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EXECUTIVE SUMMARY:

In an Environment 391 survey conducted for the Green Fee in 2011, 42% of University of Michigan students stated that they were interested but not engaged in sustainability. The purpose of this New Media and Behavior Change project is to develop new strategies for reaching this “42%”. On a college campus, “new media” refers to marketing and advertising tactics that go beyond the traditional use of chalking sidewalks, placing flyers in buildings, and posting on Facebook and Twitter. Some new media methods would therefore include videos, art installations, memes, and guerilla marketing. This project is to provide the Student Sustainability Initiative and the Office of Campus Sustainability feedback on how best to engage the student body.

In order to create recommendations, we first researched guerilla marketing tactics and the goals set by the Integrated Assessment in 2011. We chose to focus our marketable project on waste reduction because it is a tangible goal that students can directly impact. Further, the Institute for Social Research has been tracking students from freshmen to senior year to see how these students are impacted by sustainability and what triggers behavior change among the test subjects. We had the opportunity to observe these focus groups run by ISR to glean information on what students believe would increase their awareness of and engagement in sustainability.

To further gain an understanding on what motivated students to become engaged in sustainability, the NMBC team conducted a ‘Tipping Point’ survey that was dispersed amongst PitE majors, Graham Scholars, and SSI students. Its aim was to find out why these students are engaged, what triggered their engagement, and what types of activities they are currently doing in sustainability. The outcome of the survey showed that 50% of the students who are currently engaged in sustainability attribute their involvement to a sustainability-related class taken at the University of Michigan. While releasing this survey, we circulated a pilot video called ‘Wasted: A Documentary’, which displays the wasteful habits of college students through the process of “getting wasted” at a party. From data collected observationally and through YouTube analytics, we created a second video to better target students and convey our message of waste reduction.

Our campaign strategy is based on two distribution plans to see which is more effective. Our goal was to identify key stakeholders and have people who are currently invested in waste reduction on campus help to distribute the videos, thus making the videos go viral. The first distribution strategy was to link the video with the ‘Tipping Point’ survey, which increased viewership significantly. The first video also included student actors who are engaged in sustainability, so they had more of an incentive to link the video via Facebook, email, etc. The second strategy was to make the video shorter and the message clearer. However, distribution was not as effective because it was more difficult to get those already engaged to watch and send the video to the 42% interested, but not engaged in sustainability. We determined that short videos which involve student actors will have the greatest impact on distribution and viewership. Further, short student-run videos/marketing tactics for sustainability-related classes at U of M would be the most effective way target the 42% of students and increase momentum for sustainability on campus.
The results of the 'Tipping Point' survey, the 'red cup' videos, and the focus groups helped us determine what methods and factors could be most effective to motivate students. Based on this research, we developed a list of 20 creative methods that could be used to engage students in sustainability on campus.

BACKGROUND/INTRODUCTION:

As mentioned before, 42% of U-M students report that they are “interested but not engaged” in participating in sustainability initiatives. This statistic highlights an opportunity for the University to significantly increase involvement in sustainability initiatives without needing to first stimulate interest in them.

Though there is definitely a strong interest in sustainability, there are still barriers to involvement, which our team hoped could be overcome by using different marketing strategies that would frame sustainability in a new light: one where acting sustainably was associated with fun and excitement rather than sacrifice and duty.

Marketing on Campus thus Far:

Though there are many student organizations and university offices that market sustainable initiatives and involvement, one of the biggest players on campus is the Office of Campus Sustainability. According to the OCS’s mission and description, their goal is “to inspire students, faculty, and staff to become involved in helping to solve environmental sustainability issues facing the world we live in”.

Though many of their programs reach students, as of yet, a culture of sustainability has not been achieved on this campus. The OCS would like to reach out to the aforementioned “42%” in order to increase involvement around campus and move closer to a culture of sustainability; therefore, they partnered with our team through Environment 391 to gain the student perspective on the issue. By having a student perspective, our team hoped to help the OCS to accomplish their goal of inspiring students to help solve environmental and sustainability issues though innovative solutions.

