

A CONCEPTUAL MODEL OF MALAYSIAN COMPUTER ANIMATION STORYTELLING

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ABSTRACT

Malaysian animation storytellinghas significantly transformed over the past 40 years. The initial utilisation of storytelling could be retraced to early *Hikayat Sang Kancil* episodes(a series of short animation produced in the 1980s). Specifically, thestorytelling method within the aforementioned seriesencompassed folklore, fables, Malay proverbs, localculture, and mythology. With the emergence of computer technology, the landscape of Malaysian animation drastically changed from traditional to computer animation starting in the year of 2010. Despite the higher number of computer animation content being produced with a few penetrations at the international level, one of the key struggles highlighted by many animation practitioners and content distributors are lacking good storytelling. The major time spent and investment for the overall content lies in the technical aspects of the animation production compared to the storytelling development. This has resulted in low interest in the number of audiences and television stations to select the digital content as animation series. In order to understand the fundamental issues, this paper presents an overview of Malaysian animation storytelling development for the last 20 years. It carefully analysed the storytelling and narrative approach, content, and processes involved. These are then compared to eastern and western animation. The results of this analysis will be used as part of the guiding principles to suggest a conceptual model of Malaysian computer animation storytelling.

Keywords: storytelling, narrative, Malaysian animation, computer animation

1. INTRODUCTION

With substantial alterations in Malaysian animation storytelling over the past 40 years, the paradigm shiftwithin the Malaysiananimation industryhas affected the storytelling approach for local animation practitioners. As the fundamental animation production element involved narrating a story, storytelling was an equally vital component. Undoubtedly, storytelling denoted one of the most essential story development aspects in animation. Given that storytelling strategies have undergone notable shifts (with the advent of digital technology) over the last two decades, the current stories portrayed in Malaysian animation significantly vary from the counterparts produced over 40 years ago. Notably, initial storytelling attempts could be retraced to the early short animation episodes produced in the early 1980s(*Hikayat Sang Kancil*). This research strived to comprehend the fundamental storytelling intricacies encountered by Malaysian animation practitioners to highlight Malaysian animation storytelling development over the past 20 years. Storytelling and narrative methods, content, and relevant processes would also be evaluated againstEastern and Western counterparts. Essentially, the assessment outcomeswould facilitate development of a conceptual model for Malaysian computer animation storytelling.

2. MALAYSIAN ANIMATION STORYTELLING ISSUES

Storytelling has garnered grave concernover the past five years in the local animation industry.For example, local animation practitioners argued that the effort and time invested in story development processes, storytelling, and visual storytelling components remained lacking among most animators and directors. Additionally, local animation practitioners emphasised technical and practical competence of storytelling and story development processes. Ghazali and Ghani (2019) asserted that Malaysian animation storytelling required much improvement asmost animation produced lacked strong storytelling approaches and appealing storylines. Notably, storytelling qualities must be enhanced to compete against American and Japanese animations.

The essentiality of storytelling was highlighted in the 2018 South East Asia animation report under the Malaysian Digital Economy Corporation (MDEC). Most Malaysian animation practitioners and intellectual property (IP) creators also affirmed storytelling as substantial concerns that required appropriate responses. As technical capacities and expertise proved necessaryfor enhanced Malaysian animation storytelling methods, local animation practitioners must establish appealing stories that were relatable toglobal audiences. Likewise, Hassan Abdul Muthalib (Malaysian animation pioneer) denoted that the vital element absent within most local animators and directors was

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storytelling(Schavemaker, 2017)following much focus on visual and technical animation development components instead of storytelling. As such, emphasis should be on story development processes and scriptwriting (asthe first step inthe pre-production stage)to determine the story premise and animation direction. Malaysian animation practitioners should also be exposed to film language in efficiently gauging visual storytelling methods.

Mohd Nizam Abdul Razak (Managing Director of Animonsta Studios)indicated storytelling to be the most crucial animation production component apart from technology(Sherene, 2017). As multiple local animation studios tended to disregard storytelling capacities as a vital story development aspect, the essentiality of storytelling competence required due consideration.For example, local animation practitioners should attend storytelling workshops and training whileMalaysian universities should provide storytelling courses to facilitate animation scholars towardsstorytelling competence.Likewise, Sani (2016) denoted that although the local animation industry encompassed much creative talents and expertise, the industrywas in dire need of storytellers and scriptwriters.In this regard, Malaysian animators'storytelling competence should be developed.

Dato' Kamil Othman (former Vice President of MDEC)asserted the essentiality of developing competent storytelling capacities among local animation practitioners (Omar, 2015) by highlighting animation storytelling as the primary concern rather than technical complexities. Additionally, the late Kamn Ismail (former animator and animation director)elaborated that storytelling required much improvement despite substantial progress by Malaysian animation practitioners over the years(Omar, 2015). Furthermore, most developed and narrated stories did not correspond to commonlyacknowledgedcounterparts.For example, SpongeBob SquarePants denoted a famous animated series that remained authentic despite multiple language dubbing.

