Community-Based Social Marketing

Workshop presented by Jennifer J. Tabanico
Hosted by Local Government Commission & Green Cities California
February 3rd & 4th, 2016
changing behavior
for the public good by applying marketing and social science research to outreach programs that promote clean, healthy, + sustainable communities.
wide range of behavior change experience

- waste + recycling
- transportation
- energy
- water
- health
- conservation
- agriculture
- pollution prevention
Session Agenda

Introductions
- Organization/Agency
- Behaviors of Interest

Community-Based Social Marketing
- Theoretical Background and Overview
- Case Study

Applying The Steps
- Overview
- Application

Case Studies
- Bringing it All Together

Q&A
Community-Based Social Marketing

Overview
Behavior Matters

- Need for Action
  - Climate Change
  - State and Organizational Goals

- Technology + Policy Solutions
  - Barriers: technical, institutional, societal
  - Time to penetrate market
  - Time to implement policy

- Behavioral Solutions
  - Human technology interaction
  - Guidance from social sciences
THE Behavior Matters

- Diverse set of behaviors
  - One-time (e.g., replace turf with low-water landscape)
  - Repetitive (e.g., repair broken sprinklers)

- Vary in cost, difficulty, and other obstacles
  - Internal barriers
  - External barriers
Traditional Approaches

Knowledge

Awareness

Economic
Traditional Approaches

Knowledge

If people know what to do, they will do it.

Knowledge ≠ Behavior Change

Awareness

Economic
Traditional Approaches

Knowledge
- If people know what to do, they will do it.
- Knowledge ≠ Behavior Change

Awareness
- If people know the severity of it, they will change.
- Attitude ≠ Behavior Change

Economic
- Empty
- Empty
Traditional Approaches

**Knowledge**
- If people know what to do, they will do it.

**Awareness**
- If people know the severity of it, they will change.

**Economic**
- If it is in their financial best interest, they will do it.

Knowledge $\neq$ Behavior Change

Attitude $\neq$ Behavior Change

Self-Interest $\neq$ Behavior Change
Knowledge & Attitude ≠ Behavior Change

- Energy Conservation Workshops
  - 3 hour workshop
  - Advertised in paper

- Attitudes and Knowledge
  - Measured pre + post
  - Increased

- Evaluation
  - 1 of 40 lowered hot water heater temp
  - 2 of 40 installed water heater wrap
  - 8 of 40 installed low flow shower head
Knowledge & Attitude ≠ Behavior Change

- **Water Conservation**
  - Water efficiency handbook
  - $50,000 to print and distribute

- **Test**
  - 10 week study
  - Water meter outcomes

- **Evaluation**
  - No change in water use
Economic Self-Interest ≠ Behavior Change

- Residential Conservation Service (RCS)

- Gas & Electric Utilities
  - Audits
  - Loans
  - Contractors

- Evaluation
  - 6% requested audit
  - 50% took steps (30% in control)
  - 2-3% savings
State and National Campaign Effects

- National effort in Canada to reduce CO2
- Heavy media advertising
- 51% knew program
- Few changed behavior

- 2001-2010
- $200 million advertising campaign
- One-time and repetitive actions
- Little impact behavior change
Exercise #1

Why so prevalent if they don’t work?
Why Prevalent?

- Underestimate Difficulty
- Easy and Fast
- Attractive
- Feel Good
- “It Would Work for Me!”
- Lack of Evaluation
Community-Based Social Marketing

- origins in 100 years of social science
  - psychology, sociology, anthropology, etc.

- community-based
  - delivered at local-level

- removes barriers to action
  - motivational and structural

- behavior-based
  - outcomes (behavior change) not outputs (# of impressions)
Community-Based Social Marketing

Select Behavior

Pilot Test

Implement Broadly & Evaluate

Community-Based Social Marketing

Select Behavior

Barriers & Benefits

Develop Strategy

Community-Based Social Marketing

Case Study #1

Applying the Steps
Structural Barriers
More than a Message
City of Oceanside: “Doody” Dilemma

- San Luis Rey River Trail
  - Walking and biking
  - Dog walkers

- Pet Waste
  - Contains bacteria
  - Washes into ocean
  - Causes pollution
  - Beach closures
Step 1: Identify Behavior

- Who visits the trail?
  - In-person surveys

- How much?
  - Observations…
Step 2: Identify Barriers and Benefits

- Mail Survey
  - >50% responded

- Barrier Survey Results
  - Didn’t care about law
  - No health concerns
  - Social responsibility
  - Primary barriers
    - No bag
    - No trash cans
Step 3: Develop Strategy

Scoop the Poop
It’s Your Doody
Do your part to prevent water pollution.

