EdgeDroid

An Experimental Approach to Benchmarking Human-in-the-Loop Applications

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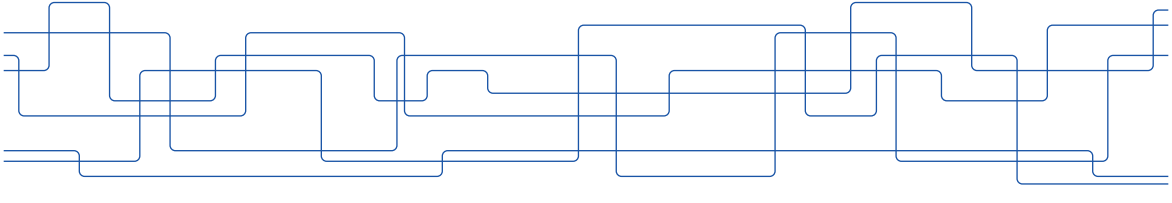

Outline

- Introduction & Background
- Experimentally Benchmarking Human-in-the-Loop
- Conclusions

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  - Human-in-the-Loop Applications
  - The Problem
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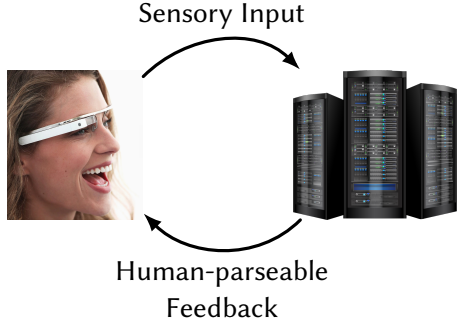
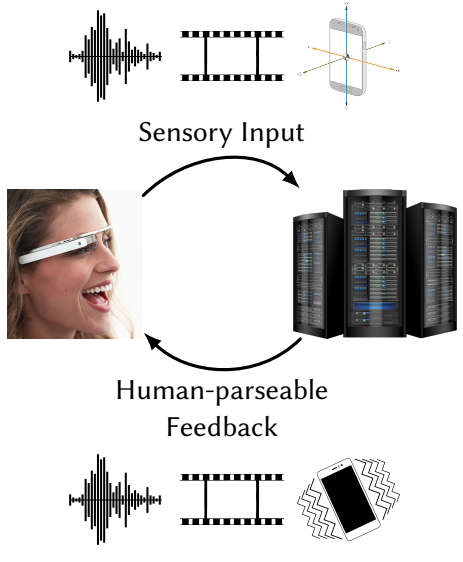

Sensory Input
Human-parseable
Feedback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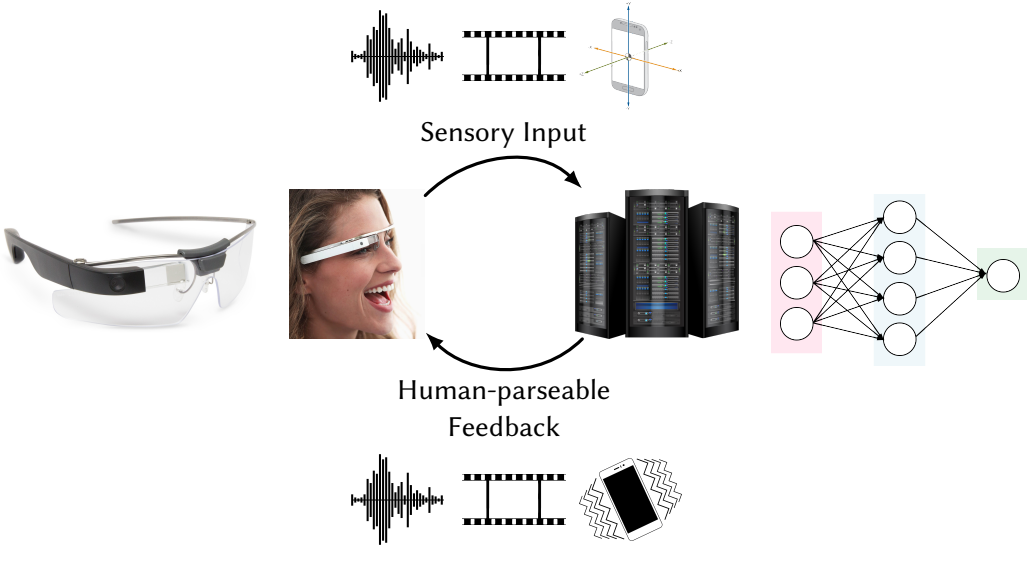
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The Problem

Benchmarking human-in-the-loop applications is HARD

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  - Approach
  - Implementation
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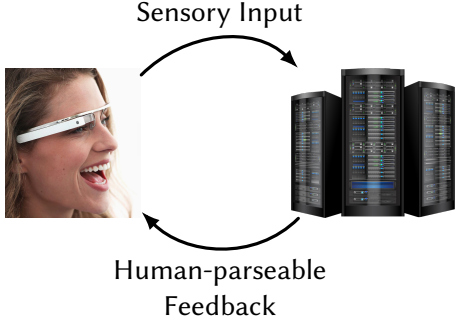
Approach: Motivation



