Agenda

Research Topic/Idea Evaluation
HW2
Recap

How to find or generate ideas?
Research Formulation

What are you trying to do? Articulate your objectives using absolutely no jargon.

How is it done today, and what are the limits of current practice?

What's new in your approach and why do you think it will be successful?

Who cares?

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Research Formulation

If you're successful, what difference will it make?

What are the risks and the payoffs?

How much will it cost?

How long will it take?

What are the midterm and final "exams" to check for success?

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Competition / State-of-the-art

How is it done today, and what are the limits of current practice?

How to find these projects/products/papers?
Case Study

Lets try to answer the questions for this project

Feasibility of LoRa for Smart Home Indoor Localization
http://www2.cs.uh.edu/~gnawali/papers/lorasmarthome-as21-abstract.html
Other Approaches

Random
Top trends and lists
Interestingness
Parallels to Products

Research can be thought of as a Product

Product Viability Evaluation
Companies do this all the time
Lets look at some examples
Viability of Product Idea

1. What is the potential market size or demand?
2. Who are your competitors?
3. Is it a trend, fad, flat or growing market?
5. Who are your target customers?
6. What is your potential selling price?

Research vs Startups

What should you work on? Are you working on the right problem?

MVP.

Usually resource constrained and must prioritize.

Small team.

Selling process.

Marketing.

(Thanks to Guo)
HW2 - Research Formulation

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