Westat

ODK for Survey Data Collection

Rick Mitchell, Jason Ives, and Abie Reifer

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Our Work Environment …

Agenda

- About ODK
- Project Characteristics & Requirements
- ODK Capabilities
- ODK at Westat
- Closing Comments

About ODK

- Open Data Kit (ODK) is an Open Source mobile data collection tool
- Developed and primarily maintained by graduate students of the University of Washington
- Actively being used by academia and a number of international research projects
- Initially funded by Google Research Award
- Has a very active user community
- Additional support options are available from former founders and graduate students
- Is Java based. All source code is available for review and/or modification
- Data collection client application runs on Android mobile devices

About ODK

Functions ODK Supports Include:

- Instrument/form authoring
- Field data collection
- Transmission of collected data
- Centralized storage and management of data

Primary components of ODK

- ODK Build
- ODK Collect
- Aggregate Server

Project Characteristics & Requirements Research Areas

- International - mostly developing countries
- Variety of surveys across multiple projects
- Over 30,000 households surveyed across 10 countries
- Planning for 100K+ surveys across 20 countries
- Utilize third party field staff with varying experience using mobile technology for data collection
- Considerations for in-country capacity building

Project Characteristics & Requirements Environment

- Often data collection is performed in developing areas
  - Limited Infrastructure
    - Power Availability
    - Communications Infrastructure
    - Travel Difficulty
  - Rough Conditions
    - Unpaved Roads
    - Dusty Environments
    - High Humidity
  - Seasonal Conditions (e.g. rainy/monsoon season)

Project Characteristics & Requirements Software/Device

Software

- Government clients like Open Source solutions!
- International partners like Open Source solutions!
- Original Hope – Software with a quick learning curve, a low barrier to entry, and without a need for highly sophisticated developers

