



# Achieving digital inclusion

by Doug Cooper

## Government best practice promotes household adoption of computers

**S**INCE THE EARLY 1990s, an increasing number of governments have developed programs to encourage internal departments, businesses and citizens to promote the adoption of information and communication technologies (ICTs). Ultimately, the goal of these programs is to increase sustainable practices; generate new growth and jobs; increase productivity; create public services that address the needs of citizens; increase the efficiency of public services; and improve the engagement and participation of citizens in the democratic process. Some of the best examples of successful, international ICT adoption programs include:

- **Sweden:** the first country to launch a technology adoption program in 1998. Within three years, PC ownership doubled from 41 percent to 80 percent of households.
  - **UK:** the Home Computing Initiative was launched in 2004, combining tax incentives and government/industry marketing. It brought computers to 200,000 households within the first 10 months.
  - **Philippines:** the People's PC Program, launched in 2003, was specifically designed for public school teachers. PC ownership increased by 110,000 within the first year of the program.
  - **Saudi Arabia:** the Saudi Arabian Home Computing Initiative, launched in March 2004, is on track to bring computers to one million Saudi households by 2009. The program allows adopters to pay approximately \$25 a month for two years via their telephone bill for a high performance home computer.
  - **Brazil:** the PC Conectado program offers tax credits worth \$150 per home computer to increase PC adoption by five million additional PCs by 2008.
- In Canada, the following ICT adoption programs are helping citizens and governments interact on a whole new level:
- **Toronto:** Toronto Hydro Telecom is blanketing the city of Toronto with WiFi coverage, making it the largest WiFi zone in Canada.

- **The Township of Chapleau:** This northern Ontario city is providing one of the first rural wireless mesh networks in Canada. In the coming year, Project Chapleau will develop new models for the provision of healthcare, education and commerce.
- **The City of Fredericton:** The city offers free wireless Internet access, enabling citizens and local departments to increase productivity.
- **The City of Hamilton:** The city is using WiFi networks to measure customers' electrical consumption from smart meters on an hourly basis and report information back. Hamilton expects to install 100,000 smart meters by the end of 2007 and is using WiFi networks to provide citizens with wireless Internet access to free, online resources provided by the city.
- **British Columbia:** The BC Interior Health Authority's Care Anywhere mobile community care system is increasing case manager efficiency and facilitating the delivery of better, faster healthcare in remote areas using electronic health records.

While creating a government assisted ICT adoption program may seem daunting initially, it need not be. The following four guidelines can help governments map their plans to develop similar programs in their own communities:

1. **Review a model implementation process.** While the details of any successful implementation will vary, some core elements are similar among the leading exemplars of ICT adoption programs. Governments around the world have adopted different approaches to tackling digital exclusion, reflecting the different social, economic and political contexts in which they operate. An analysis of digital inclusion strategies of over 30 countries shows they share a number of common underlying features in terms of the outcomes they are seeking to achieve, the objectives they pursue in doing this, and the policies and



actions they use to achieve these objectives. Steps taken to develop programs frequently include:

- partnering with intermediary organizations able to reach digitally excluded people – often employers, but also schools and universities, trade unions, and community groups depending on the focus of the scheme;
  - encouraging these intermediaries to fund and lead the marketing of schemes;
  - reforming tax laws to enable citizens to purchase home systems through their employers at a discounted rate or tax free;
  - pushing the IT vendor community (computer manufacturers and resellers, telecommunication providers, ISPs, and content providers) to bundle services together and provide discounts;
  - aggregated purchasing (sometimes by government, but more commonly by employers or other intermediary organizations) to achieve discounts on both ICT and credit financing; and
  - structuring automatic payroll deductions – e.g., employee purchase programs (EPPs).
2. **Develop a stakeholder map.** Set out the roles and interests of the different stakeholders from the public, private and non-profit sectors who are typically involved in successful implementations.

Typically, all central government, wider public sector organizations and employers are stakeholders, and their goals are to increase PC penetration and use, support e-commerce and e-government take-up, increase the level of education and skills and increase productivity.

Digital inclusion programs can help employers with employee recruitment and retention while also being tools for increasing employee skills and productivity.

Leading hardware vendors will want to partner with government agencies on the design and implementation of programs that support their goals of becoming 'trusted advisors'. Since telecommunications companies will provide the infrastructure and services by which employees will access the Internet, they will seek to bundle their services with PC resellers offering schemes to employers.

**3. Create a checklist of critical success factors**, based on qualitative research conducted with a range of government leaders who have successfully introduced such schemes. The checklist should:

- help quantify the fiscal implementations of the scheme;
- help assess the impact of digital inclusion programs on competitiveness, productivity, market for e-government services, skills and education;

- have clear market research results about the perceived benefits for end users and employers;
- have a clear vision of how the scheme addresses the existing barriers to PC adoption; and
- engage all sectors and sub-sectors identified in the stakeholder map.

**4. Have answers for "frequently asked destructive questions."** In any government, there are always a 1,001 reasons why a good idea does not go forward! An "FADQ" guide sets out the main barriers that internal resistors-to-change raised to governments that have eventually implemented home computer initiatives, and the arguments and approaches that internal champions used to overcome them. For instance:

**Q:** There's no need for government action – the market will deliver home computers to the home in time.

**A:** Almost certainly not. Home computer penetration hovers at 70-80 percent of the population, and the remaining non-users are hard to convince.

**Q:** Why should this be a priority for government investment compared with areas such as health and education?

**A:** ICT access is an enabler of growth, productivity and quality improvements in all sectors of the economy and these

benefits increase as more users get engaged.

**Q:** The impact of employee purchase programs are not additional – surely most people who buy a home computer this way would have bought one anyway?

**A:** While there will be some 'deadweight' in any scheme, employee purchase programs have a real impact on household PC penetration above the forecast growth rate.

Government representatives interested in discussing the issues raised in this article can contact the Digital Inclusion Support Team (DIST) to arrange personal, in-country advice and support. The DIST consists of people who have senior, strategic level experience in implementing successful home computer schemes – from both sides of the government and industry partnership. Their services are expert, politically and technologically neutral, and free. DIST can be reached by emailing [digitalinclusion@gov3.co.uk](mailto:digitalinclusion@gov3.co.uk). ☎

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