3. MALAYSIAN ANIMATION STORYTELLING DEVELOPMENT

3.1 Early Storytelling Development

The four distinctMalaysian animation phases (see Table 1)depicted by Hassan Muthalib (Mahalingam, 2012) portrayed local animation and storytelling expansion and growth.The first phase encompassed a conventional animation strategy [two-dimensional (2D) hand-drawn animation]between 1949 and 1986 wherelimited animationswere manuallygenerated. The earliest animation implied animated titles and documentary film animations by Gillie Porter, the Head of Art Department in the Malayan Film Unit (MFU) (Lent, 2003).

Initially, media producers utilised animationto improve visual film elements insteadof as a storytelling platform (Muthalib,2013). In the second phase (between 1987 to 1994),scanning and digital colouring software werepresented in animation production to facilitate the digital process. Notwithstanding, the animation progress was slow (limited animation productions other than*Hikayat Sang Kancil*)(Mat Omar & Ahmad Ishak, 2011). In the third phase (between 1995and 2009),three-dimensional (3D) animation technology altered the local animation landscapethrough digital technological developmentfor novelopportunities and insights. Given the availability of 3D animation hardware and software, Malaysian animation practitionerscouldgenerate more local animations and outsourcethe animations to other nations. The fourth phase (from 2010 to the present) demonstrated increasedanimated products (animated films and television series). In this regard, the last decade has witnessed substantial progress in storytelling and animation within local animation industry.

Phase	Years	Description
Phase 1	1949 -1986	Conventional and manual approach
Phase 2	1987 -1994	Software introduction to support animation process
Phase 3	1995 -2009	Introduction of 3D technology
Phase 4	2010 -present	High animated content and products

Storytelling was incorporated into Malaysian animations in 1961 following the creation of *Hikayat Sang Kancil* (a short animation series structured using content adaptation) (Mohd Hasri et al., 2020). Fundamentally, the *Hikayat Sang Kancil* storytelling corresponded to a local animal folktale(*Sang Kancil, the intelligent mousedeer*). Essentially, a*Kancil* (mousedeer) implied an intelligent creature (reflected abilities to resolve multiplechallenges) and a trickster (manipulated adversaries despite being small in size). Theanimation was completed after 17 years(in 1983) before being broadcast on Malaysian television (Lent, 2003). Notably, the overall *Hikayat Sang Kancil*narrative was adapted from a collection of Malaysian stories by Arthur Hill and Walter W. Skeat.

The folktales were derived from elders and village storytellers who received the narratives orally. Following insufficient local animation practitioners with formal training in animation, storytelling, drawing, storyboarding, and

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layouts during the initial local animation years, animation was viewed as a visual film enhancement method rather than a storytelling platform. The adaptation method was considered appropriate compared to original story development as an initial attempt at local animation storytelling. Although content adaptation was employed as the main storytelling technique, the *Hikayat Sang Kancil* content entailed rich Malay and local cultural and moral values through storytelling (Muthalib, 2013).

Animation storytelling development continued evolving in the 1990s by presenting the first local animated television series (*Usop Sontorian*) in1993 (broadcast on Malaysian television in 1996)followed by*Kampung Boy* (1997), *Keluang Man* (1998), and *Anak-Anak Sidek* (1999) (Dasuki et al., 2012; Abidin & Razak, 2003). Notably, three of the four animated television series (*Usop Sontorian, Kampung Boy*, and *Anak-Anak Sidek*) were comic book adaptations while*Usop Sontorian* depicted a story adapted from a Malaysian comic book (*Gila-Gila*). Meanwhile, the *Kampung Boy*narrative was adapted from Datuk Lat's comic (*Kampung Boy*). The *Anak-Anak Sidek* story, a biographical comic involving five siblings who were local badminton players (Mohd Khalis et al., 2020; Muthalib, 2016), was adapted from Raja Azmi's comic (*Anak-Anak Sidek*). Regardless, the *Keluang Man* storytelling technique integrated alocal superhero and folklore (local hero) with an explicit narrative as the main storyline (Abidin & Razak, 2003).

Silat Lagenda (1998) and *Putih* (2001) denoted the first animated filmsproduced during the early development period other than Malaysian animated television series. Additionally, the storytelling strategy for both animated films implied content adaptation. For example, the *Silat Lagenda* (five courageous and young Malay warriors during the Malaccan Sultanate in the 1400s) narrative method corresponded toMalay literary adaptations (as a storytelling method) withlocal legends and folklore as the central premise. Contrarily, the *Putih* storytelling method (adapted from the local *Bawang Putih and Bawang Merah* folktale) followed aMalay literary text (Muthalib, 2016). Summarily, the development of early local animation storytelling encompassed four specifictechniques: content adaptation, Malaysian folklore, Malay literature, and strong cultural representations. All four methodsencompassed the fundamentals of storytelling as the animation industry remained in the preliminary stages (mostMalaysian animation practitioners lacked formal animation storytelling training) (Muthalib, 2016; Tengku Mohd Ali et al., 2014).