OCC 4.14, 4.16.2 & 40.2.1
Step 4: Pilot Test
Step 4: Pilot Test

- 23% reduction in piles of pet waste left behind on trail
Step 1: Selecting Behaviors
Step 1: Selecting Behaviors

- **Strategic selection**
  - Desired outcome?
  - Sectors? Audiences?
  - Behavior linked to outcome?

- **Informed choices**
  - Hunches often disconfirmed
  - Confirmation bias
  - Technical and survey data
Defining Behaviors

Outcome
- The Goal
  - Reduce Water Use

Strategy
- Not Directly Linked to Outcome
  - Sign a water conservation pledge
  - Attend a landscaping workshop

Behavior
- Action Taken that is Linked to Outcome
  - Install low-flow shower head
  - Repair toilet leaks
Step 1: Selecting Behaviors Example

Hawaii Statewide Electricity Use by Sector, 2012

- Commercial 52%
- Residential 32%
- Military 11%
- Water/Wastewater 4%
- Street Lighting 1%

EnerNOC 2014
Step 1: Selecting Behaviors Example

Hawaii Statewide Electricity Use by Sector, 2012

- Residential: 32%
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EnerNOC 2014
Step 1: Selecting Behaviors Example

Commercial Sector Electricity Use by Segment, 2012

- Misc: 19%
- Retail: 19%
- Office: 14%
- Educ: 10%
- Hotel: 7%
- Resort: 7%
- Health: 7%
- Grocery: 6%
- Restaurant: 5%
- Warehouse: 3%
- Large MF: 3%
Step 1: Selecting Behaviors Example

Office End Use Estimates

- Lighting: 34%
- Cooling: 30%
- Office Equipment: 13%
- Ventilation: 9%
- Refrigeration: 5%
- Water: 5%
- Food Prep Heating: 3%
- Misc: 5%

EnerNOC 2014
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# Prioritizing Behaviors

## Impact
- **How much is change linked to outcome?**
  - Technical review (rigorous)
  - Survey experts (less rigorous)

## Probability
- **How difficult is change?**
  - Review cases (rigorous)
  - Survey audience (less rigorous)

## Penetration
- **How many already engaged?**
  - Inspections (rigorous)
  - Survey audience (less rigorous)

## Applicability
- **For whom is the behavior relevant?**
  - Proportion
  - Census
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Turn off CPU at end of the workday

Activate power management settings

Unplug cell phone chargers when not in use

Use smart strip to turn off computer and peripherals
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Identifying Sectors

U.S. Household Water End Uses

Source: Benjamin D. Inskeep and Shahzeen Z. Attari
Exercise #2

Define Behaviors
Estimate IPPA
Calculate Weights
What we frequently refer to as a “behavior” is very often made up of a variety of sub-actions, each of which likely have their own set of barriers associated with them.

- Break down the sequence
  - Ride bike to work
  - Rainwater harvesting
  - Energy-efficiency upgrade

- Identify barriers for each
  - Where do people fall out?
Step 2: Barriers and Benefits
Step 2: Identify Barriers and Benefits

- Why aren’t people engaging in the desired behavior?
  - Internal: motivation, knowledge, convenience, attitudes, time
  - Structural: program changes, convenience, difficulty, access

- Multiple barriers can exist simultaneously
  - Prioritize
  - Multivariate statistics

- Barriers can vary by:
  - Behavior
  - Audience
  - Season
Step 2: Identify Barriers and Benefits

- **NOT based on a hunch!**
  - Find target population

- **Starting point**
  - Literature Reviews
  - Observations
  - Focus Groups

- **Surveys**
  - In-person
  - Telephone
  - Mail
  - Web-based
Behavioral Observations

