## Interacting with the state via ICTs: Nemmadi Kendras in Karnataka

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Bhuvaneswari Raman and Zainab Bawa argue that technological interventions made as part of egovernance agendas are not neutral and often complicate government-citizen relationships.

Many governments have deployed information and communication technologies (ICTs) in the administration of public organisations through 'e-governance' policies. A recent focus in this direction is the use of ICTs to improve the interface between government and citizens. It is widely believed in policy circles that replacing human interactions with technological interfaces will automatically improve the ways in which the business of the state is conducted. This article questions the underlying deterministic assumptions of e-governance agendas by exploring how technological interventions reshape government-citizen relationships and illustrating how political, bureaucratic, and economic logics provide the impetus for introducing ICTs in governance.

This study draws on evidence from an e-governance initiative called 'Nemmadi Kendra' (NKs) implemented in 2006 in the South Indian state of Karnataka. NKs are computerised kiosks established in Karnataka's rural areas to provide revenue services and land records to citizens under a public-private partnership. Prior to the introduction of Nemmadi, street bureaucrats of the Revenue Department – namely Village Accounts (VAs) and Revenue Inspectors (RIs) – were the main interface between the revenue department, rural citizens, and political classes.



The architects of Nemmadi programme argued that lower-level bureaucrats exerted "monopolistic" control over the delivery of

revenue services. In order to reduce the influence of street bureaucrats, NKs were designed as a public-private partnership programme under which the kiosks are managed by a private agency, which is also mandated to maintain and update the land records. NKs were thus envisioned as a single window for receiving applications for land and tenancy documents by private agents, who are in turn overseen to a limited extent by street bureaucrats.

Interviews with government education officers, *panchayat* members, and local leaders revealed that landless/daily wage labourers did not benefit from the introduction of NKs and many were not aware such a programme existed. The process for obtaining documents through NKs continued to be ridden with bureaucracy, which required users to spend either more time or money or both to obtain land documents. On the other hand, economically affluent users and *panchayat* members found the Nemmadi system to be more convenient. This suggests that ICT interventions have differential outcomes for different groups in a society owing to citizens' differing access to and alliance with various functionaries in the bureaucratic and political hierarchies of state institutions, which impact their ability to articulate and establish claims in different situations.

Another critical issue is the emerging relationship between users and street bureaucrats. The rationale of the Nemmadi programme is that the flow of information through computerised networks (screen, rather than street bureaucrats) makes it easier for superiors to monitor the work of field bureaucrats. Computerisation, however, occupies a very minor role in the overall process of creating, verifying, and delivering land records: NKs\_are only concerned with one type of land record—the Record of Tenancy and Crops (RTC). Although the identity of applicants must still be verified by VAs and RIs, they do not have any influence over creating or correcting mistakes. The process of creating, correcting, or changing records is centralised at higher levels of the revenue department.

The complexities of the new system result in processes and rules being adapted and modified locally, thereby leading to appropriations and subversions of the technology by users, middlemen, government functionaries, and kiosk operators alike. Earlier, villagers would pursue the VA in their own village to issue these documents. But following implementation of NKs, VAs rarely visit and survey villages, having transferred the accountability of record delivery to the computerised system.

Further, the extensive list of supporting documents for each application together with the increase in transaction cost have contributed to applicants approaching brokers and mediators such as *panchayat* members, local leaders, and political activists to submit their applications at NK kiosks. Front-end kiosk operators have emerged as another set of brokers, who maintain relationships with VAs and RIs and are thus approached by users who pay for hastening or bypassing processes.

The design of the programme is further flawed by the fact that technical decisions and their consequences do not stem from an inherent logic of technology, but are influenced by the interests of private actors and their relations with the state. The high cost of technologies is a key factor influencing the decisions of the private partner in terms of selection of technology and the manner in which information is archived.

A recurring theme in the interviews with farmers, brokers, and *panchayat* members pertained to the issue of rectifying mistakes in digitised titles. Errors resulted from the fact that data entry from manual records into the digital system proved to be a cumbersome and contentious process. Technologists faced a challenge in developing a standardised format for digitising titles due to the diversity of land tenure regimes in Karnataka. The columns and tables designed for the database tried to enforce a standard format for recording and managing land information, whereas there were considerable inter-regional variations in the type of information contained in the manual records. Data entry operators therefore had to calculate and convert different measurement denominations into the metric system, causing errors to creep into the digital records.

This is because NK databases were designed and constructed by software companies with sweeping directives from government officials and policymakers; little attention was paid to the prevailing complexities in relation to management of land records, including recording mutations and corrections. The decisions of technologists were often influenced by the fact that the customisation of software and back-end databases is expensive in terms of development and maintenance. Software companies rarely highlight this dilemma when pitching for e-governance projects. Government, for its part, plans and rolls out e-governance programmes on a large scale, which also adds to the difficulty in customising the software. Thus economic and bureaucratic logics of the government perpetuate the continuation of a badly designed system.

Given this, the introduction of technology in governance is not neutral and has political and social consequences for citizens' claims on societal resources as well as their interactions with various levels of authority in the government. . The introduction of NKs has not removed the inequalities that prevail in the socio-economic structure of society. Instead, new layers of bureaucracy and regulation have been added in citizens' relationships and interactions with the revenue department officials. Moreover, the findings of this article illustrate the need to study technologies by embedding them in the institutional, political, societal, and regulatory contexts in which they are introduced and situated. Such an approach moves away from normative assumptions about the impact of technology and allows for more nuanced understandings of how technology reconfigures institutions, processes, power relations and interactions and interactions and citizens.

For more information on this topic, see B. Raman and Z. Bawa, "Interacting with the State via Information and Communication Technologies: The case of Nemmadi Kendras in Karnataka", Media Asia, Vol. 38, No. 1 (2011).

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