"Playable" Nationalism: Nusantara Online and the "Gamic" Reconstructions of National History

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Nusantara Online is an Indonesian-made massively multiplayer online role-playing game that imaginatively reconstructs the history of the archipelago. As an "allegorithm" for the Indonesian nation, the game suggests a distinct model of digital nationalism, here dubbed "playable" nationalism. This concept captures the formulation of "Nusantara" as the idealized yet playful version of the Indonesian archipelago, a version emphasizing the principles of digital collaboration. The promotion of this model of "digital nationalism" as an egalitarian model of Indonesian popular nationalism has certain limitations.

Keywords: Indonesia, video games, nationalism, youth culture, digital media.

In the beginning "Nusantara" was a peaceful country. Its people lived a peaceful rural life. Suddenly, invaders from many directions came rampaging through the country, causing bloodshed and havoc. Many people in the country were killed. Homes and temples were destroyed. Seeing his country's devastated condition, a soldier scarred by war cried out in frustration and anger.

The above narrative is a brief summary of the opening "cutscene", or opening movie, from *Nusantara Online*, an Indonesian-made 3D massively multiplayer online role-playing game (MMORPG) first launched in June 2011. The game, on whose development Sangkuriang Internasional and Telegraph Studio began collaborating in 2006, uses the history of three kingdoms in the Indonesian archipelago — Majapahit, Sriwijaya, and Pajajaran — as material



FIGURE 1 Still from *Nusantara Online*'s opening cutscene depicting a figure of the invader.

for its in-game background stories.² Gamers can design avatars based on one of five characters³ — warrior (makadga), priest (janggan), archer (mamanah), magician (walyan), and assassin (astadipati) — and engage in a series of quests or missions drawn from the history of the three represented kingdoms. The use of Indonesian history in Nusantara Online suggests its emphasis on the promotion of nationalistic fervour in digital format, outweighing the game's commercial interest. Scholars and journalists have variously called this type of nationalistic expression "online nationalism" or "digital nationalism" to suggest a new mode of expressing national consciousness through the mediation of digital technologies (Chopra 2008, p. 155; Krismantari 2010).

This article examines the development and distribution of *Nusantara Online* as a particular model of digital nationalism.

Analysis of the game's software mechanism, visual representation, narrative construction and genre makes clear that it suggests a model here dubbed "playable" nationalism. This model takes into account the formulation of "Nusantara" as an idealized yet playful version of the Indonesian archipelago, a version that emphasizes the principle of digital collaboration. The game attempts to create an immersive setting in which a player's nationalistic experience is both "open-ended" and "programmed". At first sight, *Nusantara Online*'s model of "playable" nationalism gives the impression of an alternative expression of nationalism, emerging from outside official state discourses. Yet closer consideration of the game exposes the limitations of the game's model of nationalism, which constrains players' experience with its software mechanism, represents a conventional version of national history and offers perplexing images of racial classification. Critical attention to the "playable" nationalism of Nusantara Online can shed light on the ways in which technological and political imaginings are deeply intertwined and mutually constitutive, even in such a popular entertainment form as video games.

Video Games and National Identity

Video games have grown into a serious medium of cultural expression. Various studies have contended that video games are not merely a medium of entertainment; they function as a contemporary cultural artefact, which we may analyse to learn about various facets of our lives. Some scholars (Castronova 2005; Dibbell 2006), for instance, have illuminated the political and economic dimensions of video games, revealing the relationships between "in-game" and "off-game" monetary currencies.⁴ Furthermore, anthropologists (Boellstorff 2008; Malaby 2009; Nardi 2010) have explored video games as virtual worlds and viewed their cultural significance as distinct domains of human life, from the perspectives of both their designers and their players or "residents". Numerous other studies in the last two decades have shed light on the cultural, political and ideological — as well as artistic — dimensions of video games (Nitsche 2008; Wark 2007; Gee 2008).

Nonetheless, while Hjorth and Chan (2009) and Jin (2010) are exceptions, few studies have focused on video games in Asia, let alone Southeast Asia, or on their sociocultural ramifications. This neglect comes despite Asia's vibrant video game cultures. The Indonesian video game industry is, for instance, growing fast, along with the country's rising tech start-up industry (Wee 2011). Online game playing has grown immensely in popularity since the introduction of titles such as *Ragnarok Online* (Gravity) in the mid 2000s. Personal computer game cafes have mushroomed in metropolitan areas throughout the archipelago, as have *warnet* — an Indonesian form of Internet cafe. These conditions have given rise to nationalistic games such as *Nusantara Online*.

Scholarship on nationalism has long theorized the formation of national publics. Benedict Anderson's conception of "imagined communities" (2006) is especially influential in studying the means by which these publics are conceived and "imagined". Anderson also perceptively characterizes the relationship between media technology (print media, in his case) and nationalism. His work has prompted other scholars to explore this relationship further in Indonesian contexts (Mrázek 2002; Strassler 2010; Kitley 2000).

The present article departs from the study of nationalism as focused on the formation of the nation-state and the political programmes of intellectuals. It considers *Nusantara Online*'s model of digital nationalism in order to examine the emergent, everyday forms of nationalism as it results from a complex process of identity formation. Following Michael Billig's conception of "banal nationalism" (1995, p. 6), the article argues that commonplace expressions of national identity mediated by popular media technologies such as video games serve as the basis for the success (or the failure) of nationalistic political movements. Daily exposure to reproductions of nationhood leads members of a national community to share certain political sentiments and prepare themselves for extreme action on the basis of these sentiments. Everyday events such as sporting events, songs, dances and even the practice of culinary traditions can build an imagined sense of national solidarity or pride. The use of

digital nationalism here thus differs from Anderson's characterisation of "long distance nationalism" (2001, p. 42), which suggests an overzealous and sometimes violent form of online activism acted out by diasporic citizens in support of the nationalistic cause in their home country. In this article digital nationalism refers, rather, to everyday activities within Indonesian digital cultures that signal the nurturing of national identity.

One of the most obvious traces of the connection between video games and national identity and history is perhaps the use of military simulation technology. From their earliest inception, video games have had a militaristic bent. Patrick Crogan (2011, p. xiv) has documented the military techno-scientific legacy in the history of video games, a legacy that, he argues, media and video game studies have neglected. Analysing various "gamic" media forms, ranging from development in the 1980s of SIMNET, the principal simulation networking project funded by the U.S. Department of Defence, to the highly acclaimed computer game Spore (Electronic Arts), developed by Maxis in 2008, Crogan (2011, p. xiv) argues that this techno-scientific military legacy has been and continues to remain significant for the world of mediated digital culture and communications. Crogan's view may explain the popularity of the war game genre in the video game industry. Examples include the Call of Duty franchise (Activision) and the Medal of Honor series (Electronic Arts). It may also explain the persistence of what Timothy Lenoir (2000, p. 290) calls the "military-entertainment complex", which has seen the use of America's Army (United States Army) — a series of video games designed and released by the U.S. Army — as a legitimate recruitment tool, and Washington's longrunning campaign of lethal drone strikes. Underlying the logic of this "military-entertainment complex" is the ideological promotion through "soft power" of the United States as a technologically superior nation-state (Nye 2004, pp. 1–32), often promoting its own brand of "good versus evil" justice.7 Essential to this ideological "advertising" is "the ability to shape the preferences of others", not the ability to threaten or induce others (Nye 2004, p. 5).

