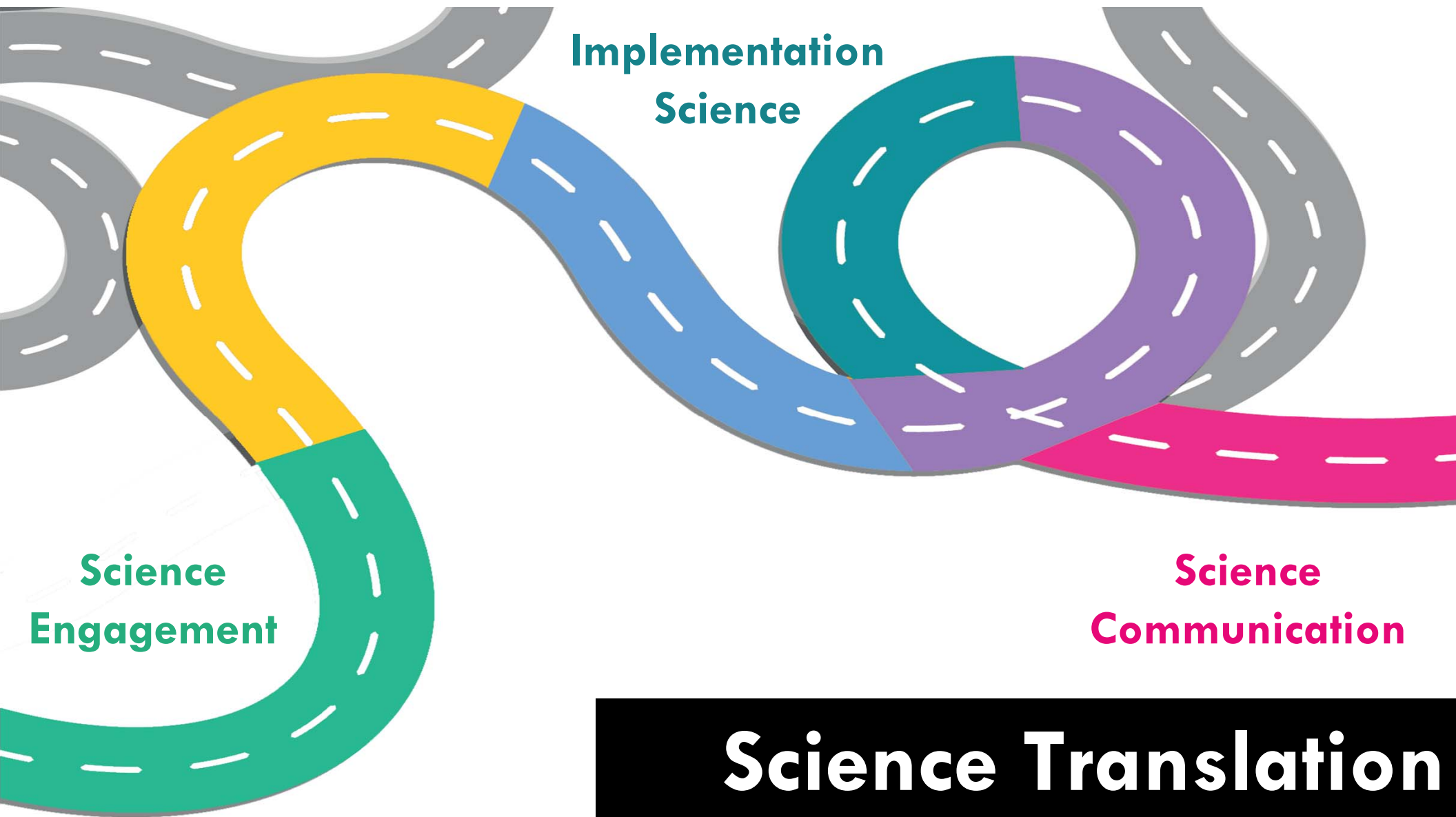




The Landscape of Science Translation

Beth Karlin, Ph.D.

bkarlin@seechangeinstitute.com



The Landscape of Science Translation

CONNECT

Identify the “why”



