

**JASMINA KALLAY**

National Film School, IADT, Dublin

# Cyber-Aristotle: towards a poetics for interactive screenwriting

**ABSTRACT**

*Through analysing appropriations of Aristotelian dramatic theory within interactive digital narratives (Laurel 1991, Hiltunen 2002, Mateas and Stern 2005), this article assesses the merits of Aristotle's Poetics in providing a basis for an 'interactive screenwriting poetics'. From the six components of tragedy (plot, character, thought, diction, melody, spectacle) to mimesis and catharsis, these concepts are examined for their value in a new media context. The hierarchy of the components is challenged and new formal and material causative relations are explored, using the interactive drama Façade (Mateas and Stern, 2005) as an example. With new dramatic configurations emerging (such as spatial plotting and narrative architecture), the question posed is - to what degree can Aristotelian thought really aid the interactive screenwriting process? If this approach can not yield substantial results, what is the alternative?*

**KEYWORDS**

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Aristotle  
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cyber-drama  
new media  
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**INTRODUCTION**

Irrespective of any new ideas and developments in screenwriting theory, Aristotle's *Poetics* (c. 350 BC) remains the backbone of the

1. A webseries is a term used for a fictional series that is broadcast online, with episodes termed 'webisodes', and of a much shorter duration than usual TV series episodes (the length varies and is not preordained, but usually ranges from 2 min to 10 min).

most influential guides to the craft of screenwriting. Whether as a foundation from which a screenwriting canon is expanded (e.g. in Syd Field's 3-act structure, 1994 *passim*) or as a loose template for certain dramatic terms (e.g. in Robert McKee's writing, 1999 *passim*), Aristotle's pronouncements on drama are absorbed by budding screenwriters even when they are unaware of this theoretical lineage. In more overt referencing to Aristotle, we have Michael Tierno's *Aristotle's Poetics for Screenwriters* (2002) and Ari Hiltunen's *Aristotle in Hollywood* (2002). So, it is not a surprise that in the still nascent field of interactive screenwriting Aristotle has also emerged as a touchstone, with the result that there is a degree of projection of the Aristotelian dramatic canon even when it is not wholly applicable.

It is the aim of this article to present a critical overview of the various incorporations of Aristotle's work within interactive narrative formats, from Brenda Laurel's groundbreaking model (1991) to Mateas and Stern's re-imagining of the very same model (2005). Secondly, I will be evaluating their potential to serve as a universal 'interactive poetics', meaning – can they serve as a 'how to' template for interactive screenwriters and generate satisfying interactive drama? In the process of this appraisal, I will identify aspects of the *Poetics* that have been neglected – mimesis and catharsis – which may yield useful additions to the work-in-progress towards a theoretical framework of interactive screenwriting. The importance of laying the theoretical groundwork in this area of screenwriting is crucial in order for the screenwriter to have a clear understanding of the dramatic techniques and creative processes involved in writing interactive narrative formats such as computer games, webseries<sup>1</sup> or interactive film/drama.

Aristotle-derived screenwriting theory may seem like a natural starting point for this comparative exploration. However, the ideas in most of these screenwriting books are too diluted, recycled and mutated to be able to truly reflect the essentials of the *Poetics*, and may therefore be misleading. A case in point is Tierno's above-cited book (2002), in which he proceeds to merge peripeteia (reversal of action) with metabasis (reversal of fortune) and mistakenly assumes that a tragic ending is a given in a tragedy (Tierno 2002: 75–82, 105–108). Tierno's simplistic interpretation of catharsis as emotional purging is more forgivable, as this has become a widely held reading of catharsis in most screenwriting manuals. However, his equating of epic film, in the context of *The Lord of the Rings* cinematic trilogy (2001, 2002, 2003), with epic poetry (Tierno 2002: 47–54) points to a superficial identification of a shared adjective in both categories, and does not take into account Aristotle's differentiating point regarding epic poetry and drama: epic poetry does not contain *opsis* (special effects). Overall, Tierno's central assertion that the best screenplays are driven by one action (action-idea) has translated into his whole approach to dissecting the *Poetics*; the idea of Aristotle being relevant to today's screenwriters dominates his writing rather than the notion

of a stringent analysis. The general picture, not the details, seems to be the guiding light of this work.

