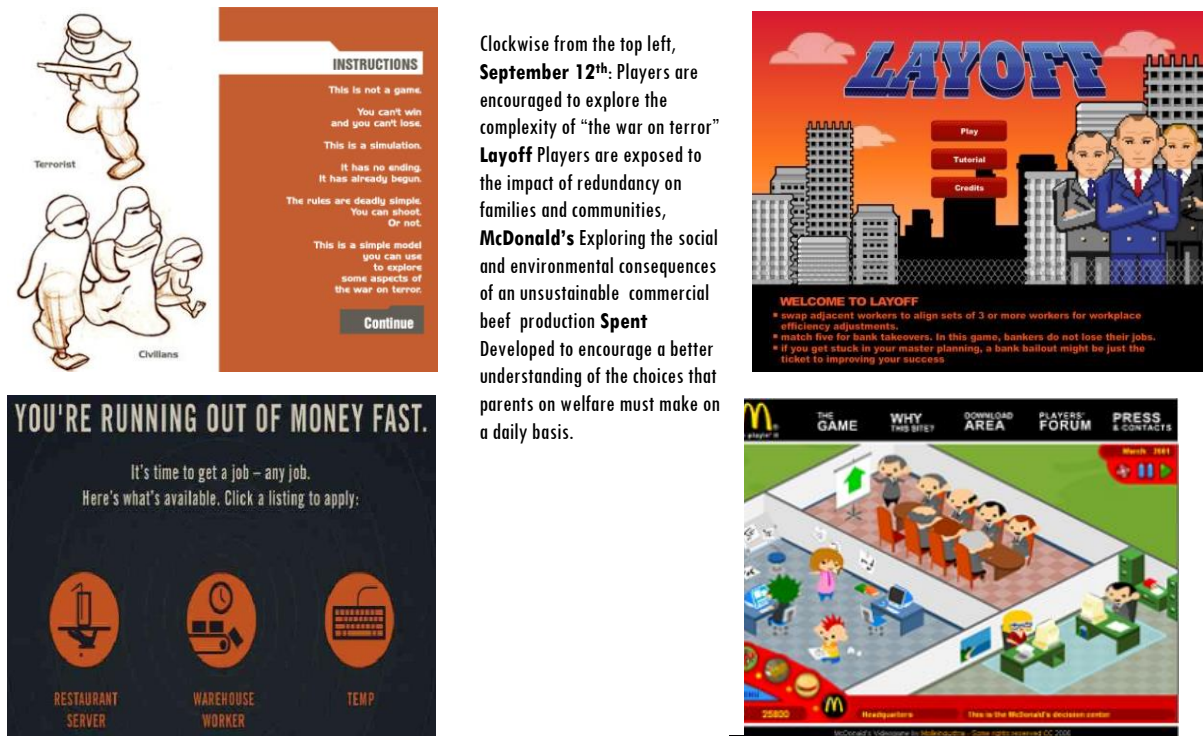
Figure 6 Illustrates the social values inherent in games of this genre from Flanagan (2014)

These games might also be described by Crocco (2011) as applying one or other of the practical applications of Freirean principles to gaming i.e. simulation and codification. Flanagan expresses a higher level of ambition for critical games when she encourages designers to seek to change people's perspectives "calling them to action, or motivating them to advocacy" Flanagan (2014: 86).

At this point it seems striking that the objectives of critical social gaming, the values underpinning them and the methods used to develop games are reasonably compatible with those of Youth Work.

Professor Mary Flanagan of Dartmouth college promoting the Games to inspire event

Links to Virtual Youth Work Project

Mary Flanagan, the leading researcher and developer into Games for Social Change was actively involved in the Virtual Youth Work Project. She provided support and encouragement to the project leaders and came to Ireland to participate in the Conference organised as part of the project. Links to her presentation can be found on the project website virtualyouthwork.com

5   Using Games in Youth Work

Digital youth work means proactively using or addressing digital media and technology in youth work. It can be included in the youth work settings as a means of enhancing the youth work goals. This can be carried out face-to-face and throughout online environments. Digital youth work can be incorporated as a tool, an activity or content. Such engagement with technology has been recognised in the youth work sector as an important element of our work. Some examples of innovative practice in delivering digital youth work and upskilling youth workers digital competences include-

- As a means of sharing information
- Online youth counselling
- Supporting digital literacy
- Enabling participation with digital tools
- Supporting cultural youth work online.
- Supporting the development of technical skills.
- Promoting action for positive change
- Focus on awareness building
- Participatory learning processes

Youth Work Games can be described as games that are designed to help young people learn about certain subjects, expand concepts, reinforce their personal and professional development. Games in youth work may be used as a in a multitude of ways. They are a good means of assisting participant develop a variety of skills as they play. They can also be used to encouraging better social and cultural understanding between people and reducing isolation, they can encourage personal reflexion and promote positive group work.

Digital games can be incorporated into new or existing youth work projects or used on their own as a means of engaging young people. Games and Gamification can be used to increase individuals' motivation to engage with youth work activities. Gamification can motivate individual participation both intrinsically and extrinsically.

- Intrinsic motivation occurs when an individual participates simply because they are enjoying the activity. Intrinsic motivation is voluntary and is not dependent on external rewards.
- Extrinsic motivation involves some alternate or external goal individuals are trying to reach. For instance, an individual is extrinsically motivated to complete a task when they want to receive a reward or prize.

This is a good point at which to clarify the distinction between Games and Gamification. There are many different ways that people separate the two however for the purposes of these guidelines the following is the distinction. Gamification is the use of game elements to help engage young people with youth work activities. Such elements might be badges, leader boards, etc with which many youth workers are already familiar. Using games is different, it assumes that a game will be played in its entirety and becomes the vehicle for the learning or the engagement.

Understanding extrinsic and intrinsic motivations is important in developing effective gamified activities and applications in youth work. Extrinsic motivations are good for getting young people interested in a new concept or topic, whereas intrinsic motivation is better for long-term engagement. Gamification can transform an activity from something that is not-so-fun into something that individuals voluntarily want to be a part of. The application of gamification can be invaluable since it can spark curiosity and foster autonomous engagement. It is also instructive to look at the response that different player types have regarding such motivation. This is useful when considering the use of Games or Game elements.

Player Types and Motivation

In this model, there are six personality types when it comes to playing games and Marczewshi outlines how each relate to motivation within games.

1. Socialisers are motivated by Relatedness. They want to interact with others and create social connections.

2. Free Spirits are motivated by Autonomy and self-expression. They want to create and explore.

3. Achievers are motivated by Mastery. They are looking to learn new things and improve themselves. They want challenges to overcome.

4. Philanthropists are motivated by Purpose and Meaning. This group are altruistic, wanting to give to other people and enrich the lives of others in some way with no expectation of reward.

5. Players are motivated by Rewards. They will do what is needed of them to collect rewards from a system. They are in it for themselves.

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[cc] BY-NC-ND
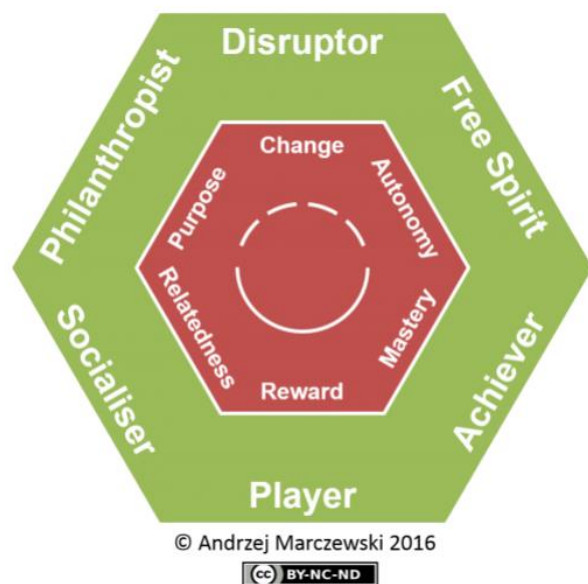
6. Disruptors are motivated by Change. In general, they want to disrupt your system, either directly or through other users to force positive or negative change.