- **Features**
  - Unobtrusive
  - Naturally occurring
  - Context data

- **Useful Functions**
  - Actual behavior
  - Infrastructure changes
  - Avoid social desirability

- **Limitations**
  - Time
  - Private Behaviors
Focus Groups

- **Features**
  - 5-8 participants
  - Group discussion

- **Useful Functions**
  - In-depth exploration
  - Message reactions
  - Survey foundations

- **Limitations**
  - Group dynamics
  - Not representative
In-Depth Interview

- **Features**
  - 1 participant
  - In-person or by phone

- **Useful Functions**
  - Select sample
  - Complex topics
  - Sensitive topics

- **Limitations**
  - Time consuming
  - Interviewer training
Mail Survey

- **Features**
  - Standardized instrument
  - Broad spectrum of items

- **Useful Functions**
  - Targeted community issues
  - Public opinion
  - Visual material

- **Limitations**
  - No follow up questions
  - No control over who responds
  - Low response rates
Telephone Survey

- **Features**
  - Listed sample
  - Random Digit Dial

- **Useful Functions**
  - Polling/Awareness
  - Complex surveys
  - Multiple Languages
  - Fast

- **Limitations**
  - Cost
  - Cell Phones/Landlines
Web Survey

- **Features**
  - Thousands of responses quickly
  - Panel or Email List

- **Useful Functions**
  - Audio/Visual
  - Sensitive topics
  - Known audience
  - Tech savvy audience

- **Limitations**
  - Generalizability
  - Low response rates
Intercept Interview

- **Features**
  - On location
  - Usually brief

- **Useful Functions**
  - Focused sample
  - Message testing
  - Small budget
  - Short on time

- **Limitations**
  - Generalizability
  - Interviewer bias
When you are in a Crunch

- Conduct a literature review
  - Barriers and benefits experienced by others

- Conduct quick (2-question) intercept
  - Variety of locations
    - Where does your audience spend time?
  - Participants and non-participants
  - Two principal questions
    - What makes it difficult or challenging for you to do X?
    - What do you see as beneficial or rewarding about doing X?
Selecting Research Modes

- **Appropriate for Research Questions**
  - What do you **need** to know?
  - Will the method tell you what you need to know?

- **Appropriate for Audience**
  - Education
  - Technical expertise
  - Access/Privacy/Time

- **Constraints**
  - Budget
  - Time
  - Training
Exercise #3

Choose Methods
Step 3: Develop Strategy
Step 3: Develop Strategy

Policy Change
- Circumscribe choice
- Hard to go right there

Voluntary
- Support policy
- Can’t enforce

Regulatory
- Need enforcement
- Resources
Step 3: Develop Strategy

- Remove Barriers
- Enhance Motivation
- Tools from Social Sciences
- Personal Contact

Behavior Change
Step 3: Develop Strategy

Tools from Social Sciences

Remove Barriers

Enhance Motivation

Behavior Change

Personal Contact
Remove Barriers & Enhance Benefits

(A)

(B)

Step 3: Develop Strategy

- Remove Barriers
- Enhance Motivation
- Tools from Social Sciences
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Behavior Change
Personal Contact: Reach vs. Impact

Step 3: Develop Strategy

Remove Barriers
Enhance Motivation
Tools from Social Sciences
Personal Contact

Behavior Change
Tools: Commitment

- Desire to act consistent
  - Commitments
  - Values
  - Past Behavior

- Agreement to small request can alter self perception
  - NYC theft study
Tools: Commitment

How Many Chased the Thief?

- Say Nothing: 20%
- "Watch My Things": 95%

Moriarty, 1975
Tools: Commitment

Would you let us put a 6 ft x 3ft billboard stating “DRIVE CAREFULLY!” on your lawn?

DRIVE CAREFULLY

Freedman & Fraser, 1966
How Many Said Yes?

Tools: Commitment

- Request: 17%
- Request + Commitment: 76%

Freedman & Fraser, 1966
Tools: Commitment

- Written
- Public
- Active Involvement
- Voluntary
- Cohesive Groups
- Callbacks
Tools: Commitment

Tools: Commitment

I pledge to:

turn off the lights when I leave a room.

http://www.energyvibe.com/archives/2013/the-power-of-commitment
We’ve explored, imagined, played, and observed to help us understand our connection with the ocean and nature.