Alternatively, attempts by (non-interactive) screenwriting theorists to cover developments in the new media arena can be equally misleading, as Hiltunen's example demonstrates. In *Aristotle in Hollywood* (2002), Ari Hiltunen broadens his industry-perspective of the value of classical storytelling to include cyberspace. While he rightly recognises the inevitable media industry shift towards interactive forms of drama, when analysing specific examples, there is no attempt to provide a new, re-thought *Poetics* that could be adapted to the new digital media. Instead, Hiltunen presents a superficial reading of the narrative aspects of a game like *Doom* (1993) in order to prove his point regarding the universality of Aristotle's dictum (Hiltunen 2002: 111–122). The book's arguments are further weakened by the inclusion of Joseph Campbell's monomyth and Propp's mathematical organisation of folk tale plots without linking them to Aristotle's work in a coherent and meaningful way. There are two points that are significant, though. Firstly, in one chapter, Hiltunen steps away from drama to focus on sport and its mass appeal, and makes the claim that sporting encounters that feature some type of ongoing background story (such as one built around two teams' long-running rivalry) provide greater pleasure for the reader/viewer (Hiltunen 2002: 39). Unfortunately, this focus on sport is not tied into the analysis of computer games and so does not explore the balance between the ludic (gaming) and the narrative aspects, which is one of the key unreconciled aspects of interactive narratives, especially in computer games.<sup>2</sup> The second point relates to Hiltunen's interpretation of what Aristotle means by 'proper pleasure' derived from drama, and Hiltunen distinguishes four dimensions that provide pleasure: emotional, moral, intellectual and symbolic (Hiltunen 2002: 47). It is to the intellectual dimension that I will be returning when discussing catharsis, because while Hiltunen recognises that catharsis can not be fully explained according to the *Poetics*, he does provide useful links between these four dimensions and catharsis.

## THE ARISTOTELIAN DRAMATIC MODEL

Brenda Laurel's influential *Computers as Theater* (1991) was one of the first academic works to recognise the potential uses of computer technology in drama and creative work, as long as dramatists and artists rather than computer programmers engaged with the medium. More significantly, Laurel's adaptation of Aristotle's six components of drama (action, character, thought, language, melody, spectacle),<sup>3</sup> while not without its problems, provides a stimulating basis for exploring Aristotle in cyber-drama (2003: 565). Laurel begins by establishing the causative links between the six components. The hierarchy Aristotle imposed is not accidental,<sup>4</sup> and Laurel develops a model from this, governed by a two-way system of causation: material and formative. A useful

2. Although this debate is now losing steam, for the past ten years or so, the crux of it was that the ludologists (Gonzalo Frasca, Jesper Juul) defended the game-play as the main attraction in a game, and minimised the importance of the narrative, whereas the narratologists (Janet Murray, Marie-Laure Ryan) defended the story as being key to attracting the gamer to a game and motivating the game-play. Irrespective of this debate, however, one undisputed development has been the emergence of more sophisticated narratives in games in recent years.
3. The terms for these six components can vary from translation to translation of Aristotle's *Poetics*, however, here I am quoting the terms that Brenda Laurel uses. While 'character' is self-explanatory in dramatic terms, it's important to note that the term action here refers to plot, and 'thought' can be likened to the idea or premise of a dramatic piece. Melody and spectacle are explained in greater detail within the article.
4. Aristotle's *Poetics* define tragedy in section 4, ranking them in section 4.4 – 'plot is the source...; character is second [etc.]' (Aristotle [c.350BC] 1996: 12).

metaphor that Mateas uses for this model takes the building of a house as its example, and likens the material cause to the building materials whereas the formal cause would be the architectural drawing of the house (2004: 23). Applying this to the dramatic context, action (i.e. plot) becomes the main formative cause, and determines the form (comedy, tragedy) that the story takes. The formative line of causation thus follows Aristotle's six components sequentially in a line from action at the top, down towards spectacle at the bottom. The material causative chain builds in the opposite way, in ascending order; from bottom to top. The basic material out of which the story is told is contained within the spectacle (or the visual, the *mise-en-scène*). So, in order for the story to be told it needs characters, who in turn need diction to express their thoughts and the aural and visual elements provide the material means for the drama to unfold. If this is the model from which successful, satisfying drama is generated, the question Laurel was curious to explore was whether this same model could prove as fruitful in generating interactive drama.

