

## Chapter 58

# PAR and Digital Inclusion, An Analysis Using the Capabilities Approach and Critical Pedagogy

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### ABSTRACT

*This paper draws upon the capability approach and critical pedagogy to analyse the value of using Problem-posing Education, a participatory action research method, in a digital inclusion initiative in Brazil. First it the capability approach and explains why using critical pedagogy is a valuable way to deal with issues of power, collective conscientisation and adaptive preference. Freire's pedagogy is then presented and conscientisation is explained as a process of raising critical awareness and praxis. The case study, presents empirical work conducted in Campinas, together with a NGO named CDI, which offers free internet access and basic ICT skills using a Freire's inspired methodology. Findings are then explained and discussed using the theoretical framework. This paper concludes that there is great value in using Freire's critical pedagogy for digital inclusion, but that further research is necessary to identify less resource intense solutions that can provide students with both conscientisation and skills.*

### 1. INTRODUCTION

Rapidly changing technological innovation was at the forefront of the last century, becoming ubiquitous and impacting more and more on all areas of our daily lives. Already in the early 2000s, Wacjman (2004) had stated: “[t]echnology is an intimate presence in our lives and increasingly defines who we are and how we live” (p. 102). This research focuses in particular on Information and Communication Technologies (ICT), which are today being used in the education, health and economic sectors to mention just a few. However, this so-called ‘digital revolution’, has not been even, both worldwide or within each country (Toyama, 2010; van Dijk, 2006). This asymmetry, known as the digital divide, was first understood as the difference of access to ICT, but research has shown this phenomenon has a complex nature. Differ-

DOI: 10.4018/978-1-7998-3022-1.ch058

ences in users' operational, and strategic, ICT skills and motivation, among other dimensions, are as important to consider as access to these technologies in order for individuals to benefit from ICT usage (Fonseca, 2010; Gunkel, 2003; Thomas & Wyatt, 2000).

Efforts to overcome the digital divide are also known as digital inclusion. Aleixo et al. (2012) define digital inclusion as "the effective participation of individuals and communities in all dimensions of the knowledge-based society and economy through their access to ICT, made possible by the removal of access and accessibility barriers, and effectively enabled by the willingness and ability to reap social benefits from such access" (p. 222). Research has shown that the impacts of digital inclusion do not depend solely on the project itself and the ICT being used. It is enhanced or constrained by people's capacities and their intentions, whether people find meaningful ways in which ICT can benefit their lives, and how these impacts are defined (Busch, 2011; Toyama, 2010; van Deursen & van Dijk, 2009). This paper will focus the development impacts a specific digital inclusion methodology had on participants of a digital inclusion project, using the capability approach (CA) and critical pedagogy as a theoretical framework. The CA approach places the individual in the center of the analysis, with her freedoms as the means and ends of development. It acknowledges the constraining impact social structures may have on her freedom, known as adaptive preferences. On the other hand, Freire's Critical Pedagogy proposed a specific methodology to address this adaptation, called conscientisation, and offers the CA a wider understanding of power relations and social change.

Research has shown that "there is not a direct and causal relationship between ICT and development" (Gigler, 2011, p. 21). Thus, for digital inclusion to increase development, it should support individuals to evaluate whether they find using ICTs meaningful, based on their own self-chosen goals and their own ability to use ICTs to achieve those goals. However, this ability to self-choose goals may be limited, as "habit, fear, low expectations, and unjust background conditions deform people's choices and even their wishes for their own lives" (Nussbaum, 2000, p. 114), known as adaptive preferences in the CA. Accordingly, individuals will only be able to benefit from ICT if their choices are not constrained by adaptive preferences, as these limits what individuals expect from life.

This theoretical framework will be used in this paper to analyze a digital inclusion practice in Brazil. Based on Freire's problem-posing education, a Participatory Action Research (PAR) method, the Committee of Democratization of Information (CDI) in Campinas, Brazil, proposed a new way of teaching digital skills, aiming to impact their students' empowerment and not only develop their digital literacy. Accordingly, first, the theoretical framework will be introduced, explaining how the Capability Approach and Critical Pedagogy have been integrated for the analysis of digital inclusion practices. This will be followed by the presentation of the Case Study and the Methodology, then findings will be then presented and discussed in the following section, ending with conclusions.

## **2. THEORY**

The use of the CA to study the relation between ICT and development is growing (2015; 2013; Oosterlaken, 2011; Zheng & Walsham, 2008). These authors have found elements in the CA to look beyond the technology and focus on the individual's development. However, as Corbridge (2002). states, the CA is "poorly equipped to deal with questions of entrenched power and the politics of conflict or social mobilization" (p. 203). For this reason, Freire's Critical Pedagogy is introduced to complement the CA, as will be explain in the following sections.

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