REPLAYING THE DIGITAL DIVIDE

VIDEO GAMES IN INDIA

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THE NORTH-SOUTH AND THE SOUTH-SOUTH IN INDIAN VIDEO GAMES: OPENING QUESTIONS

As the armies of the wintry and impoverished north move towards the rich and powerful south in the episodes of *The Game of Thrones,* the north-south divide has currently "arrived" on television screens the world over. The reverse of the global north vs. south in academic discussions, *Game of Thrones* nevertheless perpetuates the north-south binary that academia has comparatively recently posited to describe the economically prosperous and developed countries in the global north vis-a-vis the poorer and less developed ones in the global south (earlier called the "developing countries" or the "third world: variously). While the geographical north-south binary does not fit as comfortably as in fictional worlds (for example, countries such as Singapore, Australia, New Zealand and China are major outliers), the term global south is used here as an accepted shorthand within which the digital gaming scenario in India is assessed in comparison to the gaming industry and culture worldwide as well as in connection with other countries that are considered part of the so-called global south. Phillip Penix-Tadsen,[1] in his introductory chapter, acknowledges the limitations and the prickly complexity of the term (following Mehita Iqani) and invokes Walter Mignolo's definition, whereby the term signifies those regions that faced and are still facing the consequences of being colonized, so as to provide a coherent framework to understanding the global south.

Clearly linked with Mignolo's position and often connected with the north-south divide is the "Digital Divide," or the division between those countries that have access to advanced knowledge-systems in the digital world and those that do not. As far as India is concerned, how the digital divide affects India and links to its positioning within the global south is a moot question. Then again, following Iqani's argument that the global south is more complex even in the way it understands itself, one should neither forget claims of an internal north-south cultural divide in India, nor ignore the uneven distribution of access to digital knowledge within the vastly discrepant socio-economic tiers in the country. Also intriguing is whether the purported south-south collaboration that is supposed to occur within the countries of the global south is relevant to video games in India. Earlier publications and industry reports have drawn attention to the promise and the challenges of India's video game industry; however, set against the backdrop of the global south and the recent focus on closing the digital divide, in the rhetoric employed by both the state and the industries, this appraisal aims to highlight deeper mechanisms that influence views on India's video game industry.

DIGITAL INDIA AND VIDEO GAMES

In what is a promising statistic for the proponents of the digital, the number of Internet users in India has grown phenomenally in recent years and this is likely a continuing trend—*The Economic Times* reports a

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1. See Phillip Penix-Tadsen, "Introduction: Video Games and the Global South," in this volume.

jump of 15% between October 2015 and a year later;[2] the global statistics portal Statista sees the number of Internet users growing to 511.89 million in 2022 from 331.77 million at present.[3] Considering that India is a rather late entrant to public Internet—VSNL (Videsh Sanchar Nigam Limited) introduced the first public dial-up service in 1995—this is a significant statistic. India's large and growing mobile phone penetration is one of the factors considered responsible for this spike in numbers. The Indian government celebrates this as a closing of the north-south divide and uses the digital as its watchword in most of its recent policymaking. In fact, the Digital India initiative of the Ministry of Electronics and Information Technology makes it clear that the "vision of Digital India programme is to transform India into a digitally empowered society and knowledge economy," and this echoes the current Prime Minister's exhortation to "take the nation forward—economically and digitally."[4] The connection of the digital with the economy is well evident in such manifestos and there is a further link with both knowledge and empowerment. The previous government also saw the importance of stressing the rise of the global south and of south-south collaborations and the former UN under-secretary general and current parliamentarian, Shashi Tharoor states that one of the aims of the global vision for India was "the management of outer space and cyberspace in the common interests of humanity."[5] As India moves rapidly towards digital governance by bringing all its residents' biometric information, financial and welfare data under the panopticon of its digital databases, the awareness of the digital spreads to its remotest corners and the "closing" of the digital divide is being celebrated all the more. Speaking from a different political standpoint, the Nobel-laureate economist Amartya Sen also shares the promise of Information Technology (IT) as having "inspired Indian industrialists to face the world economy as a potentially big participant, not a tiny bit player."[6] Sen also sees in the IT industry benefits in education and gender-equality. As commentator Dinesh Sharma sees it, it is the digital that is perceived as having caused a sea-change in global perceptions of India: "from a meager $30 million of exports in 1981 to $100 billion in 2013, the Indian IT industry's remarkable success story has made the country one of the leading destinations for software and outsourced services. The success of this one industry has given rise to the notion of Brand India or India Inc. among potential investors and international financial institutions."[7]

