#### What's Important?

Tell me, what is it you plan to do with your one wild and precious life?

Mary Oliver "The Summer Day"

#### One Media Lab Spin-off

Ember's Vision: promote "The Internet of Things", providing reliable, low-cost communication among embedded microcontrollers by selling chips, software, and development tools.

- Co-founded Feb, 2001 with classmate Andy Wheeler.
- To date, raised \$53 in VC.
- 50+ employees with offices in Boston and (the other) Cambridge.
- Bob Metcalfe is Chairman and interim CEO.
- Ember is a supporter and driver of IEEE 802.15.4 and ZigBee standards



# Three Guiding Principals for any Startup

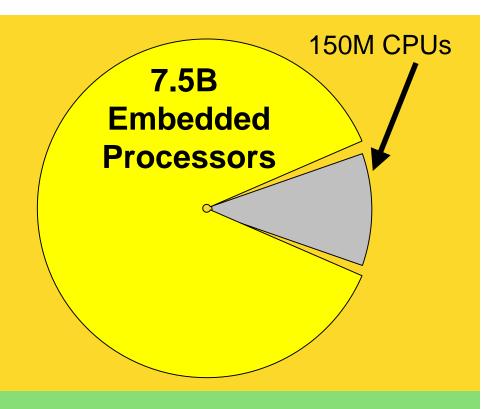
#### Make a difference.

- Do something that makes a fundamental and positive difference for the world.
- Make a business, not a hobby.
  - You owe your investors the best sustainable return on investment.
- Make the experience special.
  - You owe your team more than a paycheck.

### Making a Difference

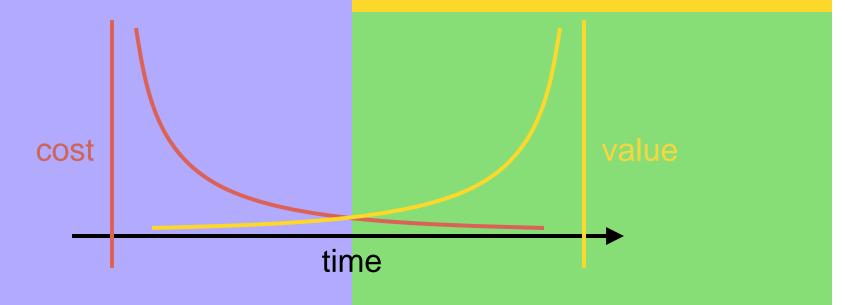
Embedded chips outpace CPU class chips by 50:1 (and growing): the majority of all computing is already autonomous and unattended.

Short-range, low-cost wireless networking standards, such as ZigBee have evolved to link them together.

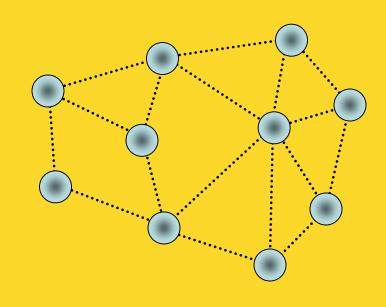


## A Tale of Two Exponentials

- Moore's Law: The cost of silicon-based systems decreases exponentially over time.
- Metcalfe's Law: The value of connecting to a network increases exponentially with the number of devices on the network.



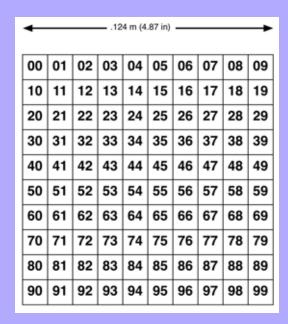
#### Mesh Network Primer

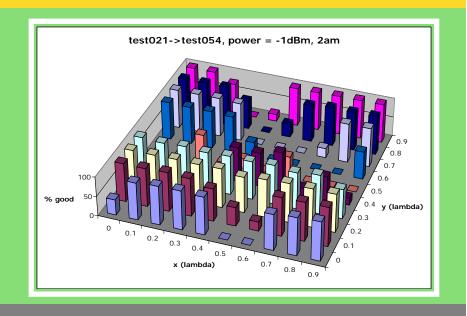


- In a Mesh Network, nodes have redundant paths to other nodes in the network.
   Each node is a router for its neighbors.
- Question: Why is this important?

### Mesh Network Primer

Answer: Multipath effects are commonplace.







# Be bold. Be brash. Be thoughtful. Have fun.

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"Far better to dare mighty things, to win glorious triumphs, even though checkered by failure, than to take rank with those poor spirits who neither enjoy much nor suffer much...in the grey twilight that knows not victory nor defeat."

- T. Roosevelt