Marketing techniques used on campus frequently include handing out flyers on the Diag, posting flyers on walls in highly trafficked buildings, and using various forms of social media. Due to the abundance of flyer hand-outs and signs posted around campus, it is hard for specific causes to stand out within the ocean of information that students are subjected to on a daily basis. Environmental groups therefore need to rethink how to market initiatives and events because not only are they generally ineffective, but also, flyer distribution generates waste and undermines the movement as a whole.

Environmentally-minded events are gaining popularity as shown by the increase of recent zero waste initiatives: the basketball game in 2010, individual events like TEDxUofM (2011) and TEDxNicholsArboretum, and the proposal for the upcoming football season. The Program in the Environment major is also the fastest growing major on campus, the Integrated Assessment led to establishing long-term sustainability goals in the fall of 2011, and the Planet Blue Student Innovation fund recently funded four projects totaling almost $100,000 with an

1 http://www.ocs.umich.edu/about.shtml
additional $50,000 available for projects in the coming years. These examples illustrate that there is a definite growing infrastructure for a culture of sustainability. Now, awareness regarding these opportunities and causes must be generated to engage students and further catalyze the movement toward sustainability on campus.

The Reality of the College Student:
Creating a culture of sustainability can be difficult to do on a college campus. Though college students are, for the most part, smart and capable of creating huge changes, many students do not act sustainably. This is because they have a lot on their minds—papers to write, tests to study for, social circles to navigate—so when it comes down to packing a lunch or recycling a pizza box, they often do not even think to choose the sustainable option. Farrell calls this the “disengaged pragmatism of everyday life,” in which one is “focusing on the tasks at hand and the day ahead, but not the meaning behind them” (Farrell, 14). He claims that students have “too much to do” (Farrell, 15) and therefore are reluctant to change their daily routines in favor of more sustainable ones.

Although students have a lot to do, they will make time for something if they really want to do it. Students are “masters at multitasking” and are able to “procrastinate, text friends, check Facebook, drink coffee, listen to music, and clean—all at once” (Farrell, x). This is where sustainability needs to change its image from being just another educational message, to something that is inherent in one’s daily routine and, potentially, even fun and exciting.

How to Make Sustainability Exciting: Guerilla Marketing:
Guerilla marketing is vague and elusive even in definition. The definitions vary from “using small, finite resources to gain maximum punch,” and “consists of waging, small, intermittent attacks on different territories of the opponent, with the aim of… eventually securing permanent footholds” (Whiteman), to “any activity that uses a means other than traditional media to communicate a brand’s name and position to prospects. Also called extreme marketing, grassroots marketing, or feet-on-the-street marketing, a guerilla campaign has no preset rules or boundaries.” (Zuo, 9). Success in guerilla marketing involves “attention-getting street graphics, strange occurrences, memorable events, [and] buzz” (Zuo, 9). Guerrilla marketing is successful, because, not only are people noticing the advertisement/installation, but they are also actively talking about it and engaging in it. Additionally, a huge part of guerilla marketing is the use of social media and technology (Wasserman, 8). The theory is that trends and ideas catch on because one person notices something (potentially a large display or installation), takes a picture of it and posts it to Facebook, or tweets it, or blogs about it. Now, all of the people in which that person is connected to can see the installation and become exposed to the brand or idea that it promotes. Additionally, the person who initially dispersed the message has an added connection to the original advertisement because they liked it or had enough of an emotional reaction to it to share it with friends.
Yet, applying guerrilla marketing to ideas about sustainability and using it to create behavior change can be tricky. Effective guerrilla marketing can already be hard to do because “unlike the marketing of consumer packaged goods, the marketing of scientific ideas may be complex: concepts may not be straightforward and behavior change may be difficult.” It is sometimes difficult to understand how guerrilla marketing can create the behavior change.

Except universities and cities have effectively promoted sustainability through the use of guerrilla marketing. In 2001, Tufts University was looking to reduce their energy emissions. The existing research at the university “suggested that knowledge gaps were the primary barriers to sustainable behavior choices,” yet upon further research, the university concluded that “the influence of human psychological factors such as social norms, altruism, personal perceptions, beliefs and attitudes” were key to behavior change (Marcell, 171). They began a campaign featuring the slogan, “Where is your hot spot?” because it was “short and fun and its sexual connotation seemed to capture attention” (Marcell, 172). Additionally, they targeted a small group of students in one of the dorms with a community-based social marketing approach. By the end of the study, it was found that the social marketing group had started to use less energy than the other group had.

