3 MYTHS OF BEHAVIOR CHANGE & OTHER CHALLENGES FOR SUSTAINABILITY JENI CROSS, PhD

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GREENHOUSE GAS REDUCTION WEDGES





ENERGY SOLUTIONS



SOCIAL SCIENCE

Conservation

TECHNICAL SCIENCES

- Renewable Sources
- Efficiency
- Smart Technology

ENERGY SOLUTIONS



SOCIAL SCIENCE

- 1. Design
- 2. Adoption
- 3. Use
 - Renewable Sources
 - Efficiency
 - Smart Technology

TECHNICAL SCIENCES

- Basic Research
 - Renewable Sources
 - Efficiency
 - Smart Technology

LEVELS OF BEHAVIOR CHANGE





LEVELS OF BEHAVIOR CHANGE





CURRENT CHALLENGES



- Ask wrong questions
- Fail to OBSERVE human behavior

Myths of Behavior Change

- 1. EDUCATION changes BEHAVIOR
- 2. Must change ATTITUDES
- 3. People KNOW what MOTIVATES them





How do we convince the skeptics? YOU DON'T!







CHANGE THE QUESTION



How do we cultivate the innovators/early adopters and use them to influence the majority?

#2 FAILURE TO OBSERVE HUMAN BEHAVIOR



Design Expected Behavior ≠ Existing Behavior



► #2 FAILURE TO OBSERVE HUMAN BEHAVIOR



Typical Installation



Low Flush Model

Expected = 67%

Actual = 27%

#2 FAILURE TO OBSERVE HUMAN BEHAVIOR



Design Expected Behavior ≠ Existing Behavior

35-70% flush with their feet



SIGNAGE HELPS, BUT NOT ENOUGH



Model = 67% Actual = 39%









Figure 9. Hourly group mean temperature over the course of the day (averaged over all nights between January 12 and March 6)





Learn Bad Habits



#2 SOLUTION = GOOD DESIGN











#3 THINKING EDUCATION IS ENOUGH





Audits educate the consumer, but do they bring about change?

<20% weatherized home



KNOWLEDGE GAP

Residential Energy Consumers:

- Know relatively little about electricity usage
- Rarely know what they pay per kWh
- Dramatically underestimate the amount of energy consumed by appliances



Quasi-Experiment

- Train Energy Auditors
- Increase Homeowner Action









Make Information Tangible

PERSONALIZE INFORMATION





DIFFERENT PEOPLE, DIFFERENT MESSAGES



You are NOT the person whose behavior you want to change.

Different reactions to information.



FRAME LOSS VS. GAIN



DEVELOP TRUST





Homeowner participation in audits



INDUCE COMMITMENT







STANDARD TECHNICAL APPROACH

SOCIAL SCIENCE TRAINED AUDITORS

< 20%



weatherized homes

weatherized homes



#4 TRYING TO CHANGE ATTITUDES







BEHAVIOR predicts ATTITUDES

ATTITUDES do NOT predict BEHAVIOR



WHY GREEN SCHOOLS?



Environmental Frugality

Professionalism of Trades

Education





HIGH PERFORMANCE BUILDINGS



Environmental Frugality

Professionalism of Trades

Education

FAILING TO CONNECT TO ALL VALUES





#4 SOLUTION: CONNECT TO VALUES





"High Performance Buildings" Vs. "Green Schools"

- Include All Values
- Recognize Problems
- Reflect Organizational
 Culture

#4 SOLUTION: CONNECT TO VALUES



"Everyone knows that money" and markets are not the only things that give people a good quality of life. In Wales we value the other kinds of wealth we possess in our relationships with our friends, family, and communities".

► #5 ASKING PEOPLE WHAT MOTIVATES THEM





#5 ASKING PEOPLE WHAT MOTIVATES THEM



WHAT PEOPLE THINK

- 1. environmental protection
- 2. benefits to society
- 3. saving money
- 4. other people are doing it

WHAT WORKS

1. Other people are doing it

#5 SOLUTION: SOCIAL SCIENCE





#5 SOCIAL SCIENCE SOLUTIONS



"Common" Knowledge

- Knowledge
- Individual Personality
- Attitudes

Social Science

- Social Context
- Physical Environment
- Cultural Context
- Peer Groups
- Social Expectations
- Convenience
- Routine

SOLUTION: USING SOCIAL SCIENCE





CONS

Slower

- \$ spent on research
- Requires flexibility

SOLUTION: USING SOCIAL SCIENCE





PROS

- Guarantees results
- Prevents wasting money
- Empowers communities and individuals

QUESTIONS?





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