

# Video Games Production Networks in the periphery: the Chilean case

**Sebastián Baeza-González**

The University of Manchester

Oxford Road

Manchester M13 9PL

+447565021378

[sebastian.baezagonzalez@manchester.ac.uk](mailto:sebastian.baezagonzalez@manchester.ac.uk)

## INTRODUCTION

Chile's economy is mostly known for the export of natural resources, notably copper. Resource-based activities have been the drivers of the Chilean economy during the last 15 years, generating significant rents for the country but also multiple negative economic impacts including growth instability and dependency on international price fluctuations (Rehner, Baeza, and Barton 2014; Cortés 2012). Due to this situation, Chilean authorities seek to promote non-traditional sectors (such as architectural services, engineering, and video games, among others), aiming for a more diverse economy. Today, the Chilean video games sector comprises around 33 companies (medium and small size) with annual revenues of 13 million dollars in 2016 (VG Chile 2017). Regarding the relative success and strong potential of the video games sector in the Chilean economic context, I want to pursue the following main research question; To what extent is the Chilean video games sector in danger of repeating old economic dependency patterns?

Inspired by more recent interpretations of *dependency theory* (Arsenault and Castells 2008; Castells and Laserna 1989), *cognitive capitalism* (Hardt and Negri 2000, 2009; Vercellone 2007; Virno 2007) and the *Global Production Networks* (GPN) literature (Henderson et al. 2002), I propose to investigate two primary forms of *techno-dependencies*. First, Chilean game developers are challenged by the use of *tools* (SDKs and Engines) provided by game publishers and transnational firms, usually from the Global North. Second, Intellectual Property (IP) flows and rights evidence continued disparities in value capture between firms in the so-called *north* and those in the *south* (Chile in this case), an issue only partially addressed by Chilean companies and authorities, but frequently suggested as relevant by the existing literature (Dyer-Witheford and De Peuter 2009; Dyer-Witheford and Sharman 2005; O'Donnell 2014, 2015; Johns 2006).

## METHODOLOGY

The focus of this particular research is the video games production in the periphery, semi-structured interviews to game developers and CEO's were conducted between November 2017 and March 2018 in Santiago de Chile and Viña del Mar. Due to the small size of the industry in the country (33 studios organized in the Chilean Developers Association), the selection method was a combination of snowball and purposeful sampling. The final sample includes 23 studios and 3 governmental agencies that are related to the promotion of creative industries and particular video games as a sector with international visibility and internal growth.

Proceedings of DiGRA 2019

© 2019 Authors & Digital Games Research Association DiGRA. Personal and educational classroom use of this paper is allowed, commercial use requires specific permission from the author.

## DEPENDENCIES AND PRODUCTION NETWORKS

Global Production Networks (GPN) and related approaches (Global Value Chains, Global Commodity Chains) have been relevant to the discussion of international trade and global economic systems for at least two decades. Inspired partially by ideas developed by Wallerstein (1974), Amin (1990) and related schools of thought, the GPN framework analyses the social and economic dimensions involved in economic globalisation (Henderson et al. 2002). Early contributions in World Systems Theory (WST) based their theoretical interpretations on mid-century studies on development, trade and Latin America's position within modern global capitalism. On the one hand, *Dependencia* (Dependency) theory (Cardoso 1977; Faletto and Cardoso 1969; Frank 1979; Larrain 1989) as well as Modernisation theorists (Parsons 1991) (see Frank 1992 for a critical appraisal) pay attention to the unequal and uneven structural patterns of development within the global system, a matter that was particularly relevant for WST scholars. On the other hand, new interpretations of *dependency theory* refocus the study of unequal trade more on different levels of technology and knowledge, an idea summarised by Castells and Laserna (1989, 540): “the unequal exchange in the international economy is not between primary commodities and manufactured goods, but rather between goods and services with different technological components”.