Rather than on the relationship between the military legacies in video game culture and nationalism, the focus here falls elsewhere. Examination of *Nusantara Online* affords consideration of the relationship between the game as a form of digital nationalism and a change in the nature of digital participation and collaboration. Above all, the development of "playable" nationalism in Indonesian video games such as *Nusantara Online* stems largely from a shift in global and local technology practices in which individuals are no longer mere users but also producers of digital media infrastructure and content.

A significant number of game companies have included built-in software programmes that allow for the production and distribution of user-created modifications of their games, commonly referred to as "mods". In several cases, these "mods" have become more popular than the original games themselves. In the context of Indonesia, this shift in digital participation and collaboration presents an opportunity to transform the ways in which narratives of nationalism are constructed visually and conceptually *outside* the framework of contemporary politics. It also makes possible different modes of circulating these narratives in everyday public discourse.

But does Nusantara Online in fact seize this opportunity through its model of "playable" nationalism? Is the game's "playable" nationalism really an alternative to the state's official nationalism? If so, how exactly does it work? In order to explore the answers to these questions, this article approaches Nusantara Online game as a historical "allegorithm" for the Indonesian nation, a dialectic process between the game's narrative allegory and its algorithm. "Allegorithm" is a concept borrowed from the work of Alexander Galloway. Galloway suggests that in playing video games players are actually trying to understand their "allegorithms". It is through the analysis of its "allegorithm" that one can understand the aesthetic and political attributes of a game. He writes, "Videogames don't attempt to hide informatic control; they flaunt it.... To play the game means to play the code of the game.... And thus to interpret a game means to interpret its algorithm (to discover its parallel 'allegorithm')" (Galloway 2006, pp. 90-91).

Galloway's emphasis on the "allegorithms" of video games is in many ways a case for attention to the specificity of video games as a digital medium and of the ways in which their specific nature makes possible or limits such political expressions as expressions of nationalism. One of the ways to analyse an "allegorithmic" configuration is through analytical exploration of its procedural elements, of what Ian Bogost calls "unit operations" (2006, p. ix) — the various elements in video games that, while discrete, construct interrelationships producing certain values and meanings in a nested structure. According to Bogost, unit operations do not "only define people, network routers, genes, and electrical appliances, but also emotions, cultural symbols, business processes, and subjective experiences" (2006, p. 5). One can thus analyse the "allegorithmic" configuration of Nusantara Online as "playable" nationalism through attention to the unit operations of its historical trajectory as a nationalistic game, its players' spatial relationship to the game-world, its game engine and its genre as a game. This analysis reveals the ramifications of the game's model of digital nationalism for contemporary Indonesian (digital) cultures.

Locating Nusantara Online in Indonesian Video Game Cultures

Nusantara Online is the product of idealistic collaboration between two game developers, Sangkuriang Internasional and Telegraph Studio. Started in 2006 as a casual game studio project by a group of senior undergrads at Bandung Institute of Technology (ITB) in Bandung, West Java, Sangkuriang Internasional emerged as a software development company under the leadership of Victor Junaidy, its director. Junaidy is also the main programmer of Nusantara Online. Telegraph Studio is a multimedia studio initiative that has been working on various digital cultural-heritage projects or "intellectual property" (kekayaan intelektual) preservation projects in Indonesia. It has client-partners such as PT Telkom Indonesia. Its leadership includes Sigit Widodo, its publishing and marketing director and also the current head of the Indonesian National Internet Registry

(Pengelola Nama Domain Internet Indonesia, PANDI); and Chaerul Fahmi, the company's creative manager and the man responsible for the historical content of *Nusantara Online*.

According to Junaidy, the collaboration between Sangkuriang Internasional and Telegraph Studio has transformed the game's mission from that of just a MMORPG offering an alternative to more popular foreign titles like World of Warcraft (Blizzard) or Ragnarok Online (Gravity) into an ambitious project to develop a nationalistic historical game. 10 People in both companies, like Fahmi and Junaidy, share the same moralistic concern over the massive penetration of foreign cultures into Indonesia by means of various media formats (cinema, television, games and others). They believe that, unless Indonesians recognize the value of their own national culture, this unrestricted "cultural infiltration" will corrode their knowledge of the history of their country and lead to feelings of inferiority. They consider this risk most pressing in the case of Indonesian youth. At the same time, the two companies have also come to be aware of diverse interpretations of Indonesian history, interpretations that differ from the official narrative disseminated via school textbooks. They have learned, for instance, that people in one region can view a historical figure as their hero, while people in another region regard this same figure as a villain. This realization has further motivated the companies' desire to develop Nusantara Online as a critical resource for Indonesian history, so that the younger generation will be well informed about the history of their country. Fahmi wants to encourage players of Nusantara Online to seek further clarification, when they confront multiple versions of Indonesian history in the game.¹¹

Sangkuriang Internasional and Telegraph Studio have, of course, also aimed to make money with *Nusantara Online*. But the profit motive appears less important than their nationalistic goals. It would have made more sense for the two companies to stop further development of *Nusantara Online* after the release of Version 0, the first publicly available version of the game, in 2011. They clearly did not make substantial profits from it. ¹² Furthermore, if they sought

only to follow trends in the Indonesian game industry, it would be perhaps more reasonable for them to switch *Nusantara Online*'s game platform to mobile devices, which have become increasingly popular in the country. Yet, both Sangkuriang Internasional and Telegraph Studio have committed themselves to continuing to develop the game in its original MMORPG form. They remain convinced that *Nusantara Online*, however unprofitable, can serve as a medium for presenting alternative reconstructions of Indonesian history. Their commitment to the game thus suggests the priority of nationalistic sentiment over commercial objectives.

Nusantara Online is different from other patriotic games, both foreign and Indonesian. Unlike such games as America's Army or Glorious Mission (Giant Network Technology), a first-person shooter (FPS) game specifically created and scripted by propaganda officials and overseen by military authorities in the People's Republic of China, Nusantara Online is a game whose makers do not have direct ties to the Indonesian government. It is also different, so the developers claim, from other games that use Indonesian history as their settings. These latter games include Nusantara Chronicle (Elven Games), a mobile puzzle-fighting game with an ancient Indonesian kingdom as its background, or The Adventure of Wanara: Garuda Riders (Mechanimotion/Elven Games), an interactive comic/adventure game for mobile platforms. For Nusantara Online's developers, the Indonesian elements in such games only function as a gimmick; the games fail to cultivate any deep understanding of the historical meaning of these elements. Differentiating Nusantara Online from other Indonesian-themed games, its developers imagine their game as one that will not only reconstruct the history of Indonesia but also demonstrate a sense of national cultural values.