Assessing each individual drama component in an interactive context, Laurel concludes that action is now a collaborative process between the user and the computer; character is similarly split into the human and computer correlative; thought influences process in the computer system as well as shaping the drama, and language comprises verbal and non-verbal signs, being any of the available means of communicating/interacting with the computer (2003: 565). Thus far, the causative links appear intact in the interactive sphere. However, it is at the level of melody and spectacle that Laurel modifies the terms more significantly to allow for a broader understanding of these concepts and in the process the causative clarity comes into question. In screenwriting terms, melody is understood to denote the aural, from speech to sound effects and spectacle is understood to be the visual display, from *mise-en-scène* to special effects. Laurel herself accepts these definitions to be the norm (2003: 565). However, Laurel's premise is based on the aforementioned model of categories, which are interdependent in both upward and downward directions. Therefore, Laurel asserts that if melody builds on the material of spectacle (as in what is seen), then non-diegetic sound can not be included, which does not make sense (even from a classical or non-interactive screenwriting point of view). Laurel then goes further and transforms melody into 'pattern', which now signifies any sensory pattern that is perceived. More problematically, spectacle is turned into 'enactment', exhibiting every sensory dimension, 'visual, auditory, kinesthetic, and tactile, and potentially all others' (2003: 565). This widening of spectacle (which by Aristotle's admission is the least significant of the six components of drama) to now mean enactment, is quite illogical. According to Laurel, enactment encompasses the way the action is represented, meaning that the modes of interaction now fall under this category. The way the gamer navigates the gameworld and physically controls his avatar is both kinesthetic and tactile. Yet this interaction surely overlaps

with action, the first category, which means the clear causative chain is broken. Following this line of thought, enactment would hold a higher place in the interactive hierarchy of dramatic building, meaning that Laurel's point challenges the ordering of the components, which I will address within the re-imagining of Laurel's model by Mateas and Stern (2005).

Having laid out Laurel's computer-friendly reading of Aristotle in its theoretical isolation, the natural question is – how does one apply this? What are the steps from this model to writing a synopsis for a computer game or an episode of a webseries?

So far, Laurel's theory has inspired Michael Mateas and Andrew Stern to create *Façade* (2005), an interactive drama that was specifically designed with non-gaming and non-technologically aware users in mind. Taking its narrative cue from Edward Albee's *Who's Afraid of Virginia Woolf* (1962), *Façade* invites the player to a dinner with his/her 'old' friends Trip and Grace, whose marriage has hit a rough patch. Interactions with the couple throughout the night (ranging from the player's typed sentences, Trip and Grace's AI-generated<sup>5</sup> dialogue and displays of affection such as kissing and hugging) will affect the future of their marriage. What makes *Façade* so innovative is its positioning between a game and a webseries in the interactive narrative range. The fact that the player enters the narrative universe and participates as a character makes it more game-like, as they have the kind of agency games afford, yet the genre, focussing on relationships, is closer to the webseries scape. In addition, the AI dialogue is far more sophisticated than common in-game dialogue (excepting dialogue in cutscene sequences).<sup>6</sup>

Mateas also summarized the experience of creating *Façade* and formulated his theoretical approach in *A Preliminary Poetics for Interactive Drama and Games* (2004). Laurel's re-thinking of Aristotle's model serves as the basis for Mateas' preliminary poetics, with user agency providing a crucial new component.