### Tools

With regard to the dependence on technical tools, a number of scholars assert that SDKs (Software Development Kits) and so-called Engines limit creativity and restrict game development to within the boundaries dictated by publishers and console manufacturers (Kirkpatrick 2013; Kirkpatrick, Mazierska, and Kristensen 2016; Kerr 2006, 2017). Empirically, the positions are divided; a group of Chilean developers perceives the rise of free tools (particularly game engines like *Unity* and *Unreal*) as a step towards a democratisation of the industry and a reduction in dependency. In contrast, more experienced studios believe that these tools effectively reproduce corporate and global hierarchies, noticing the difficulties and barriers in certification processes with console manufacturers. A quote from a recent interview summarises the statement: “*The console certification is a very rigorous process, Sony or Microsoft evaluates your game at technical levels. For example, if I disconnect the joystick the game doesn't crash, or messages in the game should be written in the way they want, you can't write Microsoft without capital letters. These are minimal things, but if you fail, you are dead*” (Interview 2017).

### Intellectual Property (IP)

The games literature to date only cursorily refers to the relevance of Intellectual Property rights (IP) as a form of capital accumulation in the rise of cognitive capitalism (Vercellone 2007). Cognitive capitalism emphasises dependency patterns in company and global production networks that rely on cognition and knowledge as the source of capital. For Dyer-Witheford and De Peuter (2009), cognitive capitalism becomes visible in the video games sector when transnational publishers seek IP accumulation as an active strategy for their business. In the Chilean games sector, developers still perceive legal processes related to IP as costly and unnecessary. However, older and more established studios aim for protection to be delivered by publishers, a transaction that frequently ends in IP transference from developers to publishers in exchange for financial stability. Interestingly, most successful studios are those who transferred or license IP to publishers, a process that is completely unmanaged by the studios. As noted by an interviewee, “*Our representative is a lawyer, [and he managed everything] with SONY it was super comfortable, they did the entire job [patents and registration] everywhere, so we didn't worry about it*” (Interview 2017).

## CONCLUSION

Video games developers in Chile face significant challenges when it comes to game creation in the periphery. Seeking stability and growth, developers must adapt the content to the boundaries delimited by publishers and transnational corporations. However, it is difficult to suggest that SDKs and Engines effectively limit the creative capabilities of game developers. The use of these tools only exemplifies the operation of the global game market and the mechanisms that control (or facilitate) the access to specific distribution platforms.

Nevertheless, IP transfer is a reality and necessity for game studios in the *south*. This unequal relationship can certainly be considered a form of dependency since the participation in the global market depends (in most cases) on the immaterial capital (IP in this case) transferred from the periphery to the centre in exchange for financial stability. Here, power asymmetries as seen in Johns (2006) demonstrate the unequal conditions of peripheral game development, a situation that Chilean developers face if the objective is to diversify exports and reach a global audience.

## ACKNOWLEDGMENTS

This work was funded by the CONICYT PFCHA/DOCTORADO BECAS CHILE/2016 - 72170427

## BIBLIOGRAPHY

- Amin, Samir. 1990. *Delinking: Towards a Polycentric World*. Zed Books.
- Arsenault, Amelia, and Manuel Castells. 2008. "The Structure and Dynamics of Global Multi-Media Business Networks." *International Journal of Communication* 2 (0): 43.
- Cardoso, Fernando. 1977. "The Consumption of Dependency Theory in the United States." *Latin American Research Review* 12 (3): 7–24.
- Castells, Manuel, and Roberto Laserna. 1989. "The New Dependency: Technological Change and Socioeconomic Restructuring in Latin America." *Sociological Forum* 4 (4): 535–60. <https://doi.org/10.1007/BF01115063>.
- Cortés, Alexis. 2012. "La Reprimarización del Modelo de Desarrollo Chileno." *OIKOS (Rio de Janeiro)* 11 (1). <http://www.revistaoikos.org/seer/index.php/oikos/article/view/275>.
- Dyer-Witford, Nick, and Greig De Peuter. 2009. *Games of Empire: Global Capitalism and Video Games*. Electronic Mediations 29. Minneapolis, Minn.: Univ. of Minnesota Press.
- Dyer-Witford, Nick, and Zena Sharman. 2005. "The Political Economy of Canada's Video and Computer Game Industry." *Canadian Journal of Communication* 30 (2). <http://www.cjc-online.ca/index.php/journal/article/view/1575>.
- Faletto, Enzo, and Fernando Henrique Cardoso. 1969. "Dependencia y Desarrollo En América Latina." *CEPAL, Cincuenta Años Del Pensamiento de La CEPAL: Textos Seleccionados 2*: 475–99.
- Frank, Andre Gunder. 1979. *Dependent Accumulation and Underdevelopment*. Vol. 492. NYU Press.
- . 1992. "Latin American Development Theories Revisited. A Participant Review." *Latin American Perspectives* 19 (2): 125–39. <https://doi.org/10.1177/0094582X9201900207>.
- Hardt, Michael, and Antonio Negri. 2000. *Empire*. Cambridge, Mass: Harvard University Press.
- . 2009. *Commonwealth*. Cambridge (USA); London: The Belknap Press of Harvard University Press.

