Motivating and Quantifying Behavior Change

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Outreach Program Manager
Office of Sustainability
Stanford University
Initiative on the Environment (Since 2003)
Academic Practice of Sustainability
Boosted interdisciplinary research and teaching in all seven of Stanford’s schools, as well as in established interdisciplinary institutes, centers.

Sustainable Stanford (Since 2007)
Institutional Practice of Sustainability
University-wide effort to reduce Stanford’s environmental impact and preserve resources through innovation and best practices.

Vision: Make sustainability a core value, value-add, and a tangible experience at Stanford, directly supporting the university’s academic mission.

Mission: Integrate sustainability by greening the physical campus, bottom line & choices.
Stanford’s Culture of Sustainability and Assessment

Infrastructure & Systems

- ENERGY
- WATER
- WASTE
- TRANSPORTATION
- BUILDINGS

Education & Practice

- ANALYSIS
- CONSERVATION
- EVALUATION
- COMMUNICATION
- EDUCATION
Communications and Engagement

Infrastructure & Systems

- Infrastructural programs
- Reports and long-term planning
- Publications and resource guides

Behavior & Education

- Outreach and engagement brand
- Campus-wide campaigns

Sustainable Stanford

Cardinal Green

MY Cardinal Green
Take the pledge...then what?

HELP US GET THE 10%
Pledge Your Support Today

Seasonal Campaigns
Winter Closure (energy)
RecycleMania (waste)
WaterWise (water)
Give and Go (waste)
**Existing Cardinal Green Campaigns**

**STRENGTHS**
- Focuses **campus-wide communication**
- Creates **actionable opportunities**
- **Brand recognition**
- Engagement tracking

**OPPORTUNITIES**
- Provide tangible actions, engagement opportunities and resources between campaigns
- Tailor to **individual interests, motivations, and needs**
- **Measurable results**!
- **Collect data** about how behaviors *actually* change year over year

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**Stanford waste audit breakdown:**
- **24% recyclables**
- **24% trash**
- **31% compostables**
- Other

**Most of what ends up in the trash is compostable or recyclable.**
Pledge to reduce waste this quarter.
Engagement Program Research

- One-on-one interviews with campus partners
- Undergraduate focus groups
- House meetings
- Graduate student research group support
Key Takeaways for Sustainability Program

- empower
- personal choices
- convenient
- accessible sustainable motivated
- easy variable accountability
- understand opportunities make behavior
- increase success
- users rewards
- high impact
- whole individual
- leadership participation
Campus Citizenship

Encourages resource conservation and provides tangible opportunities for the campus community to integrate sustainability into their campus lives, with rewards for their efforts.
1. Take sustainability survey

2. Receive recommended actions to perform (based on survey responses)

3. Complete actions and earn points

4. Earn 100 points to receive a reward

http://sustainable.stanford.edu/my-cardinal-green
• Nearly 200 actions across six categories
• User gets a specific subset based on survey responses
• Connects to and supports existing campus programs and resources
Pilot Results: Engagement

13% earned enough points for an incentive

50% Completed actions to earn points

422 Participants

83% of follow up respondents would recommend the program to others (answers ranging from ‘somewhat’ to ‘a good deal’)

90% of follow up respondents reported they learned something new (answers ranging from ‘somewhat’ to ‘very much so’)

$25,000 average calculated annual cost savings from completed actions*

$118 Average savings per person

1091 unique actions completed

$103 cost per person

95% of savings resulted from actions in energy and waste categories

*30% sensitivity applied, based on factors that may have inflated the cost savings: participants who were already performing reported actions, participants who reported actions complete that did not actually perform them, and actions that did not persist past the pilot period.
Participation Barriers

Users who did not complete any actions

• **The time** to complete the actions was too significant
• **The effort** to complete the actions seemed too high for the rewards
• Participants were **too busy or forgot**

Users who completed some actions, but did not earn an incentive

• The suggested actions were **not relevant** to their lifestyle
• **The effort** to perform the actions was too much
• Users **did not feel empowered** to make the change; actions required departmental consideration or approval
Mitigation Tactics

- Clear, specific understanding of your audience
- Include wide variety of action/opportunities
  - “Take a First Step”
  - Leadership for champions
  - Departmental facilitation (e.g., “talk to your building manager,” “work with office of sustainability”)
- Develop and adhere to a content calendar with e-mail reminders and additional points for continued engagement
Welcome Lauren Hennessy!
You need 85 more points to be eligible for your incentive

Here's What Others are Doing

412
People on campus are working on earning points

19478
KWh per year have been saved by My Cardinal Green users

1244
Unique actions have been completed by My Cardinal Green users

Promotional Actions

- Opt in to a holiday building shutdown MORE+
- Participate in the ERP program MORE+

Your Actions to Perform

When an action asks you to try something for the next month, please submit for verification only AFTER the month is complete.

- Purchase remanufactured toner MORE+
- Consolidate your supply shipments into 1-2... MORE+
- Request an audit of your workstation to... MORE+
- Do not purchase any items in a disposable... MORE+
- Attend an environmental event on campus... MORE+
- Take a First Step: Follow Stanford's Sustain... MORE+
- Take a First Step: Purchase recycled content... MORE+
- Turn in your space heater for a Sustainable... MORE+
- Remove your personal printer from your desk... MORE+
- Attend a new environmental workshop or... MORE+

Rejected Actions You Can Resubmit

The actions in this section have been rejected by the administrator. Click "More" to view comments and suggestions for how you can successfully complete this action

- Eat vegan one meal per week this month

Your Completed Actions

15
Your Earned Points
15
Your Pending Points
REDEEM INCENTIVE
Beyond Engagement: Metrics and Partnerships

- Quantify individual contributions
  - Users understand magnitude of savings
  - The carbon-neutral conversation often stops at campus infrastructure

- Provide valuable data for business cases and existing programs

- Support data-driven priorities

- Builds partnerships

- Increases efficiency
Lessons Learned

• Simplicity above all else
  • For administrators and participants alike

• Variety of incentives has minimal impact
  • 80% chose cash reward
  • Some people will game the system

• Patience and phased development

• Flexibility
  • Users
  • Future
And Learning Still

- Appropriate guidelines for assessing completion
- Process efficiencies
- Technology improvements
- Staying Relevant
Questions/Comments

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