3.2 Storytelling Development, Trends, and ApproachesOver the Last Two Decades

The rapid development of local digital animation over the past 20 yearsimplied animation industry efficiency through the annual increase of animation productions. Previous research (seeFigure 1) proposed that the number of Malaysian animated television series (118 titles) has substantially outnumbered Malaysian animated films (17 titles) over the past 20 years.Notably, Malaysian animation practitioners tended to generate local animated television seriescompared to animated films(Mohd Khalis et al., 2020; Mohmad Rafik et al., 2020; Muthalib, 2016).In this vein,many animation productions were inclined towards local audiences.On another note, the story development process (story ideation, brainstorming session, logline development or one-sentence synopsis, scriptwriting, and visual story development through storyboards and animatics)remained the same as mostMalaysian animation practitioners utilised similar methodsfollowing insufficient storytelling development time and effort(Mohmad Rafik et al., 2020; Schavemaker, 2017).

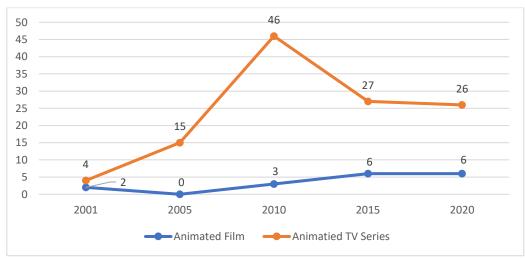


Figure 1: Total Animation Production over 20 Years (2001 – 2020)

Animationproductions slightly increased between 2001 and 2005 followingnovel storytelling development approaches. Essentially, Malaysian animation practitioners continued implementing content adaptation in the past five years(resembling the initial storytelling development stage).Some animation productions incorporated an authentic storytelling methodwithin the local setting to establish a novel and authentic story for animation

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productions. Novelstorytelling theme and genre techniques (Asian folklore, futuristic, and cyber) were also identified(see Table 2), such as*Cheritera* (2001), *Mergastuah* (2003), *Cerita Rakyat Asia* (2005), and *Bola Cyber* (2005)(Mohd Khalis et al., 2020; Muthalib, 2016; Muthalib, 2013).

Asubstantial rise in animation productions was indicated (see Figure 1)between 2006 to 2010 followingmultiple newly-establishedMalaysian animation studios (Les Copaque Production and Animonsta Studios)with government funding through MDEC and the Malaysian Animation Creative Content Centre (MAC3). Although the storytelling pattern remained unaltered over the past five years, Malaysian animation practitioners have reintroduced comic adaptations into storytelling techniques(similar to theinitial storytelling development era).Novelstory themes and genres (see Table 2), such as fantasy, sports, tribute, unity, Islamic, and family were also presented.Some of the animationproductions during the era involved *Budak Lapok* (2006), *Upin & Ipin* (2007), *Supa Strikas* (2008), *Alamaya* (2009), and *Geng:PengembaraanBermula*(2009)(Mohd Khalis et al., 2020;Mohmad Rafik et al., 2020; Muthalib, 2016;).

Years	Storytelling Trends	Storytelling Themes & Genres
2001 - 2005	 Content Adaptation Local Culture Traditional Narratives Cultural Proximity Malaysian Tales Original Story 	 Fables Folktales Animal Folktales Asian Folklore Futuristic and Cyber Slice of Life
2006 - 2010	 Content Adaptation Comic Adaptation Local Culture Traditional Narratives Cultural Proximity Malaysian Tales Original Story 	 Tribute Unity Fantasy Action Sports Folk Tales Folklore Islamic Slice of Life Family Content
2010 - 2015	 Content Adaptation Local Culture Traditional Narratives Cultural Proximity Malaysian Tales Original Story 	 Superhero Science Fiction War Futuristic Action Adventure Fantasy Folk Tales Legend Folklore Animal Folktales Slice of Life
2016 - 2020	 Content Adaptation Local Culture Traditional Narratives Cultural Proximity Malaysian Tales Original Story 	 Action Adventure Spy-Fi Futuristic Thriller Fantasy Folk Tales Folklore Unity Musical Fables Superhero Science Fiction Space Adventure

Table 2: Storytelling Trends, Themes and Genres over 20 Years (2001 - 2020)

Slice of Life

The local animation industryhas significantly progressed over the last 10 years(between 2011 to 2020) following increased animated television series and productions with optimal visual quality (see Table 2). Given the increasedlocal animation studio establishments following digital technology advancements, the animation industrycould compete on global platforms(Mohmad Rafik et al., 2020). Over the past decade, storytelling methods (see Table 2) involvingcontent adaptation, local and Malay cultures, and Malaysian folktales successfully corresponded to similar patterns and themesamong local audiences(Muthalib, 2016). More authentic narratives were developed through storytelling with more Malaysian animation practitioners gaining confidence towards novel story developmentfor local and international audiences. In this regard, technological progressoffered another new dimensionfor enhanced storytellingmethods.