While we ourselves may view games from the perspective of a particular player type, we should be conscious that others may view the game differently and play in a very different way than we might have anticipated. This is particularly important in group games where the dynamic between players can often be directed as much by the characteristics of their player type as that individual's personality outside the gaming environment. It can encourage competitiveness in those who normally would be uncompetitive, creativity in those who are not inclined towards creative outlook and perhaps disruptive behaviour in those from who this may not be expected.

It can be an interesting exercise with a group of young people to ask them to think of two games they play regularly, one digital one not (board game, card game, sport, etc). Then ask then to identify the player type they adapt when playing that game. They can share this with the group and it may allow them express an aspect of their personality that they may not otherwise reveal. The youth worker might need to read up more information on player types. This website is a good starting point https://www.gamified.uk/user-types/ . It can be useful to gamify by making player type badges and ask participants to wear them., for example the philanthropist badge to the below.

Philanthropist

Motivated by Purpose. This group are altruistic, wanting to give back to other people and enrich the lives of others in some way.
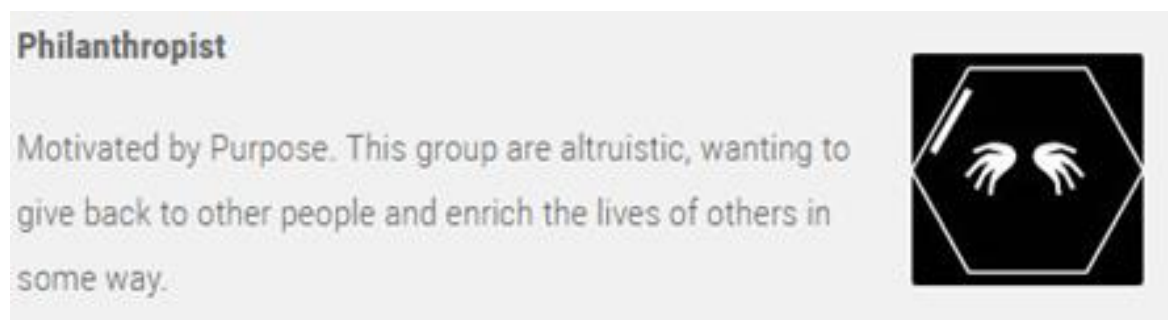
Notwithstanding this technical analysis of player types etc the thing to keep in mind is that game players want to have fun. And different people enjoy different types of fun. Fun, as it turns out, is serious business. Experimental psychologists involved in analysing peoples reaction to games have identified four key types of Fun:

- Easy Fun (Novelty): Curiosity from exploration, role play and creativity
- Hard Fun (Challenge): the epic win, from achieving a difficult goal
- People Fun (Friendship): Amusement from competition and cooperation
- Serious Fun (Meaning): Excitement from changing the player and their world

Encouraging group members to design their own game is also a fun and beneficial way of working alongside and collaborating effectively with the group/individual. As well as promoting

a positive relationship with the youth worker. Young people enjoy sharing their knowledge and existing skills sets with adults in particular

6   Guidelines for using Games Based Learning (GBL).

What it GBL?

Games based learning is a branch of serious games whereby gameplay is designed to address significant and complex learning outcomes and apply this learning to the real world. In recent times it is assumed that the game in question is a digital game, but this is not always the case.

Psychologists have long acknowledged the importance of play in cognitive development and learning among children. One of the important mechanisms which facilitates this is the capacity for games to enable players move beyond their immediate reality, a child can pretend, an eraser is a car while fully knowing that it is not, a trainee pilot can imagine themselves being able to fly anywhere in the world from the comfort of their couch, knowing this to be impossible. Such engagement can facilitate understanding of complex concepts in literacy and numeracy as well as developing players skills and capacity for creative and critical thinking.

Early research into the effect of digital games on players highlighted the findings that good games are neither too easy, resulting in the games being boring for players, nor too difficult, which will also frustrate them leading them to quit. Good games aim to hit the "sweet spot," where players can succeed, but only with some struggle, inducing what has been described as a state of "flow" (Csikszentmihalyi, 1990). In the context of learning, good games aim to be within a player's zone of proximal development.

Using Games to Meet Learning Outcomes

The Learning Comes from Playing the Game

Can be Accomplished Using Commercial (AAA) or Education Oriented Games

Promotes Critical Thinking and Problem Solving

Can be Accomplished With Digital or Non-Digital Games

Might Involve Simulations to Allow Students to Experience the Learning

http://inservice.ascd.org/the-difference-between-gamification-and-game-based-learning/

Games have been shown to keep learners engaged over long periods through a series of motivational features. Incentive such as points, leaderboards, badges, and trophies, as well as game mechanics and activities that learners enjoy or find interesting. Games can also engage learners on various levels, cognitively through mental processing, emotionally through the feelings the game produces in the player, behaviourally in their actions and reactions as well

as socioculturally as manifest in their interaction with other players and situations. Within games based learning the goal of all these types of engagement, however, is to foster meaningful engagement of the learner with the learning mechanic and the outcomes it has been designed to deliver.

6.1   How to Use GBL

The elements in GBL - Plass et al (2015) propose a model of games based learning which consists of three key elements: a challenge, a response, an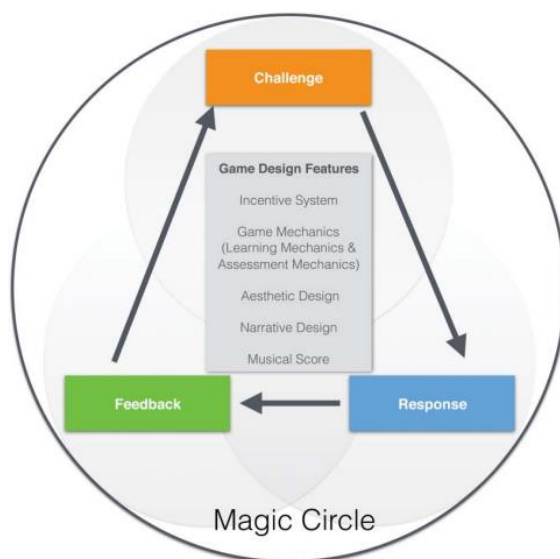d feedback (see Figure 1). A loop is generated when the feedback prompts a new challenge or encourages the player to provide a different response to the original challenge.

FIGURE 1   Model of game-based learning.

The feedback mechanism often defines the nature of the game. It can be straightforward with feedback which corrects or directs the players progress towards the objective of the game, as in quiz games such as Charades or competitive "race to the end" games such as Cluedo, on the other hand more complex feedback mechanics can allow players to set their own challenges providing a system of peer feedback towards more complex outcomes, this is the case with simulation games such as the Trading Game or role play games such as Dungeons and Dragons.

When to use GBL - Figure 2 highlights how a game might be integrated into a learning, programme. Depending on where in the process they are used. They can be used to reinforce or demonstrate the learning already provided in preparatory work and further developed in a follow up debriefing session. Games can also be used to check on the

From Taylor and Walford (1972)
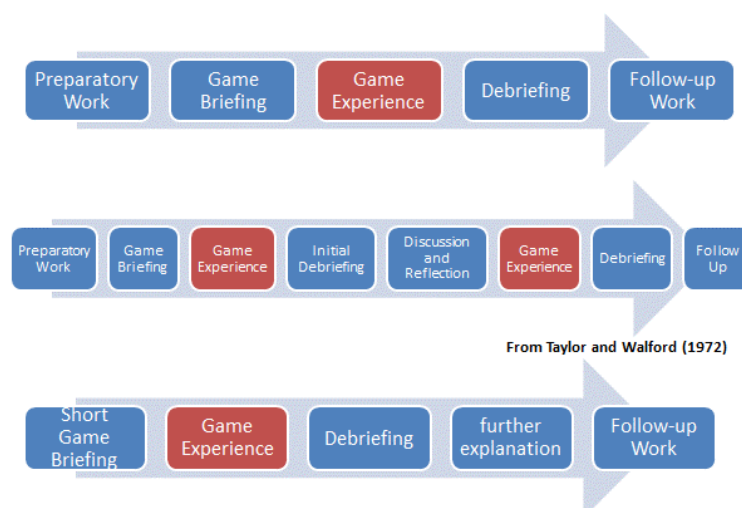
learning by running the game a second time and highlighting how the outcomes can change based on the development of new skills and understanding. A third option is not to have any prior learning on the topic and use the game as a mechanism to motivate young people to learn by highlighting an issue or a skills deficit through playing a game. Commentators on games based learning would agree however that whichever structure is used briefing and the debriefing is critical to the learning experience.