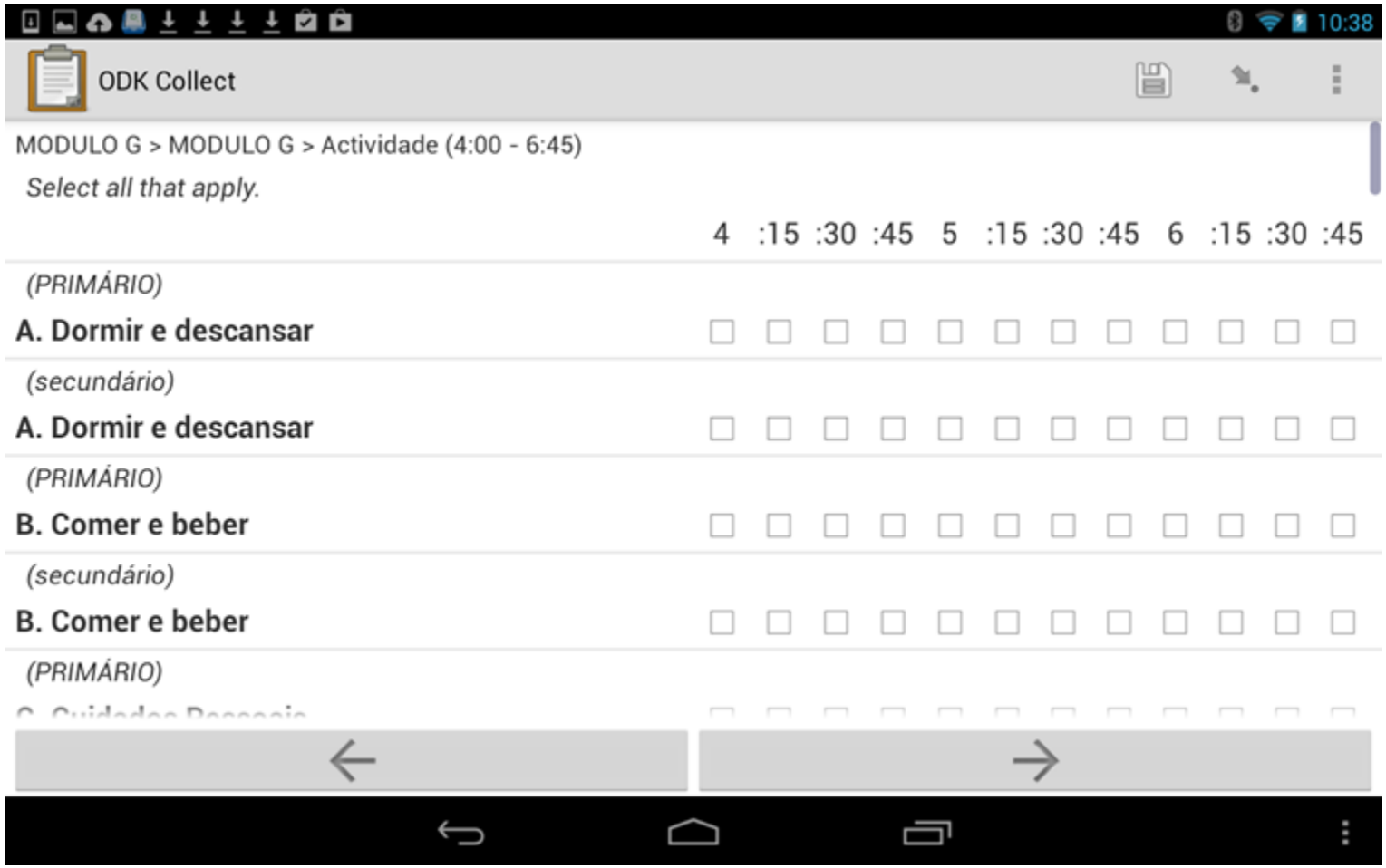
Device

- Small, light-weight devices (tablets)
- Cost-effective devices (Android vs. Windows)

ODK Capabilities
The Basics

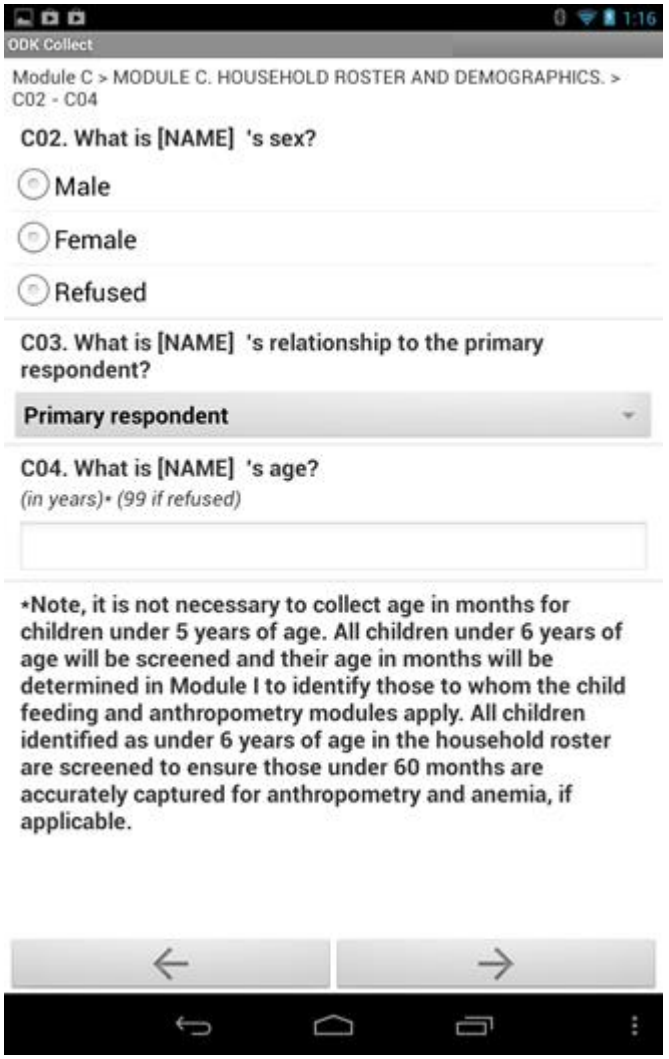
- Operates on Android devices (including low cost devices)
- Operates in a disconnected mode
- Provides an end to end solution
- Non proprietary solution allows for capacity building
- Source code available for modification if specialized capabilities are needed
- Data is securely transmitted to Westat's hosting facilities.
- Use of tool by data collectors doesn't require specialized application skills
- Data can be extracted and used in a variety of forms