- Henderson, Jeffrey, Peter Dicken, Martin Hess, Neil Coe, and Henry Wai-Chung Yeung. 2002. "Global Production Networks and the Analysis of Economic Development." *Review of International Political Economy* 9 (3): 436–64. <https://doi.org/10.1080/09692290210150842>.
- Johns, Jennifer. 2006. "Video Games Production Networks: Value Capture, Power Relations and Embeddedness." *Journal of Economic Geography* 6 (2): 151–80. <https://doi.org/10.1093/jeg/lbi001>.
- Kerr, Aphra. 2006. *The Business and Culture of Digital Games: Gamework/Gameplay*. London: SAGE Publ.
- . 2017. *Global Games: Production, Circulation and Policy in the Networked Era*. London ; New York: Routledge/Taylor & Francis Group.
- Kirkpatrick, Graeme. 2013. *Computer Games and the Social Imaginary*. Digital Media and Society Series. Cambridge: Polity.
- Kirkpatrick, Graeme, Ewa Mazierska, and Lars Kristensen. 2016. "Marxism and the Computer Game." *Journal of Gaming & Virtual Worlds* 8 (2): 117–30. [https://doi.org/10.1386/jgvw.8.2.117\\_1](https://doi.org/10.1386/jgvw.8.2.117_1).
- Larrain, Jorge. 1989. *Theories of Development: Capitalism, Colonialism and Dependency*. John Wiley & Sons.
- O'Donnell, Casey. 2014. *Developer's Dilemma: The Secret World of Videogame Creators*. MIT Press.
- O'Donnell, Casey. 2015. "Patented Creativity: Reflecting on Video Game Patents." In *Video Games and Creativity*, edited by James Kaufman and Garo Green, 247–61. San Diego: Academic Press. <http://www.sciencedirect.com/science/article/pii/B9780128014622000126>.
- Parsons, Talcott. 1991. *The Social System*. Psychology Press.
- Rehner, Johannes, Sebastián A. Baeza, and Jonathan R. Barton. 2014. "Chile's Resource-Based Export Boom and Its Outcomes: Regional Specialization, Export Stability and Economic Growth." *Geoforum* 56 (September): 35–45. <https://doi.org/10.1016/j.geoforum.2014.06.007>.
- Vercellone, Carlo. 2007. "From Formal Subsumption to General Intellect: Elements for a Marxist Reading of the Thesis of Cognitive Capitalism." *Historical Materialism* 15 (1): 13–36. <https://doi.org/10.1163/156920607X171681>.
- VG Chile. 2017. "Reporte de La Industria 2016." Santiago: Video Games Chile.
- Virno, Paolo. 2007. "General Intellect." *Historical Materialism* 15 (3): 3–8. <https://doi.org/10.1163/156920607X225843>.
- Wallerstein, Immanuel. 1974. "The Rise and Future Demise of the World Capitalist System: Concepts for Comparative Analysis." *Comparative Studies in Society and History* 16 (4): 387–415. <https://doi.org/10.1017/S0010417500007520>.