Reviewing Critical Frameworks for a Critically Oriented Digital Game Education

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Short summary:
This paper examines three frameworks that investigate how educators engage with digital and non-digital media. The aim is to explore the possibilities and limitations of each framework as schemata for supporting learners to engage more critically with digital games. While digital games are increasingly deployed in formal learning contexts to support teaching and learning, their critical study with students has attractedless attention. This paper explores three frameworks that explore how educators engage with digital and non-digital media. The aim is to demonstrate/explore the possibilities and limitations of each framework as schemata for supporting learners to engage more critically with digital games. These three frameworks were selected because of their integration of literacy and criticality, recognising however, that there are many such frameworks that are also useful for educators (for example, see Apperley and Beavis, 2013). In the following sections, I offer some brief context about each framework and its key features.

Context: I work in the Faculty of Education of Education, at the University of Melbourne, Australia. Most of my teaching focuses onis in English and literacy teacher education.

Students: My students are predominantly those studying to become secondary school teachers, however the audience of my research is high school students. I am interested in how we develop the knowledge and dispositions that support young people to be critical users of digital games and other digital technologies.

Goals: I want high school students to be able to study digital games, for aesthetic, literary, textual and critical objectives.

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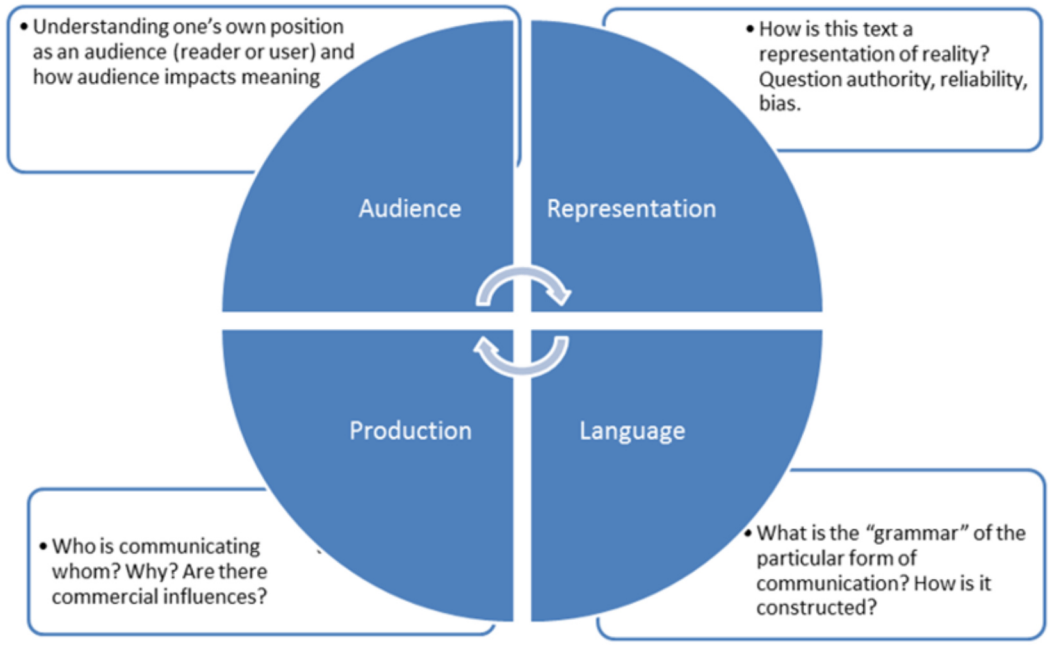
The Media Literacy Model

David Buckingham's Media Literacy model (2006) is a comprehensive framework for understanding and analyzing media in the digital age. Buckingham, a British scholar and educator, was interested in what children need to learn at school. He wanted an approach to media education that was much more than simply functional literacy. He developed this model to help people critically engage with various forms of media.

His approach emphasizes the importance of developing critical thinking skills and understanding the complex relationships between media producers, texts, and audiences. His work on digital media and digital literacy pushes us to think beyond the functional, the operational aspects of 'how things work', and conceptualises digital literacy education to include a focus on the socio-political aspects of how texts work. While his model is centered within discourses of media education in Anglophone countries, it has a lot to offer those interested in critical digital game literacies education.



The Media Literacy model (Buckingham, 2006)

What I find useful about this model is its multidimensionality. While some limit notions of gaming literacy to operational aspects of game-playing (see Prensky and McGonigal), Buckingham's model goes further. It is not limited to just one aspect of what many have

termed 'gaming literacies'. It does not ignore the operational, focussing on this in the "Language' quadrant of the framework, which can include aspects of how we 'play the game', but encourages teaching which looks behind the surface, including the political economy of these digital texts, with allusions to the impact of commercial influences on game design and questions about game production.