Outside of a university setting, there have been various successful guerrilla marketing campaigns focused on sustainable behavior change. One was the “Use only what you need” campaign for water in Denver. The city of Denver enlisted the advertising agency Sukle to use social marketing strategies to reduce water use in the city during a drought. Through viral videos, bus ads, printed ads, an interactive website, online game, funny lawn signs, and shocking displays, Sukle was able to help the city reduce water consumption by about 20% over the course of six years (Denver Water).

Based on these examples, personal experience, and knowledge of the college student culture, our group decided to harness the potential of alternative marketing strategies in order to reach out to the 42%. During the project, we searched to understand what might have been the ‘trigger’ that motivated students to move from ‘interested’ to ‘engaged’, and in this process developed many ideas for how to market to these motivations. The long-term result will be implementing programs and initiatives that draw upon the research that we have provided in order to effectively communicate with students and will lead to positive behavioral changes.
PROJECT GOALS AND OBJECTIVES:

The primary goal of this project was to assist OCS in expanding their outreach efforts aimed at encouraging participation from “interested, but not engaged” students. The following four objectives led us to achieve this main goal:

1. To complete a pilot video of a specific issue on campus (recycling red cups) with a high number of student views. The video’s success will be determined by data/research and the degree of its popularity (or its ability to go viral).
2. Develop and describe a set of twenty research-based creative media methods that will engage UM students in sustainability on campus through marketing. These methods will be passed on to the OCS to shape future marketing techniques.
3. Create a report that provides comprehensive qualitative and quantitative data on what converts students from “interested” to “engaged” for use by OCS and other sustainability issue organizations to help them to understand the student population.
4. Create behavior change through the selection of an original and research-based creative media pilot, implement it on campus, and measure its effectiveness.
METHODOLOGY AND FINDINGS:

Wasted: A documentary:

On campus, red plastic cups are used frequently for social events and are often placed in the trash after use as many students are unaware that these cups are recyclable. Therefore, we wanted to target a specific and current behavior of students and change it into a more sustainable practice. In the pilot video, a party is taking place where many red cups are being used and not recycled. The message at the end of the piece is to reduce waste by recycling these plastic cups.

Strategy:
1. Film a video at a Graham Scholars party; include Graham Scholars in the filming and editing process
2. Link the video to the ‘Tipping Point’ survey
3. Continue to distribute the video and collect analytical data (i.e., number of views)

FINDINGS:

Wasted: A documentary was not as successful as our group had planned. However, this video taught us two extremely valuable lessons that we used for our research-based creative method video.

One area that could be improved upon is the duration of the video. Due to the length, many viewers did not reach the end of the video to understand the sustainability message we were conveying. Second, the video would need better distribution tactics and should focus more on the importance of stakeholders. We put the video on Youtube, Facebook, and damnarbor.com blog. To date, the video has generated about 870 hits on YouTube. Due to the lack of “non-engaged” viewers, we have determined that we need to reach out to important stakeholders that will allow for this video to become viral.²

SURVEY:

Our group reached out to students interested and engaged in sustainability to discover their Sustainability “Tipping Point.” In other words, we wanted to learn the reasons that students became involved and interested in sustainability, whether it was because of a certain class, a friend, their family, etc. Our group hoped that by learning this information, we would better

² Many of the views for this video were from students in PitE, the Graham Scholars program, and the SSI. More details are in the “Executive Summary” on page 3 and the “Survey” section on page 9.
understand what types of marketing/events on campus would be most effective at getting interested students involved in sustainability.

The survey was sent out to Program in the Environment majors, Graham Scholars, and students on the Student Sustainability Initiative mailing list. A total of 964 surveys were distributed. Although there may have been overlap between some of the mailing lists, it is uncertain how much overlap there was since we did not have access to the specific names in the mailing lists. The students on these mailing lists, we assumed, were already engaged in sustainability (given their affiliations) and would therefore be a good population to ask about their ‘sustainability tipping point’. The survey was left open for one week (from March 6th to March 13th) and after sending the initial announcement, a follow-up reminder was sent five days later to the PitE list. In total, we received 218 responses from the survey, which is a response of 22.6%.