After you leave the Aquarium, what are you going to do outdoors?
Tools: Social Norms

- People look outside themselves and to other people around them to guide their decisions and actions
  - Ambiguous situations

- Expectations about the behavior, thoughts, or feelings that are appropriate within a given context
  - Descriptive
  - Injunctive
  - Powerful influence on behavior
  - Not typically viewed as influential
Which one attracts more tips?
Tools: Social Norms

- **Normative Feedback**
- **Information Only**
- **No Treatment (control)**

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Intervention</th>
<th>Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normative Feedback</td>
<td>42%</td>
<td>46%</td>
<td>52%</td>
</tr>
<tr>
<td>Information Only</td>
<td>42%</td>
<td>44%</td>
<td>48%</td>
</tr>
<tr>
<td>No Treatment (control)</td>
<td>42%</td>
<td>44%</td>
<td>46%</td>
</tr>
</tbody>
</table>
Tools: Social Norms

Here’s what some of your neighbors say about curbside oil pick-up:

“Very easy program and I’m absolutely satisfied. If you’re going to recycle your oil, no doubt it makes it easier. Oil is a finite resource, and it should be recycled.”
Stephanie Strauss, Angwin

“I use the program every time I change the oil in my vehicle. I know other people in the community do too.”
Robert Hollard, Angwin

“The program works well; it’s a nice service from Upper Valley Disposal. It’s so easy...you just call and they come. I don’t have any complaints about it and we’ve used it for a long time...I’m sure other people do too.”
Anonymous, St. Helena

“It couldn’t be easier...everybody should use it; that’s the bottom line!”
Julie Paola, Calistoga

“I use it every time the oil is changed.”
Ellie Sanders, Calistoga

“We use the program once a month...When we change the oil we just put it in the container...It makes it very easy!”
Charlotte Rice, St. Helena

“Everybody should use it!”
Larry Varland, St. Helena

Curbside oil recycling
“Free, Easy and Convenient”

Are you one of the 20,000 residents in Napa County who change their own motor oil?

Detach and Mail Today!
Despender y regrese la tarjeta para que reciba gratis un recipiente para almacenar el aceite usado.
Get Clothes Clean And Save Energy
By Using Cold Water!

Clean Clothes
Change temperature, not brand. You don't need a special detergent to get your laundry clean in cold water. Consumer Reports give these detergents high marks for cleaning in all temperatures.

<table>
<thead>
<tr>
<th>Detergent Brand</th>
<th>Price Per Load</th>
<th>Washer Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tide for Cold Water</td>
<td>18¢</td>
<td>Top-Load</td>
</tr>
<tr>
<td>Up &amp; Up Ultra Concentrated</td>
<td>10¢</td>
<td>Top-Load</td>
</tr>
<tr>
<td>Ultra Plus Bleach*</td>
<td>23¢</td>
<td>Front-Load</td>
</tr>
<tr>
<td>Tide Pods</td>
<td>22¢</td>
<td>Front-Load</td>
</tr>
<tr>
<td>Sears Ultra Plus Concentrated</td>
<td>13¢</td>
<td>Front-Load</td>
</tr>
<tr>
<td>*Top rated detergent overall</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Save Energy
90% of the energy used to wash a load of laundry goes to heating the water.
Source: ENERGY STAR®

Hot/Warm Wash
- 68¢ per load
- $265 per year*

Cold/Cold Wash
- 4¢ per load
- $16 per year*

*Based on average electricity costs and about 390 loads per year.

Ask Your Neighbors
Results from a recent survey in your neighborhood found that:
- Over 1/2 of your neighbors say they are using all or mostly cold water for their laundry.
- Those who wash in cold water feel strongly that it:
  - Is better for the environment
  - Saves energy
  - Makes clothes last longer
  - Saves money

“I’ve been washing our laundry in cold water for over 10 years. We save energy and have lower utility bills without sacrificing anything, since we never noticed any problems with our clothes. You can lower your costs, and be good stewards of the environment at the same time.” —Grace Curry, Asheville

Cool Is Clean and Clean Is Cool
Join your neighbors in conserving energy

Summer is here and most San Marcos residents are finding ways to conserve energy at home.