Designing GBL. [1] The following outlines four steps you can take in integrating Games based learning into your youth work practice

1. Determine the Purpose of Game-Based Learning: Deciding how you'll use a game will narrow your search, helping you find an appropriate one to use. Before researching, determine if you want to use a game for:

- Intervention — If a young person is struggling to demonstrate understanding of or awareness on a topic or issue, you may consider using a game to address this. It could be straightforward like a maths concept, or more complex like sexual health issues.

- Enrichment — As young person might understand the concepts, you may use a game to present this concept in different contexts, perhaps reflecting a lived experience or the real world application of a skill or knowledge. This should encourage young people to challenge themselves as they explore new ways to process the content.

- Reinforcement — Instead of using games to teach and engage individuals, groups can play to reinforce their understanding of issues. This can also make game-based learning

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[1] . amended from... https://www.prodigygame.com/

a group activity. Some games have multiplayer features and students may naturally compete against each other to earn higher scores.

Keeping these factors in mind will likely hasten the process of finding a game that meets both youth worker, individual and group needs.

2. Play the Game Yourself, Making Sure It Is Aligned with the Learning Outcomes: Test the Game with colleagues or other young people. Playing the game in question will help you determine if it's aligned with learning goals you've set. After finding a game you think is appropriate, play it and make note of the following elements,

- Control — Many educational games offer the ability to control content and adjust settings for individual participants. For example, some let you match questions to specific learning material, delivering them to specific players.
- Intuitiveness — Whether it's a physical or digital game, it should be easy to use. Students should challenge themselves by processing and demonstrating knowledge of the content — not by stressing over how the game works.
- Engagement — Based on the content and how it's presented, determine if students will enjoy the game. If it's engaging, young people should inherently want to play and, as a result, learn.
- Content Types — To accommodate diverse learning styles, the game should offer different types of content. For example, an educational math digital game may present questions as graphs, numbers and word problems.
- Content Levels — To address diverse challenges and aptitudes, the game should use be able use different types of feedback mechanisms to adapt content to each player. For example, a language development game for those learning English may focus more on vocabulary with one student and grammar with another.

Paying attention to these criteria while playing should help you decide if the game properly supports learning goals.

3. Dedicate Time to Consistent Play: Sporadic game-based learning may not allow young people to reach learning outcomes as effectively as consistent, scheduled play time within a structured youth work context. What's more once off or occasional use of games may not be as engaging games integrated on an ongoing basis. For example, a study published in the journal of Educational Technology and Society found a positive correlation between a structured 40-minute period of educational game play and not only faster recall processes, but improved problem-solving skills.

In a space with access to devices, make time for game-based learning activities by:

- Including game time as a designated activity in your group plan, not an afterthought
- Using a game as an entry ticket, drawing attention to the workshop topic
- Using a game as an exit ticket, allowing young people to reflect

In a setting with limited device use, make time for game-based learning activities by:

- Focusing more on non-digital games, such as board games with educational value
- Creating learning stations, one of which is playing a device-based game
- Playing team games, letting students play in pairs or groups

These options should make it easier to designate time for educational play, seamlessly incorporating game-based instruction into youth work activities.

4. Assess Progress Throughout Play, Informing Instruction: Collecting data from the games you implement help you develop and modify them as well as uncover young person's challenges and aptitudes, helping you shape future activities. Data collection will vary depending on the purpose and nature of a game in question. Usually, it involves following a particular evaluation process or method:

- In-Game Reports — Some educational video games feature in-game reports for teachers, which record student performance. For example, charts will contain each player's marks for a series of questions, letting you click to see more details.
- Self-Reports — For physical games, or digital games without reporting features, you can encourage students to take ownership of their progress through self-reporting. Create a Google Forms or Survey and ask them to provide updates.
- Group Discussions — After playing team games, conducting a group discussion allows each group to share difficulties, progress and accomplishments.

This final will give you the information needed to adjust lessons and activities, addressing trouble spots and building on new knowledge. Carrying out a checklist prior to incorporating games into your work is useful to ensure the correct equipment and resources are available and working correctly.

6.2   Examples of Games based learning

Examples of Skills/Knowledge Development Games

https://store.steampowered.com/app /620/Portal_2/

Portal 2 is a first-person puzzle-platform video game developed and published by Valve Corporation. It is the sequel to the 2007 game Portal and was released in April 2011 for Microsoft Windows, OS X, Linux, the PlayStation 3, and the Xbox 360. The retail versions of the game were published by Electronic Arts, while online distribution of the PC versions is handled by Valve's content delivery service Steam.

https://kids.nationalgeographic.com/games/
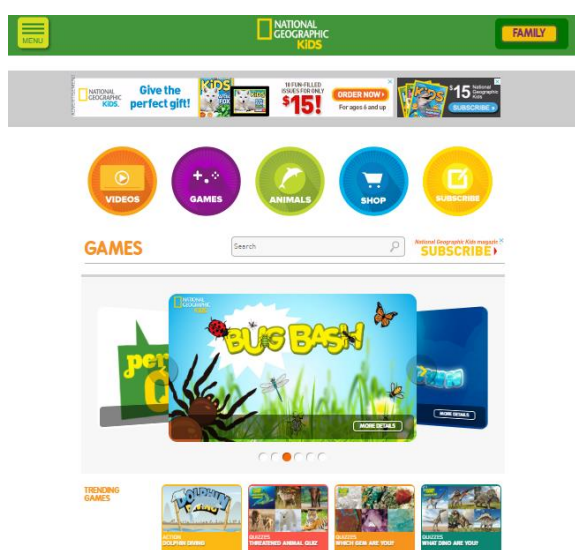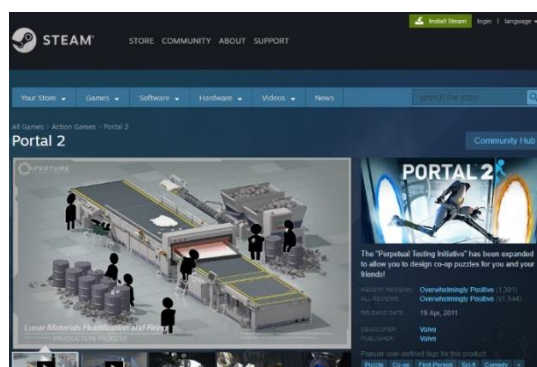
Explore the hundreds of games that reinforce core STEM subject material, organized by grade and subject for kids from Pre-K to 8th grade.

https://www.funbrain.com/

Created for primary school kids, Funbrain has been the leader in free educational games for nearly 2 decades. Funbrain offers hundreds of games, books, comics, and videos that develop skills in math, reading, problem-solving and literacy.

Examples of Understanding/Critical Thinking Games

https://worldpeacegame.org/

The World Peace Game is a hands-on political simulation that gives players the opportunity to explore the connectedness of the global community through the lens of the economic, social, and environmental crises and the imminent threat of war. The goal of the game is to extricate each country from dangerous circumstances and achieve global prosperity with the least amount of military intervention. As "nation teams," students will gain greater understanding of the critical impact of information and how it is used.

http://wowinschool.pbworks.com/w/page/5268731/FrontPage

The original focus of this project was to develop a curriculum for an after-school program or "club" for at-risk students at secondary school level. This program would use the game, World of Warcraft, as a focal point for exploring Writing/Literacy, Mathematics, Digital Citizenship, Online Safety, and would have numerous projects/lessons intended to develop 21st-Century skills.
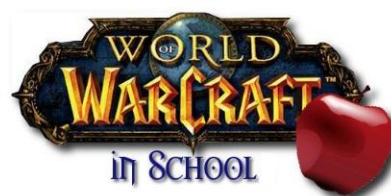
Examples of Creative, Collaborative and Team based Games

https://education.minecraft.net/

In January 2016, Microsoft announced a new tool for education, called Minecraft: Education Edition, which was released on November 1, 2016. Minecraft has already been used in classrooms around the world to teach subjects ranging from core STEM topics to arts and poetry. Minecraft: Education Edition

is designed specifically for classroom use. The Education Edition gives teachers the tools they need to use Minecraft on an everyday basis.