The formal cause is now no longer just at the level of the writer's envisioning of the plot and how that plan manifests itself down to the other components; the user's choice of how to interact/play the story creates another layer of formal cause - 'user intention' - that then shapes the subsequent components. Equally, the material causes become 'material for action' in the user's hands. To put it crudely, as an interactive screenwriter you are no longer just in charge of devising the plot and creating the characters, you are also responsible for the user's actions. This might sound like an impossible task; as if it were not challenging enough to write a compelling drama, how does one predict a player's behaviour and choices? To answer this we must first address the meaning of agency in this context.

Mateas draws from Janet Murray's definition of agency (Murray 1997), which she identifies as one of three dimensions of interactivity, along with immersion and transformation. According to Murray, agency is not to be mistaken for mere activity, such as the clicking

5. AI-generated dialogue is commonplace in gaming software, whereby artificial intelligence programming is used to create the impression of real time, spontaneous dialogue. This kind of programming has its limitations, as it can not sustain itself for any long stretches of conversation without revealing its computerised origin.
6. A cutscene is the only cinematic element in a game, which is inserted as a filmed sequence within the game to either explain some backstory or provide motivation for the next stage of the game. The cutscene is there to be viewed, not interacted with; therefore its dialogue is pre-recorded and can not be interrupted by the gamer.

of the mouse or navigating the computer game interface; it is instead about meaningful action. The gamer needs to feel their actions have real consequences at the story level and what they do has a real, tangible, visible impact in the game world. Otherwise, agency becomes an arbitrary dimension, something to tinker with, such as moving objects and communicating with non-playing characters (NPCs), but which ultimately has no deeper meaning. A case in point is the kind of agency instigated by webseries (e.g. *Sofia's Diary* 2007); when performed from outside the story world (as an observer rather than participant) the act of agency is limiting and wears its illusory nature on its cuffs. For instance, when asked to choose which course of action the protagonist Sofia should take (e.g. go to a party or stay at home and study) the predictable answer (going to the party, as it is the only option that is likely to generate interesting drama) demonstrates the predetermined nature of the plotting and takes away the pleasure of influencing the story world.

Mateas distinguishes Murray's approach as phenomenological – 'describing what it *feels* like to participate in an interactive story' (2004: 22, original emphasis) – as opposed to Aristotle's structural approach, yet in order for an interactive poetics to be viable in a practical sense, it has to be able to integrate agency, immersion and transformation. Of the three interactivity elements identified by Murray, Mateas focuses on agency, translating Aristotle's primacy of action into a primacy of agency. Mateas advises that for the user to be prompted to take action, 'the interface must in some sense "cry out" for the action to be taken' (2004: 24-25). The technique to deploy in creating this sort of an interacting lure is the creation of affordances or constraints. Because constraint has a negative connotation of limiting the player's experience, Mateas settles for the term 'affordance'. These affordances, which can be as simple as prompting the user to press a switch in a room, open a drawer, pick up a book or help an NPC, become the user's material causes for the action, or the building material equivalents. The user's understanding of the form, i.e. what is expected of him within the game world, constitutes the user's formal cause, which shapes the way he interacts with the environment. In Mateas's words, 'a player will experience agency when there is a balance between the material and formal constraints' (2004: 25).

The addition of agency to the dramatic model is both necessary and clear, but what is questionable is the role assigned to material affordances. The setting and objects found within a game world, for instance, would appear to play a far more important role than that suggested by the relegated bottom category of enactment (the category they fit according to Laurel's revamped spectacle).

In *Game Design as Narrative Architecture* (2004), Henry Jenkins rightly points out that in the interactive context of navigable spaces, spatial development supplants plot development as the main narrative trajectory, and storytellers now become 'narrative architects'

(2004: 121). This is a novel way of thinking for someone coming to this field from 'traditional' screenwriting, and offers a useful way of entering the mental processes of interactive screenwriting.