“How are most San Marcos residents conserving this summer?”

By using fans instead of A/C!

Why?

According to a recent telephone survey conducted by Cal State San Marcos, 77% of San Marcos residents said that they often use fans instead of air conditioning to keep cool in the summer.

Using fans instead of air conditioning – San Marcos’ Popular Choice!

Please direct questions or comments to Jessica Nolan at CSUSM 760.750.8022
Tools: Social Norms

Last 3 Months Neighbor Comparison

- Efficient Neighbors: 968 kWh*
- All Neighbors: 1,826 kWh
- You: 2,106 kWh

You used 15% MORE electricity than your neighbors.

How You're Doing:
- You used more than average
- Turn the report over to find ways to save

Personalized Action Steps
- Maintain your air conditioner
- Cool your home with a whole house fan
- Install a ceiling fan

* kWh: A 100-Watt bulb burning for 10 hours uses 1 kilowatt-hour.
Many of our guests have expressed to us the importance of using their bath towels more than once. Washing towels every day uses a lot of energy, so reusing towels is one way you can conserve. When we implemented a towel reuse program last summer, we found that 79% of our guests chose to reuse at least one of their bath towels each day.

Because so many guests value conservation and are in the habit of conserving, this resort has initiated a conservation program.

If you would like your towels replaced, please leave your used towels on the bathroom floor. Towels left hanging on the towel rack tell us that you want to reuse them.

PLEASE REUSE YOUR TOWELS

* If you have questions, please call the front desk *
Avoid Boomerang Effects

• Interventions that focus on what others aren’t doing can lead to boomerang effect
STOP TRASHING CALIFORNIA!
Tools: Social Diffusion

- Diffusion of innovation through social networks
  - Agricultural practices
  - Solar
  - Drought tolerant landscaping

- Influenced by networks
  - Friends, family, coworkers, etc.

- Behavior must be visible
  - Combine with commitments from early adopter
Tools: Social Diffusion

- Those who install programmable thermostats are more likely to influence friends, family, and coworkers to install them, but not neighbors.
Tools: Social Diffusion

- Those who intend to install solar panels have been found to have friends and colleagues who had already installed them.
Tools: Prompts

- **Remembering to act**
  - Barrier is forgetting

- **Noticeable**
  - Close in space and time
  - Combine with other tools

- **Self-Explanatory and Explicit**
  - Ineffective: “Please conserve energy”
  - Effective “Turn off the light before leaving”
Tools: Prompts
Tools: Prompts
Tools: Prompts

How to maintain your tires

MONTHLY CHECK
Front ____ psi
Rear ____ psi

1. Find the correct pressure.
CORRECT: Pressure is printed on the drivers door, glove box, or in the owners manual.

2. Check tire pressure.
CORRECT: Remove valve cap, apply gauge, read pressure.

3. Add air.
CORRECT: If needed, add air using a pressure pump.
Tools: Convenience
Tools: Communication

- Captivating
- Credible
- Positive
- Memorable
- Set Goals
- Feedback
“..if you were to add up all the cracks around and under these doors here, you’d have the equivalent of a hole the size of a basketball in your living room wall. Think for a moment about all the heat that would escape…”

- Cracks are minor….a **hole** is disastrous!
Exercise #4

Apply a Tool
Step 4: Pilot Testing
Step 4: Pilot Testing

- Preliminary data about the efficacy of the intervention
  - Program variations
  - Cost-savings mechanism
  - Evaluate ROI

Group A

1. Pre-Test
2. Program
3. Post-Test
4. Follow-Up
Step 4: Pilot Testing

- Preliminary data about the efficacy of the intervention
  - Program variations
  - Cost-savings mechanism
  - Evaluate ROI
Step 4: Pilot Testing

- Select Behavior
- Barriers & Benefits
- Develop Strategy
- Pilot Test

Implement Broadly & Evaluate
Case Study #2

Learning the Process
Multiple Agency Collaboration
Shared Tools & Turnkey Solutions
Background

- Urban Sustainability Directors Network (2012)
  - Multi-Agency Behavior Change Pilot
  - Municipal Employees

