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Special Issue

**This Time it's for all the Marbles.**  
**Towards Social Justice in Digital Gaming**

edited by  
Patrick Prax

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# From Talking about Loot Boxes to Discussing Political Economy: Conceptualizing Critical Game Literacy

Patrick Prax

**Abstract:** This article follows the call for action from Kellner and Share (2007) to educate for critical media literacy by extending and concretizing a framework for critical media and game literacy from Buckingham (2015) based on contributions from critical media studies, game studies, and reflexive game design. The article discusses critical media literacy education as a part of critical citizen education and critical pedagogy (Johnson and Morris 2010), which takes their inspirations from the *Pedagogy of the Oppressed* (Freire 2018). After that, the article discusses two cases from university education in Game Design for what critical game and media education should contain. These cases showcase the approach and exemplify why it is important to take this approach to media literacy. The article concludes that critical game literacy requires learning about the properties of the medium through production: learning about games by making games and a contextualization of that kind of learning. This process can link game design to an understanding of the systemic and economic scaffolding of game production. Linking the political and the practical is necessary in order to be able to step beyond one's individual perspective in a system and take collective decisions, as well as fighting against injustice and marginalization. The cases show that literacy education that does not take these systemic and political points into account may lead to inadequate conclusions about what to do in order to improve the situation in practice as well as in policy.

**Keywords:** Critical Game Literacy, Critical Media Literacy, Political Economy, Critical Pedagogy, Literacy Education, Loot Boxes, Citizen Education, gameenvironments

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This article argues that critical media and game literacy, as a part of critical citizen

education, needs to examine the systemic consequences of the ways in which we make and fund media so that the learners can see how this production creates injustice and how they might benefit from that injustice. Buckingham (2015) has argued for a change in media education to accommodate a version of critical game literacy in contemporary media education that explicitly extends beyond learning to access games and that includes critical analysis of game production and its political economy. This analysis should extend to reflexive media and game production. He is by no means the first to point out the necessity of critical literacy education. Already before the economic crisis of 2008 that re-invigorated perspectives critical of capitalism in the West, Kellner and Share (2007) stipulated that “The task for educators and researchers is to engage in a new type of literacy education, from pre-school to higher education that incorporates new information communication technologies, media, and popular culture with critical pedagogy” (Kellner and Share 2007, 68).

Since then, the need for critical media literacy in the population has only become direr. The lack of critical digital literacy has become a central issue for during the COVID-19 pandemic. Large segments of the population do not have the necessary skills to understand complex statistics and public health issues and to see through manipulations of data or political spins of facts. Fake news and radical propaganda are becoming more sophisticated and both individuals and our shared culture are more vulnerable during this time of crisis. This is hardly the only issue where media literacy is relevant, but merely the one where its lack is also directly impacting people of racial and economic privilege. The growing influence of groups connected to conspiracy theories like Flat-Earthers, anti-vaxxers, or people who blame 5G networks for various issues is worrying from the perspective of trying to maintain (or create) a democratic society based on human rights and scientific facts. Moreover, the ways in

which radical Right-wing and undemocratic movements are using these groups as recruitment grounds or are co-opting their narratives point to an even more direct threat to liberal democracy. Examples include the movement around Q-Anon or the connection of anti-vaccination conspiracies to organized anti-Semitism. The games and gaming community have been a staging ground and test bed for some of the tactics and discourses used in these movements (Bezio 2018, Mortensen 2018, Nieborg and Foxman 2018). As far as critical media and game literacy education go, we have work to do.

Buckingham (2015) offers a model of critical game education based on critical digital media literacy education. The popularity of games with younger audiences especially positions them as a possible entry point for teaching critical media literacy. After all, the production and distribution of digital games share many elements and issues with that of other digital media. That said, games also have their own specific issues that need to be addressed in critical literacy education like the way they specifically create meaning through interaction and procedure, or problematic issues like dark design and game addiction. Another issue highlighted by recent work from de Albuquerque (2016, 64) is that some approaches “interpret critical gaming as something less politicized than critical theorists would conceive.”

This article then follows the call from Kellner and Share (2007) by extending and concretizing Buckingham’s framework for games literacy based on contributions from critical media studies, game studies, and reflexive game design (Flanagan and Nissenbaum 2014), maintaining as much as possible the system-critical, political, and social justice-focused perspectives that are at the core of a critical approach. It also openly explains the political and normative underpinnings of its understanding of critical literacy and critical pedagogy by extending it into the political economy of



digital media and digital games, but also into questions of social justice. Then, the article discusses two cases of critical game and media education in a Game Design program at a university in Sweden to showcase the approach and exemplify some of the arguments from the theoretical framework. One of these cases focuses on the discussion of the political economy of game production and the other centers around the discussion of power and privilege.