Since we were looking for mainly qualitative information, the survey was kept short. Excluding the questions regarding basic personal information, there only three questions relating to partaking in sustainability efforts (two of which were short answer):

1. How interested are you in sustainability on a scale of 1 to 10 (10 being very interested)?
2. What sparked your interest in sustainability? (For example: a specific class, a friend, an event, a movie… etc.) Feel free to include as much or as little detail as you want.
3. What helped to sustain your interest in sustainability? (For example: a friend, an organization, increased knowledge… etc.) Or, if the interest has not been sustained, why not?
4. What is your year in school?
5. What is your major?
6. What is your minor? (if applicable)
7. Email (optional, but fill in to be included in the drawing)

As an incentive, we told participants they would be entered in a drawing for a chance to win one of two $25 Amazon.com gift cards if they completed the survey. Additionally, after they submitted the survey, their browser directed them to the YouTube page for our first video, *Wasted: A Documentary*.

After the survey closed, we used *Qualtrics* (the survey software) to analyze the quantitative data. Our group then analyzed the short-answer questions (questions 2 and 3) by looking for similarities within answers and creating categories for answer types. We then tallied all responses into these categories.³

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³ If an answer fit more than one category (i.e. a student mentioned a class and a friend for the reason that they were interested in sustainability), a tally was given to both the “Class” and “Friend” categories.
FINDINGS:

The main questions of interest for our group were the second and third questions on the survey:

- What sparked your interest in sustainability?
- What has helped to sustain your interest in sustainability?

We hoped that analyzing answers to these questions by students who were interested and engaged in sustainability would lead us to discover ways to reach the “42%”. In response to both questions, our group discovered that students overwhelmingly noted specific classes as the primary reason behind their interest in sustainability. Classes that were mentioned included: Environment 101, Environment 201, Art and Design Perspectives III, Jim Crowfoot's freshman seminar on the environment, Environment 391, CICS 101, and Environment 207.

Outside of this reason, an overall belief/appreciation of the natural world was mentioned as the reason behind their interest in sustainability. Following this was their family. Other reasons included: travel experience, a book/movie, an organization, a friend, a news source.

As for sustaining interest, the second reason noted was personal drive/increased knowledge. The third reason was that a specific organization on campus helped them to maintain their interest in sustainability. Other reasons included: friends/family, media, love of the outdoors, and work.

FOCUS GROUPS:

The Graham Institute-- in partnership with the Institute for Social Research-- allowed NMBC to observe the focus groups that they were running regarding students’ perception of campus sustainability. The aimed to discover general opinion about university programs in order to learn how to better promote sustainability on campus. Seeing as our group had similar intentions, we found that observing these focus groups was beneficial for our project and provided valuable qualitative data.

Our group was able to observe two of these groups: one of which was composed entirely of randomly selected freshmen and one that consisted of randomly selected seniors.

Each focus group was about an hour long and was observed behind a two-way mirror. The focus groups consisted of one facilitator (the question asker), one note-taker, and 4-6 participants. We took notes from behind the two-way mirror while the facilitator asked the participants questions for about an hour.

After the two focus groups, we assembled our notes and looked for commonalities amongst the respondents. We had the responses of nine students to the questions who came from varied backgrounds and therefore, their common answers seemed representative of the larger student population.
FINDINGS:

The focus groups were very valuable sources of information as it allowed our group to listen to students voice their opinions and perceptions about sustainability within a casual context. Though these students were not necessarily part of the 42%, their perception of sustainability and attitude toward it allowed us to begin to understand what information (and what types of it) reaches students (and makes an impact).

In the focus group of freshmen, the students unanimously found that chalk on the Diag is a very effective medium for conveying messages and important information. Although the seniors did not mention chalk, they seemed to feel as if they never heard about anything sustainability-related on campus. Efforts do not stand out amidst the flood of other flyers and information that they passed on a daily basis. Signage was said to be generally ineffective.

The seniors grasped the importance of sustainability and living a sustainable lifestyle, yet, because of habit and convenience, still engaged in unsustainable habits. Despite this, they all thought that the water refill stations that began appearing on campus last year were “very cool” and definitely helped to encourage more widespread use of reusable water bottles.

