## Promoting the Sustainable Landscapes Trail through Instagram

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#### I. Preface

This document was created for the purpose of outlining a social media campaign with the target of increasing awareness of the Sustainable Landscapes Trail to current Cornell students. It is important to note that this report is specifically generated for both the use of the trail managers and sustainable landscape planners as well as for a final project for ENGRC 3350: Organizational Communications for Engineers. As such, this document presents its information both to a level in which it hopefully provides value for the Sustainable Landscapes Trail, but also complies with the timeline presented by the course including key features that must be present to be considered. This document therefore presents a starting point for a social media campaign with the option to hopefully expand and continue from here. To that end we would like to thank Erin Fox, Sarah Fiorello, Sonja Skelly, Nina Bassuk, David Cutter, and Dr. Allison Hutchison for all their help in this project.

#### A. Definitions of Terms

*SNS Analysis or Social Networking Service Analysis*: this form of analysis as defined in this paper takes similar organizations' social media platforms (Facebook, Instagram, and Twitter) and compares them based upon a SWOT framework.

SWOT Analysis or Strengths, Weaknesses, Opportunities, and Threats: A common analysis technique used for business analysis which looks at what competitors are doing well (their strengths), poorly (their weaknesses), where you can capitalize on (opportunities), and where they may outperform you (threats).

CSO: Cornell Sustainability Office

#### II. PROBLEM DESCRIPTION

Cornell's Sustainable Landscapes Trail is one of Cornell's many efforts to bring conservation education to its students, faculty, and visitors; however, the trail only educates those seeking out that specific information due to its lack of campus exposure, especially as it pertains to students. Thus, although there are efforts to help gain exposure through new signs and suggestions from popular walking sites, there is room for a social media campaign, which can bring awareness of the ecosystem services present on campus to a more digitally centered, student audience.

#### III. THE NEED FOR MORE PUBLIC ORIENTED CONTENT

According to Too and Bajracharya, Cornell has done an outstanding job implementing the 6-P strategy (Psychological, Physical, Personal, Public Perception, Price, Policies) in many of their community-oriented sustainability projects [1]. This has led to the success of initiatives like Lights Off Cornell and Take Back the Tap due to their physical signage and individually tailored reminders, placing the action and responsibility of turning off the tap or lights onto the members of the community [1]. While these projects have been successful in their launch and uptake,

projects like the Sustainable Landscapes Trail, which hold all their information in websites and digital media, have yet to be fully recognized by the community or follow the 6-P strategy.

The lack of public awareness of the Sustainable Landscapes Trail stems from the fact that there are very few ways to learn about the trail without knowing that the trail already exists. This has led to a push already to promote this path to community members via signs and updates to the trail. By generating more public oriented, easily accessible information, such as social media posts, the trail will not only follow the 6-P strategy but also hopefully see an uptick in community engagement.

### IV. SUSTAINABILITY COMMUNICATION BEYOND THE CORNELL WEBSITES

As stated above, Cornell's sustainability information is abundantly present on readable websites. While websites may be a good way of communicating sustainability, organizations do not always make the most out of web-sources [2]. Sumit Lodhia analyzes the factors of sustainability communication through web sources and provides reasons for website failures to communicate sustainability efforts, using three Australian minerals mining companies as examples [2]. The limits of website potential include: misleading assumptions about user behavior, department confined information, dependence on public image, and lack of supporting multimedia communication [2].

Cornell has several possible limitations as to their current outreach. However, the main one is that the user's search and outreach of sustainability information are low because of an underlying assumption that the community will always actively seek out the website. According to Lodhia's interviews, this is a naive assumption, as companies should establish a "one-to-one" connection with the community regardless of the website quality and accessibility [2]. A more integrated approach to community connection is through the use of multimedia activities. One of the media that has proven to bridge student communities with educational initiatives is social media [3].

#### A. Social Media and Student Engagement

In "Exploring the Potential Benefits of Using Social Media in Education" Faizi, El Afia, and Chiheb state that the use of educational social media can benefit communication, student engagement, and collaboration [3]. Additionally, social media types, such as social networks, blogs and media sharing sites, provide space for discussion in the form of question and answer sessions and comments [3]. Consequently, it gives the audience the chance to share their opinions and feedback more openly and creates a great learning environment [3]. Social media has the power to speak directly to people's emotions and help express them more effectively with reactions, such as likes and comments [4]. This can provide the Cornell community with a great opportunity to react to policies, projects, and current initiatives, by voicing their support or frustration. Therefore, the Cornell Sustainable Landscapes Trail has great potential in sharing and interacting with educational content on social media, and the next section will provide an example of how multimedia content, ubiquitously present on social platforms, can alter communities and benefit learning.