## Theoretical Framework

### What Do We Mean by Critical Literacy?

When discussing media literacy and critical literacy it is first necessary to explain how that concept is understood here specifically. Literacy as an approach to learning is discussed both by Buckingham (2015) and for example by Gee (2009). Here gaining literacy means learning to not only be able to read a given text but to understand it more deeply. The very points Buckingham (2015) is making in his paper are that literacy needs to contain an understanding of how the given media works and structures content; how the production of the text influences its message; and that it needs to teach to “recognize that ‘bias’ is unavoidable, and that information is inevitably ‘couched in ideology’” (Buckingham 2015, 25). The extension to active literacy positions then that it even extends to being able to create in the given medium, much like active literacy for written language would mean being able to not only read but also write. Literacy as a focus of education is at this point uncontroversial. However, here, literacy is further understood in the context of the education of empowered and autonomous citizens of a liberal democratic society. This perspective aims not only to teach human beings to be able to read texts properly, but also sets its eyes on *Bildung* (Buckingham 2015, 21).

Critical literacy relates to all of these elements of literacy education with the addition of a critical perspective on power, privilege, and oppression. Expanding on this notion, the following section will first discuss the notion of critical pedagogy in relation to critical thinking in the context of citizenship education based on the work of Johnson and Morris (2010) and Freire (2018). The chapter will then follow the four areas of interest for the study of critical game literacy suggested by Buckingham (2015), representation, language, production, and audience, and will develop what critical literacy here should mean.

**Critical Pedagogy vs. Critical Thinking in Citizenship Education**

Johnson and Morris (2010) offer a classification and comparison of different approaches to critical citizenship education. While they do not claim a real dichotomy, they do show that there is a meaningful difference between approaches that champion critical thinking versus those that argue for critical pedagogy. Here, critical thinking as an approach does aim to teach reflection, even on power structures and their impact. Critical thinking does value creativity, innovation, thinking outside the box, questioning one’s assumptions, and finding new solutions to problems. As Burbules and Berk (1999, 55) explain, “Critical thinking’s claim is, at heart, to teach how to think critically, not how to think politically; for critical pedagogy, this is a false distinction.”

The difference to critical pedagogy comes from the inclusion of the notion of oppression into its worldview. The notion of oppression and, correspondingly, privilege, also interlink the structural/political and the personal (Starkey 2002, 5). Critical pedagogy introduces a dynamic where frequently students (and the general public) are participating in the continuation of exploitation, oppression, and injustice

and where they carry responsibility for this injustice based on them benefiting from it.

As Johnson and Morris (2010) state, "(critical thinking) stipulates the teaching of information about human rights, but ignores any corresponding social responsibilities" (Johnson and Morris 2010, 86). This creates a stark contrast between approaches that favor critical thinking compared to those that subscribe to critical pedagogy. While critical thinking does not address the roles that we play in oppression or the privileges we gained based on that injustice, critical pedagogy explicitly highlights the responsibility that is a consequence of privilege and actively aims to change the world. Kellner and Share (2007, 68) write:

"This work must challenge dominant ideologies and empower youth to unveil the myths through creating their own alternative representations that empower their own voices and struggles for social justice."

In a similar vein, Johnson and Morris (2010, 79) explain:

"The term "critical pedagogy" describes that body of literature that aims to provide a means by which the oppressed (or "subaltern") may begin to reflect mode deeply upon their socio-economic circumstances and take action to improve the status quo."

Freire (1972, 101) in his foundational book writes about "acting upon the structures of domination" as an aim of critical pedagogy. Freire also describes that critical pedagogy takes its frame of the world and the issues that need to be addressed from the reality and expectations of the learners who are actively participating in defining not only the teaching process, but also even the goals. Freire (1972) calls this process of allowing the learner to reflect critically on their own situation *conscientization*. While critical thinking centers around innovation and the finding of new solutions, critical pedagogy extends its reflection even to the given framing of the problem.

Instead of teaching students to solve a given problem, the students/learners get the possibility to redefine the problem, propose a different perspective, and potentially break out of hegemonic worldviews and approaches that have given rise to the problem in the first place.

This does not mean that critical pedagogy has solved all problems and now just needs to be applied. One of the open questions is what exactly can be understood as providing the oppressed with means for critical reflection and where the line is drawn between that and traditional teaching. There are practical examples for how critical pedagogy has been done, for example, the *Theater of the Oppressed* (Boal 2000). The explicit focus of critical pedagogy on practice and the specific context of the situation often lends itself more to creating practical examples and best practices than to the writing of theoretical curricula.

I have also been developing a teaching moment for game design students that has been tested and evaluated in practice (Prax 2020). However, as this current article is aiming to formulate a vision of critical game literacy, there is a need to discuss what *conscientization* means here: where is the line between offering learners the means to reflect on the impact of digital media on their lives versus top-down teaching them foregone conclusions? Another issue is that, as Johnson and Morris (2010) explain, critical pedagogy is not as present in national educational policy as it could be. These policies instead opt to stress critical thinking, which is one of the reasons why it is important to highlight the need for critical pedagogy in media and game literacy education. The examples for critical game literacy education in the later sections will show where the practical differences between critical thinking and critical pedagogy lie to illustrate the importance of the latter in educational thinking and practice.

In summary: critical media and game literacy as a part of critical citizen education needs to examine the systemic consequences of the ways in which we make and fund media so that the learners can see how this production creates injustice and how they might benefit from that injustice.