The novel storytelling themes and genres derived fromlocal animation practitioners'new themes(science fiction, musicals, thrillers, science fiction, and space adventure)duly indicated industrial and audience maturityin acknowledging novel storytelling techniques. Some of the animation productions within the era included War of the Worlds: Goliath (2012), Satria - The Warrior of 7 Elements (2012), Pada Zaman Dahulu (2014), Boboiboy Galaxy (2016), Didi and Friends (2017), Ejen Ali (2017), The Amazing Awang Khenit (2019), and Upin & Ipin: Keris Siamang Tunggal (2019)(Mohd Khalis et al., 2020; Mohmad Rafik et al., 2020; Muthalib, 2016).

Content adaptation and local cultural integration have remained constant catalyst of local animation storytelling over the past 20 years. Although the early storytelling development phase in local animation incorporated content adaptation (common among Malaysian animation practitioners) as an increasingly well-established storytelling technique (Tengku Mohd Ali et al., 2014; Muthalib, 2013), the method failed to facilitate authentic stories. Nevertheless, content adaptation denoted asafer means of sustenance for Malaysian animation practitioners following substantial acknowledgement by local audiences (Mohd Hasri et al., 2020; Wan Teh, 2018). With local cultural portrayals in Malaysian animation (tofoster local cultures and national identities) through conventional stories and local folktales (Mohd Hasri et al., 2020; Napier 2003), the audiences preferred local cultures as the main storytelling technique. As many Malaysiananimation productions involved local audiences, storytelling and narrative development were highly impacted by local cultures. Malaysian animation also utilised common storytelling themes (see Table 2), such asfolktales, folklore, animal folktales, and local tales. Additionally, Lent (2004) determined four recurring themes in local animation storytelling: folktales, superhero adventures, fantasy, and daily life scenes.

4. COMPARISON OF EASTERN AND WESTERN ANIMATION STORYTELLING

On a global scale, Malaysian animationwassignificantly impacted by Eastern (Japanese) and Western (American) animations. Currently, Japan and America (highly influential in the creative sector)denote theleading industry pioneers (Mohd Khalis et al., 2016). Historically, it was debated that multiple strategies distinguished Eastern from Western animation storytelling, specifically regarding storytellingcomponents. The variation-inducingstorytelling aspects are as follows:story, story structure (narrative structure or storytelling model), narrative, plot, character, conflict, and resolution (Cresswell, 2015; Khalis et al., 2016; Talom, 2019). From Eastern and Western viewpoints and philosophies, the differences alsooriginated fromlocal narratives (Haytova, 2020). Likewise, Talom (2019) conceded that the substantial variations between Eastern and Western animation storytelling could be derived from the origins of history, culture, production methodand storytelling approach. Table 3compares Eastern and Western animation storytelling aspects (Nguyen, 2015; Cresswell, 2015; Khalis et al., 2016; Talom, 2019).

Storytelling Elements	Eastern	Western
Story	• A strong influence of Eastern cultural ideology	 A strong influence of Western cultural ideology
Story Structure	 3-act structure 4-act structure(Kishotenketsu) 	 3-act structure(Aristotle's model) The 12 stages of 'The Hero's Journey'
Narrative	 Many characters can take the lead The main character might not appear at the beginning ofthe story but in the middle 	 The main character takes the lead The main character appears early in the story Relies on an individual

Table 3: Eastern and WesternAnimation Storytelling Comparison(Japanese and American)

	 The story requires teamwork Stories told from the third- personperspective Applies Eastern collectivism and peace philosophy Emphasises how the macro journey shapes the micro counterpart 	 The story told from a first- person perspective Applies the Western individualistic ideology with action and victory idealisation Emphasises how the micro journey affects the macro counterpart
Plot	 Emotion-driven (direct emotional engagement) Understanding the journey and harmony 	 Plot-driven The journey concerns change and disruption
Character (Protagonist)	 Group-orientated (Nakama) The main protagonist attempts to perform good deeds for society Do not confront challenges out of self-interest Everyone eventually dies 	 Individual-orientated (self-focused) The main protagonist is strong-willed and smart Strives for a specific goal Heroes live on forever
Character (Antagonist)	 Good people are typically confused, deceived, or lied to Some stories do not have antagonists (nature, spirits, and gods) 	 The villain's primary goal is to stop the protagonist Every story has an antagonist
Conflict	 No actual clashes occur most times as people believe everything to be right The real fight is to determine and support goodness 	 Primarily uses the classic 'Good versus Evil' theme The actual conflict is to solve the issue encountered by the main character
Resolution	Resolution of harmony	Resolution of victory