#### B. Social Media as a Form of Multimedia Content

Through multimedia communication, a common practice seen in social media, engagement and retention can improve. This can be seen through many fields' experiences from science to fashion, and even to heritage conservation [5, 6, 7]. Digital media content can increase community involvement [5, 7]. In Argentina, to preserve rural heritage, people filmed and premiered videos in which they shared their collective knowledge and histories [7]. The individual connections and powerful medium inspired community engagement and attracted many stakeholders including the government, who even applied these videos to local school curriculum [7]. Additionally, according to communication research, combining several mediums together enhances learning and recall of information, and students also gain the quality of knowledge equivalent to a class in the subject with less effort and time [6, 8]. Since information on sustainability and conservation is complex, multimedia exposure will be key to our project.

#### C. Evergreen Content and Community Engagement

To ensure that all the targeted community members stay engaged and the information remains relevant in the future, it is important to consider creating more evergreen content. The article, "Discovering Evergreen Content on the Web," describes evergreen content as information often presented in the format of interactive guides or advice and is applicable throughout a long period of time [9]. The longer the information stays relevant, the more likely it is to create a community connection [10].

In Cornell's case, although some efforts are made to include more sustainability advice and tips in posts, the majority of the posts on Sustainable Cornell Instagram are mostly facts and statistics based. Many posts describe Cornell's achievements, such as campus solar projects or percentages on the reduced waste. And often information and text heavy posts about technology which tend to be more "ephemeral," i.e. stay valuable in the short-term [9]. Therefore, it is important not to just make the sustainability efforts visible by providing statistics and factual information, but create content that will guide and make students, visitors and faculty want to go out and explore the Sustainable Landscapes Trail by themselves [10].

There are many types of content that can potentially become valuable long-term to the targeted audience. One way to provide a more evergreen content is through including more entertaining posts and using humor [10]. Another method could be organizing a Q&A session to create a dialogue with the Cornell community [10]. In our research of SNS (shown in the next section), we found that one of the organizations on Cornell's campus, @greenharvard, effectively implements community engaging posts on their Instagram page. Thus, since Sustainable Cornell has even a greater following, it would be extremely beneficial to get the audience into a discussion about sustainability. In addition, it is an opportunity for the Instagram visitors to learn more about the Cornell sustainable initiatives, like the Landscapes Trail. To expand the dialogue further and appeal even more to the audience, PJ Forrest suggests the use of storytelling, which we have already seen to be working in the Argentina case [7, 10]. So overall, the potential of evergreen content is limitless, if used correctly.

#### V. SNS FINDINGS

In order to get a better understanding of the overall social media landscape and current comparable organizations' pages, we ran a SNS analysis coupled with a SWOT analysis to best understand how the Sustainable Landscapes Trail campaign could best be delivered. Included in Table 1 below are five of the top pages we analyzed and our findings for the page's perceived strengths and weaknesses.

TABLE 1
SUMMARY OF TOP 5 SNS ANALYSIS PAGES

	Strengths	Weaknesses		
Sustainable Cornell	<ul> <li>Stories and cohesive headers</li> <li>Starting consistent use of hashtags</li> <li>Bright colors and text placement</li> </ul>	<ul> <li>Different handles</li> <li>Logo design and location</li> <li>Inconsistent colors and fonts</li> </ul>		
Cornell Student Life	<ul> <li>Variety of serious and lighthearted posts</li> <li>Short to the point captions</li> <li>Clean and consistent overall design</li> </ul>	<ul> <li>Some captions lack important info</li> <li>Inconsistent hashtags</li> <li>Reusing content between sites causes styling issues</li> </ul>		
CU Sustainable Design (CUSD)	<ul> <li>Use of consistent colors, fonts, and designs</li> <li>Spotlights community members</li> <li>Community oriented events alongside news and relevant article posts</li> </ul>	<ul> <li>No hashtags</li> <li>Too many colors on stories distracting from header</li> <li>Different handles across platforms</li> </ul>		
Green Harvard	<ul> <li>Highlights community members</li> <li>Consistent quality formatting of photos to fit the platform's constraints</li> <li>Good connection with other Harvard pages</li> </ul>	<ul> <li>No uniform understandable story photos</li> <li>Lengthy comments</li> <li>More consistent hashtag use</li> </ul>		
LSU Sustainability	<ul> <li>Consistent color scheme with bright coordinating clip art</li> <li>Multiple photos rather than lengthy comments</li> <li>Relates content to holidays and other well-known ideas</li> </ul>	<ul> <li>Link in bio without adequate information</li> <li>Need more consistency in stories</li> <li>Some text heavy posts with lengthy comments</li> </ul>		

Within these pages, we found three different post styles we thought could be used to help promote the Sustainable Landscapes Trail shown below in Figure 1.



**Fig. 1.** Series of posts from taken from (left to right) CU Sustainable Design, LSU Sustainability, and Sustainable Cornell's pages

Each of these holds their own benefits:

- multiple post montage that captures different facts each day and creates a mural on the overall Instagram page
- mainly text centered post with sectioning and clip art to keep it visually interesting
- a balanced post of images and text to create a more traditional posting style.

