Chapter 3: Transportation

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Executive Summary of the Situation

The environment is under pressure from climate change and human consumption. Natural resources are finite, and food and water shortages are expected as population growth increases.\(^1\) As a result, many companies are focusing efforts on transitioning to become more environmentally responsible. This transition is especially important in the film and television industry, as historically there are large negatives impacts produced by the industry. For instance, studies suggest that the film and TV industry in Los Angeles contribute more to air pollution than the combination of the Aerospace, Apparel, Hotel, and Semiconductor Manufacturing industries.\(^2\)

In order for a company to operate more sustainably, it must first have a means of tracking their data. Currently entertainment companies are using the Producers Guild of America’s Green Production Guide Excel-based toolkit, which is comprised of three separate tracking tools. Due to inconsistencies between the tools and the many versions, this does not provide companies with an effective way of data collection and tracking. As an example, one tool offers a checklist of suggestions to complete, but no points are awarded for completing the suggestions in the primary version of the tool. In a later version points are attributed, but the suggestions are different. And none of these suggestions apply in the other tools.

To help the industry reach their corporate sustainability goals, an environmental tracking tool is being created to efficiently and effectively track and communicate their collected data concerning sustainable transportation practices. It will focus on three main areas: on-site transportation, transportation between sets, and public and commercial travel. Straightforward metrics will be collected to determine the environmental impacts of different modes of transportation, and the outcome will be a clear, concise report that can be easily communicated to employees and used for creating further benchmarks. This tool will help companies in the film industry become leaders in sustainable practices.

Overview of the Business and Project Background

The Producers Guild of America (PGA) is a nonprofit organization that strives to represent, protect, and promote the goals of producing teams in various film, television, and news media companies.\(^3\) PGA is a part of a project called PGA Green. The goal of this project is to reduce the industry’s carbon footprint by helping professionals in the industry find sustainable resources and partners to make their practices more sustainable.\(^4\) PGA Green is taking steps toward sustainability through the creation of the Green Outreach Committee and the Green

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3 “About the PGA”. Producers Guild of America, https://www.producersguild.org/page/about_the_pga.
Production Guide (GPG). The vision of the Green Outreach Committee is to collect and share information on eco-friendly practices in production to as large an audience as possible. The GPG aims to reduce the industry’s carbon footprint by providing a searchable database of vendors with information on what green products and services they provide for production companies, as well as providing a toolkit to help producers collect, track, and reduce their production carbon footprint. This toolkit will be further discussed below.

As shown through substantial progress shown by many entertainment companies, the environment is an important consideration in a corporation’s operations and goals. Therefore, having an efficient and strategic way to track usage data and display it to the company and the community is a key component to achieve those environmental goals.

**Industry Best Practices**

Some companies we looked at for inspiration and as an example are 21st Century Fox, Walt Disney Company, Universal Studios, Sony Pictures, and Paramount Pictures. 21st Century Fox mainly focuses on carbon analysis, sustainable operations, sustainable collaboration, and audience impact. To measure their data they follow the Greenhouse Gas Protocol and measure all fuel used directly by their company, all electricity used by their facilities, and all the impacts of business air travel. They are also a great example of data transparency as they publicly disclose their carbon footprint data each year.

Walt Disney Company focuses on achieving a zero state of net greenhouse gas emissions, waste, and water use. To achieve these goals they set targets to reach every few years and plan on reducing emissions through efficiency enhancements, replacing high-carbon fuels with low-carbon alternatives, and use certified offsets for the remaining emissions. Their data is collected on a quarterly basis and in their sustainability report they compare their current rates with previous years rates to show their progress.

Universal Studios has implemented many green features into their operations such as on-lot bike rental programs, Hybrid 5 trucks, carpool and EV parking, solar electric golf cars, and using recycled oil in gasoline powered vehicles. They have also implemented several green contests to get their employees involved both on set and off.

Sony implemented the Road to Zero program with a goal of having a zero environmental footprint by 2050. Sony Pictures has made substantial steps to improve their sustainability in on-site operations in many different areas: all new studios and office have been ISO 14001 certified since 2001; the use of low-emission and electric vehicles has increased with the goal of phasing out non-hybrid vehicles on the studio lot and switching to hybrid and natural gas vehicles instead; Energy Management Systems are implemented for the Culver City site and sub-meters have been installed to track energy conservation; they have installed solar photovoltaic systems.