Past research demonstratedsubstantial variations between Eastern and Western animation storytellingmethods.For example, particular Eastern animation story techniques encompassed archetypes, aesthetic alternatives, and themes (Wagar, 2018; Cresswell, 2015) withstory themes as the central component. Some of the most commonEastern animation themes encompassed rites of passage, good versus evil, and technology (magic) versus humanity (Meer, 2019; Kincaid, 2016). Contrarily,Western animation storytelling (story techniques and styles)were more impacted by Western culture and ideology. Some of the most popularWestern animation storytelling themesinvolved American superheroes, Grimm's fairy tales, and technology versus nature (Nguyen, 2015; Cresswell, 2015). A common similarity between Eastern and Western animation storytelling implied theme utilisation as a storytelling catalyst (Kincaid, 2016; Cresswell, 2015).

Meanwhile, few previous research suggests that some of the animation produced integrates the Eastern and Western cultures in the storytelling approach (Cresswell, 2015; Tingting & Fan, 2017). In recent studies by Ibrahim et al. (2013), Hui Nee (2018), and Mohmad Rafik et al. (2020), most local animation productions reflected the incorporation of strong Western cultures into storytelling. Notwithstanding, Khalis et al. (2016) denoted that some animated TV series (*Upin & Ipin* and *Boboiboy*) incorporated Japanese cultures into the animated TV series characters. Similar to Eastern (Japanese) animation storytelling characteristics, the protagonist was group-oriented in continuing the story.

5. CONCEPTUAL MODEL FOR MALAYSIAN COMPUTER ANIMATION

A conceptual modelfor Malaysian computer animation storytelling (see Figure 2) was established in the study context. The developed model established the early stages of the study foundation and framework. Resultantly, further model establishmentproved necessary by implementing crucial animation storytellingelements [narratology (narrative theory), storytelling aspectsand models, and visual storytelling]. All four elements would then be incorporated towards developing a conceptual model for local computer animation storytelling.

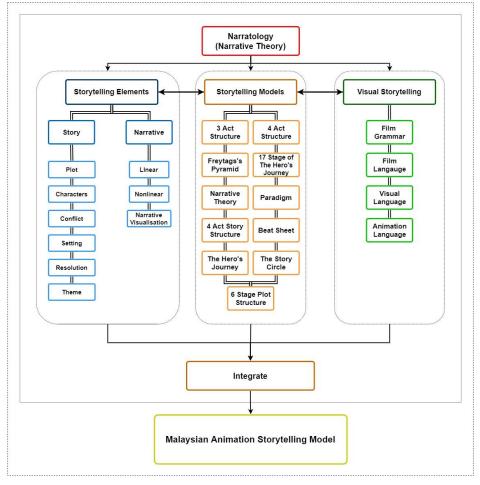


Figure 2: A Conceptual Model for Malaysian Computer Animation Storytelling

Most past researchexplored the story structure in animation and film through narratology (narrative theory). Cutting (2016) defined narratology as story and story structure-oriented researchwhile Jahn (2017) denoted narratology as a narrative structure theory. Essentially, narratologists must classify the narrative phenomenon into elements for story structure assessment(in film or animation)to better comprehend the structure, narrative functions, and relationships. Although this study intended to adopt Jahn's (2017) narratology structure as a guiding principle and theory, story and narrative denoted the two most vital storytelling components in the story development process (Akleman et al., 2015; Cohn, 2013).

Current researchaffirmsthe vital essentiality of integrating the story and narrative elements as the central story development element for animation and film(Cutting, 2016; American et al., 2015). A similar method could be retraced to early Russian formalism (developed in the 1920s by Vladimir Propp and Viktor Shklovsky). In line with the popularisation of *fabula* (story) and *syuzhet* (narrative) in Russian formalism, story, and narrative (vital storytelling elements)were employed in the story development process from initial animation and film development. Notably, *fabula* and *syuzhet* were mainly utilisedfor story structure following the chronological storyline progression. In this regard, story and narrative reflected the two essential storytelling components mainly employed in traditional storytelling and story development (Cutting, 2016; Cohn, 2013; Wang, 2012).