Adding to their nationalistic credentials, Sangkuriang Internasional and Telegraph Studio also claim that *Nusantara Online* is so far the only Indonesian game that uses a locally made game engine. The developers, particularly Sangkuriang Internasional, have been developing a game engine called Angel (Another Game Engine Library) from scratch.¹⁴ The decision to develop it grew out of the

conviction that a video game can function as more than just a game. Fahmi contends that one can repurpose a game engine for projects unrelated to video games, such as air traffic control or mining operations.¹⁵ His claim is in a way accurate; as software systems, video games can run on the same code base as other software systems. such as financial software applications (Bogost 2006, pp. 55-66; Galloway 2006, p. 6). Furthermore, the developers of Nusantara Online frame Angel's status as an Indonesian-made game engine in terms of technological independence. They hold a conviction that, by developing the game engine themselves, they will avoid falling under the control of global game industry players, such as the Korean game companies that have come to exercise hegemony over the Indonesian MMORPG market.¹⁶ In fact, showing a bit of a martyr's attitude, the game's developers have promised themselves that, once they satisfactorily develop Angel, they will release the source code of the game engine to the Indonesian public for free, so that the Indonesian programming community can use it.¹⁷ This ideological framing adds to the claim that Nusantara Online is truly made in Indonesia; it is central to this article's analysis of the game as a form of "playable" nationalism.

Within a larger context, the development of Nusantara Online suggests a complex process of everyday national identity formation in the post-Soeharto Indonesian public sphere, especially when it is set against the background of the increasing corporatization and politicization that have shaped the media landscape in the country.¹⁸ The game's nationalistic mission reflects a critical reaction to contemporary Indonesians' heavy consumption of foreign goods — especially in the information and communication technology (ICT) sectors — due to free-market globalization. Several analyses (Ansori 2009; Cahyadi 2012) have drawn on Marx's (1982) analysis of "commodity fetishism" to suggest that recent economic growth has turned many Indonesians into excessive consumers, who no longer purchase goods for their functionality but instead for their abstract value as — for example — markers of class identity. As Ansori (2009, p. 90) notes, "[t]he adaptation of Indonesian economic development to the forces of globalization had an effect on ... providing more access to the global culture of consumerism". Exemplifying "nationalistic programmers" — figures who imagine themselves as having the ability to "program" the progress of the country as a techno-nation-state — the developers of *Nusantara Online* generally embrace new media technologies. They nevertheless worry that the Indonesian people's excessive consumption of foreign ICT products will lead to the crystallization of a consumer mentality, thus uprooting Indonesian nationalistic values. They are anxious about the emergence of a narcissistic tendency among Indonesian digital consumers. To make these outcome less likely, Sangkuriang Internasional and Telegraph Studio have decided to develop what they consider a "genuine" Indonesian game — a game made by Indonesians for Indonesians.

At the same time, through their "gamic" reconstructions of national history, the developers of Nusantara Online attempt to present an alternative form of everyday nationalism, distinct from the official narrative. Their ambition to present a polyvalent meaning of Indonesian history in the form of video games seems to come not only from their dissatisfaction with the historical narrative promoted by the Indonesian state but also with that same state's inattentiveness towards the growing video game industry in Indonesia. Both Fahmi and Junaidy assert that the industry resembles a "wild jungle" (hutan rimba) without clear or serious regulations.²⁰ It seems that, notwithstanding the emergence of video game development as a creative industry in Indonesia, video game developers there still face a stigma, due to the perception that video games are basically a childish and tongue-in-cheek medium of expression.²¹ Through the development of Nusantara Online, Sangkuriang Internasional and Telegraph Studio want to prove that video games can serve as a serious medium for cultural expression, especially in terms of national identity.

Reconstructing History through Video Games

In realizing their ambition to develop a commercial nationalistic MMORPG that simultaneously functions as an educational medium for



FIGURE 2 A collage of sketches for *Nusantara Online* game environments, including a map based on the historic Trowulan site. (Image by author).

Indonesian youth, the developers of *Nusantara Online* consulted with experts in Indonesian history and also undertook field-research trips to historical sites in Indonesia such as the Trowulan archaeological site in Mojokerto, East Java. That site is believed to hold the ruins of the capital of the Majapahit Empire (1293–1500 cE), one of the major kingdoms in the history of the Indonesian archipelago. This meticulous approach to game development translates into a "realistic" modelling of the Nusantara game-world. The developers of *Nusantara Online* have attempted to create a close-to-reality environment in the design of the game. Realistic representation of typically tropical Indonesian plants; architecture modelled according to historical data on the construction of temples, palaces, village huts and other structures; and "real-time" transitions from day to night all add to the game's verisimilitude. The developers' attention to detail

despite their position as a pair of start-up companies suggests their seriousness in providing an immersive setting in which players can experience a realistic representation of the Indonesian archipelago in the past in digital form.

As a MMORPG, *Nusantara Online* is set in pre-nation-state Indonesia, in an archipelago called "Nusantara". In the popular imagination of the Indonesian people, the notion of Nusantara has long been associated with both Indonesia before colonialism and the current territory of the Indonesian state (Vlekke 1943, p. v; Kahin 1952, pp. 37–38; Kusno 2000, pp. 62–63). The term itself derives from a description in an Old Javanese manuscript — the *Nagara Krtagama*, written by Mpu Prapanca in the fourteenth century — which describes the golden age of the Majapahit Empire (Riana 2009, pp. 29–48; Pigeaud 1962, p. xi). Nusantara literally means "other islands" and is commonly understood to refer to the territorial extent of Majapahit's control (Avé 1989, pp. 229–32). The use of Nusantara as the game's domain indicates the developers' idealization of the national territory, closely tied to the ideological foundations of Indonesia as a nation-state.

In addition to Majapahit, the game uses two other kingdoms that once existed in the archipelago, Pajajaran (669-1579 ce) and Sriwijaya (7th–13th century).²² Through exposure to these historical environments, the game's developers hope that players will learn about and interact with historical figures such as Hayam Wuruk, the famous ruler of the Majapahit Empire; his famous prime minister (mahapatih) Gajah Mada; Sri Baduga Maharaja or Prabu Siliwangi, the king of Pajajaran; and Balaputradewa, the ruler of the Sriwijaya Empire. The choice of these three kingdoms reflects the game's idealization of Nusantara as the representation of Indonesia. Fahmi explains that the developers of Nusantara Online decided to use these three kingdoms as the historical settings for the game because each of them epitomized a high point of Indonesian culture during its existence.²³ The developers have treated Majapahit in particular as the focal point of the game's historical narrative.²⁴ In the imagination of these developers — and also of many Indonesians — the territory



FIGURE 3 Screenshot showing King Balaputradewa of Sriwijaya in *Nusantara Online* Version 0.

of the Majapahit Empire served as the precedent for the country's modern boundaries.