Stakeholder engagement



Landscape assessment

SHARE

Integrate into culture



Scale internally



Spread externally

LEARN



TARGET



Customer research

Define Audience and Behavior goals



Literature review



DESIGN



UX testing

Develop and test Content and Delivery strategies

A/B

A/B testing



APPLY



Assess process

Implement and Evaluate a pilot

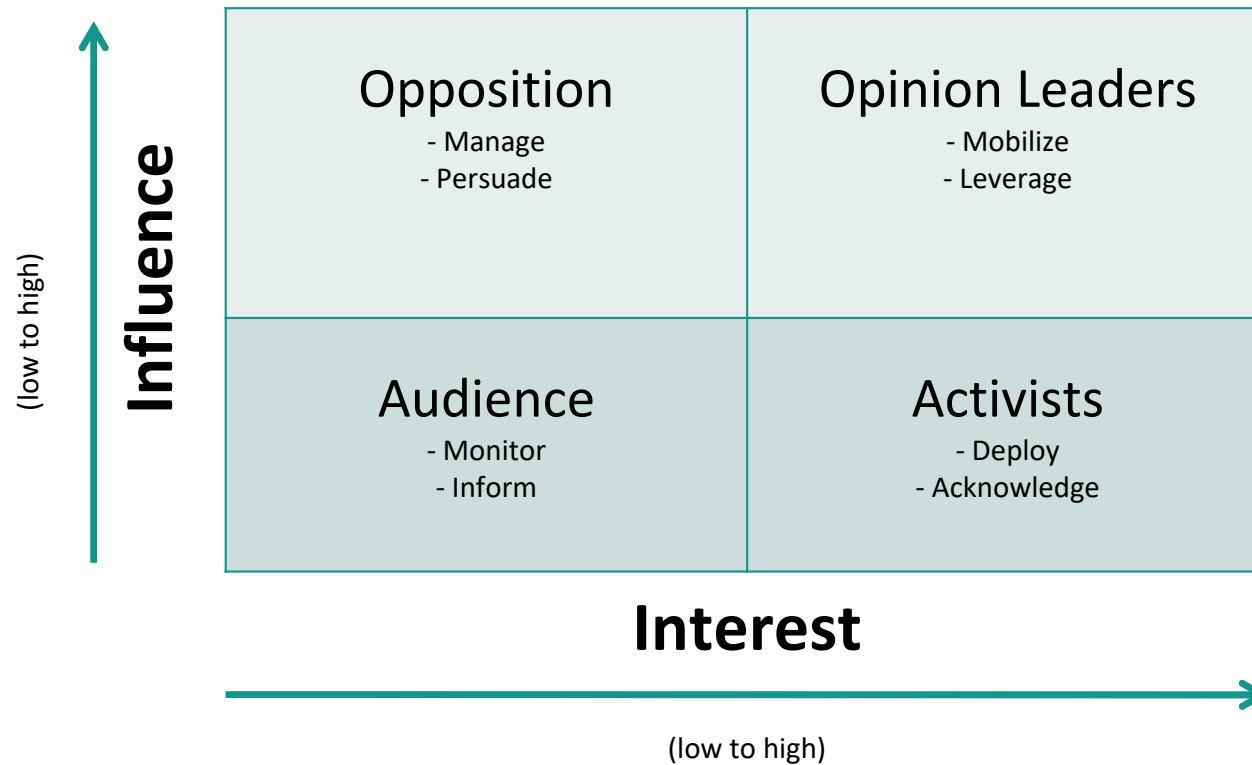


Measure outcomes

Connect: Engaging Stakeholders



Connect: Engaging Stakeholders



Connect: Engaging Stakeholders

Who one is



What one knows

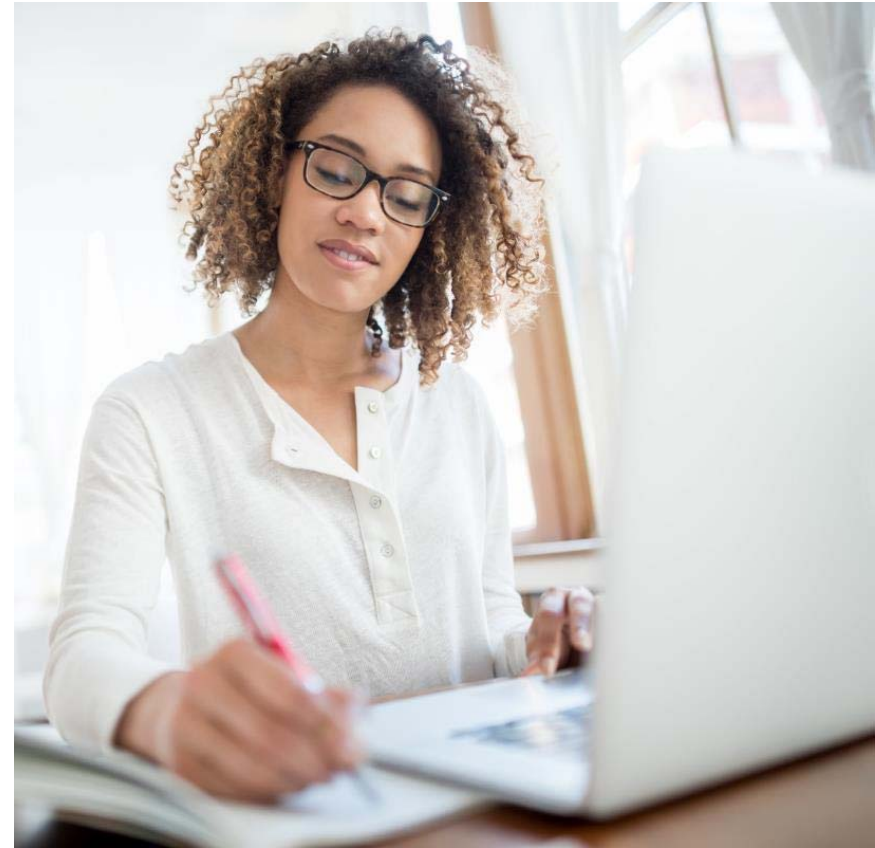


Whom one knows



Connect: Evaluating Capacity

- 1 Do we have the right people (with the right skills) on the team?
- 2 Do we have (or can we get) the data we need?
- 3 Is everybody talking to each other?
- 4 Are we leveraging opportunities at every touch point?



Connect: Evaluating Capacity



Information
Capacity



Staff
Capacity



Collaborative
Capacity

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What's the alternative?



Building Blocks of Behavior Change

Audience

- Demographics
- Psychographics
- Context
- Culture

Behavior

- Type
- Number
- Frequency

Content

- Strategy
- Message

Delivery

- Medium
- Messenger
- Timing

Evaluation

- Metrics
- Methods



Does it Work?

Your
Program



Desired
Result



HOW Does it Work?

Your
Program



Desired
Result

Ingredients



Activities/Processes



Metrics



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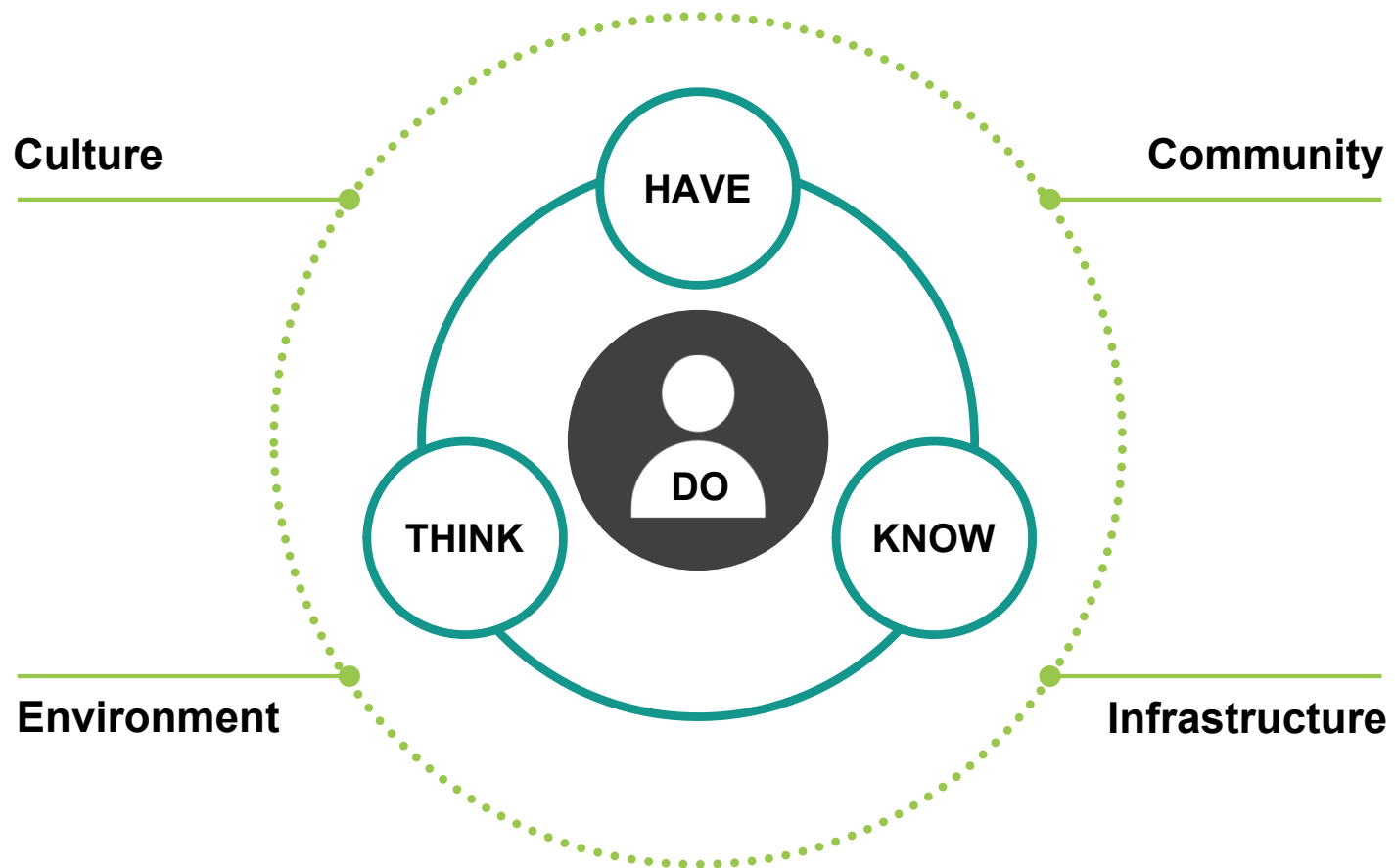
Measure outcomes