#### A. Takeaways

Although Cornell Sustainability does many great things through their social media platforms, the SWOT analysis presents a few clear opportunities that if taken could help promote initiatives like the Sustainable Landscapes Trail in the future. A clear balance between facts/important articles, lighthearted posts, and community involvement is shown to increase and maintain user involvement in the platform over time. Consistent use of applicable hashtags and relevant tags and reposts will also bolster involvement of different audiences within the same community. A clean overall design with consistent font usage, an appealing color palette, and fun, short, and to the point captions make the page more aesthetically pleasing and user friendly. Finally, relating content to holidays and other community events makes otherwise unrelatable content accessible and interesting to the user.

#### VI. FOUNDATIONS OF THE CAMPAIGN

This campaign will have the goal of introducing the Sustainable Landscapes Trail to the specific audience of current Cornell students. For this reason, we have chosen to focus our efforts on an Instagram centered campaign as the content created for Instagram and Facebook are quite different from one another and the user groups of each of these sites show that interest in Facebook with our target generation is going out of favor [11]. To produce a usable (and hopefully reusable) model for this Campaign, we will outline:

• Evergreen-eque templates and guidelines for content creation with the Sustainable Landscapes Trail

- Example collage posts for the Sustainable Landscapes Trail with
  - o Visuals
  - o Captions
  - o Hashtags
- Calendar for posting the collage and ideas for ideal posting schedules
- Partnerships that may help reach the target audience faster

#### A. Templates

The templates we designed in Figure 2 provide the ultimate freedom for partner-based collaborations as they can all be reworked to best match a specific brand image for any given page. Our recommendations for how posts should be styled to best match this campaign are listed in Appendix A, but can obviously be reworked to match any partner's preference.

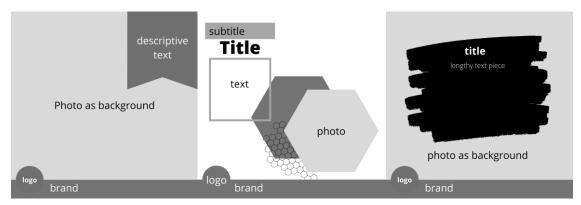


Fig. 2. Series of Evergreen Templates created on Canva for the use of future posts

#### B. Collage Post for the Sustainable Landscapes Trail

Looking at some of the more successful posts from the SNS analysis, we noticed that "cute" graphics paired with continuous styles presented a more compatible format for our campaign. For that reason, we looked specifically at <u>CUSD</u> for their collage style post which kept all the relevant information visible and pleasant to look at from both the landing screen of the account and the individual posts. In order to achieve this for the Landscapes Trail, we designed the following set of posts outlined in Figure 3 and Table 2.

# SUSTAINABLE LANDSCAPES TRAIL INSTAGRAM CAMPAIGN



**Fig. 3.** Instagram campaign for the Sustainable Landscapes Trail consisting of 9 individual posts as they would appear in the grid format on the @sustainablecornell page.

These posts would appear as above on a standard page, and when clicked on should show captions and hashtags according to Table 2 below.

TABLE 2
CAMPAIGN POSTS AND CORRESPONDING COMMENTS

Post	Comment	Date
WHAT IS THE SUSTAINABLE LANDSCAPES TRAIL?	The Sustainable Landscapes Trail is a series of sites around Cornell's campus including open spaces, landscapes, and natural areas with unique sustainability features. Be sure to check them out when you get back to campus!  #cuontheslt #sustainablelandscapes #cornell #cornellsustainability #sustainablecampus	Aug 18, 2021, 12pm
OAKS IN CU SOIL	Grab some ice cream at the Dairy Bar and be sure to check out the oak trees planted in CU soil across the street. This site is sustainable because CU structural soil actually promotes root growth. Comment your favorite Cornell dairy flavor below!  Compared the cornell dairy flavor below:	Aug 20, 2021, 12pm
BOTANIC GARDENS BIOSWALE	Take your family on a tour of Cornell's Botanic Gardens and take a look at the bioswale. Bioswales provide habitats for insects, including pollinators essential in keeping the garden's plants blooming. A family photo in the botanic gardens would make a great holiday card!  #cuontheslt #sustainablelandscapes #cornell #cornellsustainability #greencampus #nature	Aug 21, 2021, 12pm
NEVIN GREEN ROOF	Not up for a full tour of the botanic gardens? Take a trip to the Nevin Welcome Center instead! Its green roof captures and treats rain protecting local waterways.   # # # # # # # # # # # # # # # # # #	Aug 22, 2021, 12pm
VISIT THE SUSTAINABLE LANDSCAPES TRAIL TODAY!	Now that you've settled into campus a little, it's time to start exploring! Take a walk and see all Cornell's campus has to offer including the Sustainable Landscapes Trail. Send us a pic of you at any of the sites on the trail, and it may be posted on our story later this week!  ### week! ###################################	Aug 23, 2021, 12pm