The idealization of the three kingdoms, which in turn functions as an idealization of Nusantara/Indonesia, constitutes a unit operation in the game's "playable" nationalism. Within the logic of this unit operation, the player of *Nusantara Online* inhabits an imagined digital topography of the Indonesian archipelago, designed by the game developers to show the archipelago at its cultural pinnacle. This intention may explain the anachronistic coexistence of the three kingdoms in the game world. The Majapahit, Pajajaran, and Sriwijaya kingdoms work together as the units of an ideal realm in the configuration of *Nusantara Online* as both a gamic environment and an ideological space.

Moreover, the unit operation of the idealization of Nusantara in the game realm makes clear the lack of connection between the cutscene of *Nusantara Online* and what one encounters in playing the game. The cutscene depicts "Nusantara" as a once-peaceful place fallen into a state of war as a result of invasions by foreign forces. Yet, once he or she begins to play *Nusantara Online*, a player will notice that there is virtually no correlation between the opening cutscene and the game narratives. Players encounter no foreign colonizers or invaders to be fought off in *Nusantara Online*'s game realm, except perhaps in the form of non-playable merchant characters. Rather, players take part in a series of quests or missions loosely related to the history of the kingdom realm that he or she has chosen. An example would be helping a village in Majapahit to rid itself of *bajing luncat* (bandits that attack people from treetops) or *siluman* (demons). The gameplay narrative then develops, and players collect points according to the number of missions or quests that they complete.

Explanation of the narrative discontinuity between Nusantara Online's cutscene and the game itself lies in understanding the cutscene as a unit operation of "playable" nationalism and disregarding its incongruity with the game's narrative progression. The cutscene's narrative of invasions, as a unit operation, metaphorically indicates the colonial domination that threatens the formation of an ideal Nusantara in the game realm. The operation of this metaphor justifies the chronological confusion relating to the "foreign invasions" depicted in the cutscene. It does not matter that the Dutch and the Tatars did not come to Nusantara/Indonesia at the same time. Their representation in the cutscene only operates as a formulaic archetype of colonialism. In the contemporary Indonesian context, the cutscene functions as a unit operation in relation to the game developers' mission. The act of invasion in the cutscene symbolizes the penetration of foreign cultures that causes concern to Nusantara Online's "nationalistic programmers". It also serves as a call to "reconstruct" the nation (at least in its gamic form) so that it can achieve its ideal form.

The invisibility of the foreign invaders in the actual gameplay of *Nusantara Online* is a crucial element of the game's functioning as

an allegorithm for Indonesian nationalism. This gamic inconsistency highlights the role of "playable" nationalism as a contemporary practice of national identity formation. The absence of invading foreigners and the depiction of an unadulterated "Nusantara" in the game sustain a fantasy of the origin of the Indonesian nation. It is a familiar strategy in the context of anti-colonial and postcolonial discourse, in which nationalism in once-colonized territories demands the creation of a new identity, sometimes an invented one (Loomba 2004, pp. 185–86). The production of a new national identity functions as a challenge to colonialism. It occurs "not only at a political or an intellectual level, but also on an emotional plane (Loomba 2004, p. 186). The absence of foreigners enables Nusantara Online to provide an imaginary (and playable) connection between Nusantara as the historical foundation of Indonesia on the one hand and the contemporary Indonesian archipelago on the other. Each has fixed and unchanging national borders; the history of colonialism in the region has been eclipsed through the imagination of an already unified precolonial territory.



FIGURE 4 Screenshot showing menu options in Nusantara Online Version 0.

Another unit operation that plays a role in the allegorithmic configuration of *Nusantara Online* is the spatial relationship between the game's players and the game world. As a simulation game, *Nusantara Online* offers an action experience for its players from a perspective one step removed from the game's diegetic realm, the kind of experience typical of so called "God games". For example, various menu options allow players to adjust and tweak the action of their avatars in real time. In this mode of playing, the relationship between the game's narrative progression and its underlying algorithm is evident. As Galloway argues, in "God games, ... [i]nstead of experiencing the algorithm as algorithm, one *enacts* the algorithm" (2006, p. 19). Players familiarize themselves with the mechanics of such games' menus so that they can navigate the progression of the game as a form of playable narrative.

In the case of *Nusantara Online*, this God's perspective conceptually transforms players into a certain type of "nationalistic programmer", similar to the *Nusantara Online*'s game developers. In playing *Nusantara Online*, players are not simply playing in the immersive historical setting of Nusantara. They are learning and internalizing the game's algorithm, or the procedural rules of its gameplay. Moreover, once the players figure out the allegorithm of the game as a form of "playable" nationalism, they may contribute to deciding the outcome of this form of digital nationalism. The role of the players in *Nusantara Online* is as important as the role of the game's developers as the "programmers" of "playable" nationalism.

The unit operation that perhaps most clearly highlights the effective collaboration between *Nusantara Online*'s designers and its players as "nationalistic programmers" is the game's genre itself. As a genre, MMORPG emphasizes active players' participation, participation that extends beyond the act of merely playing a game. In many MMORPGs, the "fundamental structures of the game rely on active player populations who participate in everything from testing for product bugs to creating new content after launch" (Taylor 2007, p. 113). This is true of *Nusantara Online*. User input is a necessity in developing the game.²⁵

From the development of Version 0 of the game through the introduction of the latest version, Version 1, the developers of *Nusantara Online* have sought player participation by distributing work-in-progress versions of the game for free to players willing to volunteer as beta testers. The game's developers also utilize Internet fora and social media such as Facebook and Twitter to collect feedback from the game's player community. In early 2011, in fact, the developers of *Nusantara Online* organized weekly meetings with its players at several *warnets* around Bandung and Jakarta.²⁶

While public beta-testing and user feedback sessions are common in game development, and in software development in general, the mode of these practices in the case of Nusantara Online involves a layer of nationalistic sentiment, at least at the level of affect. The promotion of the game as "100% Indonesian" (100 persen Indonesia) figures into the motivation of its players to volunteer in the beta-testing and user feedback processes. Contemporary practices of game development intersect with a desire to express a national identity. By participating as beta-testers and giving user feedback — and by playing the game — the Indonesian players have "become national" (Bociurkiw 2011, p. 21). The population of Nusantara Online has transcended the status of users to become nationalistic "player-producers" (Taylor 2007, p. 119). In theory anyone from any nationality can participate in the beta-testing of and feedback sessions for the game. But, since many elements of the game such as the language used and the game settings are deeply rooted in — or limited only to — the Indonesian context, it is most likely to attract only the Indonesian video game community. This strategy differs from those of other games with nationalistic values such as the Korean game Lineage (NCsoft), which appeals "to Korean values [of] solidarity, affiliation, and family matters" while also attracting the global game community with its hybrid business strategy (Jin 2010, p. 130).