As Arif Dirlik points out, "[w]ith the so-called globalization of the 1990s, the geographies of development have been reconfigured, calling into question not only the earlier Three Worlds idea, but the viability of the North/South distinction."[8] Thomas Friedman, proposing a "flattening of the globe" or the playing-field of global economy being levelled, claimed to find inspiration for his theory in the software hubs of Bangalore. Friedman was writing after the "outsourcing" boom in India. Speaking to Rajesh Rao, CEO of the digital games company Dhruva Interactive, Friedman saw huge potential in the then almost non-existent video games industry in India in harnessing the ambitions of globalization:

> Well I'll give you an example of a company—you've never heard of it—Dhruva. Dhruva is a little game company in Bangalore, founded by a guy named Rajesh Rao, a young man who is really into games. You know the gaming business today is bigger than Hollywood. The Xboxes, all those things—more of those games are sold and downloaded off the internet than movies! So this is big business. Well, Rajesh, he wanted to get into this business. And he thought India had a lot of unique skills because there are a lot of sons and daughters of Indian Hindu

2. Surabhi Agarwal, "Mobile Internet: Internet Users to Touch 420 Million by June 2017: IAMAI Report," *The Economic Times*, 5 February 2017, http://economictimes.indiatimes.com/tech/internet/420-million-to-access-internet-on-mobile-in-india-by-june-iamai/articleshow/58475622.cms.

3. "India: Number of Internet Users 2022 | Statistic," *Statista*, 2017, https://www.statista.com/statistics/255146/number-of-internet-users-in-india/.

4. Ministry of Electronics and Information Technology Government of India, "Vision and Vision Areas | Digital India Programme," *Digital India*, 8 November 2017, http://www.digitalindia.gov.in/content/vision-and-vision-areas.

5. Shashi Tharoor, "From Aid-Taker to Donor, India Is Now Global Rule-Maker: Tharoor," *The Quint*, 19 October 2016, https://www.thequint.com/opinion/2016/10/19/being-aid-donor-establishes-india-as-the-globes-fulcrum-tharoor-g-20-president-obama-africa-india-summit.

6. Amartya Sen, "What Can IT Industry Do For India?," *Outlook India*, 16 February 2017, https://www.outlookindia.com/website/story/what-can-it-industry-do-for-india/233893.

7. Dinesh C. Sharma, *The Outsourcer: The Story of India's IT Revolution*, Revised ed. (MIT Press, 2015), 2.

8. Arif Dirlik, "Global South: Predicament and Promise," *The Global South* 1.1 (2007): 12-23.

temple artists, where drawing and painting have been elevated to a high art, who are very adept at transferring those skills to computer-assisted design to draw up characters. And he thought, "Whoa! If I could use all this technology to connect these Indian artists to the game industry, I could be part of this game! So what did he do? He started a company! They bought some PCs, got a fiber-optic Internet connection—the pipes and the PCs. And then they used the software that is now available to offer their services to draw characters for American or European game companies. So they downloaded from Google all this Wild West imagery. They used email, and all these new software for computer-aided design, and they developed a whole game which they marketed over the internet, which so attracted American companies that some of the biggest game companies in American now are outsourcing characters to little Dhruva on a backstreet in Bangalore. That's a world gone tiny.[9]

This is Friedman's classic example for Globalization 3.0, a concept for which he is popular the world over. Whereas other advocates of Digital India failed to notice them, video games figured importantly in Friedman's experience of the changing landscape of Indian technology. Rao himself is now President of the NASSCOM Gaming forum, which is affiliated to National Association of Software Services and Companies (NASSCOM), itself one of the primary influences on the IT policy-making in India. NASSCOM brings out annual reports about the gaming industry in India and in its recent report on mobile gaming in India it forecast "stellar growth" amounting to $1.1 billion in 2020.[10] Similar promises are to be seen in the reports created by KPMG and Price Waterhouse Cooper in recent years. The FICCI-KPMG Indian Media and Entertainment Industry Report 2014 predicts a growth of 22% in CAGR between 2013 to 2018 and amounting to around INR 6.9 billion in 2018 for the entire PC and TV gaming market.[11] The quantitative predictions of huge potential success are backed up qualitatively by leading game development figures such as Ernest Adams. Adams states that "India has the talent, the resources, and the attitudes required to become a major player in this industry. All [they are] lacking is experience, and that will come with training and time."[12] In a blog post written after visiting the country, he calls India a "sleeping giant" in the video game industry. Video games, just like other spheres of IT in India, seem to be poised towards equalizing the north-south imbalance and the digital divide.

