



## CONNECTED SCHOOLS: SPATIAL IMPLICATIONS, ACCESSIBILITY AND THE DIGITAL DIVIDE IN SMALL TOWNS AND RURAL AREAS OF BUENOS AIRES, ARGENTINA

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### INTRODUCTION



In recent decades, schools have evolved from being merely educational institutions to becoming key nodes for territorial articulation, especially in small towns and rural areas. In these contexts, schools are often the only source of public infrastructure, providing access to the internet, government services and spaces for community gathering.



The concept of "connected school" integrates spatial, technological, social and educational dimensions, directly contributing to territorial cohesion and the reduction of inequalities. In the province of Buenos Aires, gaps in physical and digital accessibility especially affect rural and peri-urban areas, limiting equitable access to educational and technological opportunities.



Although there have been advances in educational connectivity policies, fragmentation remains between territorial, educational and technological planning. This research aims to analyze the role of schools as territorial organizers and critical infrastructure to reduce the digital divide and strengthen community resilience.

#### OBJECTIVE



To analyze how schools, through their connectivity and infrastructure, contribute to territorial cohesion and the reduction of the digital divide in small towns and rural areas of Buenos Aires Province.

#### STUDY AREA

ARGENTINA

Buenos Aires Province

- Schools surveyed
- Localities studied

### METHODOLOGY

#### RESEARCH DESIGN



- Mixed-methods approach: quantitative and qualitative.
- Case study in small towns and rural areas of Buenos Aires Province.

#### DATA COLLECTION AND TOOLS



Survey of school infrastructure.



Spatial analysis using Geographic Information Systems (GIS).



Mapping of physical accessibility and digital connectivity.



Surveys and interviews with: teachers, school principals and community members.

#### ANALYZED VARIABLES



Access to digital connectivity



School territorial coverage



Distances and accessibility



Community use of school infrastructure



Educational and social impact of connectivity



### PRELIMINARY RESULTS



Rural schools act as multifunctional territorial nodes.



Digital connectivity improves:

- access to educational resources,
- institutional communication,
- community engagement.



Significant inequalities exist between urban and rural areas in terms of:

- technological infrastructure,
- access to the internet,
- coverage of services.



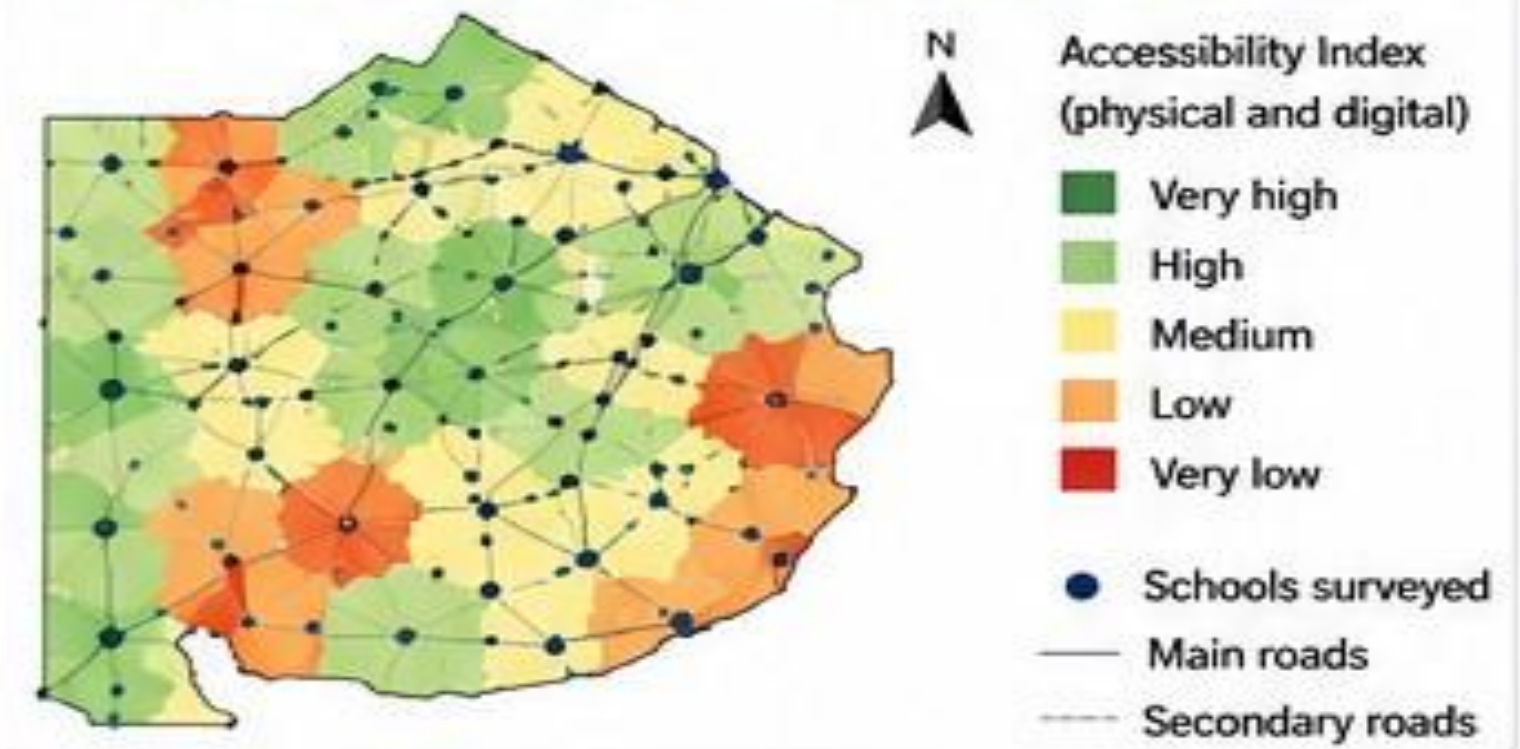
Schools with higher connectivity show:

