# The UBhave Framework: Dynamic Pervasive Applications for Behavioural Psychology

Charlie Hargood[1], Veljko Pejovic[2], Leanne Morrison[1], Danius Michaelides[1], Mirco Musolesi[2], Lucy Yardley[1], Mark Weal[1]

University of Southampton[1] and University of Birmingham[2]

UBhave is ... A Framework to Enable Authors to Create and Manage their own Mobile Digital Behavioural Change Interventions

1. Author designs intervention using visual authoring tool
2. Intervention is hosted on central server
3. Participant selects and downloads intervention on mobile client: LifeGuide Toolbox
4. LifeGuide Toolbox interprets intervention design and presents specified content
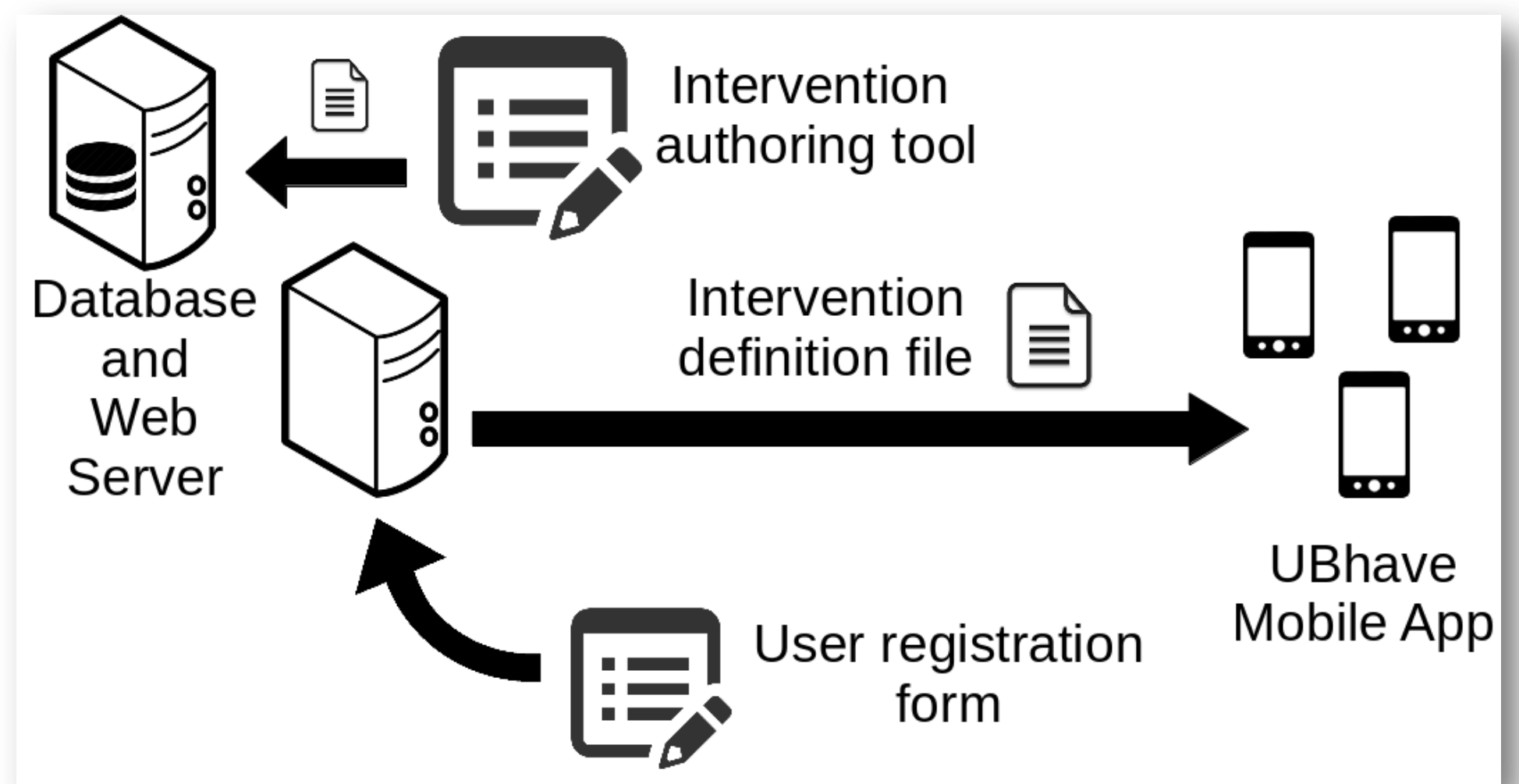
An Activity Centric Model of Intervention Content that Enables Detailed Tailoring, Collection of Varied Usage Data, and Intelligent Notification