Post	Comment	Date
MANN GREEN ROOF	Grab some lunch at Trillium and take it to the Mann Library green roof to enjoy. This spot is known to promote mental restoration and social connection. Remind yourself to be grateful for the little things today! #cuontheslt #sustainablelandscapes #cornelluniversity #cornellsustainability #greencampus	Aug 24, 2021, 12pm
AG QUAD BIOSWALE	Grab some friends for a game of frisbee or spikeball on the Ag Quad. While you're there, check out the Ag Quad bioswale! You'll be thankful for it on those Cornell rainy days because it reduces the runoff on walking paths and prevents major puddling.	Aug 25, 2021, 12pm
CLIMATE CHANGE GARDEN	If you still haven't gotten a chance to check out the botanic gardens, stop in Cornell's Climate Change Garden. You can see what plant life might look like in 2050 at the pace the world is warming. Let us know in the comments what vegetable was the most shocking.  ### Cornelluniversity #cornellsustainablelandscapes #cornelluniversity #cornellsustainability #sustainablestudents #photo#synthesis	Aug 26, 2021, 12pm
TO LEARN MORE VISIT SUSTAINABLECAMPUS. CORNELL.EDU	As you explore campus this semester keep an eye out for signs denoting locations on the Sustainable Landscapes Trail. New sites are being added everyday! Can you make it to them all before the semester is over?  # #cuontheslt #sustainablelandscapes #cornell #cornellsustainability #greencampus	Aug 27, 2021, 12pm

1) Hashtags: One of the main features of Instagram posts are hashtags, and, just as content can be optimized for web searching, posts can likewise be optimized for searches on any given platform. Hashtags play a large role in this optimization as they provide a key to the relevancy and areas of interest of any given post allowing people outside of your following to find your content [12]. For this reason, hashtags for this project will be split between those designed for connectivity outside of this campaign and those designed to keep all the posts together.

In order to do this, all posts relating to this campaign should include: #cuontheslt and #sustainablelandscapes. These tags will create a link between the current post and the rest of

the campaign as neither of these hashtags have over 25 posts and all that are listed already possess common interests to the audience we are trying to address.

For the remaining hashtags (if you choose to include any) we recommend picking a few from Table 3 below which have already a high post count and should create meaningful links to the community we are trying to reach.

TABLE 3
HASHTAGS, CORRESPONDING POPULARITY, AND RELATIONSHIP

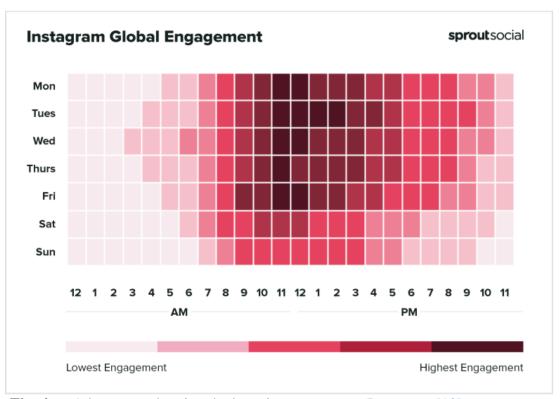
#Hashtag	Post Count	Relationship
#cornell	297k	Cornell community
#cornelluniversity	155k	Cornell community
#sustainablecampus	3.1k	Content matter (not specific to Cornell)
#sustainablestudents	1.6k	Relates to audience and overall goals of sustainability
#greencampus	33.7k	Well used and relates to the tail stops
#cornellsustainability	9	Used on previous @sustainablecornell posts
#nature	650M	Widely used hashtag
#hiking	67M	Will hopefully show up on the feeds of people who enjoy hiking and would want to explore the trail
#photo #synthesis	Each separately have post counts but unsure of this combination	Punny both hashtags will need to follow each other, will not help other than to lighten the caption (no real connections)

While there isn't a set number of hashtags, and people choose to add several or none to a given post based on their posting style, and, looking at the posts seen within the SNS analysis, we would recommend using the two internal hashtags as a minimum and adding up to five other hashtags to best keep the caption from being overwhelmed.

2) Calendar for Posting and Timing Recommendations: In order to make the most of the posts, it is important to keep in mind how receptive the audience is to the content being posted. For The Sustainable Landscapes Trail in particular, posting more towards the end of summer into fall when the campus is still quite warm and pleasant to walk around would be far more impactful than posting in the dead of winter when many students are not only feeling the pressure of the end of the semester but also don't want to leave the well heated buildings. For this reason, keeping this campaign anywhere between the months of August to October would be ideal. Within this time frame even, our team pinpointed the end of August when many students are returning to campus and have very little to do outside of setting up their dorm rooms and meeting with friends as the ideal time frame. See Appendix B for a calendar with a more in-depth posting schedule based on our identified timeline.

