

The Networked Effect of Children and Online Digital Technologies

Teresa Sofia Pereira Dias de Castro

University of Minho, Portugal

António Osório

University of Minho, Portugal

Emma Bond

University Campus Suffolk, UK

INTRODUCTION

Given the ubiquity of technology and the changes it has undergone in terms of its multiple uses, meanings and effects in the later decades of the twentieth century, a growing attention started to be paid to social studies of science and social studies of technology (Goggin, 2006); and to technology (world of production, or what technology does to people) and the social (world of consumption, or what people do with technology), as part of a sociotechnical order (Matthewman, 2011).

As the society and technology context became more complex, thinking about the meaning and use of technology, especially when referring to children, entails reasoning about its effects, which sometimes are good and sometimes are bad. When unforeseen consequences occur, more questions are raised about technology. In this respect, the debates around politics cannot be ignored (e.g. Berg & Lie, 1995; Joerges, 1999; Latour, 2004; Winner, 1980) behind the design of technology, paradoxically encapsulating architectures of social control and domination (e.g. school, prison, hospital as institutions of modernity grounded in the principle of panopticism, see Foucault, 1979) that determine “human experience, behaviour and action” (Matthewman, 2011, p. 50). While at the same time it enables rich experiences, new freedoms, heightened pleasures of consumption, and new forms of public privacy (Matthewman,

2011, referring to Benjamin, 2004 dissertation about the Arcades of Paris project, a structure made of iron and glass he designated by the ‘human aquarium’).

Reactions against technological determinism¹, strongly suggested in the literature on perceptions of risk (see Anderson, 2006; Beck, 1992; Buckingham, 2009; Douglas & Wildavsky, 1982; Furedi, 1997; Giddens, 1990; MacKenzie & Wajcman, 1999), invited theorists to rethink technology in light of its social effects and on “explaining how social processes, actions and structures relate to technology” (Mackay & Gillespie, 1992, p. 685). Such theories are the social shaping of technology² (SST) and social construction of technology (SCOT). However, the interwoven relationship between online digital technologies and children’s everyday lives is far more complex than can be accounted for or reduced by technological or social determinisms (Bijker & Law, 1992; MacKenzie & Wajcman, 1999). Since both positions are equally flawed (Van Loon, 2002), a more cautioned position between contingency and control is proposed. Actor-network theory (ANT) appears as an alternative to the previous deterministic models. This model assumes a high degree of contingency foregrounding the role of technology in the construction of society (Matthewman, 2011), where “the power of things depends on how they are (as Latour says) ‘syntagmatically’ networked with other things, in competition with

DOI: 10.4018/978-1-5225-2255-3.ch636

paradigmatic counter-programmes of differently coupled actants. The power of things does not lie in themselves. It lies in their associations” (Joerges, 1999, p. 5). When referring to children, as Prout (2005) proposes, ANT solves the technology/society dualisms unresolved by the previous proposals and is a valuable possibility to understand the hybrid and interconnected phenomenon of childhood growing up in the context of the globalised, mobile and wireless late modern society. Ultimately, he finds in ANT a flexible epistemological possibility that can reach the ambiguity of contemporary life and the remarkable transformations brought by progress that have changed drastically childhood and children’s contemporary lives.

Corroborating Prout stand, the text develops from empirical examples that illustrate the embeddedness of online digital technologies within children’s everyday lives, in which one is transformed and transformative of the other (Holloway & Valentine, 2003), though neither “cannot be understood as either human or technical, as neither human nor technology controls the resulting patterns of relationships” (Bond, 2014, p. 62). Children’s accounts are presented here as part of a doctoral thesis guided by two objectives: to understand the personal values and meanings children might use to interpret their technologized lives; and to explore the various aspects enclosed in children’s heterogeneous and complex networked lives with the purpose of uncovering short and long term unintended harmful outcomes that may be (more or less) hidden in their digital experiences. This is a qualitative study that recognises children as competent ‘agents in their own right’ and is informed by a multi-lens approach drawing perspectives from the sociology of risk, childhood studies, socio-technical studies and zemiology in order to get a better understanding of children’s active choices and decisions in how they use the online digital technologies in their everyday lives.

Put simply, online and digital technologies frame children’s worlds and how children shape online digital technologies in their everyday lives.

In this scope, technologies and children are both agents in a relationship that implies more than an object/subject correlation. Technologies stress interactivity (between human and non-human materials), convergence (by implying the combination of different technologies – the object, the activity, and the knowledge), and agency (by stimulating and allowing the usage), while ‘enframing’³ and revealing their non-neutrality (Heidegger, 1977). Children, on the other hand, give subjectivity to technology in the way they use them to act in their own worlds and by how they relate to, with and through technologies (Heidegger, 1977; Matthewman, 2011), while affirming and confirming a modern mode of thought and being, as proclaimed by Heidegger (Van Loon, 2002).

BACKGROUND

The Actor-Network Theory: A Brief Contextualisation

In cultural and media studies one theory attracted attention, the Actor-Network Theory (ANT) (Goggin, 2006), a “conceptual frame for exploring collective sociotechnical processes” (Crawford, 2004, p. 1) and a conducive approach to benefit from a deeper understanding of the mutually constituting interaction, between technological affordances (Parchoma, 2014) and modern childhood (Prout, 2005) in the intersection of late modernity. Deriving from Bruno Latour’s, Michel Callon’s, and John Law’s work, the ANT method “draws on semiotics, social constructionism and symbolic interactionism, while being quite distinct from each of them in certain crucial respects” (Prout, 2005, p. 70). Despite its debilities and limitations – ANT is criticized for reducing the importance of human materials (Matthewman, 2011), it is argued that ANT offers a radical analytical method capable of opening the black-box of technology. Tracing its complex and heterogeneous relationships, reframing, engaging and intervening in familiar

13 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/the-networked-effect-of-children-and-online-digital-technologies/184428

Related Content

Sustainable Development With the Digitalization of Women: Economic Empowerment, Information Technology, and Women

Tijen Över Özçelik (2019). *Gender Gaps and the Social Inclusion Movement in ICT* (pp. 170-191).

www.irma-international.org/chapter/sustainable-development-with-the-digitalization-of-women/218444

Cryptographic Approaches for Privacy Preservation in Location-Based Services: A Survey

Emmanouil Magkos (2011). *International Journal of Information Technologies and Systems Approach* (pp. 48-69).

www.irma-international.org/article/cryptographic-approaches-privacy-preservation-location/55803

The Contribution of ERP Systems to the Maturity of Internal Audits

Ana Patrícia Silva and Rui Pedro Marques (2022). *International Journal of Information Technologies and Systems Approach* (pp. 1-25).

www.irma-international.org/article/the-contribution-of-erp-systems-to-the-maturity-of-internal-audits/311501

Breast Cancer Diagnosis Using Optimized Attribute Division in Modular Neural Networks

Rahul Kala, Anupam Shukla and Ritu Tiwari (2013). *Interdisciplinary Advances in Information Technology Research* (pp. 34-47).

www.irma-international.org/chapter/breast-cancer-diagnosis-using-optimized/74530

Research on Singular Value Decomposition Recommendation Algorithm Based on Data Filling

Yarong Liu, Feiyang Huang, Xiaolan Xie and Haibin Huang (2023). *International Journal of Information Technologies and Systems Approach* (pp. 1-15).

www.irma-international.org/article/research-on-singular-value-decomposition-recommendation-algorithm-based-on-data-filling/320222