What is missing from this framework are specifics. This is understandable given the model is intended as a frame to understand a wide range of media texts. Nonetheless, this will be a limitation for those seeking to use the framework to engage in curriculum development that is specific to digital games. The model doesn't really identify what knowledge is needed to deconstruct a game, hoping that the questions alone will get us there. It also lacks a focus on the interactive nature of our engagement with digital texts.

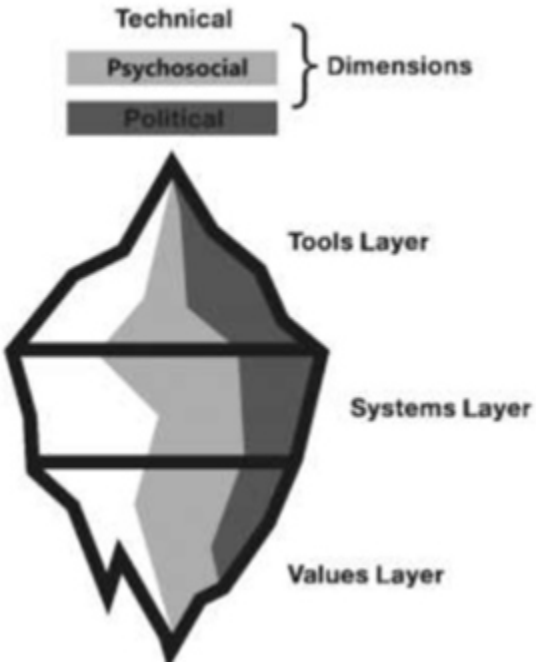
The Technoskepticism Iceberg Framework

The authors of the Technoskepticism Iceberg (Pleasants, Krutka and Nichols, 2023) are generally critical of the current approach to technology education. They argue that "Our schools generally prepare students to be consumers and users of technology more than thoughtful and empowered participants in public debates and decisions." (p.487). They advocate for Technology education which does more than provide students with technical skills: "it should prepare them to critique the technical psychosocial, and political dimensions of technology". This reminds me of the problems with DGBL, but that is a discussion for another time. Pleasants et al (20232006) propose a vision for Technology Education which is captured by the Icebergs overlapping layers and dimensions. Regarding layers, they identify:

Tools: created for well-defined purposes that bring about intended outcomes.

Systems: Our interactions with these tools are multiple technical, political, social, cultural, and economic systems, which shape how technologies can and will be used.

Values: these include how technologies are designed and used.



The Technoskepticism Iceberg Framework (Pleasants, Krutka and Nichols, 2023)

Furthermore, they argue that there are 3 dimensions that are evident with each of the layers of the iceberg. These dimensions are:

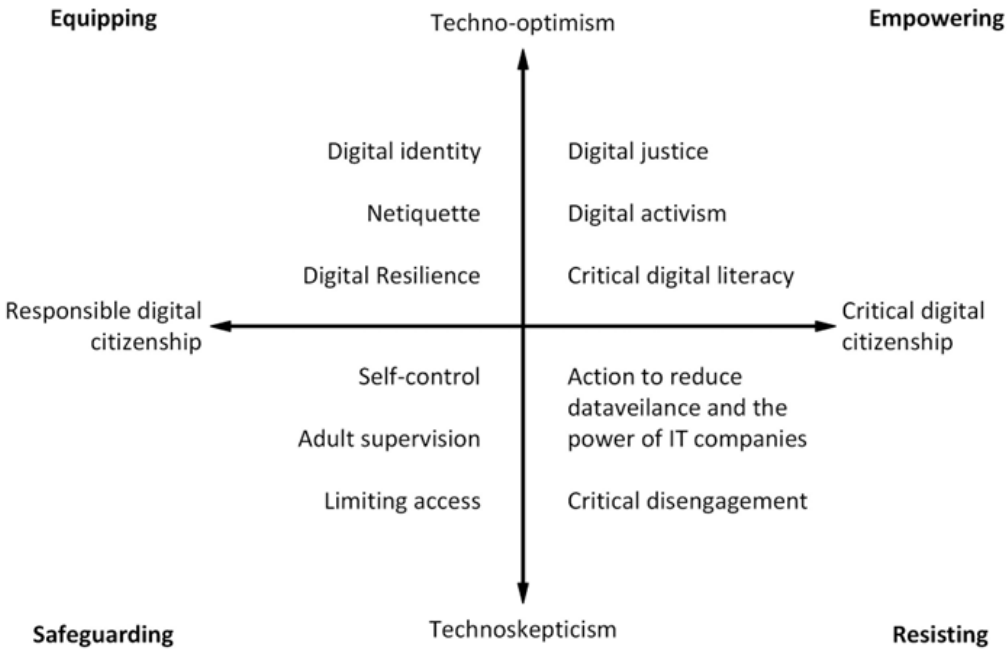
- Technical: Focus on the ways that technologies are structured in material terms and how they function.Psychosocial: Focus on the ways that technologies affect and are affected by how people think, act, and relate to one another.Political: Focus on who makes decisions about how technologies are designed and deployed and how those decisions are made.