In order to capitalize on the return to school, we recommend a launch date of August 18th as freshman move-in starts the 19th and many off-campus students, including many from our own team, begin coming back around this time (a week before classes start). Even after the initial start date to the semester, there is still room for students to explore the trail as many teachers enforce syllabus weeks or slow starts to leave room for students adding the class.

The question of *when* to post also includes the concept of what time of day. The below heatmap in Figure 4 best shows how engagement around the world changes with different hours of the day.



**Fig. 4.** A heat map showing the best times to post on Instagram [13].

This suggests that for our campaign we would want to release posts around 11 AM Monday-Friday to have the most engagement and initial views, on weekends the timing matters a little bit less as it seems engagement is quite consistent around 10 AM - 12 PM, so posting within that window will have the same effect.

#### C. Partnerships and Collaborations

While the Campus Sustainability socials hold a good following, the engagement rate (likes and comments) per posts are not as strong as needed to best capture the audience alone. In order to help improve awareness of these posts, it is important to post these not only on your own socials but make use of the network Cornell provides with certain pages. Leveraging partnerships with more student focused, engaged pages leads to hopefully more students initially reaching their pages then following a post back to yours. This is supported with theories seen within Influencer Marketing and co-brand efforts [14]. Given that the suggested launch date is around the start of the semester we recommend reaching out to the following Instagram accounts listed in Table 4.

TABLE 4
POTENTIAL PARTNERSHIPS FOR CORNELL SUSTAINABILITY BASED ON ENGAGEMENT AND RELATIONSHIP

	Followers	Posts	Why This Account
@cornelluniversity  Cornell University's official Instagram page	257k	2,049	<ul> <li>Not just the student body active on this, although students join</li> <li>Already has posts and a story about Sustainability on their page so most likely open to new content that matches their branding</li> </ul>
@bigredbun  Bunny owned by a  Cornell Alumnus	11.1k	585	<ul> <li>Cornell Alumnus (or more the owner of the page is)</li> <li>One of the accounts with the highest follower count (not hard to see why)</li> <li>Internet famous with high engagement</li> <li>Might be harder to convince to join in a partnership, but if successful would reach a lot of people</li> </ul>
@cornellstudentlife Cornell University Office of Student and Campus Life	12.6k	939	<ul> <li>Seems to already holds partnerships with Career Services and Health Services</li> <li>Has high follower count with a focus on current student affairs</li> </ul>
@touchdowncornell Touchdown the	1,479	90	<ul> <li>High school spirit throughout page with many school events and resources highlighted</li> <li>Recently did two posts for the re-opening of</li> </ul>

Bear's official Instagram Page			<ul> <li>the Statler</li> <li>Has low post count but still high following suggesting a love for school spirit and interest in content posted through this page</li> </ul>
	Followers	Posts	Why This Account
@cornellorientation Cornell University's official Instagram page for August and Winter orientations	1,424	203	<ul> <li>Assumed high follower turnover as many incoming students follow this page to get a sense of what is going on during orientation then leave immediately following</li> <li>If true, this means that all 1,424 are most likely current students or organizers of orientation so active on campus</li> <li>Has countdowns to their orientation and highlight activities during it</li> <li>Could maybe host a guided tour of the trail with the Orientation Committee and support this with a post directed towards Freshman</li> </ul>

With the follower count in addition to the clear engagement level on these pages, the hope is to reach students that don't normally look at the @sustainablecornell Instagram through users they do follow. While you may not be able to secure the full campaign to be supported on these pages or even the media generated in this report, the goal of this partnership is to see if these pages are willing to promote the trail through one or two posts (we designed some examples which are included below) and tag the @sustainablecornell Instagram to have students click through to your page to learn more.



Fig. 5. Example posts for any of the partnerships described in Table 4

#### VII. NEXT STEPS

The next steps for this campaign would be to hold discussions about if the material matches the intended audience and brand image. If it does, then it would be wise to begin cold emailing potential partners with a proposition as to why you are running this campaign. It will most likely be the longest step, so we recommend this coming first. On your own page (@sustainablecornell), we would recommend scheduling the collage posts (or some iteration of them) so that you do not have to worry about posting every other day. Finally, we would try to have someone manage the page during the time of the campaign to make sure that everything is running smoothly and potentially responding to comments in a timely manner. As always, we are here to answer any questions or fill in any of these roles as we would be happy to take an active role in this campaign if you so want.

Beyond what is outlined here, a Facebook campaign, with different content such as short videos to match the different platform style, would help reiterate and enforce the information being provided by this Instagram campaign. While we do not have time to do this during the summer such that it is launched around the same time, this could make an interesting project for the fall semester.

#### VIII. TEAM MEMBERS' BIOS



Mary McNamara is an undergraduate student at Cornell University studying civil engineering with a concentration in sustainable energy systems. She has completed projects in algal carbon sequestration and sustainable Covid-19 disinfection protocols, and she is currently researching how to harness hydropower from low flow urban environments.