A storytelling model or narrative structure denoted an essential story development component to facilitate story structuring. The storytelling model acted as a story structuring guideline(for order and direction), thus supporting the story design and development (Kim & Kim, 2016;Mou, 2015; Huntley, 2007). A sound comprehension of basic story structure proved essential in the story development processas each story required a beginning, middle, and end (Ghazali & Ghani, 2019; Cutting, 2016; Field, 2013). Despite multiple theorists' establishment of theoretical methods (storytelling models) for animation and film narrative structuring, manyobtainable storytelling models historicallyfollowedWestern viewpoints and methods. For example, the three-act structure denoted one of the earliest and extensivelyutilised storytelling models following Aristotle's Poetics (Chang & Chen, 2018; Cohn, 2013).

Some visual storytelling terms have emerged over the past 20 years. Specific terms (film grammar and language and visual and animation language)were utilised to outline visual storytelling (Chang & Chen, 2018; Lescop, 2017). Meanwhile, aspects of cinematography, camera movement, editing, sound and music, lighting, colour, lens,

depth of field, camera angle, and mise-en-scene implied visual storytelling method examples in the story development process(Tecucianu, 2014; Cheng et al., 2010). As visual storytelling enabled story creation for the audience through images and visuals, the story was visually conveyed (for improved storytelling experiences) by permitting the audience to visually gauge the story and subsequent meaning (Ghazali & Ghani, 2019; Aguado, 2015).

6. CONCLUSION

This studyrecommended a preliminary conceptual model for Malaysian computer animation storytelling(customisable to animation practitioners' needs). The conceptual model was developed with four main animation storytelling elements. Meanwhile, the narratology (narrative theory) approachacted as a holistic principle and foundation to evaluate three other adopted elements(storytelling elements, storytelling models and visual storytelling) for conceptual model development.

The conceptual model will serve as a guide for local animation practitioners and the animation industry as a whole in terms of storytelling importance. This is to ensure that local animation practitioners understand the fundamental elements of storytelling and use them as a guide during the story development process, resulting in a more positive impact on the storytelling approach. Apart from that, the conceptual model's fundamental storytelling elements can serve as a checklist for local animation practitioners when developing their stories for animation. The conceptual model's purpose is not to constrain the creativity of local animation practitioners but to provide a fundamental approach to storytelling.

Animation practitioners can incorporate the storytelling elements and components both at macro and micro levels. At a macro level, animation practitioners can adopt the conceptual model in its entirety, utilising it as a guide and structure for developing their story. On the other hand, at micro level, local animation practitioners can incorporate various storytelling elements from one of the three suggested storytelling approaches i.e., storytelling elements, storytelling models, or visual storytelling. By adopting the conceptual model, local animation industry can develop the proper structure that does not deviate from the correct approach with the appropriate storytelling elements. The current body of literature has uncovered a new level of exploration for the local animation practitioners when developing their stories. With further exploration gain from the findings of the analysis of Malaysian animated television series and interviews with local animation practitioners, academicians and audiences, the assessment outcomes would be employed as part of the guiding principles in developing a conceptual model for Malaysian computer animation storytelling.

REFERENCES

- Abidin, M. I. Z., & Razak, A. A. (2003). Malay Digital Folklore: Using Multimedia to Educate Children through Storytelling. Information Technology in Childhood Education Annual, 1, 29–44.
 <u>https://www.researchgate.net/publication/255567540_Malay_Digital_Folklore_Using_Multimedia_to_Educate</u> ate Children Through Storytelling/figures
- Aguado, K. (2015, August 11). *Visual Storytelling in Film and Television Ken Aguado*. Medium. <u>https://ken-aguado.medium.com/visual-storytelling-in-film-and-television-4f2d176c17cf</u>
- Akleman, E., Franchi, S., Kaleci, D., Mandell, L., Yamauchi, T., & Akleman, D. (2015). A Theoretical Framework to Represent Narrative Structures for Visual Storytelling. *Proceedings of Bridges 2015: Mathematics, Music, Art, Architecture, Culture, January*, 129–136. <u>https://doi.org/10.13140/RG.2.1.3887.3440</u>
- Amerian, M., Jofi, L., & Tefl, M. A. I. (2015). Key concepts and basic notes on narratology and narrative Key concepts and basic notes on narratology and narrative. *Amerian and L. Jofi / Scientific Journal of Review*, 4(10), 182– 192. https://doi.org/10.14196/sjr.v4i10.1927
- Chang, Y. S., & Chen, Y. H. (2018). The analysis of animation narration for short animation The short film: CARN. *Proceedings of the 2018 IEEE International Conference on Advanced Manufacturing, ICAM 2018*, 477–480. https://doi.org/10.1109/AMCON.2018.8614758
- Cresswell, J. W. A. (2015). Cross-Pollination of Animation: Western Cartoons & Japanese Animation. <u>https://www.academia.edu/25524158/Cross_Pollination_of_Animation_Western_Cartoons_and_Japanese_</u> <u>Animation</u>
- Cohn, N. (2013). Visual Narrative Structure. Cognitive Science, 37(3), 413-452. https://doi.org/10.1111/cogs.12016
- Cutting, J. E. (2016). Narrative theory and the dynamics of popular movies. *Psychonomic Bulletin and Review*, 23(6), 1713–1743. https://doi.org/10.3758/s13423-016-1051-4
- Dasuki, S., Abdullah, N., Ali, S., & Mahamood, M. (2012). Art Appreciation: An Analysis of Stylistic Development of Malaysian. *Online Journal of Art & Design, Universiti Teknologi MARA*, *2*, 1–24.