After attending two focus group sessions, there were many commonalities amongst all the results gathered. Those that had taken classes related to sustainability found that they definitely impacted their behaviors and attitudes regarding sustainability. The seniors also unanimously agreed that all undergraduates should be required to take a sustainability-related course. They also said that freshman should be targeted, noting that most habits were formed that year.

Wasted: A Stop-Motion Animation:

For the new media pilot project, our group created a stop-animation video and posted it online. By using humor and the internet as an accessible and convenient medium, the video aims to connect to students and encourage them to engage in sustainable practices (recycling red cups). Additionally, statistical data can easily be tracked and we also have the ability to monitor how “viral” our project becomes.

In order to implement effective behavior change, we made the stop-motion after posting Wasted: A Documentary and discussing many other creative media methods. In under two weeks, Wasted: A Documentary had more than 600 views, thus encouraging us that a video was the right route to follow. We decided to make a stop motion because the video would be comical (bringing inanimate objects to life) and easy to remember. The theme of “red cups” and a “rave” were just as critical in video production because attending parties and social events is an extremely relatable topic in a college environment. Additionally, the video would use a “hidden medicine technique”, meaning that students would not feel obliged to swallow the “sustainability pill”. By making the video more entertaining than directly focused on recycling, students would be more interested in watching it.

Although we realized we could collect numerical data from the stop-motion, we knew it would be more difficult to measure behavior change amongst the student body. Therefore, by promoting the SSI website and encouraging students to enroll in a sustainability course, we hope
to see a rise in student interest in sustainability in the next year. This “rise” would be based on
the students’ interest in the video and the information retained from it. Although the behavior
change encouraged by our project cannot be immediately measured, our group took all the
proper steps (based on our research from Wasted: A Documentary) to implement a creative idea
to a variety of students.

From our first video, we realized that stakeholders are extremely important. Therefore,
we suggest that future marketing for red-cup recycling should target fraternities, particularly
during Welcome Week when red cups are in high use. Since we know that red cups will be used,
we took a behavior and looked for a way to make it fun to recycle. Instead of telling students to
be sustainable and explain why red cups are bad, we took a behavior that is already happening
and included a behavior change towards sustainability.

FINDINGS:

Wasted: A Stop-Motion Animation has been posted on YouTube for about two weeks.
During this time span, there have been approximately 270 views and the number continually
increases daily. According to the video’s analytical data on YouTube, 35% of the total views
came from the video being embedded on other websites. This gave us valuable information in
that social networking sites like Twitter and Facebook play a huge role in the video’s popularity,
particularly in a college environment.4

About 60% of views for the stop-motion were viewed directly on YouTube. Due to the
fact that a link to the animation was posted on Facebook and Twitter, it is likely that the views
directly on YouTube were caused by these social networking websites as well. Additionally, the
video was emailed to a number of various students, in hopes of reaching the “42%”. There also
is also a link to Wasted: A Documentary on the stop-motion’s web page because it will encourage
viewers to watch it. The amount of views for Wasted: A Documentary have increased by about
120 since Wasted: A Stop-Motion Animation was posted.

At the moment, our group is working to market this video to U of M’s fraternities, where
red cups are used in copious amounts. We have been in contact with fraternity representatives, as
well as the current president of the Inter-Fraternity Council. According to the IFC president,
many fraternities are working on sustainability initiatives for the Fall 2012 so it may be possible
to distribute the stop-motion video to Greek-life members. This is a project that would be
implemented over the next few months.

4 The stop-motion was only posted on Twitter and Facebook in terms of social networking websites.
RECOMMENDATIONS:

Based on the data we have collected over the past few months, it is clear that certain, precise measures can be taken to engage interested students in campus sustainability. Due to the limited time period, we were not able to implement many of our ideas for student engagement. For this reason, another deliverable identified by our project sponsor was to provide a brainstormed list of creative ideas for reaching students and engaging them in sustainability at the University of Michigan. If implemented, the following recommendations could increase awareness and help students become more excited and engaged with sustainability. The following recommendations are the top 20 creative methods our group produced in what we predict will increase awareness and have students become more excited about sustainability (listed in no particular order):

20 RESEARCH BASED CREATIVE METHODS:

Internet-Based Ideas:

1. Use student Facebook accounts as a means to disperse a message
   a. Since most of the University’s students are spending a significant amount of time on Facebook, advertising sustainable messages would be an effective viewing location. Online sources are easy for students to access and according to the focus groups, students find it feasible to have information available via internet. For example: Changing profile picture to a Sustainable lecture, green tip, or anything relating to changing students behavior.