Claire Wilson is a junior majoring in Computer Science and Operations Research. Through classwork and extracurriculars, Claire has been introduced to social media marketing strategy and has since generated two successful campaigns and analyses. She hoped to bring this experience coupled with her knowledge of the target audience to produce a viable report.





Ayta Mandzhieva is an undergraduate civil engineering student at Cornell University. She recently discovered the many sustainability efforts and facilities on campus. Many classes have introduced her to the concepts and practice of sustainable engineering. In this project, she hopes to explore the communication and visibility of sustainability in the Cornell community.

#### REFERENCES

- [1] L. Too and B. Bajracharya, "Sustainable campus: engaging the community in sustainability," International Journal of Sustainability in Higher Education, vol. 16, no. 1, pp. 57–71, Jan. 2015, doi: 10.1108/IJSHE-07-2013-0080. In this article, the authors identify the major factors that help raise engagement amongst a university community within the context of campus lead sustainability efforts. Through the use of the 6-P framework (defined within the article as including psychological needs, physical facilities, personal motivations, public perception, price mechanisms, and policies) the article works through the applicability of 6-P to campus universities through two case studies: Monash University and Cornell University. In the exploration of both of these campuses, the article highlights how different ratios of focus within even the 6-P framework can help lead to different types of engagement and sustainability, but, through a strong foundation in all of them, all the projects listed were able to succeed and ultimately gain support and engagement from the community. In this proposal, this article's concept of the 6-P framework was applied to the context of the Sustainability Landscapes Trail to highlight the deficit currently experienced with the promotion and awareness for the trail, presenting a problem Cornell has yet to fully address.
- S. Lodhia, "Factors influencing the use of the World Wide Web for sustainability communication: an Australian mining perspective," *Journal of Cleaner Production*, vol. 84, pp. 142–154, Dec. 2014, doi: 10.1016/j.jclepro.2014.08.085.

  This article explores the ways in which the World Wide Web enhances and strengthens sustainability communications, a term used to describe the communication of environmental and sustainability. The author argues that the factors that influence the interaction with the web are: economic factors, organizational, external stakeholders, as well as medium of delivery with a focus on web based content and restructuring factors. In particular the author highlights how web-based and restructuring factors are featured influences which are not being used to their full potential. This applies to our project because Cornell uses websites for the majority of their sustainability communication, hence, creating certain limits in visibility and accessibility of information.
- [3] R. Faizi, A. El Afia, and R. Chiheb, "Exploring the Potential Benefits of Using Social Media in Education," *International Journal of Emerging Technologies in Learning*, vol. 3, pp. 50–53, Oct. 2013, doi: 10.3991/ijep.v3i4.2836.

  This article looks at the possible advantages of adding social media into a learning environment. The article goes on to state the potential benefits by looking at social media as communication channels, engagement tools and creative platforms. According to the authors there are many benefits in using social media, especially, blogs, social networks, media sharing, etc. Some of them include a better connection and understanding between students and teachers, quicker communication and feedback, and openness of students to express opinions and issues. This applies to our project, because in a similar way to teachers, the goal of the project is to share knowledge in the academic environment, and promote engagement with complicated topics that can be frustrating to explore without any guidance. Social media also provides the tools for increasing interaction with the content through more immediate means that the Cornell website can not often facilitate.

- [4] J. Lee and I. B. Hong, "Predicting positive user responses to social media advertising: The roles of emotional appeal, informativeness, and creativity," International Journal of Information Management, vol. 36, no. 3, pp. 360–373, Jun. 2016, doi: 10.1016/j.ijinfomgt.2016.01.001.

  In this article, the authors explore how the mechanisms of social media such as Likes and comments help the audience to express their support, and therefore, can be used to predict the audience behavior. The authors also make a point throughout the article these mechanisms provide an ability to express emotions to the users. In our project, Likes and comments are also key since they can too be indicators of peoples' approval or disapproval of the Cornell sustainable initiatives that are visible on the @sustainablecornell Instagram page. Additionally, it would be the source for a great share of reactions and interactions with the @sustainablecornell audience.
- [5] D. N. Angwin, S. Cummings, and U. Daellenbach, "How the Multimedia Communication of Strategy Can Enable More Effective Recall and Learning," *AMLE*, vol. 18, no. 4, pp. 527–546, Dec. 2019, doi: 10.5465/amle.2018.0066.