### Critical Media Literacy and Game Literacy

Buckingham stresses in his outline of critical media literacies not only the ability to consume and access media but also to critically examine it. He states:

“Nevertheless, it should be apparent that approaching digital media through media education is about much more than simply “accessing” these media, or using them as tools for learning: on the contrary, it means developing a much broader critical understanding, which addresses the textual characteristics of media alongside their social, economic and cultural implications.” (Buckingham 2015, 30)

This formulation does not only include teaching about the properties of a given medium, but extends to the social, economic, and cultural consequences of media. This formulation at the very least implies a connection to critical pedagogy. Furthermore, Buckingham extends media literacy to learning about the production circumstances of media, including the economic system in which this production takes place (Buckingham 2015, 29). Buckingham’s third central argument is that media literacy should be reached by learning to make and produce the given kind of media. When Buckingham discusses production as a part of media literacy teaching, he is again not aiming to make students good at producing media but to enable them to more fully understand how media texts are made so that they can be more reflexive users. Teaching about media production as well as teaching practical media production are means to the end of empowering young citizens and human beings. He stresses, “Finally, it is important to recognize that these critical understandings can

and should be developed through the experience of media production, and not merely through critical analysis” (Buckingham 2015, 30).

The focus on media production and active literacy as the means for developing a critical understanding is also central part of this approach to critical game literacy. The section about reflexive game production and participation is especially relevant here.

However, there are elements that are considered important to learn and that are connected to the systemic and economic conditions and consequences that make it necessary to consider the limitations of what can be learned through making. De Albuquerque (2016) has found that the creative aspect of game literacy is somewhat de-emphasized by a number of authors in the field. This current article also leans in that direction. That said, the theoretical concept here is informed by teaching in a Game Design education where students are already doing creative work. The more making-focused elements of this education, in which the aim is reflexive media production and games as alternative media (Thevenin 2017), have been published elsewhere (Prax 2020). That means that this text recognizes the importance of making, but does choose to focus on the context of production.

The next chapters will develop the four categories Buckingham (2015) proposes as elements of critical game literacy – representation, language, production, and audience – in light of the above discussion of critical pedagogy.

**Representation and Language**

While representation and language are two separate points in Buckingham’s (2015) work, here they are combined because one of the most relevant issues – the way

games represent the world through rules – lies in the overlap of these categories. Games can in their rules represent the mechanics of how the world works (Bogost 2007). A given worldview, a framing of a problem, or even an argument about what should be done can be expressed in the design of game rules and systems. Expression through rules in games can be difficult to see through and is not easily open to critical reflection by the player. While there is no claim being made towards the intention of the game designers, the point here is that the representation of the world through the rules of the game is inherently, inescapably, political. It is central to support learners in understanding that everything is political: there is no neutral information and every piece of communication, every text, and every game, is political.

Buckingham (2015, 25) insists that “[media] offer particular interpretations and selections of reality, which inevitably embody implicit values and ideologies.” The impossibility of communicating without including politics or claims about the nature of the world can be taught by asking learners to not only play and analyze games but also by giving them the opportunity to create and design them. Their design can then in turn become the object of critical reflection. There are a number of activist or persuasive games that try to purposefully change politics and culture. These can be discussed, and students can be enabled to make their own games in this area.

**Production**

*Critical Pedagogy, Games, and Reflexive Production*

Enabling students to make games that reflect their own worldview is a meaningful way of allowing them to experience how politics and perspective are part of games and their design. However, there is also another relevant element that students can learn here: That games and indeed culture are not automatically primarily cultural

commodities made by companies for the consumption of an audience. Cultural creation of even mainstream games to a considerable degree relies on the participation and contribution of amateurs and participants (Prax 2016). The independent creation of games as freely shared culture has been a core element of (digital) games throughout their history and is still central to them today (Nylund et al. 2020, Stuckey et al. 2013, Swalwell et al. 2017). The inadequately represented reality is that games have their roots in player creativity both historically and today. For learners, learning to make games also offers the critical insight that the learners can create their own games and culture. For critical media literacy education, this means that youth need to learn about the central role of players in the development of games and gaming. They should both understand on the theoretical level and then enact on a practical level that games are participatory culture, that they can make games, and that their making games is not special, niche, or out of the ordinary, but the very way in which we make games as culture for each other. In the frame Buckingham (2015) presents, this particular element is in a way the connective tissue between *Production* and *Audience*. What is often considered the *Audience* is central to game production. This message resonates with the focus of critical pedagogy on the exploitation of workers, the actual creators of value, and capital.

Examples of teaching moments that do this already are game jams where people get together during a short period of time – typically 48 hours – make, and publish a game together. Game jams have already been used for promoting social justice and for empowering the oppressed (Harrer 2019) and they are a remarkable tool here. They empower learners to set their own aims; encourage them to learn from each other in practice; teach the use of technological infrastructures like game engines or modeling software; and even show them how to publish and share their work with others (Harrer 2011, Harrer 2019, Pirker et al. 2016). The communities around game



jams could even be starting points for political organizing and the sharing of culture that aims to challenge the status quo of oppression. While critical pedagogy has been called out for being too theoretical and out of touch (Apple 2009) or “proudly unpragmatic” and connected “poorly with life in the classroom” (Wrigley 2006, 179), game jams show that this does not need to be true.

