The Azerbaijani Model of Technology Leapfrogging

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What is Technology Leapfrogging?

Technology Leapfrogging is defined as the implementation of a new and up-to-date technology in an application area in which at least the previous version of that technology has not been deployed (Davison et al. 2000)

Why Leapfrog?

– Achieve cutting edge connectivity quickly and cost effectively (i.e. without having to invest in successive generations of ICT – Liu & Yuan 2015)
– Avoid risks of experimentation and R&D
– Gain from the experience and expertise of developed countries (Gray & Sanzogni 2004)
– No inertia from legacy ICT infrastructures
Technology Leapfrogging in Azerbaijan

Phenomenally successful in terms of National ICT Infrastructure Development and Connectivity

– 77% Internet Penetration, 62.4% of households have a computer, 112 mobile subscribers per 100 citizens

Occurred in 4 phases: Analogous to a physical leapfrog

Psyching  Planting  Propelling  Perpetuating

Source: Blake Abernathy (https://www.youtube.com/watch?v=uj4rlOC9CvM)
Phase 1: Psyching

Formulating a strategy for National ICT Development

Initiatives of Azerbaijan:

   - The “Blueprint”: Overall objectives, strategic thrusts
   - Signal of government commitment

   - The “Action Plan”: How ministries and government agencies will work together to carry out the plan
Phase 2: Planting

Establishing the **foundation** for National ICT Development

**Initiatives of Azerbaijan:**

1. Seek foreign expertise
   - E.g. eGovernment training in Estonia, Booz Allen Hamilton
   - Achieving **Legitimacy** and **Knowledge Transfer**

2. Taking stock of existing capabilities
   - Pockets of **local knowledge**
   - Identify entities in related roles that can be **repurposed**
Phase 3: Propelling

Enacting the Initiatives of National ICT Development

Initiatives of Azerbaijan:

1. Capability Development and Application
   - Infrastructural Development
   - New ICT-Enabled Services

2. Bricolage
   - Use of local experts to provide strategic direction
   - Repurposing and empowering entities for advanced roles
Phase 4: Perpetuating

Maintaining the trajectory of National ICT Development

Initiatives of Azerbaijan:

1. Demonstrate Success
   - Showcase **benefits** and **outcomes**
   - Generating **buy-in** and **goodwill** for future projects

2. Monetize developed initiatives
   - e.g. Sell access to infrastructure, facilitate ICT-enabled businesses
   - Use ICT-enabled development to generate **socioeconomic impact**
Conclusion

Technology Leapfrogging is a means of achieving the cutting edge in connectivity and ICT development

Technology Leapfrogging can bring about a number of significant benefits

Technology Leapfrogging is a process consisting of four phases

The Process Model developed based on the case study of Azerbaijan can be used as a step-by-step guide and reference for informing ICT Development in LLDCs
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