Jenkins's concept of narrative architecture underlines the need to reassess the position of setting and objects in the enactment rank. Alert to this discrepancy, Tomaszewski and Binsted have critiqued both Laurel's (1991) and Mateas and Stern's (2005) models in their *A Reconstructed Neo-Aristotelian Theory of Interactive Narrative* (2006). They point out that objects 'play an increasingly important aspect of computer-based interactive drama since they are often the means through which the player can affect the action' and go so far to liken the game world's objects 'within the same narrative context as characters' (Tomaszewski and Binsted 2006: 3–4). To accommodate this difference in status, the authors place 'setting' alongside 'character' in their table, below 'action', after which they reinstate Aristotle's notions of object, manner and medium, which replace the other categories of Laurel and Mateas' models. However, the authors do not venture further from their discovery vis-à-vis the setting and its revised position within the model. They have come up with a valid new positioning for setting, recognising its significance in both plotting and character development in an interactive context, but the full implications of how all the other interrelationships within the model would now work are not explored.

The relevance of this model, given the modifications and variations that have been made, is perhaps in question. It is possible that a new model is needed, a question I will return to in the conclusion.

## MIMESIS AND CATHARSIS

In the above cited works on interactive screenwriting, it is Aristotle's six components of drama that take centre stage, and yet what is notably absent from these writings is a consideration of Aristotle's concepts of mimesis and catharsis, which could open up new perspectives on the process of interactive screenwriting.

Paul Ricoeur, throughout his extensive work on narrative, reminds us of the significance of the mimetic quality – *mimesis*, or imitation of action, he says, is 'the very definition he (Aristotle) gives of the narrative' (Wood 1991: 28). Following on from this claim and picking up on the active form of the verb employed (*mimesis*), David Carr asserts that '(n)arrative mimesis for Ricoeur is not reproduction but production, invention' (Wood 1991: 170). In this productive context Ricoeur equates narrative with metaphor as sites of new creation; if metaphor is 'the capacity of "seeing as"... the narrative activity of story-telling opens to us the realm of the "as if"' (Wood 1991: 171). Transplanted to an interactive setting this interpretation of *mimesis* fits perfectly into the concept of an interactor's<sup>7</sup> behaviour. A gamer assumes an avatar identity and while negotiating the formal and material constraints, they are essentially behaving 'as if' they were the

7. In the absence of a universally agreed term for viewers/users of interactive content (webseries, computer games, etc), 'interactor' at least denotes a more precise nature of the active participation with the content.

character. The formal constraint means that the situations the gamer encounters are preordained, which would place this on a reproduction rather than production level. However, how the gamer positions himself vis-à-vis this situation is a production and an invention; it is something that is unique to each gamer and indeed in each replay. This is the transformative aspect of interactivity – the infinite variation that each interaction prompts, unique and never to be repeated.

The ‘as if’ concept also happens to be a currency in cognitive behavioural psychology, courtesy of George Kelly’s research into corrective behavioural exercises (Kelly 1991), inspired by Otto Vaihinger’s philosophy based on the same ‘as if’ credo. Kelly found that by encouraging patients to behave (in a structured and guided manner) ‘as if’ they were something other than their usual self, he could help them access new emotional states and unblock emotional and psychological problems. By prompting an ‘as if’ mode of behaviour in an interactive context, it follows that a psycho-emotional response can be elicited, which becomes relevant when analysing the possibility of catharsis in interactive narratives.

Aristotle did not fully elucidate the meaning of catharsis, which continues to cause a certain degree of contradictory interpretations. The common interpretation, which dominates screenwriting manuals, is that of purgation in the metaphoric sense, of the build-up of emotions caused by the dramatic incidents (although this is a point that is refuted by Aristotelian scholars such as Golden (1992) and Belfiore (1992)). A less simplistic take on catharsis explains it as the culmination of the emotions of pity, hope and fear. Its function can be summed up as a psychotherapeutic release of pent-up negative emotions such as anger, frustration and stress, which then get released along with the emotions stirred up as a direct response to the drama. And while most components of drama have been satisfactorily identified within interactive narrative formats, catharsis appears resistant to interactive narrative, and is deemed to be inapplicable by such scholars as Janet Murray (1997).

