Low-Cost Network Technologies for Socio-Economic Empowerment in Developing Areas

Adriano Galati, Vladimir Vucadinovic, Seth Frey, Maria Olivares, Stefan Mangold
Disney Research Zurich

United Nations Educational, Scientific and Cultural Organization

INTRODUCTION

ICT and mobile technology may play a significant role in the economic and social empowerment of rural communities in developing regions. However, rural areas often suffer from slow and unreliable network infrastructures. This limits access to content and services that may promote economic development.

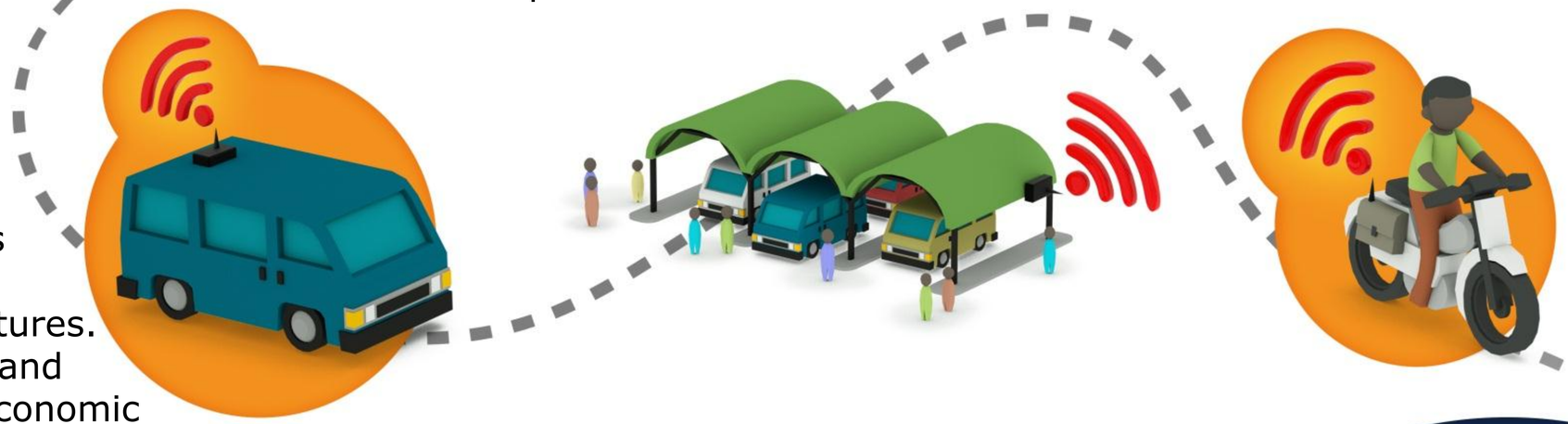
AIM

Focusing on such areas, we aim to explore how ICT systems for collective intelligence and awareness can be used to foster economic and social empowerment of rural communities.

Acknowledgements
Disney Lab Artist: Alessia Marra
Mosaic-2B project is partially funded by the EU FP7 framework program for research, technological development and demonstration under grant agreement no. 611796

METHOD

Locally recruited entrepreneurs equipped with simple, inexpensive, and small projectors and mobile phones travel between remote villages to deliver educational and entertainment content.
We will run field experiments and collect quantitative and qualitative data on both the technical and social factors behind entrepreneurial success.



NETWORK TECHNOLOGY

Mobile infostations mounted on public transportation vehicles are used to distribute content, without the need for any other dedicated network infrastructure or support of telecom operators. The delay tolerance of opportunistic networks makes them ideally suited to environments with under-developed ICT infrastructures.

CONCLUSION

Our field trials will establish the potential of opportunistic networks to facilitate socio-economic empowerment of rural communities.
Our hypothesis is that local entrepreneurs will quickly obtain a wealth of local market knowledge that can be harnessed to unlock new opportunities.