2. Create memes and disperse them online (via social networking and blogs)
   a. Memes are photos with a comical caption on them. By creating sustainability-themed memes, we can gain attention from readers while educating them and influencing behavior change. They would be dispersed Facebook and Twitter and on blogs like http://whatshouldwecallme.tumblr.com/.

3. Create a “one-day challenge” commitment for students
   a. It can be overwhelming for some students to think about and remember all the ways to practice sustainable methods. By providing a “one-day challenge” for students to partake in, practicing methods of sustainability appears to become more manageable. For example, the SSI website can provide a “one-a-day challenge” to promote ideas and/or reminders of what students can do to enact change on one given day. One challenge could be, “Try not use the elevator to get to class today. Instead, save energy and use your own energy to burn calories walking up the stairs.”
4. Create a stop-motion animation video about red cups
   a. This is the creative method that we decided to pilot. The length of this video is much shorter than the previous video (*Wasted: A Documentary*) in order to keep the audience engaged. This video is intended to show students that red cups should be recycled.

5. Have university role models (athletes, popular professors, well-known students) advocate sustainability through online media (particularly videos).
   a. Well known role-models tend to receive a lot of positive attention on campus, so having them advocate for sustainability would be a keen method to raise awareness and promote engagement.

6. Create *Ted Talk*-like videos to promote sustainability.
   a. This creative method would use the information we gathered from the pilot video to make this second series of videos more successful. This method would target a wide range of students because short inspirational videos are commonly watched among students. College students are also interested in exploring new ideas through non-traditional ways, like learning from friends and videos as opposed to classroom lectures. The TED foundation has done research on average attention spans and they have found that people cannot focus for more than 18 minutes on any given topic. TED talks are no longer than this limit.
   b. Partner with TedxUofM to ensure that sustainability is a large component of their events.

Event-Based Ideas:

7. Have an evening “walk-through” in the Diag while projecting graphic images onto campus buildings
   a. For one night, have sustainability messages consisting of art, music, performances, etc. for students to interact with on the Diag and parts of campus. They will be capable of gaining knowledge about sustainability and be encouraged (through the messages) to show a change in their behavior.

8. Create an environmentally charged show about methods of sustainability through *Basement Arts*
   a. Student sustainability initiatives target students mainly on central campus. By targeting people who do not receive the everyday marketing, we can extend our audience by providing information to new audiences that have never been exposed to it before.

9. Have an experimental fashion show on the Diag
   a. By having a show on the Diag, we would target students who are not involved in sustainability, but are interested in fashion. *SHEI Magazine*, a University of Michigan student fashion magazine, would collaborate with our group to promote

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5 http://www.ted.com
sustainable methods through a photo shoot. According to the focus group responses, events in the Diag are effective methods for promoting ideas.

10. Have a booth at Art Fair and/or Festifall
   a. Many different groups involved on campus have a booth at the Art Fair and Festifall. A booth providing information (with OCS or SSI) on how to practice sustainable methods and some tips on how to be green would target many incoming students interested in extracurricular activities and any students walking on campus.

11. Hold a giant game of “Pong” (with a focus on sustainability) and provide students with free items (t-shirts, water bottles, etc.) as a reminder to be more sustainable.
   a. Some students are very competitive and love playing games. Playing a game of “Pong” will draw students in because it is relatable to many students’ social lives. The focus of the game would be around sustainability and would provide students with some examples of ways to be green. This event would most likely take place on the Diag, around the time of class registration.

Art/Campus Aesthetic-Based Ideas:

12. “Shopdrop” reusable water bottles in popular campus locations
   a. “Shopdrop” is the exact opposite of shoplifting. Instead of stealing an item, you leave an item. For example, our group can leave water bottles with messages about sustainability and a link to the SSI website for other students to find.

13. Alter or create street/university signs with a message about sustainability.
   a. We know when something is funny or out of the ordinary people pay attention to it. The signs would be eye-catching/comical so students acknowledge them while grabbing their attention about sustainability. Safety and security precautions would be taken.