There are few differences between regular Minecraft and the Education Edition. The main concept is the same – the game is an open sandbox world. The students' characters in Education Edition are able to retain characteristics. Students are able to download the game at home, without having to buy their own version of the game. The last large difference is that students can take in-game photos with a camera item. These photos are stored in an online notebook with the students' online notes. These online notebooks can be shared with others. "This is work that the kids really want to do & if you're able to harness that enthusiasm, energy & creativity, you end up with a pretty significant learning experience." (Mark, Nagurski, chief executive of cultureTECH)

Examples of Minecraft Education Edition-

Fairy tale reimagined

The aim of this game is around world languages, reading writing, art & design. This game is designed to provide an opportunity to mix world buildings with storytelling while using the various Minecraft tools. Players can recreate a fairy tale inside of Minecraft. This process allows the players to demonstrate an understanding of digital storytelling & guide the viewer though a complete story experience. Also enabling the participants to form groups & re-create their favourite fairy tale or children's story, by building their own world & incorporating narrative.

Creating a virtual community

Participants will have the opportunity compare working with a face-to-face group & with a virtual group. They will work together to create a Minecraft world together to mimic their own community. This will enable the participants to recognise aspects of working in a virtual group & begin practising their cooperative group skills. This process also provides the opportunity to brainstorm characteristics of communities. Including landmarks, places to go, general geography. Participants can individually contribute & create anywhere in the virtual community. Alternatively, participants can also work together in small groups to create their own section of the neighbourhood. "Players are building their own communities in Minecraft governed by the values & rules they develop & enforce." (Mark. Nagurski)

https://au.reachout.com/

Reach out central (Digital game)

This game was developed to improve the mental health & well-being of young people. The player is immersed into a virtual world and placed in a number of different situations where you can interact with other characters. This game focuses on the important challenges and issues faced by many young individuals. The aim is to help participants prepare for similar situations that may occur in real life (peer pressure, drugs, stress, anger & establishing new friendships) The game shows how the choices you make about friends, partying etc how exactly this can impact on
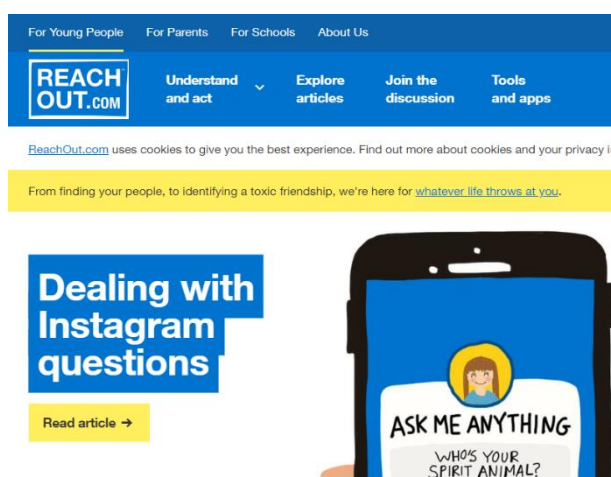
your well-being. The characters can also interact with other players through the online connectivity in a bid to improve other game members as well as their own well-being.

http://ye-letsplay.blogspot.com/2016/10/suity-hero.html

The Suity Hero (Role-play game)

The general concept of this game involves placing the participants in the same situation as the European countries after WWII and confronting them with the same challenges & obstacles. Participants need to develop their own approach to accomplish their goal to reconstruct the country and improve the citizens life. The aim is not to repeat historical developments but to develop their own strategy & approach to reconstruction. The participants will experience themselves the challenges and will have to find their own solutions to the problems they face.

http://www.stopdisastersgame.org/en/noflash.html

Stop Disasters- Is a stimulation game developed by the United Nations. The core aim is to teach children how to build safer villages and cities against disasters. The players learn about how the location and construction of materials for houses can make a difference when disaster strikes and how early warning systems and evacuation plans and education can save lives.

http://www.webearthonline.com/ Web earth online- This is a multiplayer online game – where you play as an animal in an environment web world. Displaying how you would cope in the environment of today if you were an animal or a bird.

https://www.wolfquest.org/

Wolf Quest- Here the player will learn about ecology by living the life of a wild wolf in Yellowstone national Park. You can play alone or with friends in on-line multiplayer missions, explore the wilderness, hunt elk and encounter stranger wolves in your quest. Ultimately your success will depend on forming a family pack, raising pups and ensuring the survival of your pack.

http://www.peacemakergame.com/

Peace Maker- This game challenges the player to succeed as a leader where other have failed, additionally experiencing the joy of bringing peace to the Middle East- the game makes you test skills, assumptions & prior knowledge.

https://ayiti.globalkids.org/game/

AYITI- Is a challenging role-play game created by high school students in Global Kids. The game depicts what it is like to live in poverty, struggling everyday to stay healthy. The player takes

responsibility for a family of five living in Haiti. The game was developed by developers at Gamelab for UNICEF with support from Microsoft.

6.3   Examples of Physical Games

The Trading Game is a well-established Development Education game with its origins in the "Trade Game" developed in the 1960s. Participants play the part of Developed, Developing and Underdeveloped countries with varying access to raw materials, manufacturing technology and capital. As highlighted by Takahashi and Saito (2001) the trading game is characteristic of Development Education games designed by NGOs in that it is interactive, fun and addresses critical issue. The principle strength of the Trading game is that it helps learners understand the fundamental structure of the global economy, and enables discussions to explore the economic and social gap between developed and developing countries. Takahashia and Saito (2011).

STARPOWER is a social simulation game developed by Garry Shirts in the late 1960s. The game seeks to highlight how powerful individuals and corporations seek to structure political and economic system so that their position is maintained making it difficult if not impossible for others to advance. (Shirts 1969). When looking at social class inequality "Sociopoly." uses a regular Monopoly board but sets it up so that the student teams begin with different levels of resources reflecting social class, poverty or wealth, Liz Grauerholz (2007).
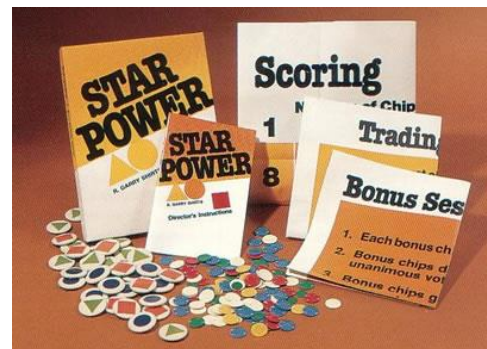
This challenge of simulating realism was also brought to the fore in "Factory Fire in Fabrikistan". This is a simulation game which asks teams of participants to deal with the aftermath of a deadly fire in a factory in a mythical country in Asia, called Fabrikistan.

Prof' Bill Gamson of Boston College facilitates a Social Justice Game

Links to Virtual Youth Work Project

Bill Gamson the creator of SIM SOC facilitated a playing of his game Factory Fire in Fabrikistan" at the Games to Inspire conference in Cahir as part of the project.

6.4 List of Useful Resources in Games based Learning

http://www.poptropica.com/ Poptropica is a virtual world in which kids explore and play quests, stories, and games.

https://www.games2train.com/site/html/tutor.html The Monkey Wrench Conspiracy (games2train) aims at engineers and teaches the players how to use new 3-D design software. ForgeFX develops games for safety training.

https://www.youtube.com/watch?v=T15hpXXk8Wo Civilization (MicroProse) for teaching history (and promoting civic engagement

http://www.engagelearning.eu/teachers/?page_id=26

http://www.educause.edu/eli Engage Learning -   European Web Portal for Game Based Learning resources

http://eduproject.eu/yes/wp-content/uploads/2016/10/O1-A5-P1-P2-TP-UPB-YES-Handbook-extended-EN-final-complete.pdf Educause Learning Initiative

http://www.wingz2fly.com/GameSurvey/search.html Searchable database of educational games

http://www.gamebasedlearning.org.uk/ The Game Based Learning Community -   Non- commercial online forum

http://www.merlot.org/merlot/viewMaterial.htm?id=85084 Example of an award winning public health game from Merlot

https://www.playfullearning.net/ Playful learning- sharing inspiring learning experiences with children, and parents both online and in their studio

https://www.instituteofplay.org/ Institute of play- aims to bring a games-based mind-set into practice discourse

http://joanganzcooneycenter.org/ Joan Ganz Cooney Centre- focused around research & evidence on digital media & learning

7 Guidelines in using Gamification

While many people are probably unable to define "gamification," most of us will have experienced it – probably every single day. There's a good reason for that; gamification can dramatically increase the engagement of most any context so organizations of all types are using it.