INDIAN VIDEO GAMES: THE JOURNEY TOWARDS THE PROMISE

Any discussion of video games in India must also point out that although India made some progress in information technology immediately after independence, in the late 1970s with the expulsion of IBM (and Coca Cola, incidentally) by the government, the country was largely unfamiliar with personal computing until the late 1980s and even more so during the liberalization of the 1990s. The Nintendo boom passed India by and barring a few scattered arcade machines and smuggled or imported devices that were beyond the reach of even the middle classes, video games were not well known in the country. Consoles are still not as popular (and the reasons for this will be addressed in depth subsequently) but in the early days of gaming, Amiga, Nintendo Gameboy or even personal computers used for gaming such as Amstrad were almost unknown. There is little literature about Information and Computer Technology (ICT) teaching in the early 1990s and the author must, therefore, rely on memory—even in a comparatively elite English-medium school, computer classes were a novelty and many class-periods were spent in letting the children play *Dig Dug* (Atarisoft, 1983) on BBC Micro Computers or IBM PCs. In the late 1990s, computer magazines such as *Digit* (published by Jasubhai Media) would provide demo or shareware versions of PC games and the cybercafes and internet parlors that mushroomed across the cities would also let people play video games for a small hourly fee. In a survey aimed at

9. Thomas Friedman, "Globalization 3.0 Has Shrunk the World to Size Tiny," *YaleGlobal Online*, 4 July 2004, http://yaleglobal.yale.edu/content/globalization-30-has-shrunk-world-size-tiny.

10. NASSCOM, "Digitizing India: NASSCOM Annual Report 2016-17," *NASSCOM,* 2017, http://www.nasscom.in/sites/default/files/NASSCOM_Annual_Report_2016-17.pdf.

11. KPMG, "The Stage Is Set: FICCI-KPMG Indian Media and Entertainment Industry Report 2014," *KPMG,* 2014, http://ficci.in/spdocument/20372/FICCI-Frames-2014-KPMG-Report-Summary.pdf.

12. Ernest Adams, "The Promise of India," *The Designer's Notebook*, 7 November 2009, http://www.designersnotebook.com/Lectures/India/india.htm.

analyzing the experience of Indian game developers vis-à-vis players in India, conducted by Padmini Ray Murray and Souvik Mukherjee in 2014, a respondent comments: "Dad got home a 386 [Intel i386 32-bit], and I first laid eyes on *Prince of Persia* and *Dave*. In final year of school, made a game project. While I was studying engineering, I joined a games dev startup. Never looked back."[13] Another respondent reveals that his first console was a Nintendo but that it had been brought by his father from a trip to Thailand. This respondent would have been part of a select few as not many people would have been able to afford the "imported" tag electronics goods. As Penix-Tadsen says in the introduction, the gray market is another popular source of such technology in the global south; in India, however, despite the flood of video-cassette recorders and Walkman personal stereos, video game consoles did not make a significant appearance in Indian drawing rooms. Indeed many households were still using black-and-white television sets well into the mid-nineties. Not surprisingly, the entrance of Indians to game development also came comparatively late. As another respondent comments, "First exposure to video games was through the old coin-operated arcade machines in the 80s, True love though happened in 1995 when I chanced upon Doom, and I was hooked! Stumbled into video game design in 1997 (I was probably one of the [few?] game designers in India)."[14] The first PC game released in India is either *Bhagat Singh* (Mitashi, 1999), which is about an Indian freedom fighter who tries to assassinate the British viceroy, or *Yoddha*, which is about the Kargil war fought with Pakistan. Both of the games were released in 1999 and have heavily nationalistic content that is influenced by the trending movies in Bollywood. *Bhagat Singh* is also postcolonial in its protest against the colonial rule of India (one might risk calling it one of the first "postcolonial video games"). Neither game was popular among players although *Yoddha* was noted for its soundtrack. There haven't been any globally recognized Indian PC-game bestsellers so far and the industry is a far cry from Bollywood. Piggybacking on Bollywood films continued in games such *Dhoom* and *Ghajini,* both of which were released after the eponymous movies. Megastar Shahrukh Khan starred in a video game-themed movie, *Ra-One* and a game based on the film neither of which had any lasting impact.