14. Use chalk to advocate sustainability messages on the sidewalks and near campus buildings. The messages would be geared towards students so they are eye-catching when they walk around campus.
   a. Students in the focus groups mentioned that chalking is one of the more memorable and noticeable marketing techniques they see when walking on campus. By providing sustainability tips, classes, or facts, students are likely to see and retain the messages when they look at sidewalks or beside buildings.

15. Compose a public-art sculpture of a red cup
   a. One response we received from the survey is that students like to see the waste they have created. They enjoy seeing it right in front of them because they can understand the magnitude of waste created by humans. A large, three-dimensional, public-art project composed of recycled material and/or waste would help students visualize the impact an individual can have on the environment.
Student Organization and Academic-Based Ideas:

16. Promote weekly sustainability tips in the University of Michigan’s school planner.  
   a. In the University’s planner, there are always tips pertaining to health and well-being. All freshmen receive planners, therefore if there were tips about how to be “green”, students would read them.

17. Have professors and/or students advocate for higher enrollment in sustainability classes.  
   a. Our research shows that students who took a class in sustainability tend to be both interested and engaged. By presenting courses in which students would otherwise not take, we would promote and expose sustainability classes in order to have more students become engaged.

18. Have professors give a sustainability tip before lecture.  
   a. Since students who are in the classrooms are often listening, it would be a great opportunity for professors to give a “green” tip to students. The tips provide reminders to students on ways to practice sustainability on a daily basis.

19. Hold WCBN interviews with leaders of sustainability and promote the talk show.  
   a. By interviewing sustainability leaders on campus and airing them on the university’s radio station, we would reach out to a diverse group of students. Interviews would provide information on how to partake in sustainable behavior, tips on how to be “green”, and upcoming sustainability classes for future semesters. We would use the information provided by the focus groups to market the talk show (i.e. online videos, advertisements on televisions in libraries, advertisements in The Michigan Daily).

20. Encourage professors to advocate for classes when the LSA Course Guide comes out  
   a. Our research has shown that classes are the major tipping point for students when changing from interested to engaged. By having professors encourage students to enroll in sustainability courses (such as during lecture and/or class), large portions of the student body would be reached due to the high volume of students they come into contact with. More students would be motivated to enroll because many professors are often seen as role models, therefore encouraging behavior change once the future class has started.
CONCLUSION:

In a recent University of Michigan survey, 42% of students reported being interested but not engaged in sustainability. This provided an opportunity for our group to explore how behavior changed can occur on campus. We first started with research on the tipping point that caused 17% of students to be engaged in sustainability. We piloted a video (Wasted: A Documentary) to understand what making a sustainability clip requires. We also observed and analyzed focus group sessions where we learned that students who have taken a sustainability class are more likely to make daily sustainability-based decisions. From the research conducted, we learned that 50% of students who have taken a University of Michigan Environmental sustainability course are interested and engaged. Based on the collected information, we now know what motivated students to change their behavior and how to provide students with more effective ways to communicate to students to change behavior.

We have accomplished all four of our goals set at the beginning of the semester, from learning what encourages students to become engaged in sustainability to choosing a creative method from our list and creating a second pilot media project. This research provides information to guide future Environment 391 students to enact behavior change through new media.
Works Cited:


Appendices:

Appendix 1: FOCUS GROUP

Question Guide and responses:

1. What does the word “sustainability” mean to you?
   a. What comes to your mind when you hear that word?
      i. Sustainability still remains personally undefined for students.
      ii. Sustainable products and ideas take into account the future of the planet and environment and something that you aim for
      iii. Sustainability is to preserve, to maintain, and/or reuse. It prevents further environmental degradation.

2. How has being a student at U-M affected your views on the environment and sustainability?
a. Experiences at the U-M?
   i. Many students are or have changed to become more environmentally conscious (including turning off lights, recycling, owning a reusable water bottle, using less water)-Some are informed.
   ii. Others are not affected-no daily impact change
   iii. There are a number of environmentally based student groups at U-M
   iv. Since students have moved out of the dorms, they are looking for ways to save money on bills- turning off lights, limit to ten minute showers

b. Have classes impacted your views more or less than interactions with students?
   i. Haven’t taken any classes
   ii. Ecology course, biology 101 (changed eating habits)
   iii. Some generic courses (political science and public health) have touched on the environment

c. Do you think staff and faculty are doing a good job promoting sustainability on campus? If so what? And what could be done better?
   i. Yes; cannot brainstorm a counter-example
   ii. Improving use of online sources (including CTools and online textbooks)
   iii. Printers should print double-sided: should be automatic
   iv. One student said, if the University is not doing it, why would I?