  Anguin et al. study the benefits of teaching through a multimedia platform rather than monomedia formats. With the aid of Cognitive Theory of Multimedia Learning (CTML) they describe how multimedia allows the brain to process information through parallel pathways in the formation of memories. This decreases the effort required of the working memory and allows for greater recall, elicitation, and sequencing. We plan to use this multimedia approach in producing additional signage and creating a virtual tour around the sustainable locations on campus. This multifaceted approach to increasing visibility will bring about community action more effectively than the current website approach.
- B. E. Reef-Stout and K. Medvedev, "Multimedia Exhibition Teaches Undergraduate [6] Students About Sustainable Fashion," in Handbook of Theory and Practice of Sustainable Development in Higher Education: Volume 1, W. Leal Filho, L. Brandli, P. Castro, and J. Newman, Eds. Cham: Springer International Publishing, 2017, pp. 83–101. doi: 10.1007/978-3-319-47868-5 6. Higher education has determined there are gaps in fashion student's knowledge of sustainable fashion. A study at the University of Georgia attempted to understand the impact an experiential, multimedia learning exhibit would have on student's learning. The exhibit provided experiences in the social, environmental, and economic aspects of sustainable fashion through visual tools, audio, and hands-on activities. It was determined that students could learn just as much about sustainable fashion from multimedia, experiential learning as they could in a classroom. We wish to use multimedia in order to take complex topics, normally understood only by those pursuing a degree in that field, to a more understandable level that could be perceived by any member of the campus community.
- [7] M. Balestrini, J. Bird, P. Marshall, A. Zaro, and Y. Rogers, "Understanding sustained community engagement: a case study in heritage preservation in rural Argentina," in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, New York, NY, USA, Apr. 2014, pp. 2675–2684. doi: 10.1145/2556288.2557323.

This paper attempts to understand and investigate the important factors for long-term success in community-based projects. To achieve this, the authors perform an analysis of a successful project and provide 5 different recommendations as for how to facilitate sustained community engagement. The case study they chose to perform is called CrowdMemo which was a project aimed to preserve local heritage in a town in Argentina. Although the researchers had left, the project was sustained through the community's efforts, and the community had taken up digital storytelling in schools as an unintended result. This relates to our project in a way that ultimately connects and supports our promotion and interactive video-audio tours as they share the same goal to establish a connection within the Cornell community.

- [8] Traci Nathans-Kelly; Christine G. Nicometo, "Apply Cognitive Science and Tell a Story," in Slide Rules: Design, Build, and Archive Presentations in the Engineering and Technical Fields, IEEE, 2014, pp.14-28, doi: 10.1002/9781118796139.ch2. In this chapter of the textbook, the authors explore the importance of keeping the information presentation in a way that will not only interest the audience but also allow them to absorb the information in a long lasting way. To do this, they recommend designing a visual story to help the audience use their thinking and problem solving skills to help them remain engaged in the content and continuously learning. In order to do this, it requires knowing our audience, contexts for the information presented, and the key points to craft a meaningful presentation. The current posts under the Sustainable Cornell Instagram are very text and facts heavy, so providing a more balanced multimedia content can help the audience to be more invested in the information promoted.
- [9] U. De, X. S. McClure, and K. Stulov, "Discovering Evergreen Content on the Web," p. 5. This paper attempts to explore the concept of "evergreen vs ephemeral content" finding classifiers and traits to understand how users would rate different content on the scale of durability. Evergreen would mean that the information stays relevant for a longer time, while ephemeral is relevant for a short period of time. Specifically, in this paper they presented text based off of an algorithmic interpretation that was designed to predict the user's reaction and maxed out at 83% accuracy. The researchers played with different "informative words" to best inform users and found that the users considered evergreen content to be biased towards specifically food and recipe related websites, and associated ephemeral content with news articles, technology, and sports. In our work, this source helped with forming an understanding between what would be considered evergreen or ephemeral content, especially since the content we intend to create covers topics focused in the STEM field. Consequently, it helped us to think further about finding an approach to make ephemeral content evergreen.
- [10] Alcorn State University and P. Forrest, "Content Marketing Today," *JBE*, vol. 10, no. 2, pp. 95–101, Jan. 2019, doi: 10.15341/jbe(2155-7950)/02.10.2019/001.

  This resource looks to understand the importance of content marketing as it slowly becomes the industry standard. Content Marketing as defined by this article is marketing that shifts away from trying to sell a product or service and goes towards providing context or helpful information to allow the consumer to make the choice to buy the

product in the end. To this extent Content Marketing must therefore be more specific in its target audience or segment to increase awareness and have the information. Through explorations of what the term "Content Marketing" means in addition to what makes a campaign successful or not, this article given a good foundation as to how content based social media can be influential and helpful for The Sustainable Landscapes Trail.