ODK Capabilities
Multi-Language and Multi-Selection For Data Capture

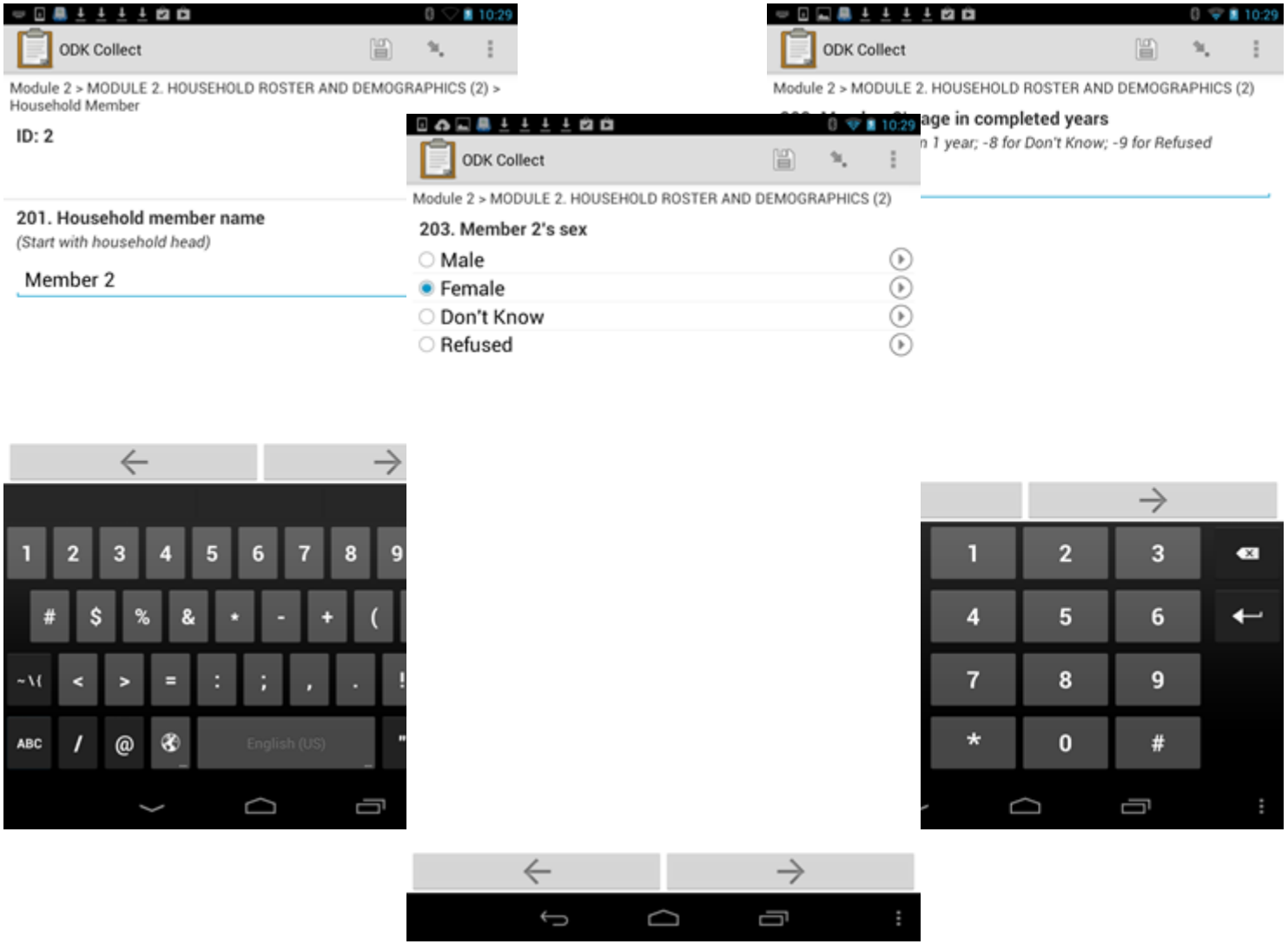


ODK Capabilities
Wide Range of Data/Image Types

- Text
- Numeric
- Calculations
- Select one / multiple
- Date / Time
- Barcode
- GPS
- Photo / Video / Audio Capture
- More…



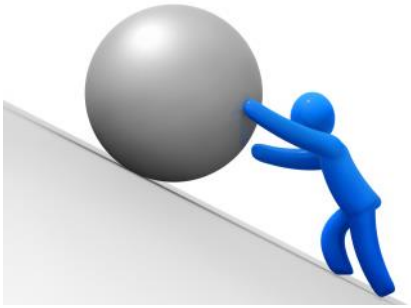
ODK Capabilities
Simple Data Entry & User-Friendly Interface



ODK at Westat
Staffing Skill Levels to Use ODK

- Junior Instrument Developers
- Senior Software Developers (Java skills are a plus!)
- Server Configuration & Security Management
- Field Teams – easy to use, low learning curve

ODK at Westat
Our Challenges



- No built in Case Management and Assignment
- Limited approach for Supervisor data review and QC
- Limited support for ACASI
- Need for support of other project specific requirements
- More senior development than previously anticipated

ODK at Westat
Our Contributions to the ODK Community

- Significant feedback on server size limitations
- Passing data from one tablet to another within ODK
- Potential enhancements for ACASI capabilities
- Variety of feedback on advanced technical issues

Closing Comments

- Implementation of ODK surveys has been positive
- Unique needs should be identified early in the process
- Westat has stretched ODK to its limits in some ways
- Ease of use is highly dependent on complexity of survey

Questions?