The gamic characteristics of *Nusantara Online* as a MMORPG also play a significant role as a unit operation in the game's "playable" nationalism. Its model of the game world is what one

calls a "persistent world", a virtual world that continues to exist even when the player signs out from the game. And the existence and the evolution of *Nusantara Online*'s persistent world rely on social collaboration among its players and on the growth of its user base. Technically, the more people who collaborate in the game's historical construction of Nusantara, the larger a virtual world it becomes. In addition, the persistent world of *Nusantara Online* is open-ended; users' participation as player-producers also determines the complexity, dynamics and longevity of the game.

Game Engine as a Nationalistic Software

Underneath *Nusantara Online*'s "open-ended" world, nonetheless, lies the programmable Angel game engine. Without Angel there would be no *Nusantara Online* game-world since it provides the physical modelling, networking and much of the basic functionality that make up the open-ended world of the game. Angel is also the unit operation behind the "allegorithmic" representation of the game as the historical reconstruction of Nusantara. It is the tool that establishes the relationship between the game's nationalistic symbolisms and its numerical algorithm. As Bogost argues, "game engines regulate individual videogames' artistic, cultural, and narrative expression" (2006, p. 56). As a game engine, then, Angel quantifies every element of the game — visual, social or narrative — and then represents them numerically so that the gameplay may proceed.

The role of Angel is obvious if seen from the perspective of game development; it is a common feature of video games. In the case of *Nusantara Online*, however, Angel also functions as the fundamental element in the game developers' formulation of "playable" nationalism. Its programmable mechanism gives birth to *Nusantara Online*'s model of an open-ended persistent world. As a "made-in-Indonesia" game engine, it is also an important source of the developers' nationalistic pride in *Nusantara Online*.

Understanding the development of *Nusantara Online* as the development of "playable" nationalism suggests that the game's

particular form of historical reconstruction — which draws on historical knowledge to create realistic historical representations of three important kingdoms — amounts not only to a re-inscription of "glorious" national history but also to an aspiration of a national future. Besides learning about their nation's past, in this model of digital nationalism nationalistic participants — both the developers and the players — build a digital version of the Indonesian archipelago. It relies on these people's social collaboration and participation to continue growing and to remain playable. The emergent form of nationalistic collaboration afforded by a digital medium recalls to a certain extent the model of cooperation, mutual aid, and volunteerism known as gotong royong that has been taken as a defining tradition of Indonesian society (Geertz 1983, pp. 167–234; Koentjaraningrat 1961, pp. 2-3). In the case of Nusantara Online, the dynamics of digital collaboration between the game's developers and its community of players resemble the reciprocal model of labour exchange in gotong royong practices. Both Junaidy and Fahmi implicitly relate the game to the spirit of gotong royong when they talk about the necessity of involving the Indonesian gaming community in the development of Nusantara Online. They mention building a collaborative environment among Indonesian game developers to establish a sustainable "open source" game industry in the country.27

Nonetheless, the resemblance between the "universal" model of digital collaboration and the "vernacular" practice of *gotong royong* by no means suggests the benign potentials of *Nusantara Online*'s "playable" nationalism. It rather discloses the romantic ideal of Indonesian digital nationalism in particular and the promises of the digital in general. A number of scholars (Terranova 2004; Turkle 2012) warn about the exploitative potential of the seemingly egalitarian model of contemporary peer-to-peer digital collaboration, popularly called the "commons" model (Benkler 2006, pp. 59–90; Berry 2008, pp. 79–97). This model, while appearing to empower participants, is actually a form of "free labour" — an important source of value in advanced capitalist societies (Terranova 2004, p. 73).

Likewise, *gotong royong* is hardly a neutral term whose meaning has remained constant throughout Indonesian history. It is, rather,

a constructed discourse. The emergence and popularization of the term as the core tenet of Indonesian society is closely tied to the postcolonial Indonesian state's project of developing a slogan for national unity. As John R. Bowen (1986, p. 546) notes,

[a]lthough the term *gotong royong* is generally perceived by Indonesians to be a long-standing Javanese expression (and this perception is part of its status as a bearer of tradition), it is more likely an Indonesian construction of relatively recent vintage.

Historically, the term only became popular after Indonesian independence in 1945. It has since then been "reworked by the state to become a cultural-ideological instrument for the mobilization of village labor" (Bowen 1986, p. 546).

Closer consideration of the software mechanism, visual representation and narrative construction of Nusantara Online as the unit operations of the game further exposes the limits of its "playable" nationalism. The game's attempt to reconstruct a realistic history of Nusantara in a "gamic" environment neglects the complexity and variation of Indonesian history. Its representation of the three kingdoms erases the convoluted and at many times violent relationships among them. It depicts, for example, the many-layered complexity of relations between the Majapahit and Pajajaran kingdoms in reductive statements. One such case is the game's allusion to the Battle of Bubat — an historic encounter between the royal family of Pajajaran and the forces of Majapahit in 1357 ce (Munoz 2006, p. 213). Instead of attempting to represent the complexity of this battle and the effect of its outcome, the game transforms it into a simple mission of collecting items.²⁸ The game also erases the internal conflicts in the history of each of the three — such as the rebellion of Rangga Lawe in Tuban province against the Majapahit kingdom during the reign of Kertarajasa Jayawardhana in 1295 CE (Munoz 2006, p. 270) — from the mechanics of gameplay. Instead, Nusantara Online merely offers supplementary explanations of these conflicts outside the mechanics of the game.²⁹ The game's mode of bringing historical information to the player in this form, as reference material, serves as the main element in its developers'

project of reconstructing Indonesian history, both outside and inside the game world. The developer inserts this encyclopedic feature into the gameplay by means of non-playable or non-player characters (NPCs).³⁰ All of the historical figures that *Nusantara Online* introduces — both fictional and non-fictional — exist as NPCs. Through their interactions with these NPCs — such as being assigned missions by them — the players are able to learn about these historical figures in an encyclopedic manner.

The decision of the developers of *Nusantara Online* to render historical figures as non-playable characters perhaps relates to their mission to educate Indonesian youth and to their aspirations for the nation's future. Nevertheless, the historical characters' non-playability limits the ability of the players to explore the complex relationships among the three represented kingdoms in particular, and in Indonesian history in general. The decision of the developers to implement such constraints represents a form of control that Taylor calls "low-level regulation" — referring to the hierarchy in software codes (2007, p. 119).

Even more problematic, the contents of the encyclopedic information in Nusantara Online do not reflect a critical approach to history; they only offer a monolithic perspective. For instance, the information about Gajah Mada only emphasizes his role in unifying the Indonesian archipelago under the Majapahit Empire as the symbol of Indonesian nationalism without scrutinizing his action as a form of local imperialism. More broadly, the absence of foreigners from the game and the identities of the historical figures whose roles it stresses suggests the imposition of the ideology of the modern Indonesian nation-state on to the past. The game developers' emphasis on the "glorious" and "safe" aspects of the histories of the three represented kingdoms differs little from the use of these kingdoms — particularly Majapahit — by state authorities.³¹ In this way, Nusantara Online only operates as an alternative medium for dissemination of conservative content. The medium is alternative. but the content is not. In many ways, the game's transposition of the term "Nusantara" and of the historical kingdoms into specific

national frames of reference mimics the formulation and production of the "national geo-bodies" in various Southeast Asian national museums. It enshrines a specific representation of the nation-state while simultaneously creating particular imaginings of the world beyond the nation-state's territory (Thompson 2012, pp. 54–83). It thus defeats the developers' goal of offering multiple interpretations of Indonesian history.

