Energy Efficiency: Increasing College Students Engagement through Active and Disruptive Measures in the Campus

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OUTLINE

• Context
• Energy Efficiency Engagement Strategies
• The impact of Technology and Energy Auditing
• Results
• Energy Efficiency Project Roadmap
Energy Efficiency is a difficult topic to get people engaged into!
Changing Behaviors

- Motivation
- Attention
- Action

- Financial Approach
- Environmental Approach
- Social Approach
ENERGY EFFICIENCY ENGAGEMENT STRATEGIES

Strategies

• Human Activities
• Support Material
• Teaching
• Social Media
ENERGY EFFICIENCY ENGAGEMENT STRATEGIES

Human Activities

Disruptive Actions

Direct Message

Indirect Message
ENERGY EFFICIENCY ENGAGEMENT STRATEGIES

Direct Message
ENERGY EFFICIENCY ENGAGEMENT STRATEGIES

Indirect Message
THE IMPACT OF TECHNOLOGY AND ENERGY AUDITING

• Home Area Network
• Smart Meters
• Public Pool of Energy Auditing Meters in Rotation System
## RESULTS

### Social Media

<table>
<thead>
<tr>
<th>Human Activity</th>
<th>Social Media</th>
<th>Visits</th>
<th>Emails</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambiguous Message</td>
<td>400</td>
<td>2400</td>
<td>180</td>
</tr>
<tr>
<td>Direct Message</td>
<td>150</td>
<td>980</td>
<td>75</td>
</tr>
</tbody>
</table>
RESULTS

Activities

Class Survey regarding the Activities

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Yes</th>
<th>No</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>16,50%</td>
<td>83,50%</td>
<td>2,30%</td>
<td>1,70%</td>
<td>24,40%</td>
<td>34,50%</td>
<td>28,00%</td>
<td>9,10%</td>
<td>75,90%</td>
<td>24,10%</td>
<td>35,40%</td>
<td>27,50%</td>
<td>19,45%</td>
<td>6,10%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Did you understand what was the project about after the first ambiguous message activity?**

**How interested were you in the campaign after the first direct message activity?**
RESULTS

Energy Auditing

Class Survey regarding Energy Auditing

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would you like to have detailed information on the energy consumption of your home?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you consider that the detailed knowledge of energy consumption contributes to saving energy?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are you willing to change behaviors to reduce energy consumption?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
RESULTS

Energy Auditing

- Did you find out any energy inefficiency during your auditing? 71.40% Yes, 28.60% No
- Did you change any behavior regarding energy efficiency? 68.60% Yes, 31.40% No
- The amount of time with the energy auditing device was enough? 87.30% Yes, 12.70% No
- Would you recommend the auditing to a friend? 100% Yes, 0% No
ENERGY EFFICIENCY PROJECT

ROADMAP

• College Students – Great Target
• Disruptive Measures
• Social Media and Social impact
• Monitorization and Quantification
• Human Presence and Activities