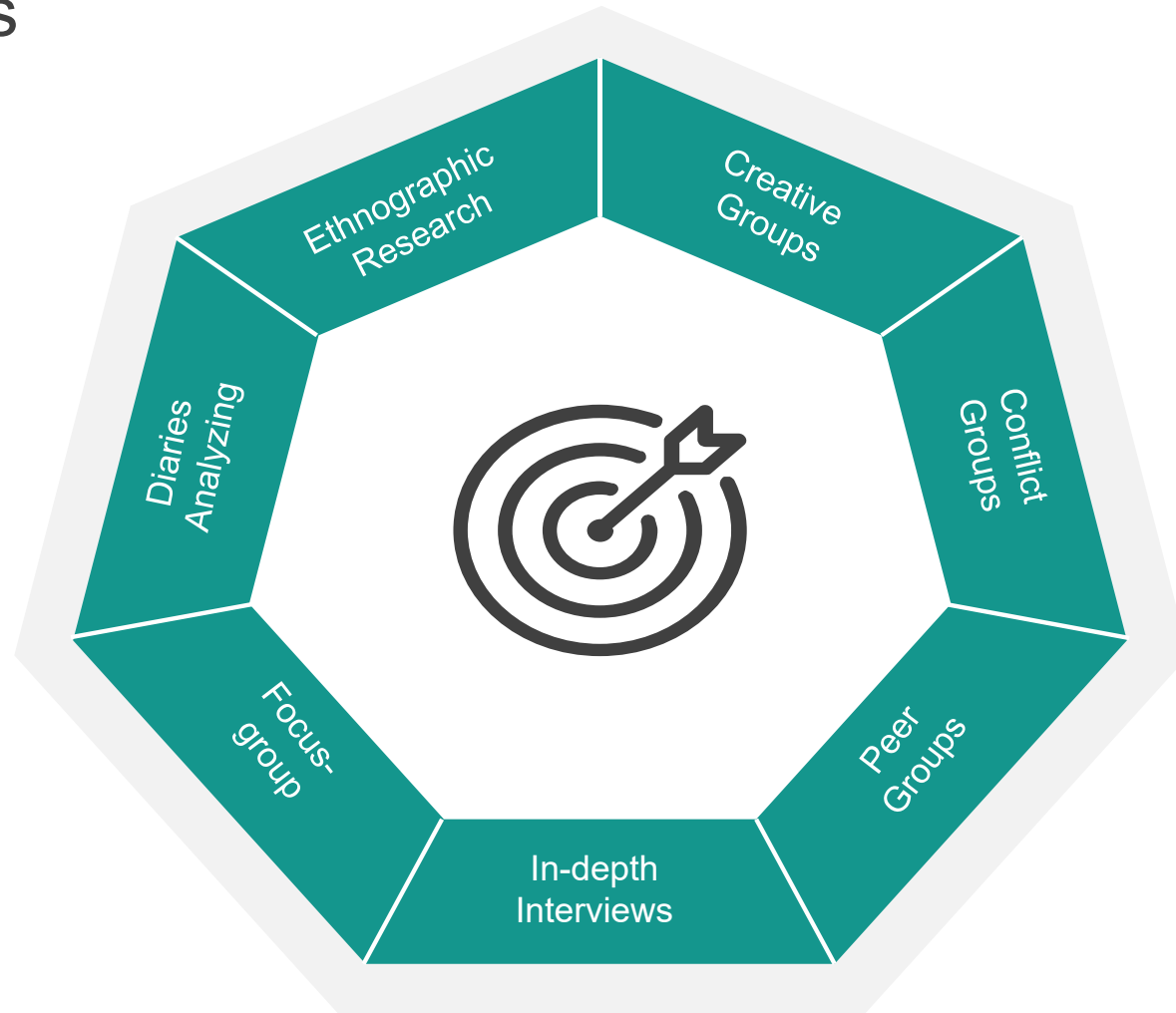
Define
Audience
and **Behavior**
goals



Target: Audience / Behavior



Target: Methods