Scrutiny of *Nusantara Online*'s preset templates of avatars' characteristics and abilities as part of its allegorithm further complicates the game's "playable" nationalism. Version 0 of the game, for instance, introduces five types of *ras* (race) in the menu for creating an avatar. They are: *sawo matang* (dark brown), *hitam* (black), *kuning-mongoloid* (yellow/mongoloid), *merah* (red) and *putih-kaukasian* (white/Caucasian). Interestingly, the descriptions of these racial types suggest the superiority of the *putih-kaukasian* (See Table 1). The description of the *putih-kaukasian* race reads, "The best proportioned race in terms of physique and brains. Always prepared for the most difficult situation. A strong and smart human. Known

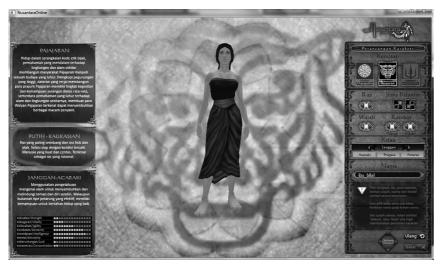


FIGURE 5 Nusantara Online, window for character choice. Notice the description of *Putih-Kaukasian* in the middle-left box.

as a rational race." Even though the player soon finds out that this option of what Lisa Nakamura calls "menu-driven identity" (2002, pp. 101–36) does not affect the gameplay experience of her or his avatar but only its visualization, this racial archetype has become another "anachronistic" characteristic of the game's allegorithm. Indonesians have never associated white skin with their "authentic" features. This logic of racial classification, therefore, does not corroborate with the game's goal of "playable" nationalism.³²

How can one make sense of the "unseemly" racial classifications found in *Nusantara Online*? If a form of "soft" racism, as Galloway calls it (2006, p. 101), then this classification surely does not benefit the developers in their role as the game's "nationalistic programmers". Neither does it jibe with the logic of satisfying the game's players, who are Indonesians. One way to understand this issue is to return to the interwoven relationship between universal views of digital collaboration and local nationalistic values such as that of *gotong royong*. While seemingly an international practice, the participatory

TABLE 1 Classification of Races in *Nusantara Online*, Version 0

Types of race	Abilities
Black (Hitam)	High physical abilitiesAbove average stamina
Dark brown (Sawo matang)	Above average agilityHigh level of vigilanceMaster of maritime skills
Red (Merah)	 High understanding of elements of nature High wisdom
Yellow-Mongoloid (Kuning-mongoloid)	SteadfastAccomplished in seizing opportunitiesSharp analytical skills
White-Caucasian (Putih-kaukasian)	 The best proportioned race in terms of physique and intelligence Always prepared for the most difficult situation Strong and smart human Known as a rational race

model of *Nusantara Online*'s development — beta-testing, user feedback and more — only offers what Adrian Mackenzie calls "fictitious universality" (2008, p. 156) because of its underlying inability to include "the Other" in software practice. An unequal relationship between people in technically advanced regions and those in less-developed contexts characterizes this model of universality. In the case of *Nusantara Online*, the superior characteristics of the white avatars perhaps represent a desire for equal status in digital collaboration. They may also serve as a symbol of the universality of this collaboration in much the same way as what L. Ayu Saraswati calls "cosmopolitan whiteness" (2010, pp. 15–41) operating in the realm of transnational identity.

In addition, the game's perplexing racial classification, as well as its "flat" and encyclopedic historical representation, may reflect the belief of the developers of the game in the ability of the game engine — or its software, to be exact — to construct a form of "playable" nationalism as an alternative to the state's mainstream model. "All elements in the game are put in quantitative, dynamic relationships with each other" (Galloway 2006, p. 100). The "nationalistic programmers" of Nusantara Online must thus follow the logic of information control in the game's software: capturing images, transcoding the history of the nation into specific mathematical models, quantifying biological profiles — such as sex and skin colour — as well as behavioural profiles, and attributing every element of the game to specific numerical variables. It is necessary for the developers of Nusantara Online to assign these puzzling racial classifications because, at the algorithmic level, this classification is actually a list of variables. In order to create balanced gameplay they have to allot an algorithmic value to each of the skin colours. The transposition of a complex aspect of social life (in this case, race) into "an inflexible, reductive algorithm" has to happen, because to create stable gameplay, "game designers require an array of variables that can be tweaked and tuned across the various environments and characters (Galloway 2006, p. 98). The game developers' submission to the codified logic of its software and its universal practice, therefore, has forcefully regulated its form of "playable" nationalism.

Coda

As at the time of writing, the developers of Nusantara Online have decided to restore Version 1 of their game to the status of a closedbeta project after publicly soliciting user feedback. The reason for the decision, according to Fahmi, is that the game is in a critical developmental phase in which its developers need to focus on upgrading Angel, the game engine.³³ He also notes that the game's developers are trying to improve the content of the gameplay on the basis of their current historical research. The upcoming gameplay, Fahmi claims, will add more complexity to the reconstruction of Indonesian history.³⁴ There is no definitive statement, however, on when the game will be released to the public again. Setting aside the game's unprofitability, the temporary withdrawal of Nusantara Online reflects the incompatible blending of nationalistic and technological imaginings in the video game as a democratic playable environment. Nevertheless, it does not appear that the developers of Nusantara Online will give up on experimenting with their model of "playable" nationalism. They retain a commitment to completing development of the game.³⁵ As similar nationalistic practices, such as the BlankOn project and Indonesia Optimis, have also emerged almost simultaneously in different digital formats, it also seems that the game will continue to attract active participants.³⁶ In the end, the development of Nusantara Online demonstrates the continued and unstable entanglement between national identity formations and technological visions.