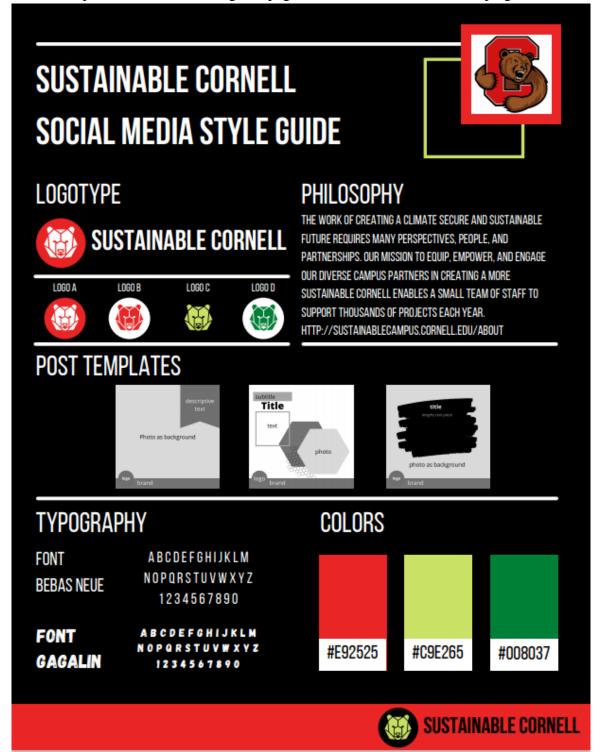
- [11] S. Alhabash and M. Ma, "A Tale of Four Platforms: Motivations and Uses of Facebook, Twitter, Instagram, and Snapchat Among College Students?," *Michigan State University*, vol. 3, no. 1, Jan. 2017, doi: <a href="https://doi.org/10.1177/2056305117691544">https://doi.org/10.1177/2056305117691544</a>. This research article explores the differences between four popular platforms--Facebook, Twitter, Instagram, and Snapchat-- based on intensity of use, time spent on the platform, and use motivations. This research consisted of a survey taken by 396 college students each asking about their "intensity" of use with the different platforms as well as nine different use motivations. In the end, the surveys revealed that Instagram had the highest use both time wise and intensity (with intensity matched by Snapchat). This source was used to help support the reasoning behind why we chose Instagram as our platform as it seemed to suggest that many individuals from our target audience used this as their primary social media source.
- [12] L. Knapp and N. Baum, "Hashtags and How to Use Them on Social Media," *Greenbranch Publishing LLC*, vol. 31, no. 2, pp. 131–133, 2015.

  This short article attempts to explain the importance of hashtags in very basic terms, the significance of hashtags and how they can help improve the networkability of a post. Specifically in this article, the author explores how hashtags can be applied to medical organizations to reach potential patients, physicians, and other medical organizations, leveling to their interests and buzz words. For our purposes, we use this source to understand and explain SEO for social media. In this, the understanding of interconnectivity outside followers and following through hashtags allows for us to construct posts that will appear outside of the context it was originally made for, generating greater awareness.
- [13] E. Fox, "CSO Social Media Strategies," Jul. 20, 2021. Accessed: Jul. 30, 2021. [Online]. Available: <a href="https://docs.google.com/presentation/d/1-syX7PAVXdhTloGXzXqC1MXBF\_nkmYy5jCzX0n3L36M">https://docs.google.com/presentation/d/1-syX7PAVXdhTloGXzXqC1MXBF\_nkmYy5jCzX0n3L36M</a>
  This slideshow presentation was designed for the Cornell Sustainability Office with the purpose of highlighting social media strategies for the office to follow on their own pages. Within this deck there is information outlining the different content strategies for different platforms, how to generate engaging content, and suggestions for potential campaigns the CSO can implement on their social media. For our purpose this both served as an informative guide for our planning, allowing us to explore the strategies the CSO is trying to implement, as well as a source of information concerning posting times and days. This was particularly helpful when we were planning our own campaign as this allowed us to both see the content strategies they wished to implement as well as the best times to post.

[14] A.-K. Kupfer, N. Pähler vor der Holte, R. V. Kübler, and T. Hennig-Thurau, "The Role of the Partner Brand's Social Media Power in Brand Alliances," Journal of Marketing, vol. 82, no. 3, pp. 25–44, May 2018, doi: 10.1509/jm.15.0536. This article explores the significance of Partner Brands and Brand Alliances as it helps with building social media base. The gist of this process is partnering with another page to help promote a given product or service either provided by a collaboration or simply another page in support of the mission. Through this process, it is possible to "acquire" another page's followers by closely aligning the goals and objectives of one page with the other allowing for cross compatibility. The authors of this paper tested this framework of different posting styles on a data set concerning the film industry (as many film companies partner with other companies to help promote their product). In the end they found that the partnerships yielded higher product sales and therefore, for our purposes, this information can be translated into engagement. Thus, this suggests that with partnership there is not only an added bonus of engaging a community outside of the one you can normally reach but also a higher rate of activity around those posts leading to possibly more people exploring the trail itself, all together helping to support the reasons why partnerships are important to this campaign.

#### APPENDIX A

Below please find the branding one pager that we created for this campaign.



Below is a link to the branding one pager which you can change and use as a template.

#### **Branding One Pager Template**

If you would like to directly edit the templates to create your own posts, you can access them via the links below. The links are listed in the order that the <u>Canva</u> templates appear from left to right in the style guide above.

- Template 1
- Template 2
- Template 3

The logos we created that are shown in the style guide are also included below:

Logo 1	Logo 2	Logo 3	Logo 4

#### APPENDIX B

