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# Across the Borders of Legality: Leveraging Pirate Infrastructures

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**Abstract**

This paper discusses pirate infrastructures which, through creating alternate informal systems of distribution, play an important role in allowing under-served communities gain access to goods and services. The paper argues that studying pirate infrastructures in the Global South allow us to 1) parse the desires and motivations of under-served communities, and 2) study the ability of decentralized informal pirate networks to democratize access by finding ways around socio-economic, technical, and institutional constraints. Understanding pirate infrastructures can subsequently inform both the design of bottom-up HCI4D interventions and their final implementation.

**Author Keywords**

HCI4D; Pirate infrastructures; piracy.

**ACM Classification Keywords**

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

**Introduction**

The current global informational economy has seen information and communication technologies (ICTs) actively shaping economic, cultural and civic discourse around the world. However, the processes of globalization and informatization that have played an

important role in the spread of ICT have at the same time also led to the creation of transnational networks of electronic piracy. For a large percentage of population living in the Global South, this piracy is an important means of experiencing otherwise inaccessible cultural and economic goods [6]. Strongly embedded in informal economic practices and straddling legal and non-legal spaces, it caters specifically to the needs and desires of low-resource communities. Importantly, it is often not considered to be an illegitimate practice that needs to be hidden away from sight, but is instead an integral part of everyday existence [8,11].

Sundaram [11] uses the term 'pirate modernity' to describe how electronic piracy transforms local economies in the Global South and integrates them with the global economy through new forms of extralegal distribution. He stresses that the practices that constitute this pirate modernity are purely habitual means of consumers getting around the inadequacies of formally regulated markets rather than a conscious opposition to the forces of global capitalism and property rights.

However, the socially constructed boundaries of illegality often mask the enterprise and innovation found in these informal economies – and in the case of pirate networks, the ability of the marginalized to form their own linkages to access global modernity. Pirate networks show the ability of local informal economies to form multiple linkages with global economic structures. Importantly, it allows researchers to look beyond the dichotomies of formal/informal and legal/illegal and instead focus on what people desire and the means by which they can obtain them.

We subsequently get a glimpse of the modes of goods acquisition across the Global South which further reveal the desires and motivations of under-served communities. This helps in dealing with an issue plaguing HCI4D research – how can we, as researchers and designers, parse the actual motivations of communities. This paper further suggests that HCI4D has much to learn from the structure of pirate infrastructures, especially its capacity to create decentralized distribution channels that allow efficient diffusion of goods and services.

### **Pirate Infrastructures**

Larkins [5] defines pirate infrastructure as a “system of reproduction and transmission of goods” that, like other infrastructures, shapes production, social relations, and economic organization. Importantly he approaches it as a socio-technical infrastructure, rather than a legal one, to allow a better understanding of the technical and economic processes that constitute it and its impact on consumers and society at large. Specifically, we see the social and economic relationships that this infrastructure creates that are often able to compensate for existing inefficiencies in public and private infrastructures – a phenomenon common in large parts of Global South.

Media studies scholars analyzing the global diffusion of technology and media content have contended that pirate infrastructures have dramatically altered the balance of power when it comes to distributing digital content. For example, Shujen Wang, in her study of film distribution in China, finds that through allowing the creation of far more efficient and well-connected transnational networks, pirate infrastructures are able to out-compete copyright-based industries in the speed

at which they disperse digital products to a much larger population of consumers [12]. The pirate infrastructure is thus not limited to just being parasitic on the mainstream economy but instead creates whole new means of connecting the under-served communities with technologies that would otherwise be accessible only to the urban elite [1]. The subsequent intertwining [4,10] creates socio-technical systems that allow marginalized individuals greater autonomy to source the digital goods they desire while successfully evading the constraints imposed by the society, state and corporations.

Instead of focusing on the illegality of piracy, the paper argues that the prevalence of electronic piracy can be a means to understand the consumption practices of communities. HCI researchers have in the past attempted to break away from the top-down paternalism that has plagued early interventionist HCI4D research and instead work towards being sensitive to the multiplicity of needs, desires and aspirations within communities [2]. Studying pirate infrastructures provide us with an authentic understanding of the goods and services that under-served communities truly desire – motivations powerful enough to create and sustain informal pirate networks. Further, through accounting for the complex and organic yet efficient parallel infrastructures of informal distribution that mediate and shape consumption, they also allow us to conceptualize a bottom-up approach towards the distribution of digital goods and services in the Global South.

### **HCI4D - Leveraging Pirate Infrastructures**

The presence of pirate infrastructures in the Global South is evidence that public and private infrastructures

have failed in providing access to goods and services that are desired by consumers. Thus, even as their illegality is debated in the public sphere, their success in democratizing access to technologies and cultural goods should not be ignored. In HCI4D research, we are already seeing trends that seek to understand these alternate channels of consumption and technology adoption - for example, Kumar and Rangaswamy [4] find that piracy-enabled media consumption is able to drive technology adoption and digital literacy amongst under-served communities.

It would be crucial to look at the differences between the diffusion of goods and services through formal interventionist HCI4D projects and through informal pirate infrastructures, and this goes into a much deeper philosophical debate on the differences between 'perceived needs' and what a community truly desires. For example, Smyth et al. [9] argue that the motivation of entertainment often supersedes other needs identified by HCI4D researchers in driving technology adoption and use. Thus, while pirate networks might distribute goods such as movies and music which don't follow the traditional narratives of 'developmental needs', they force us to interrogate the nature of the relationship that under-served communities have with the global information economy.

In the public sphere, the pirate has been a controversial boundary figure that has "been crucial to drawing the line between law and criminality, order and anarchy" [7] for most of history. However historians such as Adrian Johns [3] have argued that most intellectual pirates throughout history have not been criminal outsiders but common citizens whose enterprise laid the foundations of modernity as we

know it. On similar lines, in the Global South, we find that pirate infrastructures not only influence new avenues of creative production but also, through innovations in distribution networks, bring modernity to the marginalized.

Looking across the borders of legality into the non-legal informal spaces that dot the social and economic landscape of the Global South provide us with a more holistic understanding of the needs, desires, and motivations of under-served communities. Subsequently, can this knowledge be used to create better bottom-up HCI4D approaches that acknowledge the agency of under-served communities? The paper has argued that socio-technical infrastructures of piracy are an important means by which access is democratized in many parts of the Global South. Is it possible to consequently design interventions that can leverage the ability of these pirate infrastructures to create and utilize distribution networks that are decentralized, consumer-driven, and able to find ways around existing socio-economic, technical, and institutional constraints?

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