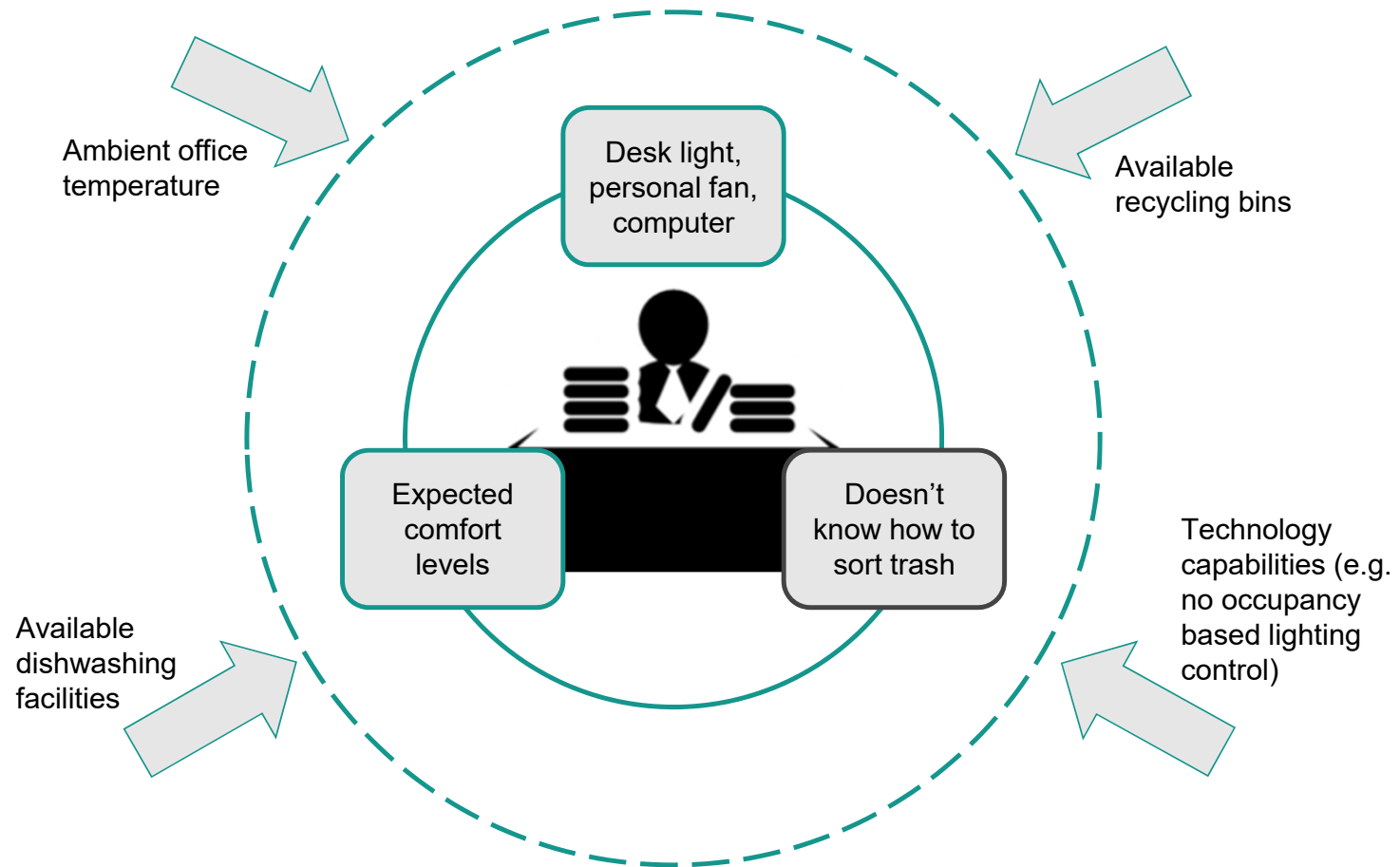


Target: Case Study

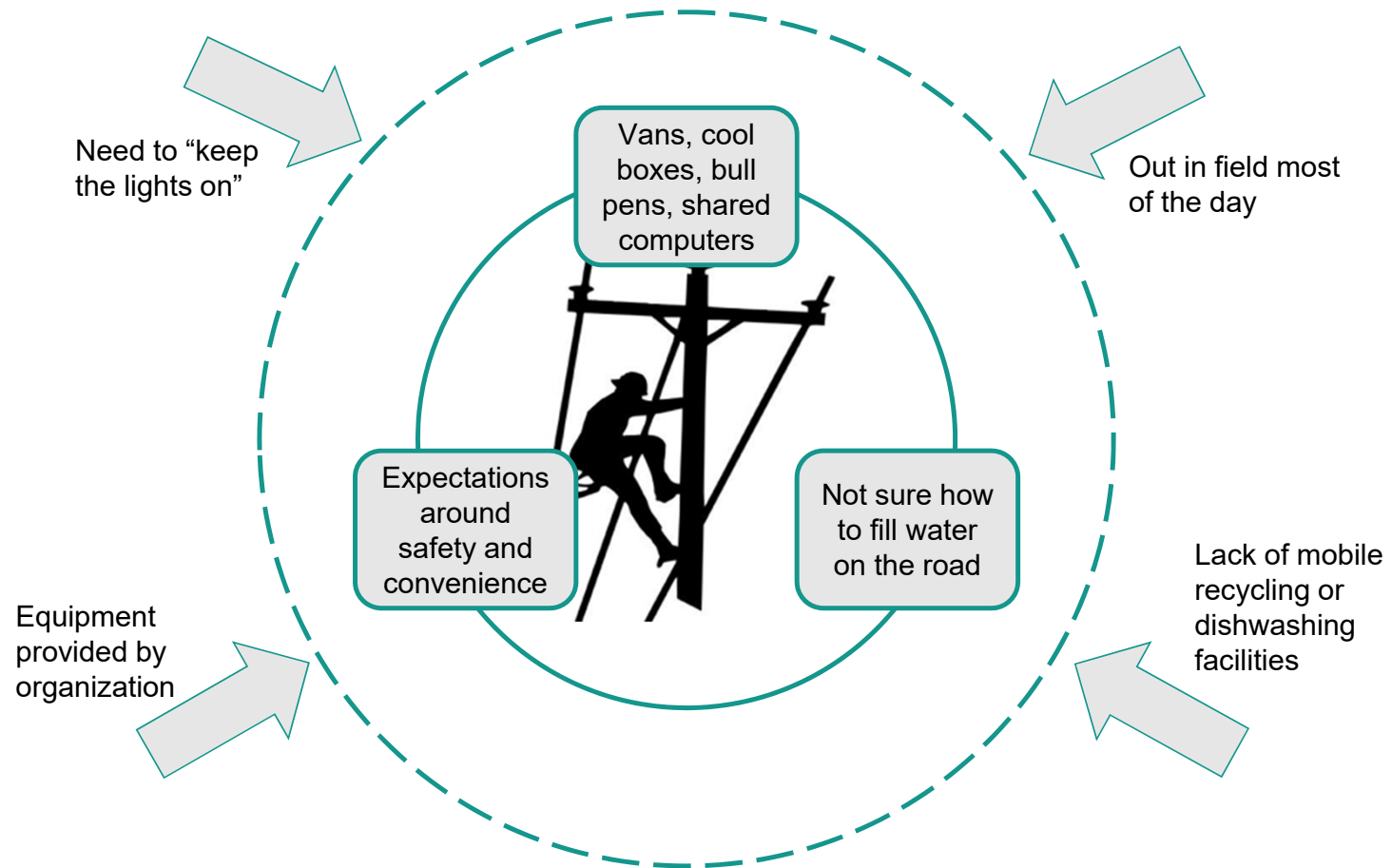
- Site tours
- Focus groups
- Employee survey