### *Systemic and Technological Elements of Production*

While game jams can allow learners some insight into the production of games, there are also limitations to what can be gleaned from them. While the production of big-budget games does not constitute the default of game production, it still needs to be said that these games do have a prominent role and more influence on mainstream culture than independent or alternative games. This fact means that critical game literacy needs to address them. These games are produced within technical and economic systems and shaped by their logics and ways of channeling capital. The understanding of the logics that guide the production of a media text is as central to critical media literacy as it is difficult to obtain. As Buckingham (2015, 26) explains, “young people need to be aware of the growing importance of commercial influences – particularly as these are often invisible to the user.”

Expressed in vernacular, this element concerns how games make money, which is not a trivial question to answer for digital games. These games are frequently free-to-play and financed by micro-transactions, virtual item sales, and most importantly, advertising. They might include elements from gambling, or they can manipulate a minority of vulnerable players into spending large sums of money. It might be worth it to note again that students are often taking this education with a desire to break into these very systems of capital without realizing the consequences.

For digital games, the technical infrastructures that are most central are distribution platforms like the *App Store* (Apple), *Google Play* (Google), and *Steam* (Valve) (with some recent competition from the Epic Store), as well as the distribution platforms connected to the gaming consoles *Xbox* (Microsoft) and *Playstation* (Sony). These technological platforms are so central to the marketing and sales of games that their properties become a kind of scaffolding of the production of games as culture that has a considerable effect on what games can be produced profitably. Some elements here are not different from the cultural industries with their logics of power distribution in the profitability of texts, managing risks with high-profile productions in the center of the industry, and outsourcing innovation and risk to the fringes (Hesmondhalgh 2008). However, the centrality of these platforms does warrant special attention and can be understood through the lens of platform capitalism (Srnicsek 2016) which combines an analysis of the political economy and technological properties of these platforms. Case example #1 in the next section will show how and why these perspectives are relevant for critical game literacy.

*Game Work and Precarity*

Closing the circle of production here is education about the working conditions of game workers. The entry point is reading the letter from EA Spouse (Dyer-Witheford and de Peuter 2006). The systemic precarious conditions of cultural workers (De Peuter 2011), even in established and profitable industries, foreshadow just how insecure working conditions can be in the independent arm of the games industry. In indie game development, small companies with more creative freedom but even less financial security try to make the game of their dreams and maybe also carve out a living (Whitson 2019). Precarity is also used to describe the situation of the player creators mentioned above (Kücklich 2005, Prax 2019, Sotamaa 2007).

These working conditions are a relevant part of critical media literacy. Understanding the economic pressure and conditions of the workers who are creating media is a central aspect of any education about media production. They are relevant information for citizens not only to be able to reflect on their own use of and relationship to media, but they can also create support for exploited game workers in their political struggle through the support of people both as customers and citizens influencing legislation. The movement to organize labour unions has also just recently gained momentum for example in the USA with Game Workers Unite and this is in ongoing struggle even in the Nordic countries. Furthermore, we have not even mentioned issues around outsourcing of cultural production and the colonial production of games, which pose another set of challenges. Finally, research has shown that precarity of game workers severely limits what kinds of texts and messages they can produce and that these conditions of production hamper the creation of games with a focus on social justice (Ruberg 2019b, Srauy 2019), underscoring the need to include production into critical media literacy.

**Audience**

The last category in Buckingham’s (2015) list is audience. In the sections above, this article has already discussed some areas where there is overlap with the audience section. The topic of players as creators of games and culture for example lies in the intersection of production and audience. Another issue in the same intersection is that of game design that exploits vulnerable players. This issue will be explained in Example #1 below. An additional issue located in this intersection of audience and representation is that of the ways in which the game community represents itself and excludes certain groups, namely minorities and women. The cultural event in the game community called #Gamergate has been (or is) an organized effort to further marginalize and exclude women and minorities both as gamers and game creators

(Aghazadeh et al. 2018, Mortensen 2018, Nieborg and Foxman 2018, Salter 2018). This event, it has been convincingly argued, could be seen as a test of the tactics that alt-Right political movements have been using more broadly after (Bezio 2018). This reflection on gaming culture also needs to be a part of a critical game literacy. This issue will be discussed in Example #2.

**Summary**

Buckingham’s (2015) categories, with an emphasis on production in this case, make sense as a way to think about critical game literacy. Central topics are the political nature of media, the participatory nature of media production, the impact of digital platforms on cultural production, the exploitation of players, and the precarity of labour in the cultural industries.

**Case Examples**

While this article offers a theoretical discussion of these issues, it does aspire to be based on practice and to be practically usable. In order to anchor the theoretical discussion in real teaching and to show in what ways the theoretical perspectives chosen in this article are connected and useful, the next section will review the way in which these topics have been addressed as part of a game design education at the university. They will also aim to show how the topics mentioned above are essential to include to reach the kind of critical game literacy that is necessary for informed citizenship as laid out above.