3. Do you think student groups are doing a good job promoting sustainability on campus?

   a. What are they doing that you like? What could they be doing better or differently?
      i. There are events in the Diag
      ii. It is difficult to know what groups are working on, if uninvolved
      iii. Recycling and trash bins; lights set on dimmers
      iv. Stickers on light switches to remind you to turn off the lights (should be placed in more public spaces too)
      v. The individual student should be responsible for that information
      vi. A sustainability course should be a graduation requirement (unanimous among group)
      vii. Create sustainability competitions between dorms/houses (to keep students motivated)

   b. Do your views about sustainability affect choices that you make in your life?
   c. Do you think student groups are doing a good job promoting sustainability on campus? What are they doing that you like? What could they be doing better or differently?
i. There are events in the Dag

ii. It is difficult to know what groups are working on, if uninvolved

iii. Signage is ineffective, students see signs but ignore the information on it if it is not relevant to them

d. What are some areas of everyday life where views about sustainability might be relevant of student behavior or choices?

i. Use of reusable water bottles; walking instead of driving; convenient bus system

ii. Extra food wasted in cafeterias; no grocery stores on campus

e. Do your views on sustainability affect your behaviors or choices in any of these areas? Is so, please describe how... If not, what are some reasons why sustainability isn’t generally something that you take into account?

i. IT is a good idea to target freshman, the earlier the better

Appendix 2: SURVEY

1. How interested are you in sustainability on a scale of 1 to 10 (10 being very interested)?

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
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Statistic Value

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<tr>
<td>Total Responses</td>
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</table>
2. What sparked your interest in sustainability?

- Class - 100
- Overall belief/appreciation of the natural world – 42
- Childhood/family - 35
- Travel experience – 24
- Book/Movie – 20
- Organization joined – 18
- Other - 18
- Friend - 12
- News Source - 7

Notes:
Classes and majors included:
Environment 101, Environment 201, Art and Design Perspectives III, Jim Crowfoot’s freshman seminar on the environment, Environment 391, CICS 101, Environment 207; Graham scholars, PitE

Organizations:
Kill-a-watt

2. What has helped to sustain your interest in sustainability?

- Class/Major: 92
- Personal drive/Increased knowledge: 55
- Organization: 43
- Friends/Family: 34
- Media: 17
- Love of the Outdoors: 12
- Work: 9
- Other: 8

3. What is your year in school?

<table>
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<th>Answer</th>
<th>Response</th>
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<tr>
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<tr>
<td></td>
<td>Total</td>
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<td>100%</td>
</tr>
</tbody>
</table>

Statistic Value
- Min Value: 1
- Max Value: 7
- Mean: 3.21
- Variance: 1.67
- Standard Deviation: 1.29
- Total Responses: 218
4. What is your major? (Top 3)

PitE, Econ, Biology-related field

5. What is your minor? (Top 4)

PitE, Geology, Global Change, Romance Languages

Appendix 3: Wasted: A Documentary
Appendix 4: Wasted: A Stop-Motion Animation

Last 30 days (Mar 20, 2012 – Apr 18, 2012)

Performance

- Views: 299
- Subscribers net change: 0

Engagement

- Likes: 4
- Dislikes: 0
- Comments: 0
- Shares: 0
- Favorites added: 0
- Favorites removed: 0

Top 10 videos

<table>
<thead>
<tr>
<th>Video</th>
<th>Views</th>
<th>Likes</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>Wasted: A Stop-Motion Animation</td>
<td>299</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

Demographics

Top geographies
- United States
- Belgium
- France
- Norway
- Canada

Gender
- Male 37.5%
- Female 62.5%

Discovery

Top playback locations
- YouTube watch page 60.9%
- Embedded player on other websites 34.4%
- Mobile devices 4.7%
- Other 0.0%

Top traffic sources
- Mobile apps and direct traffic 70.6%
- View referrals from outside YouTube 17.7%
- View referrals from YouTube 11.7%
- Other 0.0%