- greater community resilience,
- strengthening of local networks,
- reduction of territorial isolation.

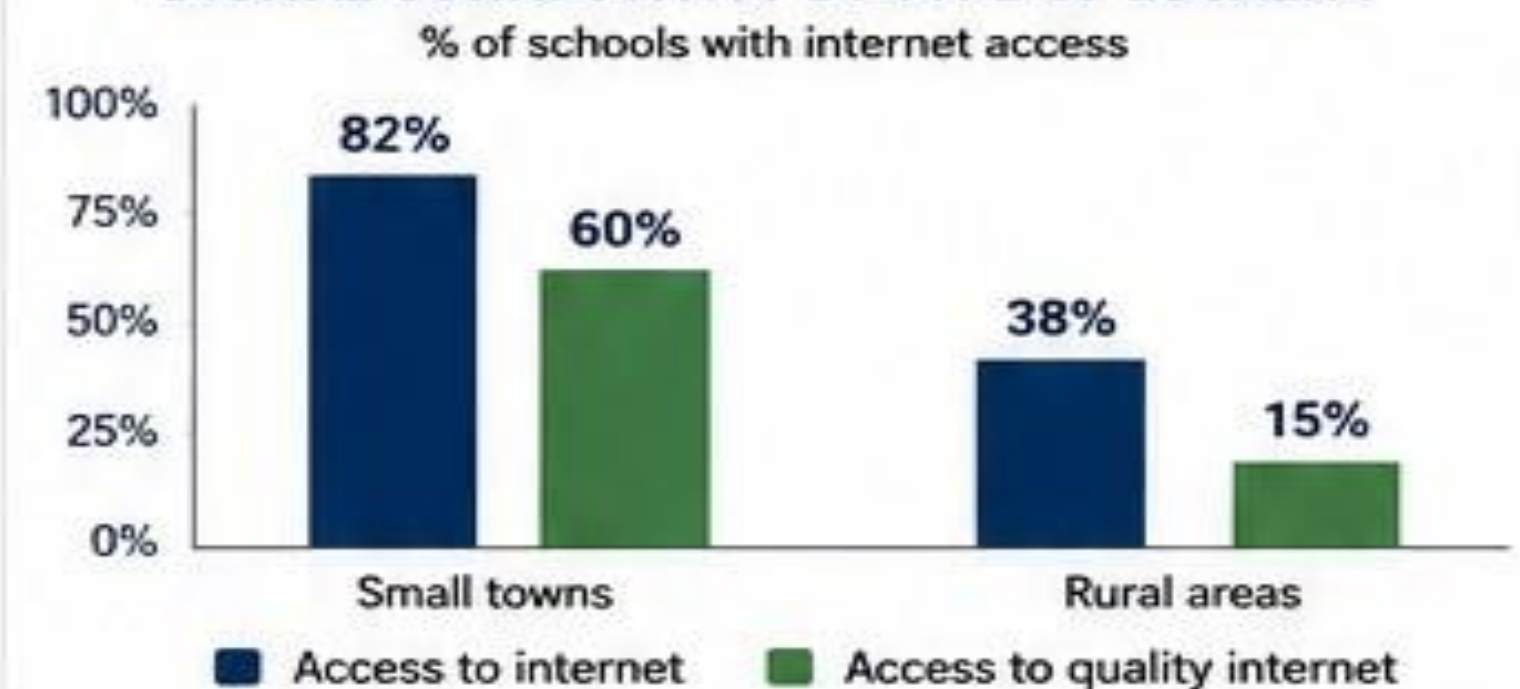


GIS analysis shows areas with low physical and digital accessibility that require priority planning.

#### PHYSICAL AND DIGITAL ACCESSIBILITY – GIS ANALYSIS



#### DIGITAL CONNECTIVITY BY TYPE OF LOCALITY



### CONCLUSIONS



Connected schools are strategic infrastructures for territorial cohesion and digital equity in small towns and rural areas.



The integration of educational, technological and territorial planning is essential to reduce digital divides, strengthen local communities and improve educational accessibility.



Preliminary results suggest that investment in school connectivity not only improves educational quality but also promotes social inclusion and territorial resilience.



Strengthening connectivity improves access to resources, institutional communication and community engagement, reducing territorial isolation.



It is proposed to advance toward comprehensive public policies that recognize schools as intelligent nodes of territorial articulation.