Using game design students as learners here means that they have likely more expert knowledge (and possibly more interest) than what can be assumed of youth in school. That said, it also means that if these students have trouble understanding

something then it should be safe to assume that it is not trivial to learn for other groups. The classroom interaction from which these examples are an accumulation has taken place in the first year of a 2-year Master’s program in a Game Design education at Uppsala University, Sweden. The cases are an amalgamation of teaching these topics, also including changes that were made over the years to incorporate student feedback and to develop this theoretical frame with and through practice. The author is the teacher of the courses – the introduction course and a course about games and society – from which these cases come. The courses have typically 25 international students and are taught over the course of a month full-time with about three 90-minute lectures and additional reading and group work. The framing of these cases in a Game Design education where students already go on to create games also makes it possible to further focus on the context rather than on the making itself. In other contexts, the making of games might require a more central role.

**Example #1**

This example shows how Game Design students can learn about loot boxes in a way that is informed by the theoretical framework in this article by putting it into pedagogical practice.

One of the most discussed issues around games are loot boxes. Loot boxes are a way to sell random or semi-random virtual items like in-game cosmetics that change for example the way a player can look in the game. One of the central questions in societal discussion is if loot boxes manipulate minors into spending large sums of money and if loot boxes should be forbidden because they exploit vulnerable players (Nielsen and Grabarczyk 2019). In terms of game design research, loot boxes could be seen as a kind of dark design.

*Dark Design*

The first example has come out of a university course about games and society given to Game Design students in their Bachelor’s education. The starting point here is an examination of dark game design including the discussion of some examples and the definition for it proposed by Zagal et al. (2013, 7),

“A dark game design pattern is a pattern used intentionally by a game creator to cause negative experiences for players which are against their best interests and likely to happen without their consent.”

While Zagal et al. (2013) explicitly exclude gambling from their discussion of game design patterns, they include a set of monetary dark design patterns like the monetization of rivalries and pay-to-skip and they mention guiding questions like:

- How likely is the player to regret having spent money to play the game?
- How likely is the player to “lose track” of how much money he spends while playing the game? (Zagal et al. 2013, 4)

They also mention patterns like *Encouraging Anti-social Behavior* and *Social Pyramid Schemes*.

Keeping the player from understanding how dark design works so that they are not able to fully consent is a central element of dark design. This is an example where game literacy education can be a meaningful tool for preventing exploitation of players. If we teach people how dark game design works then they are better equipped to recognize it and resist it. Dark design patterns have been adapted as a perspective on games from dark design patterns for user interfaces. Here dark design

refers to UI that is meant to obscure information and trick people into making choices they did not mean to make.

Examples of every-day encounters are interfaces of websites that make it purposefully difficult to discern what kind of user data collection one is consenting to in the wake of the European GDPR regulations. Flight company websites smuggling an unwanted additional insurance into the shopping basket that can only be de-selected by going back several steps in the process and opening a separate page are another example for users of dark design patterns. This example shows how this kind of education right from the start can lead to more empowered gamers who are more resilient to abuse and that this resilience and understanding is also relevant to other digital media. However, the Game Design students in the discussion after the course moment dealing with this example concluded that the solution simply was, as a designer, to stay clear of dark game design. This is where the next step in the education about the production of media and its circumstances becomes necessary, not only for future game designers or workers in the games industry but even for autonomous citizens.

*Production*

Zagal et al. (2013) mention that the use of dark game design patterns typically needs to lead to a positive outcome for the game designer in order to qualify as such. That positive outcome is frequently monetary and needs to be understood in the context of the business model of contemporary games that frequently do employ dark patterns: Free-to-Play (hereafter F2P) games. The analysis of the business model of F2P games has shown that they do not rely on only selling virtual items to their players. Instead, they also allow players to buy these items in return for recommending the game to their friends or sending invitations to them and for

interacting in the game with other players. Typical examples here are minimum requirements for the number of friends a player has in the game. These practices allow players to trade some of their social capital – the esteem they hold in the eyes of their friends and social connections – for in-game items (Nieborg 2015). Again, highlighting and explaining this practice might inoculate players to it, making them less exploitable.

However, the systematically more relevant element of the business model of F2P games is the third one, where games commodify their own players and sell them off to other games, who will monetize them more successfully or exploit them more recklessly. The mechanism for this runs over ads. Players can earn in-game items or currency by watching advertisements. These ads aim to pull players from the game they are currently playing to the one advertised. This way, games are selling their players as a commodity to other games. This information about the ways in which the players themselves become the commodity that a game is selling is also again relevant for other kinds of media. Understanding the concept of the audience commodity (Smythe 1981) is central to any critical perspective on the political economy of media. Democratic citizens need to have absolute clarity on the fact that audiences and frequent players are not only the customers of media but rather the commodity they sell to advertisers. This is another point showcasing how critical game literacy can be relevant for other media as well and potentially a good entry point for critical digital media literacy.