Recent Indian games have moved beyond Bollywood and *Unrest* (Pyrodactyl Games, 2014), *Bird of Light* (Zen Labs, 2016) and *Switch—or die trying* (Threye Interactive 2017) are prominent among the few PC titles from India that can be found on the online distribution platform Steam (a handful more have been greenlit on that platform). Out of these, *Unrest* is set in a fictional town in ancient India and is about negotiating dialogue choices to solve some very complex moral conflicts. A GameSpot review has mixed feelings about the game but lauds its unconventional morality structure: "though flawed, Unrest's system of cause and effect is a refreshing change from traditional conversation mechanics and deserves appreciation. In a sea of clearly defined morality systems, Unrest proves that sometimes the best waters consist of infinite shades of gray."[15] Arvind Raja Yadav, the designer, says that he wanted the game to dispel the notion that India was all about Bollywood and Cricket and in that he has largely succeeded. Other notable recent titles from Indian developers are *Hanuman: Boy Warrior* (SCEE, 2009) and *Street Cricket* (SCEE, 2011) both of which were released for PlayStation consoles. *Hanuman: Boy Warrior* is based on the adventures of the monkey-god, Hanuman, from the popular Hindu epic *The Ramayana. Street Cricket,* as the name suggests, is the digital version of the mostly commonly played game for the man-in-the-street.

Despite their popular appeal, both *Hanuman* and *Street Cricket* struggled in the market mainly because console games are still not as popular in India due to the heavy import duties and costs. In fact, the

13. P. Ray Murray and S. Mukherjee, "From the Outside Looking In: Creating a Serious 'Art Game' in India—A Case Study," Paper presented at the 5th International Conference on Games and Virtual Worlds for Serious Applications (VS-GAMES), 2013, 1-3.
14. Ibid.
15. Cameron Woolsey, "Unrest Review," *GameSpot, 22* July 2014, https://www.gamespot.com/reviews/unrest-review/1900-6415822/.

Nintendo Wii has not been released in India although the latest versions of PlayStation and Xbox are now available. The low-cost console Zeebo, which was intended for release in India, did not finally launch in the country despite doing so in other global south markets such as Brazil and Mexico. Mobile devices represent the most popular gaming platform by far, and developers all over the country have invested much in Android and, to a lesser extent, iOS titles. In 2011, Rolocule won the People's Choice Award at the 8th IMGA awards ceremony held in the Mobile World Congress 2012 in Barcelona with its *Flick Tennis* (Rolocule, 2012) and developers such as Shailesh Prabhu of Yellow Monkey Studio have won international acclaim with games such as *Huebrix* (Yellow Monkey Studios, 2013) and *Socioball* (Yellow Monkey Studios, 2015)*.* NASSCOM's annual Game Development Conference is one of the biggest such events in the region and is the venue for launching new titles.

Much of India's recent game development is being done by smaller indie studios, and the availability of the Unity game design engine and other free development software has been a big advantage. While many developers are based in metropolises such as Bangalore, Mumbai and New Delhi, there are a few from remote locations. Indie games have seen a steady growth in recent times and Prabhu says that "they are small but very dynamic groups with very interesting developers from all aspects of game development."[16] Among other indie games of note are *Asura* (Ogre Head Studios, 2014) and the upcoming *Raji* (Nodding Heads, in development) *,* both of which contain elements from Indian mythology. India has also seen an entry to serious games with *Missing* (Flying Robot Studios, 2016), a game addressing the horrors of child-trafficking and prostitution. Satyajit Chakraborty and Leena Kejriwal visited red-light areas and conducted interviews in their research for the game. *Missing* is also available in Bengali and the developers aim to have it in other Indian languages too. Besides *Missing*, there is a growing number of games in serious games genre: Studio Oleomingus's *Somewhere* (Studio Oleomingus, in-development) is about subalternity and voicelessness, drawing from postcolonialism as well as other philosophical standpoints and the forthcoming *Antariksh Samachar* (Indian Sandbox Games Lab, in-development) is based on the life of the mathematician Sreenivasa Ramanujan and is also an adaptation of an eponymous opera by *Bharatnatyam* dancer, Jayalakshmi Eshwar. All of these titles have been acclaimed in both national and international exhibitions and festivals.

Nevertheless, the promise is only part of the scenario. As a respondent from survey conveys, it is not all such a smooth ride: "[d]esign is extremely weak. Indies are not focussed enough. People are not efficient, a project that should ideally take 6 months goes on forever. No real support from the government. The varies bodies are not really doing a lot. Indies and investors don't really look eye to eye. Too much idealism, it sounds like a good thing but trust me when you have a crazy number of things against you ….."[17] Although just a two-decade old industry, game development has still not picked up as much as one would expect given the larger Digital India initiatives and the country's recent IT boom. Asking the players, one gets a different picture. Until recently, the prices of games were prohibitively high and piracy was a big problem. Aniket Majumdar, a regular contributor to the *Haogamers* blog, laments the general lack of awareness among the populace and also the reasons behind piracy:

