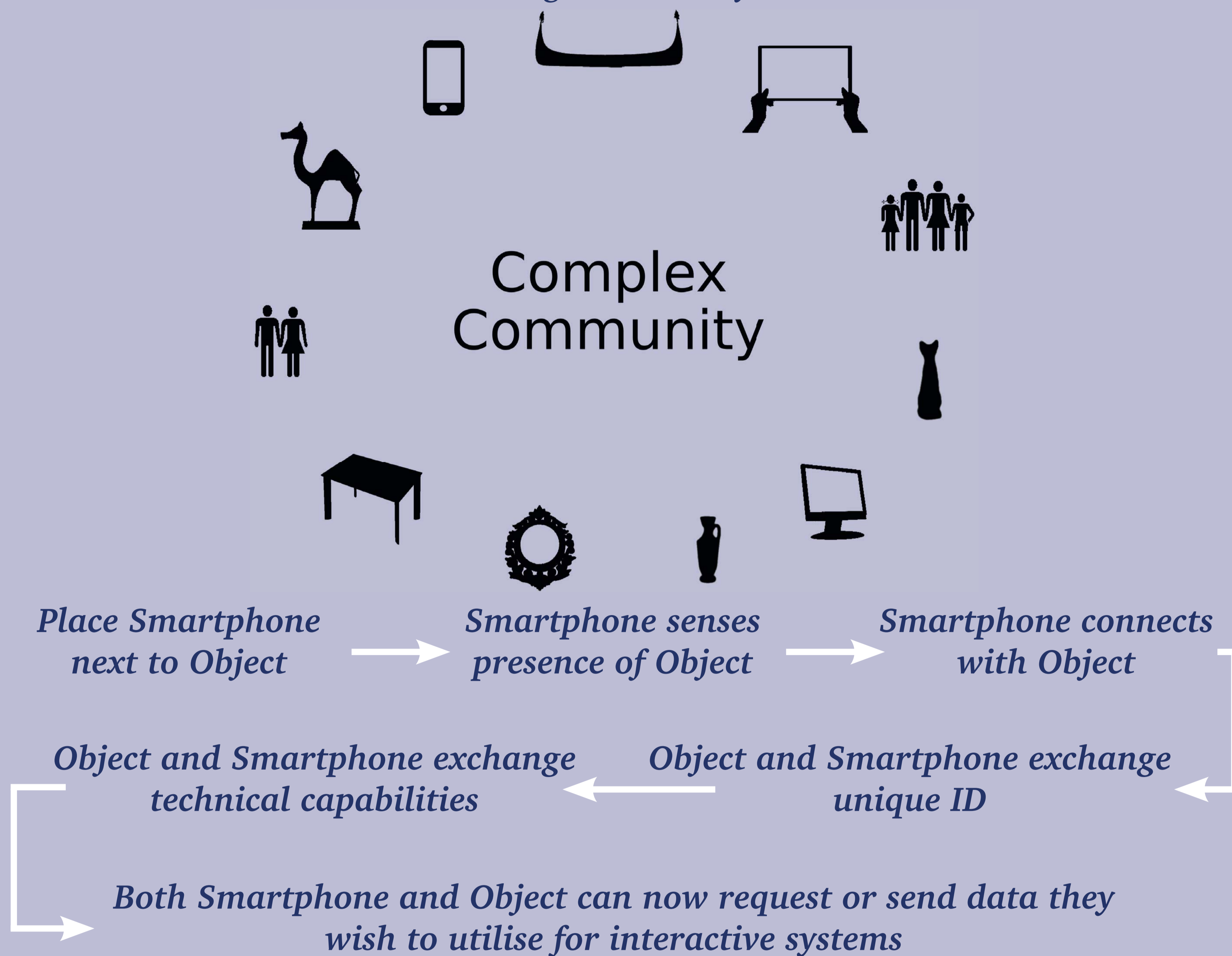# Connect and Connectivity:
Revealing a World of Interactions

Overview

The presented framework (Sytizen) facilitates the information flow and communication within a large network of interconnected entities.

Complex Community

Place Smartphone next to Object → *Smartphone senses presence of Object* → *Smartphone connects with Object*

Object and Smartphone exchange technical capabilities ← *Object and Smartphone exchange unique ID*

Both Smartphone and Object can now request or send data they wish to utilise for interactive systems

Introduction

Connectivity is embedded into our modern day society. Devices increasingly rely on permanent network connections, and people keep connected through social networks. Technological advances allow everyday objects to become part of large networks of interconnected entities. Connectivity within these networks allows for the design of novel interaction methods that utilise the digital input and output capabilities of connected entities. However, when specifically designing for interaction, entities become entangled and remain oblivious of each other's features.

This poster presents our current progress in opening up the space of connectivity by identifying a community of objects, people and devices and providing the means to discover, and make use of the technological properties of each element, reating them as an interacting ecosystem of complex adaptive systems and networks in physical spaces.

Sytizen: Working Together

Operating in three steps to facilitate information flow.

1. **Introduction**
   (identify individual entities — Who are you?)
2. **Specification**
   (get insight in technical capabilitiess — What can you do?)
3. **Communication**
   (send / receive data — give me that information!)

Connectivity

The vast amount of digital input and output capabilities of technologies within large interconnected networks are hidden potentials. However, unless specifically designed for these technologies are oblivious of each others' technological features. Once objects, people and devices become part of large interconnected networks, this allows them to explore each other's technological capabilities, opening connectivity, channels for new synergy, and allows to give rise to novel interaction methods.

Future Work

- **Develop:**
  Novel interaction methods and interactive systems.
- **Experiment:**
  Run experiments where we test novel interaction methods for user satisfaction.

Acknowledgements

Heritage and Cultural Learning Hub & The HCI Centre

Gido Hakvoort, Russell Beale, Eugene Ch'ng

UNIVERSITY OF BIRMINGHAM

now you can do.