Whether you realize it or not, a good portion of the apps on your phone use gamification as a technique to keep you hooked. Think notifications, points, rewards, and competition among friends. But gamification reaches far beyond the phone. Does your local supermarket have a rewards program? How about your garage,

- Adding Game Inspired Elements to Your Course
- Applying Game Mechanics to a non-game environment to encourage behavior
- Typically Incorporates Badges, Awards, Achievements
- Experience Points (XP) may be Used as Substitute for Traditional Grades
- Adding Game Inspired Elements to Your Course
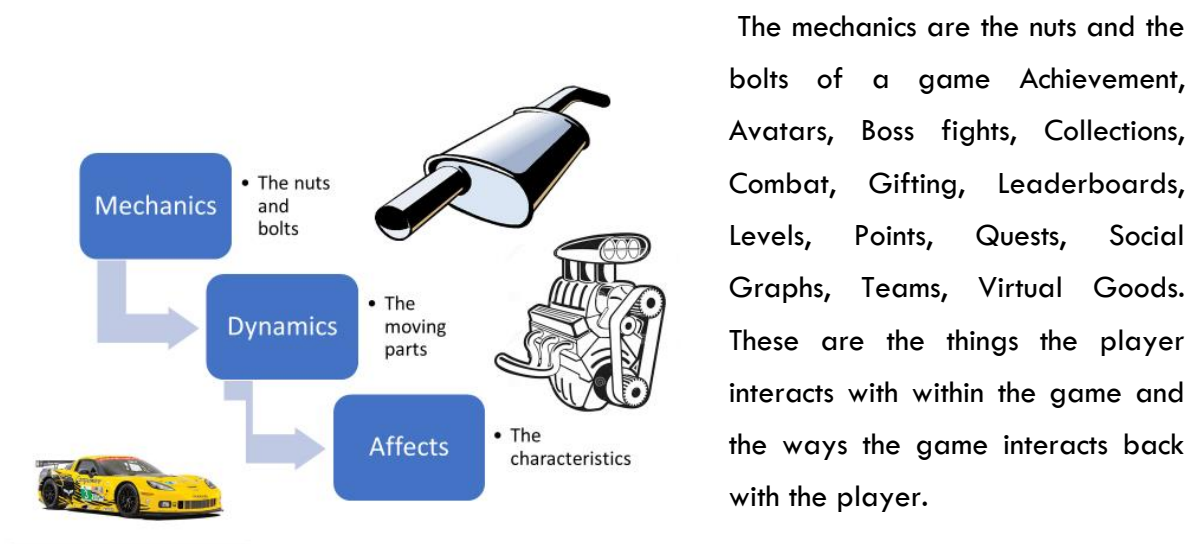- Could Provide Students with Choice in Learning Path
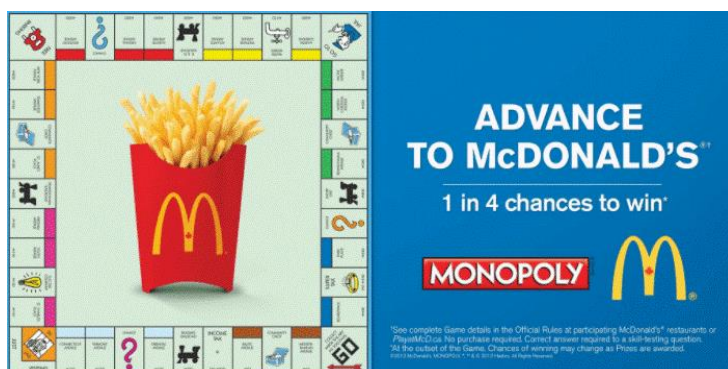
bank, or coffee shop?

Youth workers have been using these gamification strategies "forever". Need the youth club to be cleaned at the end of a session, challenge them to see who's faster — or better, time them to see if they can beat their record by working together. Want the young people to regularly put away equipment after an activity? Tell them they get one point every time they do it without being asked; if they reach five points, they can get an extra 15 minutes of game time.

Gamification is defined as the application of typical elements of game playing (rules of play, point scoring, competition with others) to other areas of activity, specifically to engage users in problem solving., team work and to motivate them to complete tasks and develop skills. While the term is also used to include the integration of games into learning processes for the purposes of these guidelines, it is important to note that gamification does not turn activities into games.

Gamification is not the same as games based learning or "serious games". The main difference between gamification and serious games is whether the game is considered to be complete. Gamification encompasses only parts of a game(game elements), whereas serious games are the whole or entirety of the game and its rules.

Game Elements

This concept of "game elements" is important in gamification. These elements are the building blocks of games Deterding et al [26] defined game elements as "elements that are characteristic to games". While there are probably hundreds of different elements which can be used in gamification, figure 4 presents the MDA model which is helpful in distinguishing between different types of elements.

The mechanics are the nuts and the bolts of a game Achievement, Avatars, Boss fights, Collections, Combat, Gifting, Leaderboards, Levels, Points, Quests, Social Graphs, Teams, Virtual Goods. These are the things the player interacts with within the game and the ways the game interacts back with the player.

The Dynamics are the moving parts, they might use a number of mechanics to achieve the desired dynamic, for example the game might use Avatars, Badges, and Collections to encourage cooperation. Typical Dynamic elements include Challenges, Chance, Ranks, Cooperation, Feedback, Resources, Rewards, Transaction, Turns and Win-States.

The highest level elements are the Affects which essentially define the characteristic of the game, the type of game it is and how it feels to play, Progression through levels perhaps, Constraints and boundaries in the game expressed through rules, The Narrative of the game is important as is the sense of mystery and discovery that the game elicits. Games may encourage collaboration and fellowship while some actively facilitate creative expression.

One can limit the use of gamification within youthwork to certain mechanics, for example Badges and Leaderboards, however it is important to be aware of the dynamic you are looking to achieve through the use of these mechanics. Perhaps it is to encourage co-operation, to give

feedback or to create a sense of challenge. You might well be looking to achieve a number of different dynamics. At this point, if you are considering more complex use of gamification it is also worth considering whether to include Affects such as narrative, a story, or progression elements in addition to the basic mechanics.

The following outlines how a selection of elements appeal to particular player types, this illustrate how you can use different elements to appeal to different types of players and why some players are engaged by certain game elements and put off by others. Many of these are already things that youth workers do in their work and may or may not have categorised as gamification.

1. Curiosity/ Mystery   Player type: All types

Curiosity can encourage young peoples engagement by stimulating their sense of wonder. Curiosity will drive young peoples to want to know the answer to a question, solve a mystery, or find out how to do something. This element can help drive intrinsic motivations by sparking their curiosity to learn something new.

2. Progress/ Feedback   Player type: All types

Tracking progress can show young people how far they have come in learning or achieving a particular goal. Youth workers can keep track and highlight accomplishments, which gives young people something to feel proud of and can visually show students what they have achieved.

3. Time Pressure   Player type: All types

Time pressure can help make an activity more fun by giving young people a timed objective. This can encourage them to focus on the activity at hand and make sure they get the project done in the time period allotted. If young peoples are given unlimited time to work on a project, they are likely to take all the time they need to finish it.

4. Competition   Player type: Socializer

Competition can make activities more fun and social. Young people are motivated to complete tasks before or better than their peers. This element can be used to make a task more enjoyable, but could alienate some young people who are not as competent or competitive at this tack. Therefore, competition should not be used all of the time, or should be balanced to put young people on an equal playing field. For example, team-based competition can balance out skill levels.

5. Guilds / Teams   Player type: Socializer

Teams-based competition can help with balancing skill levels, collaboration, and building teamwork skills. Teams can encourage students to help each other learn, rather than independently competing against other young people. To encourage collaboration within teams, young people can be assigned specialized roles to make each member integral to reaching their objectives.