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NOTES

- 1. A cutscene is a movie-like sequence in a video game that usually functions as the introduction to the game's narrative plot or as an intermission in the gameplay. It may introduce and develop characters.
- 2. At the time of writing, the developers are working on the latest version of the game as a closed beta version. In this article I discuss primarily the versions of the game that have been released to the public.
- 3. Seven characters in the latest version of the game.
- 4. One of Castronova's research findings was the fact that the per capita gross national product of Norrath, the fantasy world in a popular MMORPG game of the late 1990s, Everquest (Sony), at the time of his research was four times higher than China's or India's (Castronova 2005, p. 19). Meanwhile, by analysing the erosion of work and play separation in video game culture, Dibbell argues for the emergence of a new form of capitalism, what he calls "ludo-capitalism" (Dibbell 2006).
- 5. Names in parentheses following the names of games are the names of their publishers. In many cases the developer and the publisher of a game are the same studio or company, but in some cases they are different.
- 6. Most often the *warnet* also operate as PC game centres. For an analysis of *warnet* attachment to the historic cultural context of Indonesian life, see Lim 2003; Sen and Hill 2007; Hill and Sen 2005.
- 7. The video game industry is not the only entertainment industry closely related to the U.S. military. As Lenoir argues, the U.S. film industry also has a close relationship with the military, symbolized by the creation of the joint military/film industry-funded Institute for Creative Technologies (2000, p. 334).
- 8. One particular case is *Defense of the Ancients* (popularly known as DoTA), a user-created mod from Blizzard's *Warcraft III*, which has become so popular among gamers internationally that people started to refer to it as a standalone game instead of a mod.
- 9. Beside their collaboration with Sangkuriang Internasional, another Telegraph Studio project is Wacana Nusantara. Wacana Nusantara is a digital database that archives various resources on Indonesian culture and heritage. See http://wacananusantara.org/ (accessed on February 13, 2013).
- 10. Chaerul Fahmi, personal communication, 24 April 2013.
- 11. Ibid.
- 12. Ibid.
- 13. As a matter of fact, both Sangkuriang Internasional and Telegraph Studio have also developed games for mobile devices, but they have not chosen to develop *Nusantara Online* for that platform.
- 14. Simply put, a game engine is the software that provides the technical infrastructure for a video game.

15. Chaerul Fahmi, personal communication, 24 April 2013.

- 16. Ibid.
- 17. Chaerul Fahmi and Victor Junaidy, personal communication, 22 May 2013. Source code is the human-readable code that makes up a computer program. The practice of releasing source code is common in open-source culture.
- 18. According to a recent report, the media industry in Indonesia has been moving towards oligopoly and hegemony, with the greatest number of acquisitions and mergers among media groups to date in 2011. Moreover, the report also finds that most of the remaining media groups in the country belong to prominent businessmen and/or politicians who use their media corporations to advance their political interests. See Nugroho, Putri, and Laksmi 2012.
- Chaerul Fahmi and Victor Junaidy, personal communication, 22 May 2013.
- 20. Ibid.
- 21. Chaerul Fahmi, personal communication, 24 April 2013.
- 22. In Version 1 of the game, the developers plan to replace Pajajaran with Tarumanegara (359–669 CE), an early kingdom in the western part of Java; Chaerul Fahmi, personal communication, 24 April 2013.
- 23. Chaerul Fahmi, personal communication, 24 April 2013.
- 24. The closed beta version of *Nusantara Online* (Version 1) had only Majapahit as a setting at the time of writing.
- 25. Victor Junaidy, personal communication, 24 March 2012.
- 26. Ibid.
- 27. Victor Junaidy, personal communication, 18 March 2012 and Chaerul Fahmi, personal communication, 24 April 2013.
- 28. The Battle of Bubat had long-term consequences for the people in Java, which endure to the present. That people living in West Java prefer to call themselves Sundanese instead of Javanese may be traced to this battle. See Munoz 2006, p. 279.
- 29. See the "Tokoh Nusantara" section of the game's website https://web.archive.org/web/20130910215631/http://nusol.gameseru.co.id/index.php/histori/tokoh-nusantara/tokoh-pajajaran.html (accessed 13 February 2013).
- NPCs are pre-scripted machine-controlled characters with which the player avatars interacts.
- 31. One example is the allusion to Majapahit in the discourse on satellites during the New Order. For a critical exploration of this topic, see Barker 2005 (pp. 703–27).
- 32. There are also gender aspects to the game. Both the developers and

- the players of *Nusantara Online* are predominantly male; depictions of characters in the game do betray some apparent gender bias. Elaboration of this point is beyond the scope of this article.
- 33. Chaerul Fahmi, personal communication, 24 April 2013.
- 34. Ibid.
- 35. Ibid.
- 36. BlankOn project is a nationalistic free/open source software (FOSS) project developed by the Yayasan Penggerak Linux Indonesia (Indonesian Linux Motivator Foundation; YPLI). Indonesia Optimis is a collective behind the annual "digital flag-hoisting" (*upacara bendera digital*) ceremony, an annual digital commemoration of Indonesian Independence. For more on BlankOn, visit http://www.blankonlinux.or.id/. For Indonesia Optimis and its digital flag-hoisting ceremony, visit https://twitter.com/id optimis>.

REFERENCES

- Anderson, Benedict R. O'G. "Western Nationalism and Eastern Nationalism: Is there a Difference that Matters?" *New Left Review* 9 (2001): 31–42.
- ——. Imagined Communities: Reflections on the Origin and Spread of Nationalism, rev. ed. London: Verso Books, 2006.
- Ansori, Mohammad Hasan. "Consumerism and the Emergence of a New Middle Class in Globalizing Indonesia". *Explorations* 9 (2009): 87–97.
- Avé, Jan B. "'Indonesia', 'Insulinde' and 'Nusantara': Dotting the I's and Crossing the T". *Bijdragen tot de Taal-, Land- en Volkenkunde*, Deel 145, no. 2 (1989): 220–34.
- Barker, Joshua. "Engineers and Political Dreams: Indonesia in the Satellite Age". *Current Anthropology* 46, no. 5 (2005): 703–27.
- Benkler, Yochai. *The Wealth of Networks: How Social Production Transforms Markets and Freedom.* New Haven, CT: Yale University Press, 2006.
- Berry, David M. Copy, Rip, Burn: The Politics of Copyleft and Open Source. London: Pluto, 2008.
- Billig, Michael. Banal Nationalism. Thousand Oaks, CA: Sage, 1995.
- BlankOn. Yayasan Penggerak Linux Indonesia, 2005 http://www.blankonlinux.or.id (accessed 31 March 2013).
- Bociurkiw, Marusya. Feeling Canadian: Television, Nationalism, and Affect. Waterloo, ON: Wilfrid Laurier University Press, 2011.
- Boellstorff, Tom. Coming of Age in Second Life: An Anthropologist Explores the Virtually Human. Princeton, NJ: Princeton University Press, 2008.
- Bogost, Ian. *Unit Operations: An Approach to Videogame Criticism*. Cambridge, MA: MIT Press, 2006.

Bowen, John R. "On the Political Construction of Tradition: *Gotong Royong* in Indonesia". *Journal of Asian Studies* 45, no. 3 (1986): 545–61.