https://www.researchgate.net/publication/319351784 Art Appreciation An Analysis of Stylistic Develop ment of Malaysian Animation

- Field, S. (2013). The foundations of screenwriting. 日本畜産学会報, 84, 487-492. http://ir.obihiro.ac.jp/dspace/handle/10322/3933
- Ghazali, M. N., & Ghani, D. (2019). The Important of Great Storytelling in Malaysia Animation Industries. *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, 8(11), 230–235. https://www.ijitee.org/wp-content/uploads/papers/v8i11S2/K103509811S219.pdf
- Haytova, N. (2020, March 21). *The differences between Western and Eastern storytelling*. Pulse of Asia. <u>https://www.1stopasia.com/blog/the-differences-between-western-and-eastern-storytelling/</u>
- Huntley, C. (2007). How and Why Dramatica is Different from Six Other Story Paradigms. *Dramatica. Theory. Write Borthers, Inc.*<u>http://dramatica.com/articles/how-and-why-dramatica-is-different-from-six-other-story-</u> <u>paradigms</u>
- Jahn, M. (2017). *Manfred Jahn Narratology: A Guide to the Theory of Narrative*. http://www.unikoeln.de/~ame02/pppn.htm
- Kim, S. K., & Kim, S. K. (2016). Survey on the narrative structure of the interactive storytelling authoring system. International Journal of Applied Engineering Research, 11(18), 9236–9239.
- Kincaid, C. (2016, May 15). Anime as a Storytelling Medium. Japan Powered. <u>https://japanpowered.com/anime-articles/anime-as-a-storytelling-medium</u>
- Lent, J. A. (2003). Development of Malaysian Animation from the Perspective of Pioneer Animator Hassan Muthalib. Asian Cinema, 14(1), 107–115. <u>https://doi.org/10.1386/ac.14.1.107_7</u>
- Lent, J. A. (2004). The 'Sleeper' Status of Southeast Asian Animation. *Malaysian Journal of Communication*, 20, 183–199. <u>https://ejournal.ukm.my/mjc/article/view/22186</u>
- Lescop, L. (2017). Narrative Grammar in 360. Adjunct Proceedings of the 2017 IEEE International Symposium on Mixed and Augmented Reality, ISMAR-Adjunct 2017, 254–257. https://doi.org/10.1109/ISMAR-Adjunct.2017.86
- Mahalingam, E. (2012, November 10). *Telling a good story*. The Star Online. https://www.thestar.com.my/business/business-news/2012/11/10/telling-a-good-story
- Malaysian Digital Economy Corporation (MDEC). (2018). 2018 South East Asia Animation Report: The Regional Digital Content Landscape. <u>https://mdec.my/wp-content/uploads/SEA-layout-20180815.pdf</u>
- Mat Omar, M. A. (2015). *Characteristics, Audience Reception and Challenges in Malaysian Animation*. Retrieved from http://studentsrepo.um.edu.my/5871/
- Mat Omar, M. A., & Ahmad Ishak, M. S. (2011). Understanding Culture through Animation: From the World to Malaysia. *Malaysian Journal of Media Studies*, 13(2), 1–9. <u>https://www.researchgate.net/publication/254258356 Understanding Culture Through Animation From</u> <u>the World to Malaysia</u>
- Meer, A. (2019, July 22). *How embracing Japanese anime storytelling in the West might expand our virtual reality game experiences.* ÆStranger. https://aestranger.com/embracing-anime-storytelling/
- Mohd Hasri, U. H., Md Syed, M. A., & Runnel, C. (2020). Transmedia storytelling in the Malaysian animation industry: embedding local culture into commercially developed products. *Atlantic Journal of Communication*, 1–17. <u>https://doi.org/10.1080/15456870.2020.1835909</u>
- Mohd Khalis, F., Mustaffa, N., & Ali, M. N. S. (2016). Sense of Local Identity Characteristic in Malaysian Animation. *International Journal of Arts & Sciences*, 09(03), 497–508. <u>https://search.proquest.com/openview/a5b2456b4c18e50d46dbc9bac87f6081/1?pq-</u> <u>origsite=gscholar&cbl=626342</u>
- Mohd Khalis, F., Mustaffa, N., Ali, M. N. S., & Mohamed Salim, N. A. (2020). The Evolution of Malaysian Cartoon Animation. *Voice of Academia (VOA)*, *16*(02), 68–82. https://voa.uitm.edu.my/v1/images/voa_issue/2020/vol16_no2_title7i.pdf
- Mohmad Rafik, M. R. S., Alimom, N., & Firdaus, N. (2020). Cultural Imperialism in Malaysian Animation. *International Journal of Social Science Research*, 2(1), 74–87. <u>http://myjms.mohe.gov.my/index.php/ijssr/article/view/8740/5295</u>