Target: Case Study



Target: Case Study



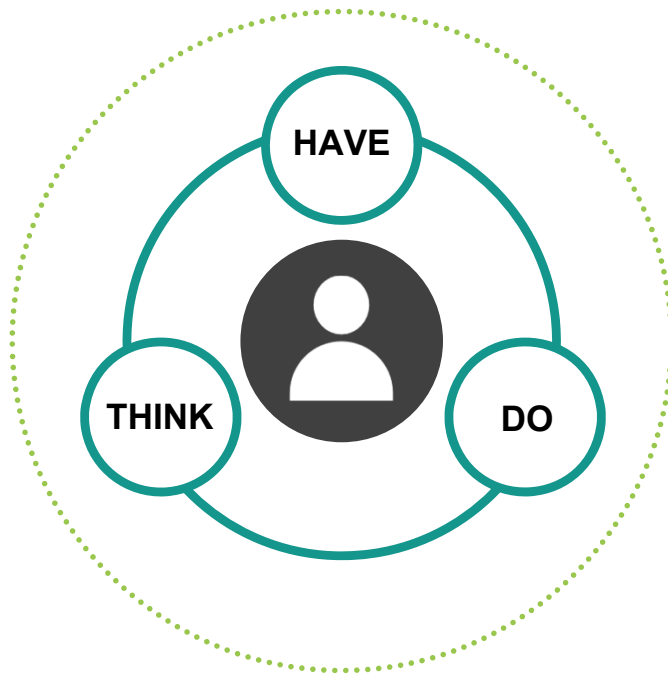


Develop and
test **Content**
and **Delivery**
strategies

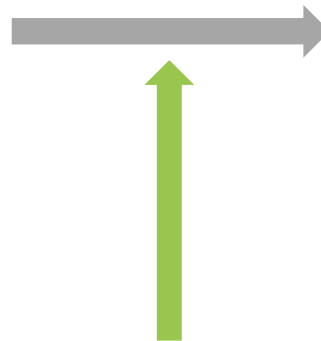
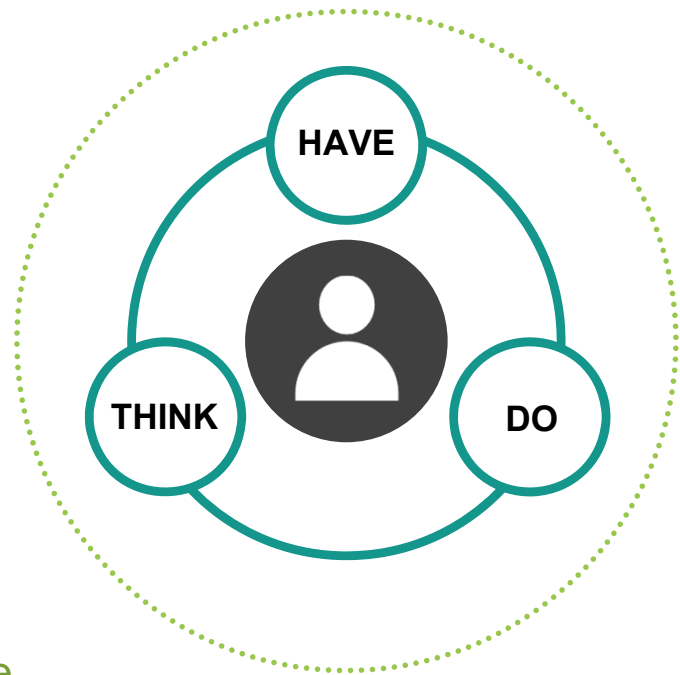
A/B
A/B testing

Design

Current Behavior



Target Behavior



Your Program Here

Change what people **do** by addressing barriers in terms of what they **think** or **have** or by changing the **context**

Design: Content / Delivery

Content

- Strategy
- Message

Delivery

- Who (Messenger)
- How (Medium)
- Where (Location)
- When (Timing)

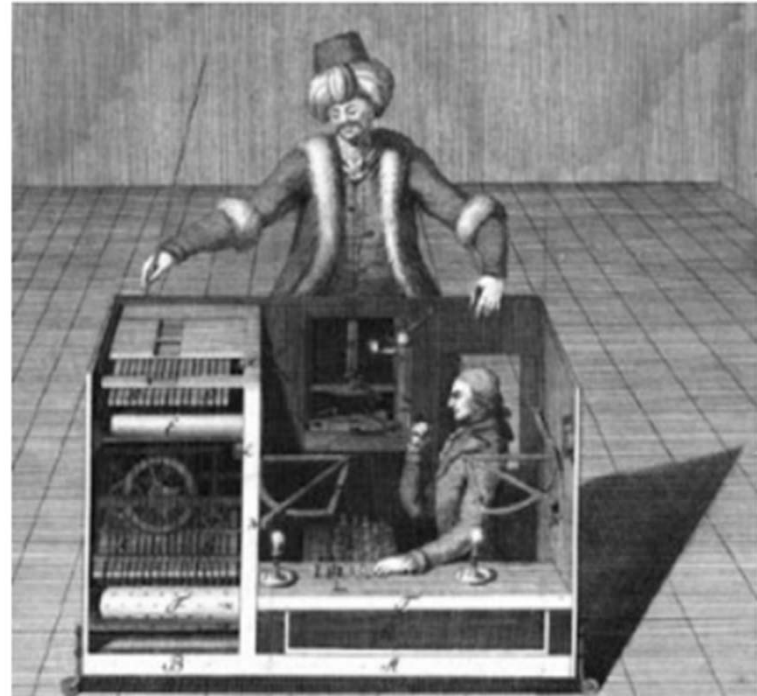


Design: Methods

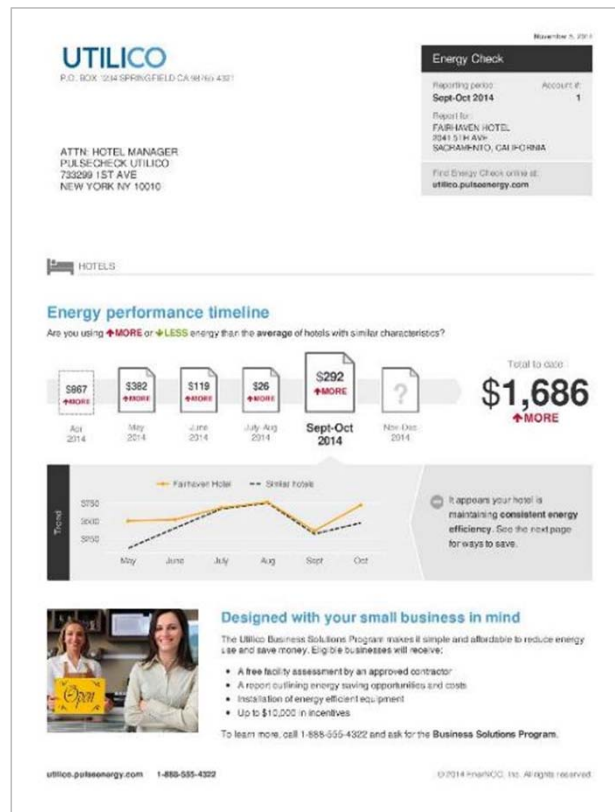
User Testing (Prototyping)



A/B Testing (Pretotyping)



Design: Case Study

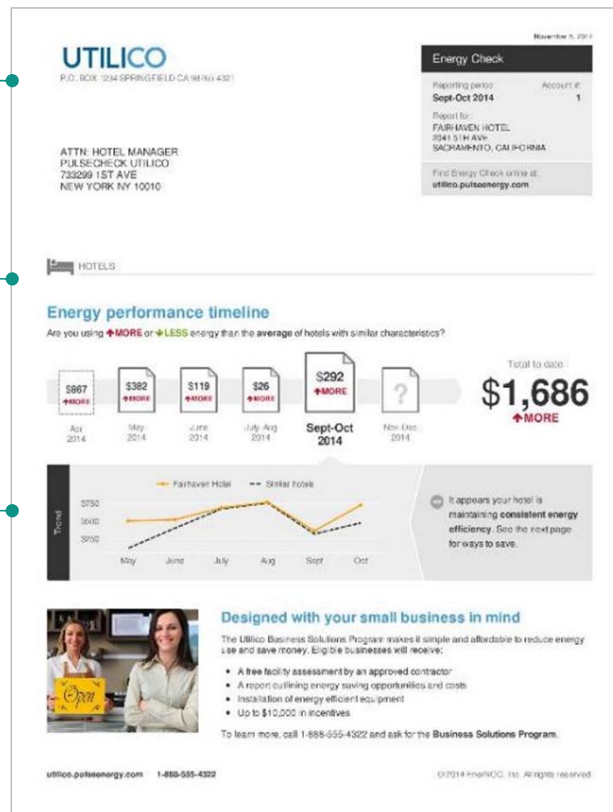


Design: Case Study

Personalization

Feedback

Social Norms



Heating

Cost of heating:

- You currently spend about \$7,100/year on electricity and natural gas for heating.
- Heating costs come from equipment such as furnaces, space heaters, boilers, and heat pumps.

