

# **Global Impact Study of Public Access to Information & Communication Technologies**

## **Excerpt from the Interim Report (Annex A)**

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## **Annex A: Research Problem**

The research approach rests on four components. The first component combines an inventory of public access venues with surveys of venue operators and users in a representative sample of these venues. It will allow us to establish a general picture of their impact, both on ICT availability and use, and on the livelihoods of the populations surrounding them. Second, because we believe these broad tools cannot do justice to the fine-grained processes through which public access affects users' livelihoods, we analyze the mechanisms leading to impact through focused studies of particular venue features: the availability of intermediaries, rules prescribing what uses are permitted or not, and patterns of shared use. Third, because we believe that public access also impacts the non-users living in surrounding communities, we explore indirect and aggregated impacts of public access with two other focused studies, one exploring community level impacts and a second examining the impact of public access venues on information ecologies. Finally, to situate public access relatively to one other possible approach to the dissemination of ICT access, we analyze the role of mobile phones in relation to public access venues.

Together, these four components cover a range of complementary approaches and methodologies, hypotheses about how impact occurs, national contexts, levels of analysis, and impact areas. See Annex A for an expanded description of these components.

### **1) A first cut at impact assessment through Inventory and Surveys**

An essential prerequisite to understanding the impact of public access to ICTs is to know how widespread public access provision actually is. Yet, as we began work on the Global Impact study, it quickly became clear that no reliable source existed to provide an estimate of the number of public access venues, nor of their distribution among diverse categories – télécentres, connected libraries, or cybercafés. The study's advisory board confirmed that developing such a census would in itself constitute a major contribution. This is important in order to measure the impact of public access for three related reasons. First, it is the only way to assess the magnitude and the various forms of the public access phenomenon. Second, it becomes the basis upon which a representative sample of venues can be derived for any in-depth survey work. Third, it provides an essential reference to estimate the significance of impacts observed in individual cases.

This inventory, developed along a carefully designed taxonomy of public access venues, thus provides an essential reference point for the entire research effort. Our intent is to draw on administrative data sources and establish a methodology that will allow this inventory to be repeated over time (by ourselves and by others), to assess changes in the characteristics and extent of public access provision. This work is currently underway in Chile, Bangladesh and Lithuania, and will soon begin in Brazil and the Philippines. Our inventory, combined with existing complementary data sources such as national census, will also permit multiple lines of analysis exploring correlations between the provision of public access and indicators of social or economic well-being. We expect to conduct some of these analyses ourselves, but also will provide open access to our inventory data and methodology in hope that others will contribute and extend our work.

In each country, two detailed surveys will be administered within a representative sample of public access venues derived from the inventory. The first is aimed at public access venue operators, the second at venue users. These two survey efforts will provide a first systematic cut on the impact of public access provision, as well as the costs and benefits of that approach to expanding ICT access. In order to do that, the surveys draw on the

project's own conceptualization of the contribution of public access to livelihoods (this is based on our critical review of the existing literature, and our efforts to compensate for what we see as its shortcomings). This approach explores four complementary ways in which public access venues affect ICT usage, each contributing to impact: first, these venues provide improved access for existing ICT users; second, they broaden the reach of ICTs by providing access to new users and non-users who benefit indirectly; third, they open access to new applications and services; and fourth, they allow different patterns of use than private access, including joint use or assisted use. Our venue and user surveys probe the prevalence of these various mechanisms and ask respondents to report on their perceived impacts. While these measurements of self-reported impacts are obviously subjective, we developed several questions that ask respondents to report objective benefits, such as job acquisition or participation in online courses. The surveys also seek estimates of costs for the provision and use of public access, both from venue operators and users, including in particular the costs users have to incur to avail themselves of the facilities.

Together, the inventory and surveys conducted in the five selected countries will provide answers to key questions about public access to ICTs: how much public access exists, and what are the characteristics of the public venues? who are the users? what applications and services do they use? in what fashion? what impact do they report on their lives? what are the costs incurred for the provision of these benefits? Complemented with analysis combining our data with other available indicators, we believe this will provide a first estimation of the impact of public access provision on livelihoods, as well as an indication of the costs of such provision.