If we combine this critical view on the business model of F2P games and the discussion of dark design, then it becomes possible to have a conversation about why dark design patterns might be used by game designers. That a game has to sell its own players to other games that are more effective at monetizing them – games that



can get more money out of a single player over the time they are playing it – means that the competition between games is essentially happening around who can monetize their players the hardest. If Game A can earn more money from a player than Game B, which means that it can afford buying players from Game B. Game B can in turn afford advertising in games that are worse at monetizing their players. The resulting dynamic is one where games that are less effective at monetizing their players have to funnel them to the handful of games in that area that are the most successful in monetization (Nieborg 2016).

These few titles at the top of the pyramid over time consume the player bases of the other games around it. For the designers of games, this means that if they want their game to stick around, to be played, or to be successful, then they have to compete with similar titles not about who makes the best game, but who monetizes their players the most efficiently. This economic condition then drives games towards dark game design patterns. For the Game Design students, this means that they have to realize that the solution to dark design patterns is not as simple as not being evil or greedy as a game designer, but that they are an element in a systemic problem. This example also shows how it is important to understand and learn about the conditions of production and monetization of media in order to reach critical literacy.

*Platforms*

These economic pressures that are scaffolding the development and design of games are themselves part of a bigger economic system. As mentioned above, games are published on digital distribution platforms like *Steam* or *Google Play*. For these games, this means that they get published on a market with intense competition for players and need to advertise to gain players. In the infrastructure of these platforms, advertisement is auctioned out to the highest bidder for the respective target group.

That means that any new games need to compete with the most successful titles in the particular slot. This dynamic institutionalized the competition for player monetization, mentioned above as a driving force behind dark design, as the deciding factor for if a game can afford to gain new players. The consequence is that games need to exploit their players for profit as much as possible as they will otherwise not be able to advertise and grow and will end up falling into obscurity and become a funnel of players towards games that are more successful in monetizing their players (Nieborg 2015). While games have to employ more toxic and abusive design in an arms-race to monetize their players just in order to survive on the market and not be swallowed up by the games in the center of the system, the platforms themselves enjoy record earnings based on high advertisement prices and have little incentive to protect players or users. The algorithms that platforms employ to find target audiences for ads further complicate the situation because they serve users who are more likely to spend large sums of money on exploitative games. This means that the platform automatically matches up manipulative games using dark design with the players who are the most vulnerable to that kind of manipulation because that increases the profit of the platform by increasing the value and price of advertising. It can be concluded that dark design is an inherently systemic issue, that game designers who do not want to utilize these techniques will have to watch their games fall into obscurity, at least on the F2P market, and any attempt towards that meaningful change in this area would have to at least strongly consider the role those digital platforms play in this dynamic.

*Critical Literacy and Systemic Context*

For critical game literacy education, this means that this level of analysis of the political economy of F2P games on digital platforms is indeed necessary in order to appreciate the nature of an issue like dark design and loot boxes. Without going to

this depth, it could still have seemed to be the case that dark design and loot boxes were issues connected to shady designers or greedy publishers. This at least was the perspective of the game design students at university and it resonates with the way these issues are currently discussed in society. Learning that this issue instead is systemic to the point of being built into the DNA of digital platforms is necessary to change that perspective. As prospective game workers or members of the industry, they are now able to understand the systemic reality of this issue better. They can now work towards influencing the logics of the platforms, or maybe re-shaping the norms in the industry on a collective level in a way that addresses the actual problem.

This need for understanding the economic conditions of the production of games for game design students is similar to the need of democratic citizens. Even here, this level of depth is relevant. Any conclusion of what to do based on an analysis that does not take these systemic issues into account will stay at the level of blaming individual actors. This will leave citizens unable to make informed choices about media policy and regulation or even about the appropriate consumer behavior and activism. Missing this perspective even hampers the discussion about media policy on a governmental level. People would be, as they now are, discussing loot boxes instead of the political economy of game production despite that this conversation fails to even address the most relevant issues.

**Example #2**

The second example here is centered on representation. As mentioned above, the way gaming culture represents itself is also a relevant issue. The case that illustrates this most clearly is #gamergate. #Gamergate has been a kind of movement in the game community that aimed to further marginalize women and minorities both as gamers and game workers. While the movement pronounced itself an effort to

safeguard ethics in games journalism or something similar, it has been conceived from the start as an effort to exclude the vulnerable (Bezio 2018, Mortensen 2018, Nieborg and Foxman 2018). While previous work has critically discussed this movement the point here is that the success of the movement suggests that there is a real issue with the level at which gamers understand their own media, including its production and politics. This does not only mean that the aim to re-claim games for straight white men flies into the face of the reality that games have always been queer (Ruberg 2019a).