More efficient heating:

- Requires less maintenance
- Reduces peak demand
- Increases occupant comfort
- Reduces downtime
- Requires less space in mechanical rooms

Heating

14%
of your annual energy costs

We've analyzed your hotel's energy use and recommend the following actions:

Programmable thermostats



You don't need to heat your building the same when it is unoccupied. At night, lower the thermostat 7-10°F from its normal setting.

If you can do this 8 hours per day, you will save as much as 16% on your heating costs.

Consider installing a 7-day programmable thermostat if you don't currently have one.

NEXT STEP: Adjust your thermostat set points.

Maintain heating system



Regular maintenance of the heating system will increase its energy efficiency and your comfort.

Have a licensed HVAC contractor check your heating and duct system for leaks.

Sealing and insulating ducts can improve the efficiency of your heating system by 2%.

NEXT STEP: Contact an HVAC contractor.

Variable speed drives



Ventilation systems do not normally require that fans operate at full speed at all times. Consider adding variable speed drives (VSDs) to fan motors.

VSDs match fan speed to the actual requirements of different times of the day. They can reduce your ventilation electricity use by \$172 per hp of fan size.

NEXT STEP: Contact your equipment supplier.

How to guide available

Download at utilico.pulseenergy.com

CUT ENERGY COSTS BY UP TO

\$680 / YEAR

Rebates available

Details at utilico.pulseenergy.com

CUT ENERGY COSTS BY UP TO

\$130 / YEAR

Rebates available

Details at utilico.pulseenergy.com

CUT ENERGY COSTS BY UP TO

\$1,000 / YEAR

Next report

Want to lower your bill without upgrading costly equipment? In your next report, learn more about energy-saving equipment maintenance.

In your mailbox:

Jan 2015

Icons

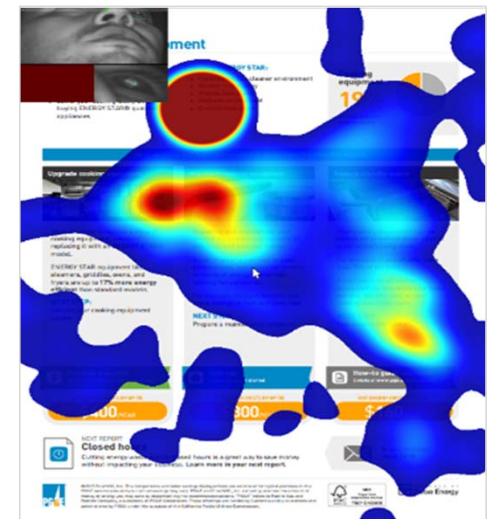
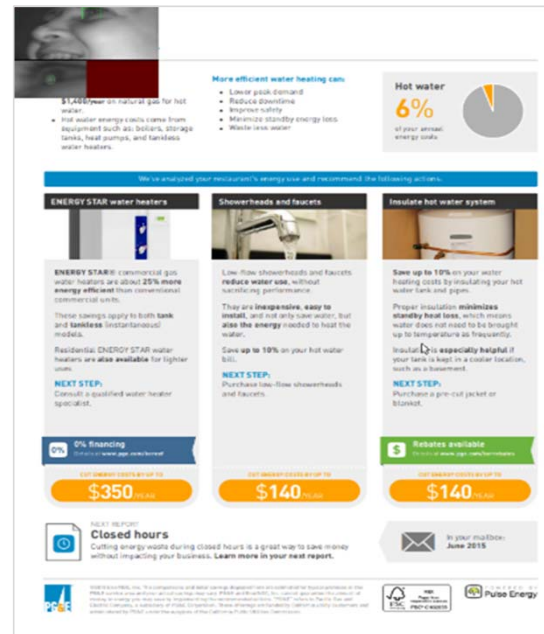
Photos

Gain/Loss Framing

Design: Case Study

"It would be helpful to have someone show me what I can change here."

"I just scan this and then throw it out. Sorry."



Design: Case Study

Lighting maintenance



Make sure that bulbs, fixtures, lamps, and reflective surfaces are **cleaned regularly**.

By removing dust and grease, you can **increase the output** of your lights. Without maintenance, light levels can fall by more than 50% in 2-3 years.

A basic maintenance program can reduce lighting electricity costs **by up to 15%**.

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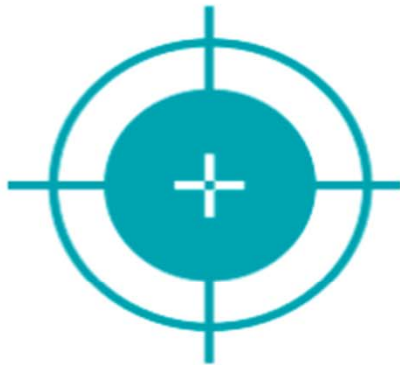
Assess
process

Implement
and **Evaluate**
a pilot



Measure
outcomes

Apply: Evaluation



Objectives

A statement of a broad goal, usually qualitative in nature.



Key Results

A statement that measures achievement of a given objective.

Apply: Case Study

Goal 1



Employee engagement

- Qualitative employee feedback
- Enrollment Data
- Campaign Feedback Survey



Goal 2



Increases in knowledge



Changes in attitude



Sustainable behavior

- Pre-Post Tests
(1 week pre, 1-month post)
- Weekly observational walkthroughs



Goal 3



Decrease in resource use

- Meter and purchasing data

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APPLY



Assess process

Implement and Evaluate a pilot



Measure outcomes

Five Psychological Strategies for Science Communication

- 1 **Establish relevance** to increase involvement
- 2 **Elicit emotion** to create receptivity
- 3 **Evoke morals** to create an imperative
- 4 **Educate wisely** to increase awareness
- 5 **Empower audiences** to engage behavior

