ExCiteS Data Collection Suite

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ExCiteS Research Group

ExCiteS is UCL’s interdisciplinary group that develops...

- Theories
- Tools
- Methodologies

...to enable any community anywhere to engage and participate in Citizen Science.
Our challenge is to provide non-literate indigenous people with tools that empower them to **take action**, and **protect** their local environment and way of life.
Challenges

• Illiteracy & education
  – Language
  – Cultural differences
  – Technology
  – Maps
• Lack of network connectivity
• Lack of electricity
Component Architecture
Project Definition
User Interface
User Interface
Data Transmission via SMS and/or Wi-Fi/GPRS/3G

- Efficient use of limited space
  (1 SMS = 160 7-bit characters = 140 Bytes)
- Chaining of multiple SMS messages (“transmissions”)
- Compression (GZIP, LZMA) & Encryption (AES)
- (Optional) flight-mode cycling to preserve power
- Dropbox upload for media files
Challenge: device interface
ExCiteS Launcher
ExCiteS Launcher Settings

- Applications
- Shortcuts
- System Settings
- Import settings
- Export settings
- Change your password
- About
- Exit

Business Calendar
- Calculator
- Calendar
- Camera
- Camera ICS
- Camera ZOOM FX
- CamScanner
- Cartoon Wars
- Checkers Free
- Chess Free
- Exit
Future work

• Allow the creation of traditional forms:
  – Text inputs
  – Checkboxes
  – Radio buttons

• Build web-based design tool
  – decision tree
  – forms

• Data visualisation tools for illiterate users
  – maps
  – charts
References


Lewis et al. (2012). “Accessible technologies and FPIC: independent monitoring with forest communities in Cameroon”. In: Biodiversity and culture: exploring community protocols, rights and consent (PLA 65), pp. 151–165.


Thank you for your attention. Any questions?

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