There is a need to openly discuss both the ways in which games and gamers are oppressed, to point out the links to global politics and economics that shape oppression (Mukherjee 2017, 2018), and to be honest about how we contribute to this oppressive system (Hammar 2020, Hammar et al. 2020). These points and perspectives are openly political. This means that they are vulnerable to any attempt to pass them off as merely biased opinions and value-judgements, especially by those (of us) who are privileged enough to stand to lose something. This is where Starkey's (2002, 5) argument that critical pedagogy is based on the inclusion of the notion of oppression and privilege into its worldview becomes central. Without the inclusion of privilege and of the critical investigation of one's own role in literacy education, it seems to become easier for gamers to turn to explanations that do not require reflection and an admission of partial responsibility. This is also an area where the need for critical pedagogy instead of only critical thinking is exemplified. When there is a movement that is creating its own echo-chambers, pronounces itself marginalized, and that produces a kind of evidence that leads in circles to pre-determined outcomes, this means that lessons from critical thinking do not any longer suffice for seeing through the smoke screen. Marwick and Partin (2020) discuss this in relation to online conspiracy theories, a comparison to #gamergate

that seems appropriate considering its links to alt-right politics.

“By illustrating the gap between media literacy in theory and in practice, our research shows that simply encouraging people to “think critically” and “evaluate their sources” isn’t a meaningful check against conspiratorial thinking—in fact, it may contribute to it.” (Marwick and Partin 2020)

The point that Marwick and Partin (2020) are making here is important for this argument in two ways. First, it highlights how the exclusion of political thinking and one’s own responsibility (Burbules and Berk 1999, Johnson and Morris 2010) can leave approaches that focus on critical thinking instead of critical pedagogy vulnerable to the point that they become a tool for conspiracy theorists. What this means is that it is necessary to step beyond the perspective on games and game culture that is held by the individual to instead allow learners to also see their games and culture and ultimately understand their privilege from another perspective. In game design education, this has worked well by using the heteronormativity of the student group. This means that it has been useful for example to discuss questions about the representation of Muslims and Arabs in an international Master course, to address issues of gendered discrimination, or to give the students a task that places them in a position of power designing a game that can affect the work lives of disempowered players. Here experiencing a swap in the position to being the designer and considering the responsibilities of that position has been useful for allowing them to consider designs also from the position of a player or researcher.

Second, it shows how important it is to consider also here the systemic and power perspective. An example from the classroom recently is a controversial discussion about representation and oppression in games culture during a lecture about alt-right recruitment. We discussed the notion of the “red pill”, a metaphor appropriated from the movie *The Matrix* (The Wachowskis 1999). In the movie, the main character

gets the chance to take the proverbial red pill to get to see the painful reality of the world we live in. Taking the red pill has come to mean that one accepts a worldview where white people and western enlightenment are under attack by cancel culture and social justice warriors. This view effectively understands white men as the new victims of systemic cultural oppression. In class then a student pointed out that both sides claimed to be the victims of systemic oppression and that both opposing claims should be seen as equally valid. This position exemplifies how an argument based on critical thinking and a systemic perspective can still be vulnerable to conspiratorial thinking and can fail to include owns own position of privilege and the suffering of others. From the perspective of the students, questions of oppression and justice could then be entirely subjective opinions, fact-less politics, and interchangeable.

The class was silent for a moment and then a fellow student shared that recently Ivanka Trump and Elon Musk had tweeted about taking the red pill (White 2020). The student pointed out that two of the most powerful people on the planet, people who can influence politics and currency rates over Twitter, were arguing that they were the victims of systemic oppression. This argument, while sadly not convincing the opposing student, did elevate the conversation to consider the real distribution of power and our role in the system.

This example highlights the need for critical literacy also to connect to issues of power and privilege and to openly include conversations about politics and normative perspectives. Without this perspective that includes the own position in the analysis, it is possible to arrive at perspectives that keep de-humanizing others because of a lack of understanding and an avoidance of responsibility.

**Summary**

These cases illustrate that both a systemic perspective on the production of media and a reflective approach to one’s own role, privilege, and responsibility are the core building blocks of this approach to critical media and game literacy. They also show how one could think about designing teaching materials around this approach than in practice.

## Discussion

### Teaching Production and Systemic Context

This approach, in light of the examples and the relevant areas for critical game literacy education, does offer a number of points for discussion. Producing media as a way of teaching about production is a useful approach and it should be a central part of this kind of education. That said, there are limitations to this kind of approach as well. This article has argued for the need to include a systemic analysis of political economy into education because otherwise, it will not educate about the means by which injustice and exploitation are exercised. However, these collective and systemic impacts of economic and technological systems are by their nature not easy to experience as an individual though production of media. Again, this does not mean that making games should not be part of critical literacy education but that it needs to be contextualized with a different kind of education and pedagogy that can address the broader systemic and collective issues.