- Cahyadi, Firdaus. "Indepth Report: Wajah Bopeng Bisnis ICT di Indonesia" [Indepth report: Blemished faces of ICT business in Indonesia]. *SatuDunia*, 2 February 2012 http://www.satudunia.net/content/indepth-report-wajah-bopeng-bisnis-ict-di-indonesia (accessed 4 January 2013).
- Castronova, Edward. Synthetic Worlds: The Business and Culture of Online Games. Chicago, IL: The University of Chicago Press, 2005.
- Chopra, Rohit. "The Virtual State of the Nation: Online Hindu Nationalism in Global Capitalist Modernity". In *South Asian Technospaces*, edited by Radhika Gajjala and Venkataramana Gajjala. Bern, Switzerland: Peter Lang, 2008.
- Crogan, Patrick. *Gameplay Mode: War, Simulation and Technoculture.*Minneapolis: University of Minnesota Press, 2011.
- Dibbell, Julian. *Play Money: Or, How I Quit My Day Job and Made Millions Trading Virtual Loot*. New York: Basic Books, 2006.
- Galloway, Alexander. *Gaming: Essays on Algorithmic Culture.* Minneapolis: University of Minnesota Press, 2006.
- Gee, James Paul. "Learning and Games". In *The Ecology of Games: Connecting Youth, Games, and Learning*, edited by Katie Salen. Cambridge, MA: MIT Press, 2008.
- Geertz, Clifford. *Local Knowledge: Further Essays in Interpretive Anthropology*. New York: Basic Books, 1983.
- Hill, David T. and Krishna Sen. *The Internet in Indonesia's New Democracy*. London: Routledge, 2005.
- Hjorth, Larissa and Dean Chan, eds. *Gaming Cultures and Place in Asia-Pacific*. London: Routledge, 2009.
- Indonesia Optimis (@id_optimis) https://twitter.com/id_optimis (accessed 31 March 2013).
- Jin, Dal Yong. *Korea's Online Gaming Empire*. Cambridge, MA: MIT Press, 2010.
- Kahin, George McTuman. *Nationalism and Revolution in Indonesia*. Ithaca, NY: Cornell University Press, 1952.
- Kitley, Philip. *Television, Nation, and Culture in Indonesia*. Athens: Ohio University Center for International Studies, 2000.
- Koentjaraningrat. Some Social-anthropological Observations on Gotong Rojong Practices in Two Villages of Central Java, translated by Claire Holt. Ithaca, NY: Cornell University, 1961.
- Krismantari, Ika. "Building (Digital) Nationalism". *Jakarta Post*, 13 December 2010 http://www.thejakartapost.com/news/2010/12/13/building-digital-nationalism.html (accessed 27 February 2012).

- Kusno, Abidin. Behind the Postcolonial: Architecture, Urban Space and Political Cultures in Indonesia. London: Routledge, 2000.
- Lenoir, Timothy. "All but War is Simulation: The Military-Entertainment Complex". *Configurations*, no. 8 (2000): 289–335.
- Lim, Merlyna. "The Internet, Social Networks, and Reform in Indonesia". In *Contesting Media Power: Alternative Media in a Networked World*, edited by Nick Couldry and James Curran. Lanham, MD: Rowman & Littlefield, 2003.
- Loomba, Ania. Colonialism/Postcolonialism. London: Routledge, 2004.
- Mackenzie, Adrian. "Internationalization". In *Software Studies: A Lexicon*, edited by Matthew Fuller. Cambridge, MA: MIT Press, 2008.
- Malaby, Thomas. *Making Virtual Worlds: Linden Lab and Second Life*. Ithaca, NY: Cornell University Press, 2009.
- Marx, Karl. *Das Kapital: Kritik der Politischen Oekonomie*. London: Penguin Books, 1982.
- Mrázek, Rudolf. *Engineers of Happy Land: Technology and Nationalism in a Colony*. Princeton, NJ: Princeton University Press, 2002.
- Munoz, Paul Michel. *Early Kingdoms of the Indonesian Archipelago and the Malay Peninsula*. Singapore: Editions Didier Millet, 2006.
- Nakamura, Lisa. *Cybertypes: Race, Ethnicity, and Identity on the Internet.* London: Routledge, 2002.
- Nardi, Bonnie A. My Life as a Night Elf Priest: An Anthropological Account of World of Warcraft. Ann Arbor: University of Michigan Press, 2010.
- Nitsche, Michael. Video Game Spaces: Image, Play, and Structure in 3D Game Worlds. Cambridge, MA: MIT Press, 2008.
- Nugroho, Yanuar, Dinita Andriani Putri and Shita Laksmi. "Mapping the Landscape of the Media Industry in Contemporary Indonesia". 2012. Report Series. *Engaging Media, Empowering Society: Assessing media policy and governance in Indonesia through the lens of citizens' rights.* Research collaboration of Centre for Innovation Policy and Governance and HIVOS Regional Office Southeast Asia, funded by Ford Foundation. Jakarta: CIPG and HIVOS.
- Nye, Joseph Samuel Jr. *Soft Power: The Means to Success in World Politics*. New York: Public Affairs, 2004.
- Pigeaud, Theodore Gauthier. Th. Java in the 14th Century: A Study in Cultural History. The Nagara-Kertagama by Rakawi Prapañca of Majapahit, 1365 AD, vol. 4. The Hague: Martinus Nijhoff, 1962.
- Riana, I. Ketut. *Kakawin Desa Warnnana Uthawi Nagara Krtagama: Masa Keemasan Majapahit* [Poetic songs from Javanese villages or Nagara Krtagama: The Golden Age of Majapahit]. Jakarta: Penerbit Buku Kompas, 2009.

Saraswati, L. Ayu. "Cosmopolitan Whiteness: The Effects and Affects of Skin-Whitening Advertisements in a Transnational Women's Magazine in Indonesia". *Meridians: feminism, race, transnationalism* 10, no. 2 (2010): 15–41.

- Sen, Krishna and David T. Hill. *Media, Culture, and Politics in Indonesia*. Jakarta: Equinox, 2007.
- Strassler, Karen. Refracted Visions: Popular Photography and National Modernity in Java. Durham, NC: Duke University Press, 2010.
- Taylor, T.L. "Pushing the Borders: Players Participation and Game Culture". In *Structures of Participation in Digital Culture*, edited by Joe Karaganis. New York: Social Science Research Council, 2007.
- Terranova, Tiziana. *Network Culture: Politics for the Information Age*. London: Pluto, 2004.
- Thompson, Eric C. "The World beyond the Nation in Southeast Asian Museums". *SOJOURN: Journal of Social Issues in Southeast Asia* 27, no. 1 (2012): 54–83.
- *Tokoh Nusantara* [Nusantara Characters]. Nusantara Online https://web.archive.org/web/20130910215631/http://nusol.gameseru.co.id/index.php/histori/tokoh-nusantara/tokoh-pajajaran.html (accessed 18 December 2013).
- Turkle, Sherry. Alone Together: Why We Expect More from Technology and Less from Each Other. New York: Basic Books, 2012.
- Vlekke, Bernard Hubertus Maria. *Nusantara: A History of the East Indian Archipelago*. Cambridge, MA: Harvard University Press, 1943.
- Wacana Nusantara. 2013 http://wacananusantara.org/ (accessed 29 March 2013).
- Wark, McKenzie. *Gamer Theory*. Cambridge, MA: Harvard University Press, 2007.
- Wee, Willis. "Indonesia, the Rising Tech Start-Up Nation". *Tech in Asia*, 4 February 2011 http://www.techinasia.com/indonesia-tech-start-up-nation/ (accessed 25 February 2013).