Establish relevance to increase involvement

Psychological Distance

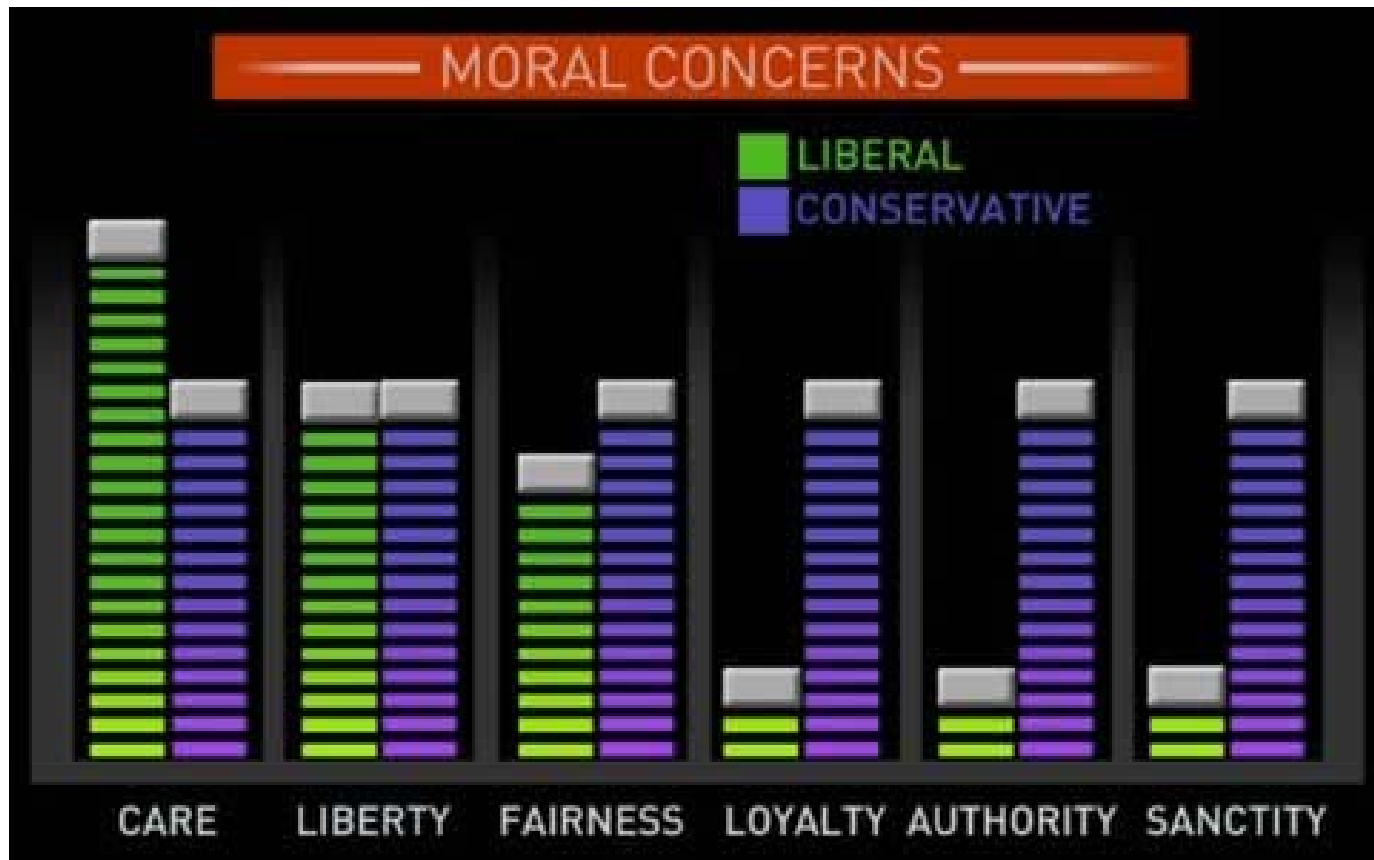


Information that is **HERE** and **NOW** given to **ME** with **HIGH CERTAINTY** reduces distance.

Elicit emotion to create receptivity



Evoked morals to create an imperative

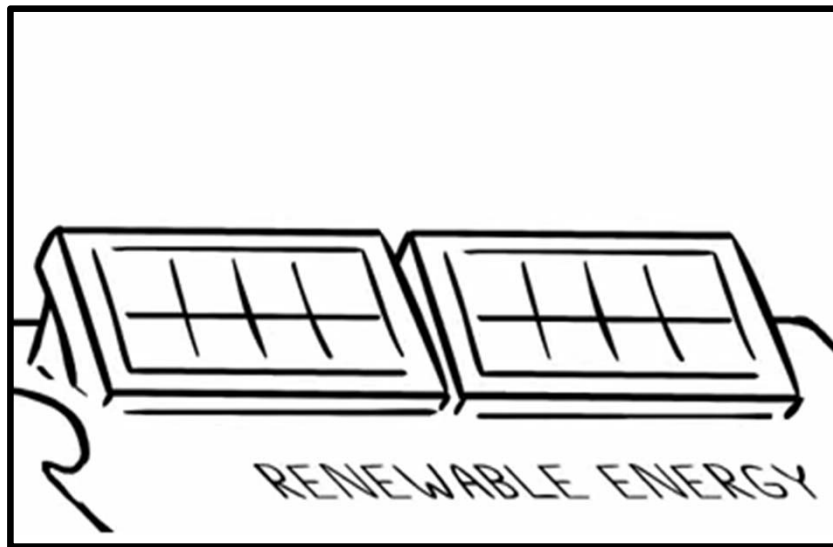


Educate wisely to direct attention

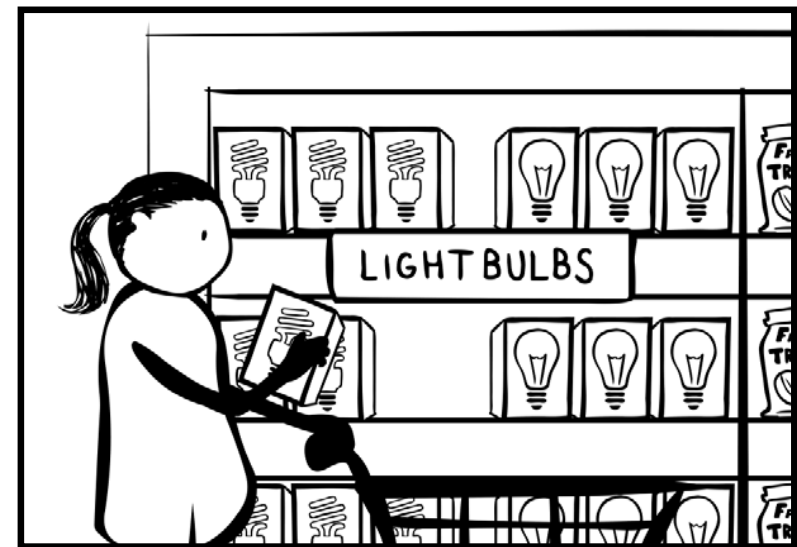


About how fast were the cars going when
they **smashed** into each other?

Empower audiences to engage behavior



Can I do it?