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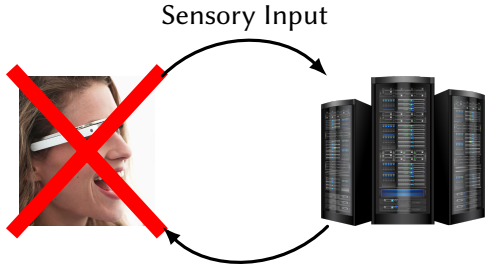
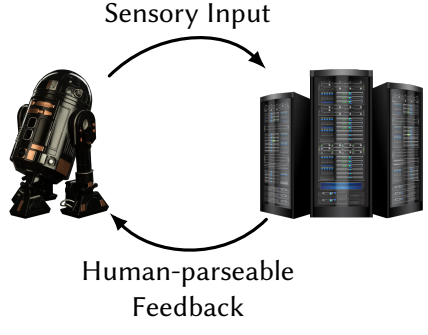


What if we could do away with the human user?

Approach: Motivation



What if we could do away with the human user?

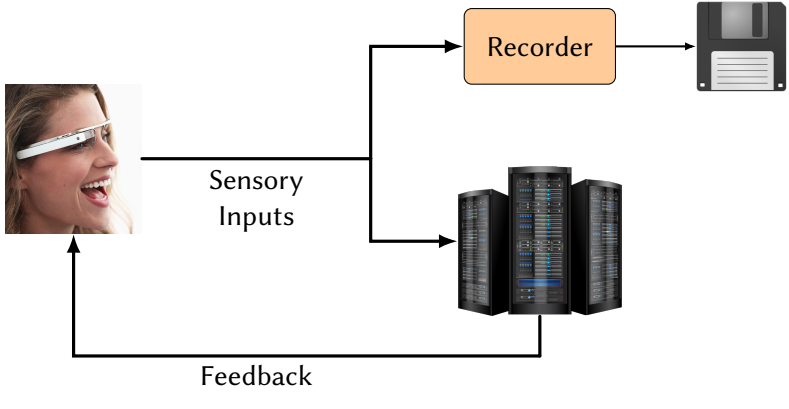
EdgeDroid: Idea

- Generate realistic, real-time inputs.
- Correctly react to feedback.

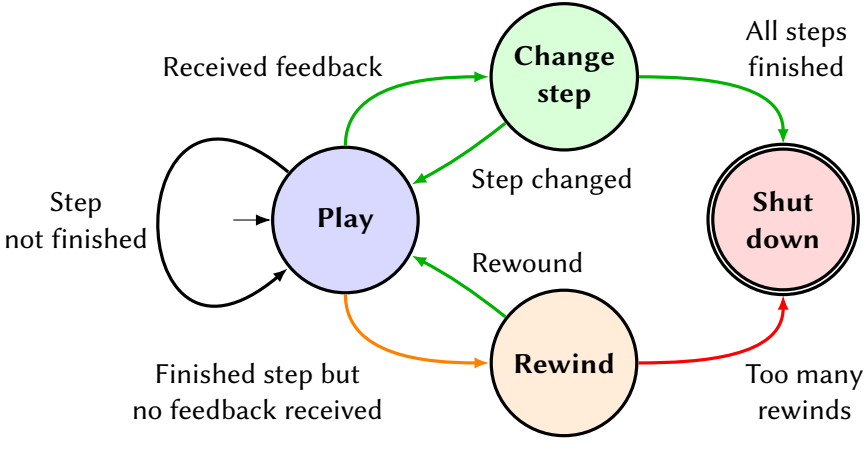
EdgeDroid: Idea

- Generate realistic, real-time inputs.
  - Trace of human-generated inputs.
- Correctly react to feedback.
  - Model of human interaction.

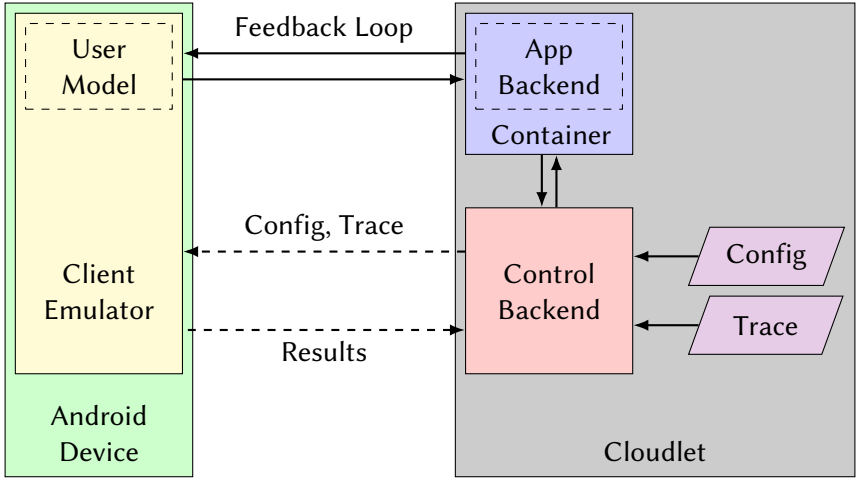
EdgeDroid: Tracing



EdgeDroid: User Model



Implementation



Evaluation

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Thank you!

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