> If you are a gamer in India, you would be used to glares as well as giggles. Those are pretty much the only two reactions you are likely to receive when you tell someone that you love video games, because it is widely believed by the majority that gaming is either a massive waste of time preventing you from studying or focusing on your career, or that it is an acceptable way for children to pass time, and adults (or even teenagers) who waste their time with such nonsense must be emotionally and intellectually stunted. Add this to the fact that most people here do not see piracy as a crime, or hold ludicrous assumptions like "The internet provider must pay the game

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16. Souvik Mukherjee, "India," in *Video Games Around the World*, ed. Mark J. P. Wolf (MIT Press, 2015), 239.
17. Ray Murray and Mukherjee, "From the Outside Looking In."

developer when I download a torrent!" (actual personal experience, not made up) and you will understand why, even in 2015, Steam is an unfamiliar name in India.[18]

Steam, nevertheless, has made a successful entry in India after introducing Indian pricing and Majumder is hopeful: "Being a gamer in a poor country, especially one so prejudiced against gaming (a topic for another day), is not easy. What Valve did in bringing the changes in currency and regional prices is nothing short of commendable, even if it isn't perfect. […] If publishers take advantage of this change and treat India as the large untapped market it is, we might be looking at the beginning of the end of widespread piracy here, and also the beginning of a whole new era of gaming."[19] Going by the stats on Steamspy.com, the Indian market seems to be doing well with well over a million users. In a country of one billion, though, there's much untapped potential. As in the Oleomingus game, *Somewhere*, there are also many voices that go unheard and many challenges to overcome.

"DOES THE DIGITAL DELIVER?": GROUND REALITIES IN THE GLOBAL SOUTH

Despite the promise of south-south collaboration and that of the rise of the global south (to which the closing of the digital divide contributes signally), there are still many apprehensions. Shantanu Chakrabarti points out the conflicting scenarios in conceptualizing the global south in India: "The Global South is not a uniform entity in binary opposition to the developed North. This simple truth finds expression when it tries to define and characterise itself (multilaterally or singularly) as empowering itself within a restructured global order. India's projection as one of the leaders of the global south which has 'arrived' on the global stage continues to be dependent upon its role in ensuring regional stabilisation in South Asia and addressing internal inequalities."[20] Chakrabarti addresses the internal conflicts within India (there is a north-south divide based on linguistic, cultural and economic issues and there is widespread socio-economic inequality based on class and caste) and also among the partners in the south-south collaboration; he also indicates the possibility of a hegemonic order where India is considered to have "arrived" on the global scene of development. Speaking of the inequalities, Radhika Gajjala raises the question, "When is the subaltern brought online and for what purpose?,"[21] in which she adopts the term "subaltern" to describe those who are rendered voiceless in the contexts established by colonial, postcolonial and third-world systems of knowledge and communication as a result of which they lose their identities, embodiment and their social presence. Gajjala is quick to observe how the discourse of "India Shining" is instrumental in "breaks up these [she studies handloom weavers, in particular] communities through its need to individualize the labor force and draw it into (in)secure low-skilled IT jobs and call center work that will service the global economy and neo-colonial hierarchies therein."[22] Without access to the discourse and technical knowledge of the digital, these communities are rendered voiceless in the digital economy and the digital divide, instead of being closed as the state's rhetoric claims, is only reconfigured: "thus, in the case of the third-world subaltern (rural) "Other," there are more learning steps for access and more gatekeeping issues both culturally and technically, in addition to actual material access to the technological artifact itself."[23] As Pramod Nayar observes,[24] another area that remains virtually unaddressed in the digital narrative of India is that of caste—how the digital is either absent in the lives of the *dalit* community (the traditionally repressed castes and groups) or how digital tools are coopted to reveal further issues of discrimination and deprivation.

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18. Aniket Majumdar, "Steam Is Supporting Indian Gamers with Its New Changes," *Haogamers,* 11 November 2015, https://haogamers.com/steam-is-supporting-indian-gamers-with-its-new-changes-4a0f482a354.
19. Ibid.
20. Shantanu Chakrabarti, "Global South Rhetoric in India's Policy Projection," *Third World Quarterly* 38.8 (August 3, 2017): 1909-1920.
21. Radhika Gajjala, ed., *Cyberculture and the Subaltern: Weavings of the Virtual and Real* (Lexington Books, 2012), 3.
22. Ibid.
23. Ibid., 4-5.
24. Pramod Nayar, "The Digital Dalit: Subalternity and Cyberspace," *Sri Lanka Journal of Humanities* 37.1-2 (26 July 2014).