Mou, T. (2015). Creative Story Design Method in Animation Production Pipeline. January 2015, 124–131

- Muthalib, H. A. (2016). From Mouse Deer to Mouse. Akademi Seni Budaya dan WarisanKebangsaan (ASWARA).
- Muthalib, H.A. (2013). From mousedeer to alien creatures: An Overview of Malaysian Animation. *Journal of Asian Pacific Communication*, 23(1), 41–65. <u>https://doi.org/10.1075/japc.23.1.04has</u>
- Muthalib, H. A. (2007). From mousedeer to mouse: Malaysian animation at the crossroads. *Inter-Asia Cultural Studies*, 8(2), 288–297. <u>https://doi.org/10.1080/14649370701238755</u>
- Napier, S. (2003). Anime from Akira to Princess Mononoke: Experiencing Contemporary Japanese Animation (2003rd ed.). Palgrave Macmillan.
- Nguyen, A. (2015, February 17). Animation- Narrative, and the differences of narrative in animated films between East Asian and Western. Retrieved March 11, 2020, from https://annnguyenanh.wordpress.com/2015/02/17/animation-narrative-and-the-differences-of-narrative-inanimated-films-between-east-asian-and-western
- Sani, R. (2016, April 18). Chasing the dream in animation | New Straits Times. Retrieved August 2, 2019, from https://www.nst.com.my/news/2017/03/139977/chasing-dream-animation+
- Schavemaker, P. (2017). 70 Years of Malaysian Animation: Interview with Hassan Abd. Muthalib. Retrieved from<u>https://www.zippyframes.com/index.php/interviews/70-years-of-malaysian-animation-interview-with-hassan-abd-muthalib</u>
- Sherene, T. O. (2017, July 26). BoBoiBoy creator Nizam Razak and his Malaysian superhero. Retrieved August 2, 2019, from https://www.thestar.com.my/lifestyle/people/2017/07/26/ikon-negara-nizam-razak/
- Talom, C. (2019). Duality of American and Japanese Animation. August, 1–28.
- Tecucianu, D. (2014). the "Language" of Cinema: Film "Grammar" and Visual Literacy. International Journal of Communication Research, 4(3), 251–256. http://proxy.libraries.smu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=cms&AN= 99502755&site=ehost-live&scope=site
- Wagar, C. A. (2018, March 9). Animation East vs West. Celia Alexis Wagar's CritPoints. https://critpoints.net/2018/03/09/animation-east-vswest/#:%7E:text=The%20east%20and%20west%20have,is%20more%20about%20character%20animation.&t ext=Japanese%20animation%20is%20also%20typically,of%20consistently%20good%20animation%20throug hout.
- Wan Teh, W. H. (2018). The History of Film Adaptation in Malaysia: The Long Journey of Its Rise and Fall. *Malay Literature*, *31*(2), 361–382. <u>http://jurnal.dbp.my/index.php/MalayLiterature/article/view/3823</u>
- Wang, L. (2012). Story of the monkey: The modular narrative and its origin of <The Uproar in Heaven>. *Cartoon and Animation Studies*, *29*, 61–75. <u>https://doi.org/10.7230/koscas.2012.29.061</u>
- Das, Shiv Shankar. "Documentary Films-Creating Narratives Of Social Change Through Factual Storytelling." International Journal of Communication and Media Studies (IJCMS) 9. 4, Aug 2019, 1-8
- Azon, Senakpon A. Fortune. "Voice, Language, And Storytelling: The Craft Of Narrative Experimentation In John Edgar Wideman's Fiction." International Journal of English and Literature (IJEL) 8.1, Feb 2018, 65-76
- Thangaraj, K., and M. KALPANA. "An evaluative study of the oral skills of undergraduate agricultural students over their entry level." International Journal of Educational Science and Research (IJESR) 10.4 (2020): 31-40.
- Reddy, M. Ravinder. "The Essense Of Morals In Sudha Murthy's Children's Stories." International Journal of Linguistics and Literature (IJLL) 8 (2019): 1-4.
- Sharma, Vishakha, and Vishakha Singh. "Impact of education intervention on nutrition knowledge of adolescent girls." International Journal of Applied and Natural Sciences (IJANS) 6.5: 117-122.