In her landmark work on cyber-narratives, *Hamlet on the Holodeck* (1997), Murray makes a sweeping statement on the future of digital narratives; ‘... in order for electronic narrative to mature, it must be able to encompass tragedy as well’ (Murray 1997: 175). Yet this seems an insurmountable obstacle, as tragedy necessitates catharsis, and Murray in the same breath bemoans the impossibility of catharsis ‘in a medium that resists closure’ (Murray 1997: 175). From this we can glean that Murray, too, subscribes to the ‘final purge’ version of catharsis, which would appear contradictory in a medium that invites continuous re-engagement with the same narrative (e.g. multiple replays). So, is catharsis impossible as a potential interactive screenwriting ingredient? Laurel takes up Murray’s third aspect of interactivity, transformation (in the sense of personal transformation, where the user is changed emotionally and/or psychologically as a result of interacting), as coming closest to embodying catharsis, but does not elaborate on this

connection to make a wider-reaching, stand-alone argument on catharsis (2003: 20).

Examining the material causes of catharsis – the emotions of pity, hope and fear – raises the question whether interactive narratives such as games, dramas like *Façade* or webseries are capable of triggering the same intensity of emotion that a feature screenwriter hopes to deliver with his script (and fears he may not be able to). However, according to Aki Järvinen, emotions are very much part of the gaming experience. In *Understanding Video Games as Emotional Experiences* (2009) he argues that there needs to be greater attention paid to the different emotional experiences involved in gaming, and calls for more psychology-oriented research in the field. Järvinen identifies a number of categories of emotional experiences: prospect-based emotions; fortunes-of-others emotions; attribution emotions; attraction emotions; well-being emotions; and a subcategory covering variables affecting intensity of emotions which spans any modalities not included in the main categories (2009: 90–92). This classification of emotions is an intriguing proposal; one that merits closer study. For the purposes of this enquiry, however, I suggest that ‘prospect-based emotions’ are of most relevance to the Aristotelian line of thought, as they deal with emotions triggered by events. This might be emotions linked with the achievement of a perceived goal, for example, and which run the gamut from hope, fear and satisfaction to shock, surprise and relief. This means that catharsis can not be antithetical to interactive narrative, given that there are emotions involved. While prospect-based emotions may not be comparable to the emotions felt during the viewing of a film, a certain kind of catharsis becomes achievable as a release of the prospect-based emotions occurs. Järvinen sounds a note of caution about the different responses that vary across different genres (2009: 90–92). He cites the example of the story-driven game where the key emotion is providing anticipation of the unknown outcome (e.g. *Myst* 1991) as opposed to a sports game where from the outset the desired outcome is known in complete detail (e.g. *Football Manager* 2005). This genre sensitivity could provide an illuminating path to reduce the, at times, overwhelming complexity of interactive screenwriting.

But firstly a more specific rendition of interactive catharsis is needed. In addition to Järvinen’s proposals, Jenkins’s theory of narrative architecture provides a useful concept of the micronarrative<sup>8</sup> as the segment that deserves most attention within the interactive narrative format, whether that is a game level or a webseries episode (2004: 125). With the absence of a cohesive, time-limited overarching storyline in many interactive narratives, the closest to structured narrative (including closure) to which an interactive format comes to is within the micronarrative. So within a micronarrative ‘mini-cathartic moments’ can be found, as releases of the prospect-based emotions when a mini-goal has been achieved and obstacles overcome. Taking the genre distinction as shaping the type of emotional experience (which can be read as a formal cause), we could also study individual

8. Jenkins explains micronarrative as ‘the localized incident’ in gaming, a small narrative unit (2004: 125).

gaming/webseries/interactive film examples in order to ascertain the difference in the emotions and the difference in the cathartic moments (which might be termed cathartic variations). This is not unlike traditional genre distinctions in film and TV drama (e.g. the emotions and catharsis in a political thriller differ from those in a romance), and genre studies may well assist in the study of the still developing digital media field, where the question of genre is very much a moot point.