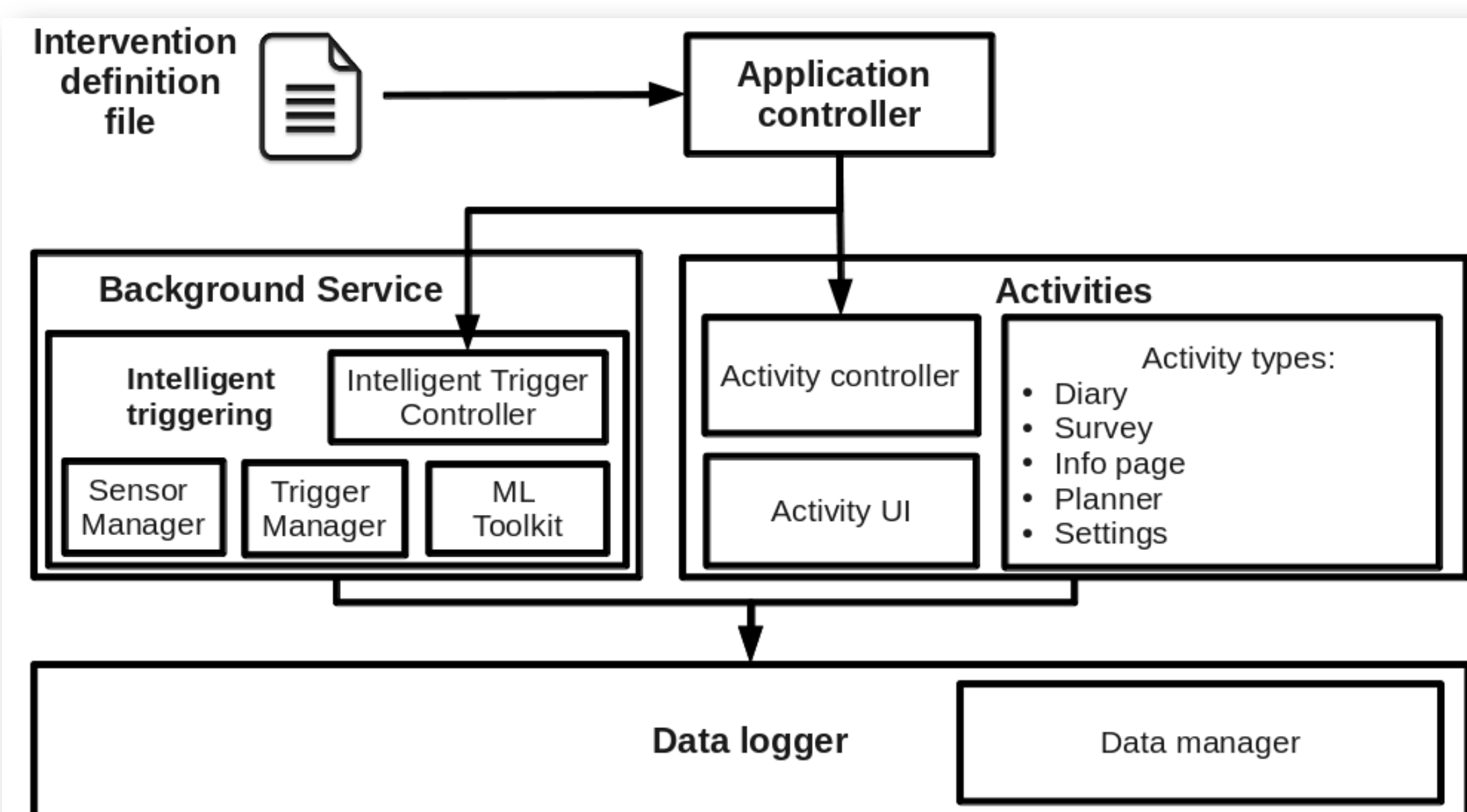
- Three Types of Recorded Data
  - Intervention Data
    - Responses to surveys, diary entries, planner entries
  - Usage Data
    - Logs when users access different activities or receive notifications
  - Sensor Data
    - Range of sensors including accelerometer and GPS recorded at regular intervals

HealthyMind – A Tailored Intervention for coping with stress

- Nine Different Tools
  - Unlocked based on user reviews of other tools
  - Made up of a variety of textual descriptions of activities and planners
  - Use of sequences and conditional navigation for a tailored experience
- Intelligent notifications
  - Interrupt the user during convenient times
  - Recommend new tools based on usage

Follow up conversations and queries: please contact **cah07r@ecs.soton.ac.uk**