

## Chapter 3.2

# Social Shaping of Technologies for Community Development: Redeployment of Information Communication Technologies among the Kelabit in Bario of the Kelabit Highlands

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### ABSTRACT

Using electronic-Bario (e-Bario) project in the Kelabit Highlands of Sarawak in East Malaysia, this chapter explores how the introduction of information communication technologies (ICT) as developmental tools have been mediated and reconfigured by webs of social relations and the intricate interplay of social, political and cultural conditions specific to different social and technical settings. One crucial factor conditioning the effects of the project has been the Kelabit's own desire for, and expectations of, "development" and "progress." This is a quest which ties in closely with two fundamental Kelabit concepts: *doo-ness* and *iyuk*. As a result, the social and economic effects of ICT have unfolded through countless open-ended strategic and everyday decisions made by the Kelabit themselves, who actively consume, apply and make use of objects, ideas and services in the Highlands.

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*'The new electronic interdependence recreates the world in the image of a global village'. -- Marshall McLuhan, The Gutenberg Galaxy in Daintith, John (ed.) Quotations, Bloomsbury (1996, p.256:1).*

### INTRODUCTION

Over the last 15 years information and communication technologies (ICT) have been increasingly and optimistically promoted as a means of transforming developing countries into "modern" and knowledge-based societies and to alleviate some of the social and economic problems of developing world, particularly those in rural areas. Yet very little is known about the veracity of these aspirations, much less about the long-term social and economic effects of these technologies upon development in rural areas (Keniston, 2002).

Informed by a social shaping technology (SST) framework, this chapter explores how the introduc-

tion of information communication technologies was mediated and reconfigured by webs of social relations and the intricate interplay of social, political and cultural conditions specific to the Kelabit Highlands. In this way the chapter seeks to achieve a more critical understanding of the relationship between ICT and society that provide an understanding of the implications of ICT for social and economic development and inform current discussions about the emerging “Information Society.”

## **SOCIAL SHAPING AND CONSEQUENCES OF ICT**

The social shaping of technology (SST) approach to technology-society relationships has emerged in the late 1980s as an important framework to explore whether technology can be seen as a main force that shapes society or whether society and social values shape the way in which technology affects our lives. With regards to information communication technologies, the approach builds on two main themes: the design and implementation of ICT artifacts and systems; and the implications of ICT for individuals, organizations and society. Within this broad remit the SST approach could not, and will not deny that technology has an effect on society but at the same time emphasizes organizational, cultural, economic and other factors influencing the process of technological change and innovation (Williams and Edge, 1996; Kling, 2000). In other words, deviating from a technological determinism standpoint, SST embraces the centrality of users, society and social values to shape the way in which information communication technologies (ICT), affect our lives, (Dutton, 2001; Rohrer, 2003; Fischer, 1992).

Taking the lead from the SST framework, this chapter explores the social and economic effects of electronic-Bario (e-Bario), an ICT-based community development project implemented in the Kelabit Highlands of Sarawak. This is in order to

shed some light on the character and significance of ICT in different social and technical settings and at the same time to illuminate the processes of shaping the use and impacts of ICT in Bario. It takes into account the role of the Kelabit's own desire for, and expectations of, “development” and “progress.” This is a quest which ties in closely with two fundamental Kelabit concepts: *doo*-ness and *iyuk*. As will be made clear later in the chapter, both notions signify movements and good-ness in terms of social status among the Kelabit. By highlighting their significance, this chapter argues that it is the local cultural logic of *doo*-ness and *iyuk* among the Kelabit which is central to the shaping of technology especially how meanings (symbolically) are “inscribed to technologies” (Rose, 2001, p.69), creating a desire for new technologies, and informing their development and appropriation by users in the Highlands. In short Kelabit notions of *iyuk* and *doo*-ness are central to functional and symbolic encoding of technologies in Bario and are crucial factors conditioning the effects of the project. This is evident by the ways in which the social and economic effects of e-Bario have unfolded through countless open-ended strategic and everyday decisions made by the Kelabit themselves, who actively consume, apply and make use of objects, ideas and services in the Highlands.

## **BACKGROUND: THE E-BARIO PROJECT**

Considered the traditional homeland of the Kelabit, the Kelabit Highlands is situated above the rapids found at the headwaters of the Baram and Limbang in Northeast Sarawak, close to the border between Kalimantan and Malaysia in the Miri Division. Although there is no official boundary to define the area, Thong and Bahrin (1993, p.17) estimate that the Highlands comprise an area of approximately 2,500 square kilometers. With an average altitude of 1000 meters above sea level, it is surrounded by

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