## **2) Three significant impact mechanisms: infomediaries, rules, and shared use**

However useful, this combination of inventory and surveys remains too blunt an instrument to understand in detail the mechanisms through which impact is obtained. Through our exploratory work during the project's formative year, we have identified a number of public access venue characteristics which we believe have significant bearing on their impacts on users. These relate to a number of aspects, ranging from modes of service provision, the conditions under which public facilities are provided, to emerging patterns of use. In this second phase of our work, we propose in-depth studies of three such mechanisms: the role of infomediaries in facilitating access and use of ICTs; the rules prohibiting or encouraging 'non-instrumental' uses of ICTs such as games or social networking in public access venues; and the users practice of sharing, when they take advantage of the presence of others in public venues to use ICTs differently from what they might do in isolation.

These three in-depth studies will allow us to apply various methodologies to explore impact mechanisms in greater detail. These methods range from ethnographies and focus group discussions to interventions and experiments. While these studies will by necessity focus on a few specific sites, we will derive a sense of their general significance from our knowledge, through the inventory and surveys, of the prevalence of the conditions we observe in these particular cases. Conversely, we expect them to suggest specific questions we could include in later survey rounds. Further, these studies will focus on specific areas of impact. Here again, we will openly share methodology and data, so that others could embark on similar studies, for example studying similar mechanisms in different impact areas, or exploring different mechanisms among the many we have identified so far, thus complementing the picture we begin to draw. In the next stage of our project, we will have an opportunity to decide whether we want to take on some of these studies ourselves, and which make most sense.

Importantly, we believe such focused studies will be essential to our ability to make policy recommendations. Should gaming be banned or encouraged in public access venues? Is it worth paying the costs of providing staff assistance or intermediaries? Are there possible arrangements of public venues or configurations of ICT tools that foster productive sharing? While the inventory and surveys can assess existing arrangements, these in-depth studies are a much better way to determine whether changes to current arrangements would yield more significant impacts.

### **3) Indirect and aggregated impacts**

We believe that measuring the impact of public access to ICTs on livelihoods, as we do in the inventory, surveys and in-depth studies of mechanisms described above, risks missing two important dimensions of impact. The first are the impacts on non-users – the people who don't frequent public access venues, but are affected through their relationships with users or their membership in communities surrounding public access venues. The second are the aggregated impacts on communities where some members use public access venues. At one point, we did consider studying these impacts through a survey of the general population (which would include non-users), but this proved prohibitively costly. We decided instead to pursue an additional in-depth study examining indirect and aggregated impacts.

This in-depth study, focusing on "Public access use and the community ecology", takes the community as its unit of analysis, and assesses the use of public access venues against other formal and informal community information resources. It examines how all community members benefit from the presence of a public access venue, whether they use it or not, thus examining the reach of public access venues within the surrounding community.

A second in-depth study will focus more deeply on the impact of public access ICT use on the range of information and communication resources communities have access to and use. This study will be carried out in Botswana and will attempt to take advantage of the Global Libraries Program's plans to put computers in libraries around the country.

### **4) Alternatives and complements to Public Access: Mobile Phones**

Finally, it is important to situate public access venues relatively to other alternative approaches to increasing ICT access. There are several such alternatives, ranging from the distribution of free or subsidized private computers (like the OLPC program), to infrastructure support (such as free WiFi zones), and alternatives to PCs (for example television, radio, or mobile phones). Because mobile phones have become such a widespread and promising access device in the Global South, we chose to set aside a portion of our resources to study their use and impact in relation to, and in comparison with, public access venues.

In this area, we plan to conduct two targeted in-depth studies. The first, set in South Africa, explores whether mobile phones can serve as a replacement for, or a complement to, public access, or whether the two simply co-exist. The second examines the impact of government services provision through mobile phones in the Philippines, comparing their impact with that of computer-based services through public access.