What I find useful about this model is that it captures the complexity of digital technologies. It also recognises our entanglement with these educational technologies by going beyond design and drawing attention to how they are used, and the values that mediate their use. I also like the way it considers systems outside of digital technologies that interact with them. This model encourages looking below the surface (hence the iceberg), in terms of both design but also questions about the political-economy of digital technologies like digital games.

What is missing are questions about knowledge. What technical knowledge do we need to know about technology to start thinking in terms of layers and dimensions? How does knowledge, or its absence, inform practice? I also wonder about where we start when we seek to employ a model like this. With interweaving dimensions and layers, and areas of focus above and below the surface of the iceberg, it might be challenging for educators to find an entry point.

The Online Safety Education Model

This model comes from two New Zealand researchers interested in online safety education. They inquire into the approaches offered for preparing young people for a digital world that is full of risks. Their paper is a synthesis of different approaches, and they offer an "analytical model based on prevalent conceptions of digital citizenship and narratives of technologies to identify four different approaches to online safety education in the academic literature (p.2)".



Online Safety Education Model (Estelles and Doyle, 2025)

The four approaches explored are:

Safeguarding: this subscribes to the 'control paradigm' and is driven by fears of online risks and (arguably, paternalistic) child protection desires. It uses a security rhetoric that focuses on designing policies and practices aimed at restricting and/or regulating young peoples' behaviours. In terms of digital games – this would involve banning games, and the platforms on which they are played, such as Steam, and limiting access to devices.

Equipping: this approach seeks to instill in students the knowledge and skills to navigate, and benefit from, our increasingly digitised society in a 'safe' manner. This approach acknowledges both the potentiality and ubiquity of digital technology. In digital games terms, this aligns with a lot of tech-optimism, which leverages techno-determinism, usually associated with DGBL, and also rhetoric around creativity –

e.g. Leggo or Minecraft.

Empowering: this approach focuses on empowering individuals to fight against social injustice. It conceives of digital technologies in terms of their potentiality for social action (think Paulo Freire and Critical Pedagogy). It explores using digital technology to both question established, oppressive norms and to engage in consciousness raising dialogues and collective actions. In terms of digital games, what knowledge do we need to play critically? What knowledge will help us use games for social justice goals? How will we design curricula that move from games for entertainment to critical perspectives? In summary, this approach would still involve playing games, but differently (for example, Flanagan's Critical Play (2009).

Resisting: this approach strongly questions the belief that digital technology can offer a path towards more democratic societies. It argues that digital technologies are the product of and cannot operate outside of capitalism. In digital gaminggames terms, it would encourage the development of knowledge that would lead young people to self-discipline themselves away from games.

What I find useful about this model are the many ways it addresses and questions how educational technology deals with the more problematic aspects of living and being in a digital world, as well as the complexity of responses possible for educators to adopt. I also like the way it situates different approaches to technology education within other educational paradigms or philosophies, demonstrating the interrelationship between them.

What is missing is that it implies that an educator can only be within a single quadrant. It leads the reader to simplify (or delimit the possibilities). Can an approach be both equipping and resisting? Can a technoskeptic also believe in an empowering approach?

Questions and next steps

The paper is largely speculative, offering far more questions than it seeks to answer. Models for critical digital game literacies both open and close opportunities for critical literacy lit. Educators can work with existing frameworks, however, these will also need to be tweaked to be specific to the textual/practice demands of digital games. A focus on practices AND objects, offers a productive way of planning for critical digital game education. The project of developing critically-oriented youth will require engaging with questions about what knowledge and experiences are necessary for such goals, and how existing frameworks might support this work.

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These questions include:

- Which model is best-suited to supporting a critical digital game literacies education?
- Which model is complete enough that teachers can pick it up and 'run with it' without extensive further reading?
- Which model addresses the 'knowledge question' best? (I.e. what knowledge is needed to develop a critical perspective towards digital games?)

The next step is to work with educators to test the usefulness of these models as tools that support pedagogy. Codesigning curricula with educators and learners, and then inquiring into the effects of such design, will assist in determining which models are most effective and where more work is needed.

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