- Goals
  - Energy conservation
  - Learn the process
  - Turnkey tools and solutions
Step 1: Select Behavior

- Turn off computers and monitors at the end of the workday.
  - Desktop computers prevalent
  - Draw power in “sleep” mode
  - Aggregate energy use is significant
Step 2: Barriers and Benefits

- In-Depth Interviews with IT/Administration
  - Few cited technical barriers
  - Several benefits

- Employee Focus Groups and Web Survey
  - Lack of knowledge (monitor)
  - Long start up times
  - Unsure of policy
  - Energy and money saving benefits
## Strategy Elements

<table>
<thead>
<tr>
<th>Research Outcomes</th>
<th>Strategy Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barrier: Lack of knowledge about monitor shutdown.</td>
<td>→ Provide Information</td>
</tr>
<tr>
<td>Barrier: Perceived long power-up time.</td>
<td>→ Correct Misperceptions</td>
</tr>
<tr>
<td>Barrier: Lack of knowledge about presence of policy.</td>
<td>→ Policy/Admin Support</td>
</tr>
<tr>
<td>Barrier: Remembering/Knowing to turn off monitor.</td>
<td>→ Prompt and Commitment</td>
</tr>
<tr>
<td>Benefit: Saving energy and money.</td>
<td>→ Highlight Benefits</td>
</tr>
</tbody>
</table>
Step 3: Develop Strategy

**Email**
- Communicate policy
- From appropriate IT/Admin

**In-Person Communication**
- Delivered info flyer
- Obtain commitment

**Prompt Card**
- Make commitment public
- Reminder to shutdown
The City of Columbia is committed to saving energy.

Follow IT’s guidelines by turning off your computer and monitor at the end of your workday.

- Turning off before you leave work saves energy and money.
- Powering up in the morning takes an average of 205 seconds.*

*A recent survey of employee computers showed that most take from 62 to 324 seconds to power up.

I pledge to turn off both my computer and monitor at the end of each workday.
Prompt Card

Jennifer J. Tabanico

I, _______________, pledge to turn off both my computer and monitor at the end of each workday.
Prompt Card
Pilot Test

**Treatment**
- Pre-Test Observations
- Email
- Program
- Post-Test Observations

**Control**
- Pre-Test Observations
- Email
- Program
- Post-Test Observations
Baseline: Computer Shutdown

• Significant differences across regions at baseline
• Treatment and Control groups were similar at start

![Bar chart showing computer shutdown rates in Santa Clara, Frederick County, and Columbia.](chart.png)
Baseline: Monitor Shutdown

• Treatment and Control groups were similar at start
• Monitor shutdown low across regions

![Bar chart showing monitor shutdown by region (Santa Clara, Frederick County, Columbia) with treatment and control groups compared.]
Results: Computer Shutdown

- **Santa Clara**: Info alone had significant effect (both groups)
- **Frederick**: Ceiling effect (already doing it!)
- **Columbia**: Significant effect in treatment group
Results: Monitor Shutdown

- Significant increase in monitor shutdown **across all regions**.
- No significant change in **control group**.
Computer & Monitor Shutdown Rates

- **Control**
  - Computers Off: 64%
  - Monitors Off: 23%

- **Treatment**
  - Computers Off: 72%
  - Monitors Off: 53%
Case Study #3

Barriers by Behavior
Step 1: Behavior Selection

- **Waste Characterization Study**
  - 415 households

- **Mixed Paper**
  - Present in 87% of garbage carts
  - 8% of volume by weight
Step 2: Identify Barriers and Benefits

- In-Person Surveys
  - 261 households

- Barriers
  - Privacy concerns
  - Confusion (shiny paper, plastic)

- Benefits
  - Good for the environment, landfill space
  - Right thing to do
Step 2: Develop Strategy

- Social Norms
  - 87% think recycling is important

- Information
  - Address confusion

- Convenience/Prompt
  - Black marker
CBSM Resources

- **Websites**
  - www.cbsm.com
  - www.toolsofchange.com

- **Discussion Forums/List Serves**
  - Fostering Sustainable Behavior (www.cbsm.com)
  - Georgetown Social Marketing Listserv

- **Books**
  - Fostering Sustainable Behavior
  - Social Marketing to Protect the Environment
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