6. Exploration   Player type: Free Spirit

Exploration is a good way to motivate young people with free spirits. This element allows young people to explore a certain topic or subject matter. Exploration could be added into the youth work activity through scavenger hunts or class field trips. This element gives students some freedom to engage their own curiosity.

7. Customization   Player type: Free Spirit

This element gives young people some freedom to make customizations to their projects or assignments. Customization allows them to have some originality and personalize their projects and experiences.

8. Challenges   Player type: Achiever

Challenges motivate young peoples to apply their knowledge by encouraging students to complete objectives even when they experience difficulty meeting their goals. Challenges should not be too difficult or too easy to achieve. If challenges are too difficult young people are likely to feel defeated, but if they are too easy they will get bored with their assigned task..

9. Quests   Player type: Achiever

Quests develop a series of challenges that students need to complete. This can help young people reach larger objectives by breaking down tasks into smaller chunks. Each challenge in a quest will build onto the next and bring young people closer to reaching a final goal.

10. Collect & Trade,   Player type: Philanthropist

Collecting and trading objects can be integrated with classroom activities to make them more entertaining. For instance, to learn about other countries students could be asked to collect and trade cities based on particular characteristics. This element could be applied in many different ways to get young people to work towards learning objectives.

11. Sharing Knowledge,   Player type: Philanthropist

Sharing knowledge gives young people an outlet to share what they know, and helps them learn from one another. Philanthropists enjoy and are motivated by helping others. These young people should be given a chance to answer their peers questions in the group.

12. Innovative Platform,   Player type: Disruptor

Mix things up by allowing young people to innovate and think outside the box. This will give them a chance to challenge designs and build new ideas. An innovative platform allows young people with a disruptive user type to take control over and develop new ways of doing things.

13. Voting / Voice,   Player type: Disruptor

Voting on what to do in the group gives young people a sense of choice in decisions or changes being made. Young people could vote on what activity the class group will undertake or the destination for a trip. This element will help engage disruptors who like influencing changes.

14. Leaderboards/ Ladders, Player type: Player

Leaderboards visually display progress on a particular activity. This can help motivate young people to perform or behave differently in the group.

15. Physical rewards / Prizes,   Player type: Player

Rewards extrinsically motivate young people to participate in the group. Rewards can encourage them to get involved in an activity, but should not always be relied on to motivate young peoples to learn or change their behaviour. Extrinsic rewards can discourage voluntary learning or intrinsic learning if they are overused. This means if young people expect to receive a reward each time they participate, they will not want to learn without these extrinsic incentives

7.1   Examples of Gamification

https://www.wired.com/2010/12/swedish-speed-camera-pays-drivers-to-slow-down/

The National Society for Road Safety in Stockholm and Volkswagen launched an innovative radar system using gamification to promote respect for speed limits on the road. his initiative rewarded those who respected the limits and included them in a lottery, whose prize was raised with speeding fines.

https://habitica.com/static/front

Habitica transforms your life into an epic old-school role playing game — gain experience points for decluttering the closet and lose hit points for skipping your morning yoga session.

https://zombiesrungame.com/

Some apps are more specific to fitness and health rewarding or punishing you for your dietary choices and exercise sessions. Zombies, Run!, makes your daily jog a desperate bid for freedom from the advancing undead.

http://yourbrandvox.com/blog/2013/8/19/game-of-chores-use-this-chore-chart-to-actually-get-stuff-done

http://www.yourulechores.com/

One parent took this points system to its logical conclusion, creating a Skyrim-inspired Game of Chores board to encourage her family to do housework in the name of ice cream treats. A few years ago, the Wall Street Journal profiled a bunch of the apps that gamified chores. You Rule created a new market of sweeping floors and going to bed without meltdowns in the name of virtual credits (to be redeemed for allowances or extra videogame time).These could be reasonable adaped for use in youth work.

http://www.cbc.ca/parents/learning/view/how-apps-can-help-kids-learn-about-music

Apps can encourage kids to stick with tough subjects like playing a musical instrument by giving learning the same feel as the games they play for pure entertainment

https://kahoot.com/

The DigitalSuperpowers European Youth Exchange. Used Gamification, making feedback badges, and the website "Kahoot" a web application to on "Gamification".

http://peskygnats.com/

The developers behind "Pesky gNats" believe technologies that support adolescent mental health interventions can make an important contribution to society, if they are widely available. This is a not for

profit community interest company founded by David Coyle & Gary O Reilly. The fundamental objective of this organisation is to transform adolescent mental health interventions through technology.

The emphasis is being placed on delivering CBT (cognitive, behavioural therapy) interventions to young people. CBT is a talking therapy that can help you manage your problems by changing the way you think & behave. This software is designed to be used by mental health professionals who work with young people. CBT is based on the concept that your thoughts, feelings, physical sensations and actions are interconnected.

Pesky gNats have used their understanding of development psychology, clinical psychology & computer science to tackle the problems of translating the adult oriented ideas of CBT into something that is accessible for children. They offer –

1.	A computer game for therapists to use face-to-face with young people

2.	Mobile App- for young people to use between sessions.

Additionally, this organisation provides on-line, video-based training for mental health professionals. This includes a short introductory film that reviews CBT concepts within the game & explains the adaptions that make them developmentally suitable & available for delivery in a computer game world. Additionally, a series of films that provide a level-by-level walk through of the game. These films present the full content of the game & there is a discussion on how it can be undertaken session by session with young people. These videos will always be available as an aid to your work.

7.2   Useful sites and Resources

Sites that provide information on using badges

http://classbadges.com/

http://www.olpglobalkids.org/content/six-ways-look-badging-systems-designed-learning

Gamification in education

https://yukaichou.com/education-gamification/top-8-education-gamification-examples-for-learning-sprints/

http://edtechreview.in/dictionary/150-what-is-gamification

https://www.elucidat.com/blog/innovative-gamification-elearning/

DigitalSuperpowers European Youth Exchange.

https://digitalsuperpowersblog.wordpress.com/

Gamification General (commercial examples)

http://www.mlevel.com/blog/top-10-gamification-examples-everyday-life/

http://datagame.io/gamification-examples/

https://surveyanyplace.com/gamification-in-marketing-16-experts/

https://www.game-learn.com/top-10-gamification-examples/

8 Virtual youth exchanges

What is it?

Virtual exchange is a definition used to describe technology-enabled, sustained, people-to-people education programs. Sustained communication and interaction takes place between individuals and groups who are geographically separated. This process sets out to help increase mutual understanding and global citizenship. According to (Cederlof, 2017) Using virtual youth exchanges inhances intercultural understanding in Youth Work.

Organisations such as the Virtual Exchange Coalition founded in 2011, comprises diverse practitioners working together to foster a more supportive and generative eco-system for virtual exchange programming to develop, innovate and grow. Their aim is to advance the field of virtual exchange so that all young people can have a meaningful cross-cultural experience as part of their education (formal/ non-formal)

Virtual youth exchange enables youths to engage in meaningful intercultural experiences as part of their formal or non-formal education. This medium allows young people to establish a deeper understanding of the perspectives of their global peers on important issues that matter to youth today. "The extension of International exchange from the physical to the virtual world has the potential to significantly increase the number of young people who can participate in and benefit from them". (Virtual Exchange Initiative, Erasmus Report)

The culture of "co-located gaming" has seen an evolution in recent times. (There is an estimated 2.2 billion active gamers Internationally) Multi-online gaming environments enables members to promote and foster gaming communities, which enables the cultivation of "clans" (a group of gamers who form a team to compete against other over the internet in multiplayer games) & "guilds" (association of people with similar interests) – resulting in online discussions, interaction among a diverse range of cultures and a valuable opportunity for self-representation.

"This platform connects online participation in virtual experiences which will offer invaluable experiences & preparation for the world the young people will be part off." (Cassidy. K, 2007)

According to (H. Helve, The Finnish Perspective) Different studies have highlighted how young people in danger of exclusion are very sceptical of youth policies and youth work services. Young people seek help only when absolutely necessary. Youth Work and youth policy need to develop a closer relationship with young people to be in touch with their life.

Kiilakoski et al, 2017 in their report (International Youth Work, towards developing an evaluation tool for youth centres)- advocate interactive evaluation as a youth work method.