Emotions are not the only potential key to unlocking the cathartic equivalent in interactive narratives. In *Aristotle in Hollywood*, Hiltunen identifies 'the intellectual' as one of the four dimensions of the 'proper pleasure' derived from drama (Hiltunen 2002: 47). The intellectual in this interpretation does not refer to 'high-brow' cerebral content, but rather to our ability to cognitively process language and enactment in order to understand the drama. From this cognitive ability Hiltunen stretches the point to cover the pleasure derived from deciphering the mystery of the story, or the intellectual 'puzzle'. This hypothesis taps into the work of Leon Golden, whom Elizabeth Belfiore recognises as the 'single most influential living authority on Aristotle' (Belfiore 1992: 1). She credits Golden for spreading the idea of the cognitive/intellectual source of catharsis; 'he argues... that katharsis is "that moment of insight which arises out of the audience's climactic intellectual, emotional and spiritual enlightenment"' (Belfiore 1992: 1). Given the ludic component of games, where mystery and puzzle solving are often more important than the storyline, the idea of the intellectual pleasure of solving the puzzle-story as the act that unlocks catharsis is appealing and deserves consideration in future analyses. However, Golden's assessment does not distinguish the cognitive from the emotional and Belfiore is quick to fill this theoretical imprecision by suggesting that the two are, in fact, inseparable, although she concedes that there is room for more rigorous theoretical work, and calls for a closer reading of Aristotle's psychological works for clues to this unresolved issue (Belfiore 1992: 3). This echoes Järvinen's call for psychology-based studies of gaming (2009: 85).

To sum up, it transpires from the above that experiencing catharsis in an interactive setting is viable; it may be that it needs to be understood in a less literal manner or rather in a new, expanded meaning.

## **CONCLUSION: ABANDON ARISTOTLE?**

In the progressive refinements of the Aristotelian model referred to above, the components continue to be displayed in a linear, cause-and-effect chain, which perhaps shows a reluctance to abandon this pre-digital way of thinking. What if the spectacle/enactment relationship with the other components is not the only one that needs re-examining? If spectacle/enactment can be seen in the same category as character (as Tomaszewski and Binsted argue), then enactment's relationship to all the other components changes automatically. The same logic can be successfully applied to pattern. If we look at

cyberspace and its networked, multiple connectivity, or the rhizome model (i.e. a model with multiple, non-hierarchical entry and exit points, much like the root system in nature, where the concept is taken from) - which is frequently cited in digital domains as a typical example of non-hierarchical interconnectivity - then perhaps this is our cue for a re-thinking of the Aristotelian model. What if we looked at the six components of tragedy without any hierarchical conditions attached?

If we look at Laurel's (1991) and Mateas' (2005) models without the restrictive ascending and descending hierarchy of one-directional material and formal causes, we may discover which interconnections can be made outside of the up-down model. I accept that the likelihood is that not all of the elements will turn out to be formally or materially linked to each other, but this 'networked' model would contribute to a more radical re-thinking of how to engage with Aristotle in an interactive narrative mode. However, it would be a stretch to claim that this networked model could provide the necessary foundation for an 'interactive poetics'. The altered perspective of a network interconnectivity could well spark off some new ideas, but it would be unlikely to yield a comprehensive model for interactive screenwriting.

What appears to be by far the most common trait running through all the different approaches to Aristotle analysed here is the degree of modification employed within each aspect of the *Poetics*. Rather than showing us an updated re-imagining of dramatic concepts, what emerges, in fact, is a set of new dramatic configurations. And the more these new configurations (e.g. enactment, spatial plotting, setting as affordance, setting as narrative architecture, micronarrative) are explored, the clearer it becomes that they bear little resemblance to the Aristotelian categories to which they are attempting to correlate. While it is not my aim to minimise the worth of the theories discussed above, because they provide interesting insights into interactive drama, it does appear that Aristotle's model, as the basis for an interactive screenwriting poetics, is a problematic one. What this comparative study demonstrates is a tendency for commentators to start off with a familiar, fixed theoretical point in order to explore the unknown; but then the process begins to resemble an explorer's charting of new territory with a faulty compass. For a while the possession of the (faulty) compass provides some comfort but eventually new bearings and patterns manifest and there's no longer the need to hold on to the functionless and archaic navigational aid. Let Aristotle be a valuable setting-off point, but there should be more caution before embracing him as an actual foundation for interactive screenwriting.