The situation is similar when the aim is to educate about privilege and systemic oppression. It is not trivial to allow students to learn through experience about the ways in which members of other groups get oppressed or to learn to see their own privilege. In the absence of a critical engagement with their own privilege and responsibility, there are no shortage of alternative (and wrong) explanations for the

systemic injustice. Alternative explanations are in fact thriving, like the oppression of the common nationalist people by *faceless elites*, *world Jewish People*, or *reptilians*, views commonly espoused by conspiracy theorists. As Kellner and Share put it already 17 years ago, “(c)ritical analysis that explores the structures of oppression is essential because merely coming to voice is something any marginalized racist or sexist group of people can also claim” (Kellner and Share 2005, 371). This limitation could be seen as integral to the *Pedagogy of the Oppressed* as an approach where groups of students would consist of people in the same situation of exploitation, learn together, and work closely to practice and enact social change. The systemic issues that this article states as relevant to critical game literacy do also impact people at different intersections differently, but they do also have elements that impact all citizens. The process of *conscientization* through which, in the *Pedagogy of the Oppressed*, the learners are enabled to perceive themselves as members of a particular class is here similar to the processes through which students can learn to see themselves in relation to, for example, economic processes of media production in a similar situation.

**Buckingham’s Categories of Literacy Education**

Based on the exploration of the topics that this article argues need to be included in critical game literacy education, some of the most relevant issues fall exactly in the overlap between Buckingham’s (2015) categories. This is not as much a critique of the categories as it is highlighting that especially issues like player production or the self-representation of the audience and community are some of the most important areas to explore in literacy education. The central point here is that the naming one category audience and another production implies that the audience is not productive, which is misrepresenting reality in the case of games. While the existing categories could serve as a jumping-off point for that discussion, this article argues



that the audience and players should be presented as inherently productive in any framework of game production.

**Practical Limitations**

As mentioned earlier, this article aims to be practically useful. That said, there are a number of limitations to making this kind of game literacy education a reality. One of the limitations is that it requires a fairly high level of education and knowledge on the side of the teacher. That this perspective on literacy is formulated by an expert in the subject matter could be a limitation here. Tentative explorations and conversations with high school teachers about this topic have indicated that this view of the aim of critical media literacy for citizens is easily beyond what is currently happening at (Swedish) schools. On the other hand, if it was already standardized, then there would not really be a point in teaching it further. More pragmatically, one way in which the perspectives formulated here are aimed to be implemented is education for teachers. Another way of testing it will be running an intervention with students to develop it further in practice. Any step forward to changing the education of students, teachers, and the public needs an aim at systemic change; the point here is to make a contribution to this aim and point toward some way there.

A last limitation that I have received as feedback from interaction with pedagogues and local public servants is that while they appreciated the honest approach of stating normative perspectives openly, this way of communicating might make it vulnerable to complaints against public education. Parents could for example complain about critical education as its analysis will contradict the ideology of the far-Right movements who have also in the Nordic countries managed to establish themselves as parties in the electoral system. Any need to be politically neutral here could force a different kind of rhetoric for education. That said, Johnson and Morris

(2010, 92) already concluded that while the political climate might not be conducive to critical pedagogy, it is possible to create pockets where it can still exist and work to empower youth. On the flipside, this issue also highlights once more how important the project of critical media and game literacy has become.

### Conclusion

The aim of this article was to further develop Buckingham’s (2015) framework for critical game literacy education. It discusses critical media literacy education as a part of critical citizen education and critical pedagogy (Johnson and Morris 2010), the latter of which takes its inspirations from the *Pedagogy of the Oppressed* (Freire 2018). The article concludes that critical game literacy requires both learning about the properties of the medium through production and a contextualization of that kind of learning. These factors are essential to linking it to an understanding of the systemic and economic scaffolding of game production and the ways in which privilege and exploitation impact and get reproduced in these systems. The cases that are used to discuss the theoretical argument based on a more practical example show that literacy education that does not take these systemic and political points into account will both be unable to adequately understand game production and will on a number of levels reach the wrong conclusions about what to do in order to improve the situation in practice as well as in policy. Linking the political and the practical by centering on the notion of privilege (Kellner and Share 2007) is necessary in order to be able to step beyond one’s individual perspective in a system, take collective decisions, and fight against injustice and marginalization no matter on which intersection we are.

The case examples specifically discuss the need to educate about the political

economy of game production and about one's role and privilege in this system. They specifically make the point that without an understanding of the economic logics of platform capitalism, it is impossible to fully understand even an issue as close to societal discussion and the practical lives of gamers as dark game design and loot boxes. The direct practical limitations of this argument are that current legislation in a number of counties is misinformed and that the entire conversation about this very real issue is not addressing the relevant factors.

The article is by no means claiming to be the first to articulate this view on critical media literacy. However, it does aim to argue convincingly for what this kind of critical literacy for games should look like and why we need it. "Command of literacy in this sense is not only a matter of performing well on standardized tests; it is a prerequisite for self-representation and autonomous citizenship" (Goodman 2003, 3). With games becoming such a central part of contemporary society it seems appropriate to paraphrase Kellner and Share (2007, 68) concluding that critical game literacy is not an option, it is an imperative!

**Further Research**

As further research, this article suggests developing material for the education of teachers and pedagogues, testing it in practice, and then share it widely. Other necessary steps are developing an intervention to work with students and similarly testing this perspective and techniques of teaching through production hand-in-hand with contextualization. Finally, a long-term goal would be supporting the scaling of this kind of critical game and media literacy education to policy while evaluating how it can work and how it can be made useful to different groups.

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