Promoting a "mapping process" where more knowledge is generated on why some young people, though keen to participate, cannot gain access to youth work services.

How to do it? (Some examples)

1.   Online facilitated Dialogue

This space offers opportunities for young people to connect together in a safe online facilitated dialogue to discuss current issues that matter to them, develop a better understanding of each other- build meaningful relationships across cultures & practice important employability skills- e.g. developing employability skills such as critical thinking, cross cultural communication, team-work, collaboration & media literacy....

2.   Advocacy Training

This platform brings young people from different backgrounds together to develop for example parliamentary debating skills- fostering listening & understanding through advocacy training.

3.   Training to develop virtual exchange projects

This platform promotes professional development for youth workers, universities & educators to learn how to develop a transnational virtual exchange project.

4.   Interactive open online courses

This involves accessing open online courses across cultural contexts and national boundaries to learn with peers from diverse backgrounds.

9   Using Games in Development Education

In reviewing the use of games by conservation NGOs Sandbrook, Adams and Monteferri (2014) suggest that games have to be fun and that conservation stories are so often about loss and destruction.

"Feeling guilty is not fun…. It is a challenge for conservation to identify narratives and storylines that are not depressing, complex, earnest, or boring.," The authors present research highlighting the potential role of digital games in conservation education drawing attention to games such as SimParc which address the

Figure 9 "This war of Mine" simulating the plight of refugees in a war zone.

complexity inherent in the participatory management of Brazilian rainforest.

Bogost (2010; 84) argues that the impossibility of creating a positive outcome in a game such as "Antiwargame" reinforces the futility and tragedy inherent in war. In this case American foreign policy with regards to the Iraq war. A similar "rhetoric of failure" is an integral part of the gameplay in "This War of Mine" where the participants play the part of civilians caught in the siege of Sarajevo. Despite this, the game has become very successful, winning many awards with over 2.5 million copies sold on Steam alone. Michal Drozdowski, the creator of the game, puts its success down to the desire on the part of players to feel traumatic emotion and the sense of living through catharsis. He suggests that these are similar feelings to those elicited when watching dramas or documentaries dealing with challenging content Sheffield (2015). The developers of that game integrated an add on "in-game purchase" the proceeds of which go to the "War Child" Charity, highlighting the potential of such games to raise funds for NGOs, PCGamer (2015).

Simulation games have been used to draw attention to other conflicts and to encourage action on the part of players. "Darfur is Dying" was developed in response to a competition initiated by MTV in order to highlight the conflict in Darfur. The game allows the players take on the role of various members of a Darfuri family as they seek to avoid attack and survive. Bogost (2010) praises the game for its capacity to generate empathy but challenges its lack of critical engagement with the causes of the conflict and the mechanisms which could be used to stop it, a criticism which could equally be levelled at "This war of Mine". Mary Flanagan points out that if it is assumed that the objective of the game was to raise awareness, it did so to good effect,

encouraging engagement with the issues and leading to the establishment of the Darfur Digital Activist group who used electronic media to lobby and to raise funds. (Flanagan; 2014). This game has also attracted criticism as being exploitative on the part of MTV of both the conflict itself but also of young players who are motivated to help. (Bogost 2010)

In her critique of the extent to which digital games can create empathy, generate understanding or simply give information about the topic of immigration, Sonja Gabriel (2015) reviews a range of contemporary digital games designed specifically to address this issue. She concludes that while the intention of the games developers is positive, "for most of the games discussed here there needs to be a lot of work done to make them more engaging and convincing so that there is a real impact on players".

Figure 11 Development Agencies are beginning to use Virtual Reality to engage the public.

In recent years some development education organisations have been experimenting with the use of Virtual Reality in their practice. The UKs Department for International Development (DFID), has collaborated with Google Expeditions on a series of virtual tours of UK Aid projects. These can expose viewers to an immersive experience of a Syrian refugee camp and to learn about the stories of individual children who have been forced to leave their homes.

Marisol Grandon, Head of Creative Content at DFID feels that such game based technology allows an experience which has a more direct impact on the viewer. "*Scaling the crisis down to these individual stories means that viewers are more likely to make a connection that they will remember, in turn making the crisis more real and more important to them*". Philip Ellis (2016). The U.N.'s Clouds Over Sidra, shares the story of Sidra, a Syrian refugee living in Za'atari camp in Jordan. In the video the viewer is virtually taken by her hand on a tour around the camp where she and 90,000 other refugees live. This Ensor (2016) reports represents a "growing trend towards interactive experience" as a tool humanitarian agencies use to "promote awareness and support for causes". Charlie Ensor (2016).

Links to Virtual Youth Work Project

Participants in the Games to inspire conference played "Hive Mind" an augmented reality game which teaches participants about the sustainable development goals. This was the second playing of this game for such a group, having been launched at the "Global Festival of Ideas for Sustainable Development" in March 2017.
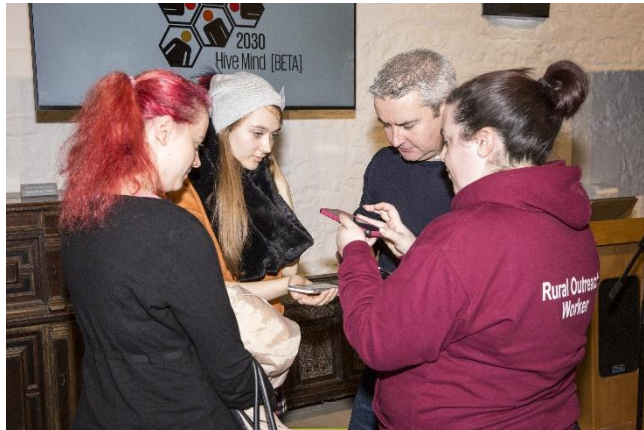
References

Ashley, H, Corbett, J, Garside, B, Jones, D and Rambaldi,.G. (2009) 'Change at hand: Web 2.0 for Development', PLA Notes, 59 (1) ,8–21,

Backhaus, C. Wagachchi, R. (1995) *Only playing with beans? Participatory approaches in large-scale government programmes* PLA Notes ,24 (1) 62–65,

Bejoy K, T. (2010) 'Participation in the Knowledge Society: the Free and Open Source Software (FOSS) movement compared with participatory development', Development in Practice, 20(2), 270-276,

Belman J, Flanagan M (2010) "Designing Games to Foster Empathy", Cognitive Technology Volume 14 Issue 2

Bennett W (2012). 'The Personalization of Politics Political Identity, Social Media, and Changing Patterns of Participation', The Annals of the American Academy of Political and Social Science November 644 (1), 20-39,

Bergstrom, K. *""We aren't your personal research facility": Survey Fatigue on the World of Warcraft Forums*".Digital Games Research Association Conference, Snowbird, UT: August 3-6, 2014.

Boal A (2002), *Games For Actors and Non-Actors,* London: Routledge,

Brock A (2012), *From the Blackhand Side: Twitter as a Cultural Conversation,* London, Routledge.

Castells (1996), The *Rise of the Network Society: The Information Age: Economy, Society, and Culture, Volume I,* Oxford: Blackwell Publishers.

Chambers, R. (2013), *Participation for development: A good time to be alive*: Development Bulletin, 75(1), 2-4,

Crocco F (2011) "*Critical Gaming Pedagogy*" Radical Teacher No 91 Questia

Da Silveira, S, A (2013) Aaron Swartz and the Battles for freedom of Knowledge"; Sur International Journal on human Rights 18 7-15

El-Nasr, S. Gray, M. Nguyen, T., Isaacowitz, D. Carstensdottir, E., DeSteno, D. (2014) *Social Gaming as an Experimental Platform* , Paper In the Social Believability in Games Workshop 2014 @ FDG,

EuroGamer (2014) http://www.eurogamer.net/articles/2014-03-21-misogyny-racism-and-homophobia-where-do-video-games-stand

European Commission (2007) *Special Eurobarometer Discrimination in the European Union Fieldwork: June – July 2006* EU Publications

European Commission (2013) "*The potential of gaming for emopweremt and social inclusion of groups at risk of social and economic exclusion*". Ed C Centeno, Joint Research Centre, Publications Office of the European Union, Lux.