Besides the reconfiguring of the digital divide, one also needs to consider the unique scenario of "making" in the Indian scenario: Padmini Ray Murray and Chris Hand refer to the practice of *jugaad* which they describe as "an indigenous form of hacking that differs from its western counterpart in its ubiquity, precipitated by economic constraints and lack of resources."[25] How far *jugaad* translates as hacking is a moot question but as Ray Murray and Hand clarify, the significant difference is that it arises out of a lack of resources and facilities. Therein, they also illustrate the difference with DIY practices in the global north, where such "making" is a hobby rather than an activity driven by basic need. In fact, even when compared to "modding" practices in other regions of the global south, as reflected in the chapters by Thaiane Oliveira, José Messias and Diego Amaral[26] and by Rhett Loban and Thomas Apperley,[27] *jugaad* is much more of a quick and temporary solution to quotidian problems. Unlike the skill base that is assumed in relation to mods, the *jugaad* is more of a making-do than a making—it is something that arises out of a socio-economic lack and is more of an quick innovation that is often unstable and unreliable. The need for *jugaad*, whether it is in villages of India or in the laptop repair shops in Nehru Place in the capital city, New Delhi, makes the north-south gap even more evident and also shows how and why the digital divide is difficult to wish away by simply promoting digital technology in the country's systems of governance and finance. This is very evident in the case of video games.

As Prabhu bluntly states it:

> Poverty problems aside, there are several cultural and technological barriers to games in India. Most of India's large population lives in over-crowded cities with poor infrastructure. Our traffic jams are so severe that more often than not, we lose mobile internet when stuck in one. Being one of the more popular use cases for mobile games, this is definitely a problem. At the same time, our local trains are so crowded that it is largely impossible to play a game while stuck in a crowded train, yet another popular use case for the mobile game. Hell, a HUGE majority of India uses squatting toilets, ever tried playing *Candy Crush* while you have to squat to "go" and use water to clean up after? [Sic] Yet another popular use case down the drain.[28]

Prabhu questions the rhetoric of the success of the breakdown of the digital divide and indeed also the narrative of promise for the Indian games industry that earlier accounts had addressed. Together with the rosier picture, the reality check that Prabhu calls for is also necessary. It is also important to note that despite the aforementioned problems, the industry continues to make progress. When Indian video games researcher Marcus Toftedahl was asked about his observations on the Indian gaming scene, he stated, "Sure, the business reports say that India will be a big player, but it is all up to the people involved,"[29] and in this, he includes both the developers and the players. Casey O'Donnell makes perhaps the most astute observation when he says, "video games [in India] are still viewed as a diversion from those educational tasks students ought to be preparing for. For this reason design is a difficult leap in the Indian industry."[30] No wonder, then, that despite commentators such as Friedman seeing the promise of globalization in the video game industry, video games do not figure anywhere in the grand narrative of digital India, whether it be the state-sponsored projects or the awareness of citizens. O'Donnell further notes how the channels of communication between designers, programmers, engineers and artists are unorganized and, therefore, lack documentation. Adrienne Shaw picks up on the fact that even Indian languages struggle to find a word for "Gamer" (the Hindi word *khiladi* meaning "player" is hardly ever

25. Padmini Ray Murray and Chris Hand, "Making Culture: Locating the Digital Humanities in India," *Visible Language* 49.3 (December 2015): 141-155.

26. Thaiane Oliveira, José Messias and Diego Amaral, "Playing Beyond Precariousness: The Political Aspect of Brazilian Modding in Pro Evolution Soccer," in this collection.

27. Rhett Loban and Thomas Apperley, "Eurocentric Values at Play: Modding the Colonial from the Indigenous Perspective," in this collection.

28. Shailesh Prabhu, "Breaking down the Billion," *GamesIndustry.Biz*, 11 February 2016, http://www.gamesindustry.biz/articles/2016-11-02-breaking-down-the-billion.

29. Team Haogamers, "'I See a Lot of Promise': Swedish Researcher Marcus Toftedahl on Indian Gaming Scene," *Haogamers*, 8 December 2016, https://haogamers.com/i-see-a-lot-of-promise-swedish-researcher-marcus-toftedahl-on-indian-gaming-scene-a3876948cc3d.

30. Casey O'Donnell, *Developer's Dilemma: The Secret World of Videogame Creators, Inside Technology* (MIT Press, 2014).

used) and this is perhaps because games are seen as historically external to Indian media culture.[31] By this, one assumes that Shaw means video games as opposed to games in general since the Indian T20 Cricket is by far one of the biggest cash sources for the media. As she observes, mainly the lack of resources and access makes video games more of a "foreign" concept in India. Sadly, however, the huge potential of video games as a medium of both entertainment and education has not been adequately tapped in the country.