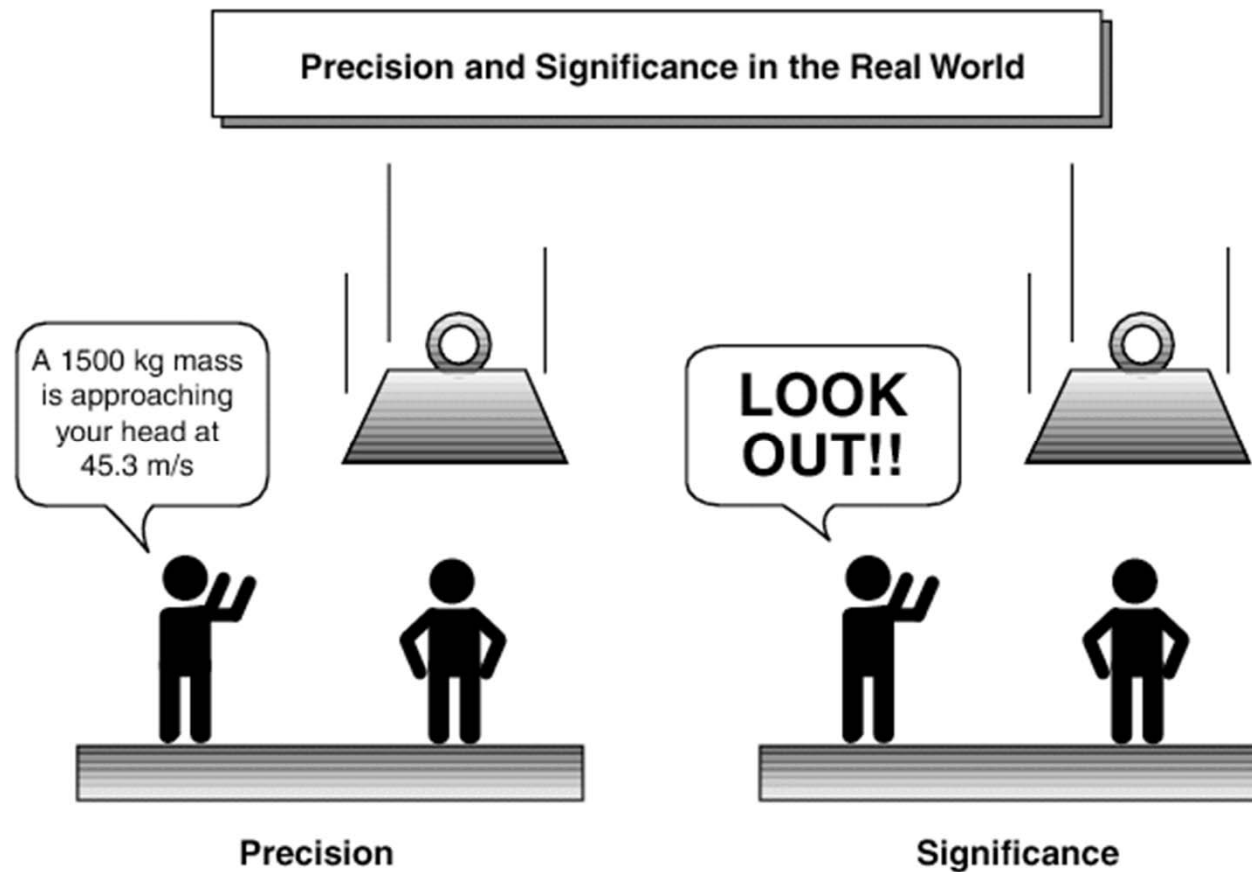


Will it matter?

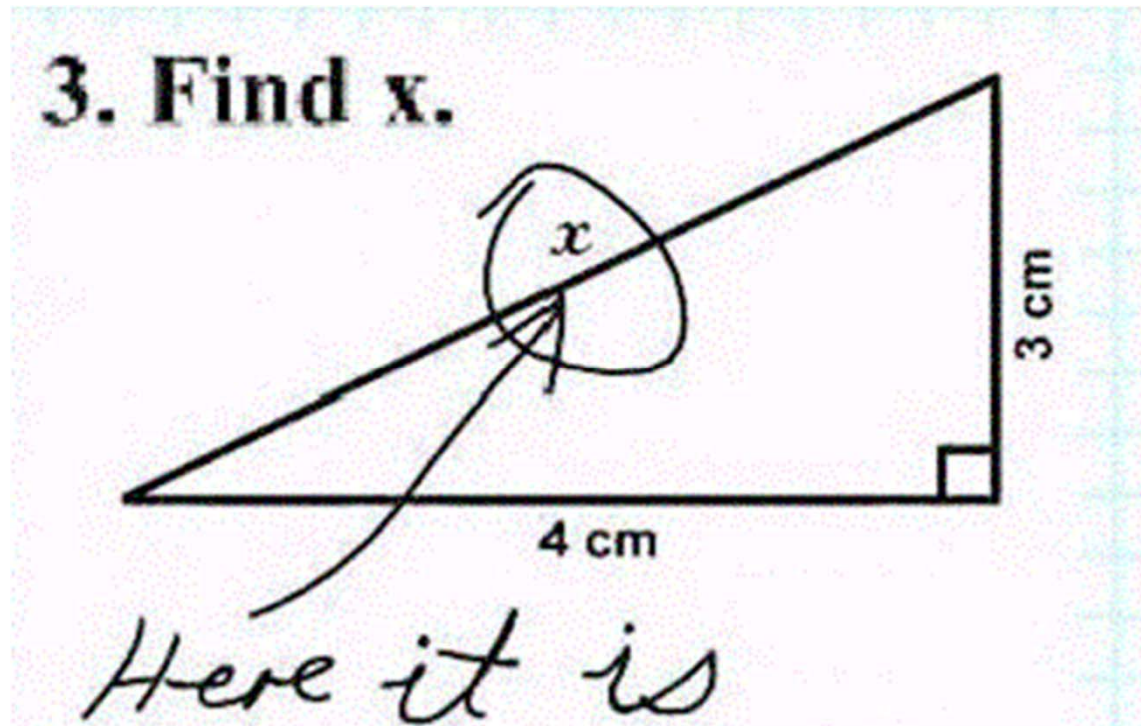


**If you walk away with anything,
let it be this...**

There are benefits to simplicity...



... but it's not always that simple



... and Science Translation is a SCIENCE!





Thank you!

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ABOUT SEE CHANGE

See Change is a research institute devoted to studying and shaping behavior change programs for the greater good. Backed by theory, tested with data, and designed with care, we develop, implement, and evaluate efforts to solve issues that matter to us the most. We specialize in research, strategy, implementation & evaluation of behavioral energy and sustainability programs.

Research

Good research is vital to program success. From surveys to experiments and all points in between, we think asking the right questions is the key to finding the right answers.

- Experimental/quasi-experimental design
- Literature reviews and content analyses
- Surveys, interviews, and focus groups
- Ethnographic fieldwork

Implementation

We love to get our hands dirty and combine social science insights with innovative design to develop and implement the following types of programs:

- Video/web content (sponsored, organic)
- Communications campaigns
- Community outreach
- Social Engagement Optimization (SEO)



Strategy

What is your theory of change? Who are the key stakeholders for this project and how can you address their needs? Strategy is key to successful implementation and includes:

- Stakeholder analysis
- Market analysis
- Logic models
- Program design

Evaluation

Understanding whether, how, and for whom a program works is vital to both proving and improving upon its efficacy. As such, our evaluation services include:

- Field testing
- Usability Testing
- Measurement & Verification
- Instrument development / testing

Select Clients / Partners