Ficher (2012). '*Youth Political Participation: Bridging Activism and Electoral Politics'*. The Annual Review of Sociology, 38:119–37,

Flanagan M (2006), "Making games for Social Change" AI & Soc Springer-Verlag London 20: 493–505.

Flanagan M (2014) "*Making a Difference In and Through Playful Design*" CSCW Keynote Address February 15-19, 2014

Flanagan M, Howe, D, C Nissenbaum, H (2005) New Design Methods for Activist Gaming, Proceedings of DiGRA 2005 Conference: Changing Views – Worlds in Play.

Flanagan M, Nissenbaum H (2007) "*Politics & Activism*" CHI 2007 Proceedings

Flanagan, M (2006) "*Making games for social change*", AI & Soc (2006) 20: 493–505

Flanagan.M (2010) *"Creating Critical Play"* Artists Re:Thinking Games. Eds Ruth Catlow, Marc Garrett, and Corrado Morgana. Liverpool: Liverpool University Press, 2010, 49-53.

Funke (2012) *Why Semantic Differentials in Web-Based Research Should be Made From Visual Analogue Scales and Not From 5-Point Scales* in Field Methods VOL. 24, NO. 3,

G Gibs (2010) https://www.youtube.com/watch?v=SizaG3KKAp4 accessed 1/06/15

Gamesindustry (2014) http://www.gamesindustry.biz/articles/2014-03-20-adam-orth-internet-toxicity-has-been-chilling accessed 15/11/2014

Garner (2012) "*Now We Are Almost Fifty! Reflections on a Theory of the Transformation of Social Movement Organizations*"

Gaventa, J. (2009) *States, Societies, and Sociologists: Democratizing Knowledge from Above and Below,* Rural Sociology 74(1), 30–36.

Gaventa, J. Cornwall, A (2006) *Challenging the Boundaries of the Possible: Participation, Knowledge and Power,* IDS Bulletin 37 (6), 122-128.

Gilbert M and Masucci M (2008) 'Moving Beyond "Gender and GIS" to a Feminist Perspectives on Information Technologies: The impact of welfare reform on women's IT needs'; in J. Seager and L. Nelson (eds) *A Companion to Feminist Geography*, pp. 305-321.London,. Blackwell Publications.

Gill Gordon and Andrea Cornwall (2004) *Participation in sexual and reproductive well-being and rights*; Participatory Learning and Action, 50(1), 64-73.

Gladwell M (2010)   "*Small Change Why the revolution will not be tweeted*", Annals of Innovation New Yorker http://www.newyorker.com/magazine/2010/10/04/small-change-3 accessed 23/02/2015

Glenn C. Liang C, Der-Karabetian A. (2011) Handbook of Multicultural Measures, SAGE Publications,

Goodchild (2007). 'Citizens as Voluntary Sensors: Spatial Data Infrastructure in the World of Web 2.0', International Journal of Spatial Data Infrastructures Research, 2, 24-32.

Gray K (2014) *Race, Gender, and Deviance in Xbox Live: Theoretical Perspectives from the Virtual Margins*, Routledge,

Hickey, S. Mohan, G. (2005). *Relocating participation within a radical politics of development*. Development and Change, 36(2), 237–262.

Hope A, Timmel S, (2014) "*Training for Transformation in Practice*", UK, Practical Action Publishing.

Hussain Z. Griffiths M, & Baguley T (2012) Online gaming addiction: Classification, prediction and associated risk factors Addiction Research and Theory, October 2012; 20(5): 359–371 2012 Informa UK Ltd.

Illia L (2002) "*Passage to cyberactivism: How dynamics of activism change*" Journal of Public Affairs Volume 3 Number 4

Jenness V, Broad K , (2009) Hate Crimes: New Social Movements and the Politics of Violence, Aldine Transaction, London.

Jordan T (1999), "*Cyberpower: An Introduction to the Politics of Cyberspace: The Culture and Politics of Cyberspace*" Routledge.

Jorgensen M and Phillips L (2002) *Discourse Analysis as Theory and Method*, London; SAGE Publications Ltd.

Kanji, N. Fei Tan, S (2008) *Understanding local difference: gender (plus) matters for NGOs* PLA Notes, 58 (1) 68-74.

Klimmt C (2011) "Serious games and social change" In *Serious Games and Edutainment Applications* ed Nikolaos Antonopolous, Minhua Ma, Springer Science & Business Media

Langman L (2005), "*From Virtual Public Spheres to Global Justice: A Critical Theory of Internetworked Social Movements Sociological Theory* "Volume 23, Issue 1, pages 42—74,

Marsh T (2011), Serious games continuum: Between games for purpose and experiential environments for purpose Entertainment Computing 2 (2011) 61—68

Mauter, G (2004). 'Time to get wired: Using web-based corpora in critical discourse analysis', Discourse & Society, 16: 809-828,

Mayo, M, (2005). *Global Citizens: Social Movements and the Challenge of Globalisation* .London: Zed.

McGonigal J (2012) "*Reality is Broken: Why Games Make Us Better and How They Can Change the World*", UK, Penguin.

Nakamura, L (2009) "'Don't Hate the Player, Hate the Game: The Racialization of Labor in World of Warcraft," in R Brookey (ed), Critical Studies in Media Communication, Special Issue on Massively Multiplayer Online Games, Routledge,

Narayan,D. Chambers, R. Shah, M. Petesch, P. (2000) *Crying Out for Change*, Oxford: Oxford University Press/World Bank.

Nigel A. Jackson D, Lilleker G (2009) 'Building an Architecture of Participation? Political Parties and Web 2.0 in Britain', Journal of Information Technology & Politics, 6(3-4), 232-250,

O'Donnell, C. 2014. "*Getting Played: Gamification, Bullshit, and the Rise of Algorithmic Surveillance*". Surveillance & Society 12(3): 349-359

Pearce C (2006) "*Communities of Play: The Social Construction of Identity in Persistent Online Game Worlds*" US, MIT Press.

Pearce, C, Boellstorff, T, Nardi B A, (2011) Communities of Play: Emergent Cultures in Multiplayer Games and Virtual World, Artemesia MIT Press,

Pearse C (2009), "Communities of Play: Emergent Cultures in Online Games and Virtual Worlds", Artemesia, MIT Press

Racial Prejudice World of Warcraft: Subculture to Society (2012) Monday, 5 November 2012 http://subtosoc.blogspot.ie/ accessed 15/11/2014

Reinharz, S.(1992*) Feminist Methods in Social Research*, Oxford University Press,

Romero B, (2013) http://www.ted.com/speakers/brenda_brathwaite accessed 01/06/15

Salter C (2011) "*Going Online for Social Change: Techniques, barriers and possibilities for community groups:*" Social Alternatives Vol. 30 No.1, 2011

Sanchez J (2009) "*Pedagogical Applications of Second Life Implementing Second Life: Ideas, Challenges, and Innovations*", Library Technology Reports, American Library Association,

Schoech D, Boyas J, Black B,M, Lambert N,E (2013) "*Gamification for Behavior Change: Lessons from Developing a Social, Multiuser, Web-Tablet Based Prevention Game for Youths*", Journal of Technology in Human Services, 30:197–217, 2013 Routledge

Sophie Oliver (2010) Simulating the Ethical Community: Interactive Game Media and Engaging Human Rights Claims, Culture, Theory and Critique, 51:1, 93-108,

Swain C (2007) "*Designing Games to Effect Social Change*", Digital Games Research Association (DiGRA).(805-809)

The Guardian (2013) http://www.theguardian.com/technology/shortcuts/2013/mar/22/is-racism-online-gaming-fault-industry-players accessed 15/11/2014

The Journal (2014), http://www.thejournal.ie/social-media-bullying-political-parties-743140-Jan2013/ accessed 15/11/2014

The New York Post (2014) http://www.nytimes.com/2014/10/16/technology/gamergate-women-video-game-threats-anita-sarkeesian.html, accessed 15/11/2014

Wei Peng;(2010) "*The Effects of a Serious Game*", Journal of Communication 60 (2010) 723–742 International Communication Association,

Youmans L W & York, J, C (2012) "*Social Media and the Activist Toolkit: User Agreements, Corporate Interests, and the Information Infrastructure of Modern Social Movements*" Journal of Communication 62 (2012) 315–329.