<div align="center">PLAYING THE SUBALTERN: NARROWING THE DIGITAL GAPS</div>

Recent articles on video games in India also point out how the Western discourses often elide or oversimplify key elements of Indian culture making the domination of the global north even more prominent. As I say elsewhere, *Age of Empires III: The Asian Dynasties* (Microsoft, 2005), has Brahmin healers riding elephants and Sepoys (which means "soldier" in many Indian languages) being described as a separate race—a portrayal that is inadequately researched and even orientalist in nature. This, too, makes up the digital divide that digital India is so desperately trying to close. Any discussion of India's gaming industry and culture vis-à-vis the global south needs, therefore, to first acknowledge the digital divide on its multiple planes such as access, awareness, resources and global perceptions, among other things. Video games should also enable the reopening of subaltern discourses and create platforms for subaltern voices to be heard, for example by placing players in positions they would never have faced before. A reviewer of *Missing* on the Google Play store remarks that the game makes the player experience the lives of victims of trafficking—"the characters are about people we hear of in the news."[32] *Somewhere* has as its very premise the condition of the subaltern, where certain groups are rendered powerless and voiceless.

Commentators on bridging the digital divide see the implausibility of a solely knowledge-based narrowing of the digital divide. According to some, although India "has created a strong ICT industrial base and capacity to compete in some areas such as IT software and ITES-BPO [Information Technology Enabled Services/Business Process Outsourcing] in the global market, it does not appear to have achieved same level of capacity in the area of utilizing ICT for socio-economic changes, that is, in terms of e-education, e-health, e-government, and so on."[33] Successive governments have stressed on ICT as a panacea but again most of the services do not permeate to cities and towns besides the major metropolises. Access, training and resources are any attempts to establish digital equality. Rural India is an even bigger challenge. Despite the efforts elsewhere, the quickly burgeoning field of video games has never figured in the policymaking and the potential of the medium as an opinion-shaping and experience-forming tool has been consistently missed. With additional support provided to the industry and the recognition of the so-far semi-neglected gaming culture, many more will be able to participate and the hitherto negative cultural attitudes can also be countered by creating awareness and providing quality education on video games and game development.

Discussions of video games in the global south also need to take into account indigenous practices of making such as *jugaad*, their drivers in resource-strapped locales, the many unrepresented voices in the official narratives of development and how these can be potentially better represented in a participatory and immersive medium such as video games. The video game industry and the gaming culture in India is certainly on an upswing in comparison to what it was three decades ago but instead of only focusing

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31. Adrienne Shaw, "How Do You Say Gamer in Hindi?: Exploratory Research on the Indian Digital Game Industry and Culture," in *Gaming Globally*, eds. Nina B. Huntemann and Ben Aslinger (Palgrave Macmillan, 2013), 183-201.

32. Souvik Mukherjee, "Difficult Choices, Distressing Answers," *Times of India*, 12 October 2016.

33. Angathevar Baskaran and Mammo Muchie, *Bridging the Digital Divide: Innovation Systems for ICT in Brazil, China, India, Thailand, and Southern Africa* (Adonis & Abbey, 2007), 43.

on information, perhaps by focusing on the gaps in the digital discourses and by literally replaying the digital divide by promoting the making and cultural dissemination of crucial technologies of the future such as video games.

WORKS CITED

Agarwal, Surabhi. "Mobile Internet: Internet Users to Touch 420 Million by June 2017: IAMAI Report." *The Economic Times*, 5 February 2017, http://economictimes.indiatimes.com/tech/internet/ 420-million-to-access-internet-on-mobile-in-india-by-june-iamai/articleshow/58475622.cms.

Baskaran, Angathevar and Mammo Muchie. *Bridging the Digital Divide: Innovation Systems for ICT in Brazil, China, India, Thailand, and Southern Africa*. Adonis & Abbey, 2007.

Chakrabarti, Shantanu. "Global South Rhetoric in India's Policy Projection." *Third World Quarterly* 38.8 (3 August 2017): 1909-20.

Dirlik, Arif. "Global South: Predicament and Promise." *The Global South* 1.1 (2007): 12-23.

Friedman, Thomas. "Globalization 3.0 Has Shrunk the World to Size Tiny." *YaleGlobal Online*, 4 July 2004, http://yaleglobal.yale.edu/content/globalization-30-has-shrunk-world-size-tiny.

Gajjala, Radhika, ed. *Cyberculture and the Subaltern: Weavings of the Virtual and Real*. Lexington Books, 2012.

KPMG. "The Stage Is Set: FICCI-KPMG Indian Media and Entertainment Industry Report 2014." *KPMG*, 2014, http://ficci.in/spdocument/20372/FICCI-Frames-2014-KPMG-Report-Summary.pdf.