Mateas may have progressed along such lines, starting with Laurel's re-conception of Aristotelian drama, but one of the most significant findings he makes regarding material affordances has little to do with Aristotle, and everything to do with the unique traits of interactive narrative theory, such as agency and spatial navigation. Rather than being concerned about where spatial affordances fit within the dramatic

hierarchy (such as whether it is alongside character, or at the top of the table) in a forced attempt to mirror the *Poetics* model, we should accept that Aristotelian thinking may only illuminate minor aspects of interactive drama, and can not lead us to a self-contained interactive poetics. Instead, we need to start with the theoretical concepts of digital media and recognise the significant distinctions between the different interactive narrative formats.

For instance, the idea of narrative architecture or spatial plotting is a novel one for someone coming from classical screenwriting, where the focus on setting and objects is minimal by comparison (unless they have particular bearing on plot/character). Yet, revealing that the importance of an object may supersede the importance of character means little as a stand-alone statement, and as shown in the context of a networked structure, hierarchy ceases to be meaningful in the cyber-world. What is more exciting is the inverse relationship between dramatizing a situation and tagging it to an object. To clarify: an interactive screenwriter surveys the interactive dramatic space as full of dramatic triggers. Nearly every object or NPC will have a dramatic function. So the writer plans the dramatic beats, then searches for the object that corresponds the best to that scenario to set the interaction off. In *Façade*, it could be something as banal as a wedding photo or answering machine that initiates a plausible domestic rupture. Neither plot nor character can be revealed until the user interacts with the space. Then, when most of the desired dramatic situations have been spatially assigned, there is the issue of prioritising the revelations. Apart from programming, which can cleverly disable certain triggers until a specific development/discovery has been made, what plays a key role in the interactive screenwriting process is psychological awareness of how a user is likely to interact, and presenting the setting in such a way as to accentuate the affordances, so that the interaction is natural and organic to the story world rather than force-fitted to the writer's conceived idea of the plot. Cognitive behavioural psychology is a useful tool in this respect, as well as knowing the genre expectations. At this stage of interactive story planning the *Poetics* approach feels like a distant echo.

This overview of the key writings connecting Aristotle's *Poetics* with interactive drama models will hopefully serve to stimulate further research, because it seems undeniable that some form of an interactive poetics is the next step in the normalization of interactive narratives. The desire to experience stories has not changed with new media; only the mode of receiving them has. And even neophytes who may be suspicious of the genuine narrative possibilities in interactive formats may need to retrain, as the transmedia phenomenon is already establishing itself as the industry norm. Classically trained screenwriters are likely to need to adapt to the cross-platform frenetic traffic: studios are using interactive viral marketing to promote films (e.g. *The Dark Knight* 2008); TV series are expanding their storylines and character activity to inhabit an online interactive presence

(e.g. *Lost* 2004–present and *Spooks* 2002–2009); film and TV narratives are taking their inspiration from the gaming world (e.g. *Lost* 2004–present, *Run Lola Run* 1998); there are films-to-games and games-to-films adaptations (e.g. *The Godfather* 1972, *Max Payne* 2008,) and there are webseries turning into TV series (*In the Motherhood* 2007). As interactivity permeates mass media, we need an in-depth and coherent grasp of all its facets to equip a new generation of screenwriters to move us and entertain us.

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## CONTRIBUTOR DETAILS

Jasmina Kallay is a Lecturer at the National Film School (IADT), Dublin, and is in the final stages of completing her PhD in Interactive Screenwriting at UCD. Jasmina regularly contributes to film and digital media publications and conferences. Apart from her academic output, Jasmina also works as a freelance script consultant and editor for a number of broadcasting and production companies in Ireland and the UK.

Contact: National Film School, IADT, Dublin.  
E-mail: [jasmina.kallay@iadt.ie](mailto:jasmina.kallay@iadt.ie)

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