Majumdar, Aniket. "Steam Is Supporting Indian Gamers with Its New Changes." *Haogamers*, 11 November 2015, https://haogamers.com/steam-is-supporting-indian-gamers-with-its-new-changes-4a0f482a354.

Ministry of Electronics and Information Technology Government of India. "Vision and Vision Areas | Digital India Programme." *Digital India*, 8 November 2017, http://www.digitalindia.gov.in/content/ vision-and-vision-areas.

Mukherjee, Souvik. "Difficult Choices, Distressing Answers." *Times of India*, 12 October 2016.

—. "India." In *Video Games Around the World*, edited by Mark J. P. Wolf. MIT Press, 2015.

Murray, Padmini Ray and S. Mukherjee. "From the Outside Looking In: Creating a Serious 'Art Game in India – A Case Study." Paper presented at the 5th International Conference on Games and Virtual Worlds for Serious Applications (VS-GAMES), 2013.

Murray, Padmini Ray and Chris Hand. "Making Culture: Locating the Digital Humanities in India." *Visible Language* 49.3 (December 2015): 141-155.

NASSCOM. "Digitizing India: NASSCOM Annual Report 2016-17." *NASSCOM*, 2017, http://www.nasscom.in/sites/default/files/NASSCOM_Annual_Report_2016-17.pdf.

Nayar, Pramod. "The Digital Dalit: Subalternity and Cyberspace." *Sri Lanka Journal of Humanities* 37.1-2 (26 July 2014).

O'Donnell, Casey. *Developer's Dilemma: The Secret World of Videogame Creators*. MIT Press, 2014.

Prabhu, Shailesh. "Breaking down the Billion." *GamesIndustry.Biz*, 11 February 2016, http://www.gamesindustry.biz/articles/2016-11-02-breaking-down-the-billion.

Sen, Amartya. "What Can IT Industry Do For India?" *Outlook India*, 16 February 2017, https://www.outlookindia.com/website/story/what-can-it-industry-do-for-india/233893.

Sharma, Dinesh C. *The Outsourcer: The Story of India's IT Revolution*. Revised ed. MIT Press, 2015.

Shaw, Adrienne. "How Do You Say Gamer in Hindi?: Exploratory Research on the Indian Digital Game Industry and Culture." In *Gaming Globally*, edited by Nina B. Huntemann and Ben Aslinger, 183-201. Palgrave Macmillan, 2013.

Statista. "India: Number of Internet Users 2022 | Statistic." *Statista*, 2017, https://www.statista.com/statistics/255146/number-of-internet-users-in-india/.

Team Haogamers. "'I See a Lot of Promise': Swedish Researcher Marcus Toftedahl on Indian Gaming Scene." *Haogamers*, 8 December 2016, https://haogamers.com/i-see-a-lot-of-promise-swedish-researcher-marcus-toftedahl-on-indian-gaming-scene-a3876948cc3d.

Tharoor, Shashi. "From Aid-Taker to Donor, India Is Now Global Rule-Maker: Tharoor." *The Quint*, 19 October 2016, https://www.thequint.com/opinion/2016/10/19/being-aid-donor-establishes-india-as-the-globes-fulcrum-tharoor-g-20-president-obama-africa-india-summit.

LUDOGRAPHY

Arvind Raja Yadav. *Unrest*. Pyrodactyl Games, 2014.

Aurona Technologies. *Hanuman: Boy Warrior*: SCEE, 2009.

Avichal Singh. *Raji: An Ancient Epic*. Nodding Heads (in development).

Avinash Kumar. *Antariksha Samachar*. Indian Sandbox Games Lab (in development).

Dhruv Jani. *Somewhere*. Studio Oleomingus (in development).

FX Labs and Geetha Arts. *Ghajini*. FXLabs, 2008.

FX Labs. *Dhoom 2*. FXLabs, 2007.

Ensemble Studios. *Age of Empires 3*. Microsoft Games, 2015.

Mitashi. *Bhagat Singh*. Mitashi Edutainment, 2002.

Roach Interactive. *Bird of Light*. Zen Labs, 2016.

Rolocule. *Flick Tennis*. Rolocule, 2012.

Satyajit Chakraborty. *Missing*. Flying Robot Studios, 2016.

Shailesh Prabhu. *Huebrix*. Yellow Monkey Studios, 2013.

—. *Socioball.* Yellow Monkey Studios, 2015.

Threye Interactive. *Switch—or Die Trying.* Threye Interactive, 2017.

Trine. *Move Street Cricket 2.* SCEE, 2011.

—. *Ra-One.* SCEE, 2011

Vishal Gondal. *Yoddha: The Warrior.* Indiagames, 2000.

Zainuddin Fahad. *Asura.* Ogre Head Studio, 2014.