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5 “Going Green”. *Producers Guild of America*, https://www.producerguild.org/page/going_green
8 “A Commitment to the Planet”. *Walt Disney Company*, https://www.waltdisneycompany.com/environment/
to maximize renewable energy consumption; the majority of the natural grass on office sites has been replaced with all-weather turf, a water filtration system for employees has been installed to replace single-use plastic water bottles; and, most importantly, Sony Pictures has been empowering employees to improve the sustainability of operations and invest in the community.\(^\text{10}\)

Paramount Pictures have taken a different approach by creating a Green Action Team. This team consists of 15 members each representing every major division within the company. Their goals are to educate employees on living sustainable lives, ensure the company operates in sustainable ways, and produce ecologically responsible content and production.\(^\text{11}\)

**Current status**

Companies in the film/tv industry currently tracks their progress pertaining to their environmental goals using PGA’s Green Production Guide. The provided GPG toolkit is divided into three tracking tools: the Production Environmental Accounting Report carbon calculator (PEAR), the Production Environmental Actions Checklist best practices checklist (PEACH), and the Production Lumber Materials worksheet (PLUM).\(^\text{12}\)

Sustainable practices in transportation specifically are addressed in the PEACH checklist, which suggests practices such as enforcing mandatory no idling rules, using alternative means of transportation, purchasing carbon offsets for air travel, and hiring local crew to avoid additional travel. However, no points are available in the transportation section of the checklist, so the practices stand as mere suggestions. The PEAR carbon calculator tracks some transportation information for carbon reporting, including fuel type, efficiency, and cost pertaining to on-site vehicles; commercial air travel metrics; and charter and helicopter flights. Thus, overall tracking of transportation initiatives exists, but could use to be improved to provide a more thorough and cohesive tool.

**Business Challenge and Opportunity**

By having a thorough and efficient tracking tool for transportation and other sustainability initiatives, companies have the opportunity to effectively reduce its environmental impact and meet their overall environmental goals. This opportunity, in turn, leads to a better company image with the potential to attract new partners and consumers, lower production costs due to increased resource use efficiency, and a greater ability to adapt to industry changes and challenges as a long-term sustainability oriented business.

In order to reduce its environmental impact and grasp these opportunities, companies must first understand its current impact. The biggest challenge they face is the vast amount and variety of data involved in each specific production. Data such as which processes are using the most resources, where greenhouse gas emissions are coming from, and how big the current impacts are must be accumulated and understood to set goals and benchmarks. These benchmarks lead to better reduction strategies, which lead to progress and tangible results. It is important that such data are easy to track and that the associated impacts are easy to understand.

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\(^{11}\) “Giving Back”. *Paramount Pictures*, https://www.paramount.com/giving-back

not only to increase efficiency and results, but also to avoid frustration and the risk of deterring employees and colleagues from embracing the challenge of environmental stewardship.

**Objectives**

Every company’s objectives will be slightly different as they all have different needs and therefore will implement different practices. For example, the overarching objective of all data tracking is to reach the goals laid out in Sony’s Green Management 2020 and Road to Zero initiatives. The goal most specific to transportation is the target reduction of greenhouse gas emissions by 5% from 2015 levels, which pertains most specifically to energy and transportation.

The objective of tracking the data is to understand and communicate progress, create monthly goals to ensure operations are on-track to meet the set reduction, and use the outcome to identify specific areas of improvement. Setting and meeting goals at various time intervals, based on and understood by the metrics outlined in the following solution, is an important indicator of performance in tracking and meeting sustainability goals. Based on how data is collected, some key performance indicators to consider could be: a) the percentage of greenhouse gas emissions which come from easily preventable sources (e.g. if a large percent of emissions come from private chartered flights that could be diverted instead to shared commercial flights); b) the quantity of monthly emissions as compared to previous equivalent months, or the quantity of a production’s emissions compared to a past equivalent production; and c) the fraction of trips that were successfully entered into the tracking system compared to total trips involved in a production (though this may be difficult to gage, since trips that are not tracked are most likely not otherwise accounted for).

Once this tracking tool and resulting indicators and goals are in place, Sony Pictures will fully be on track to attaining the desired environmental stewardship and financial savings associated with the Road to Zero initiative—and perhaps even realize the potential to go beyond to becoming a carbon positive company.

**Solution**

To ensure the efficient and effective tracking required to meet these objectives, we will develop an environmental tracking tool for a company’s environmental goals. Our transportation-specific tracking tool will be organized according to both mode of transportation and purpose of transportation. On-site transportation, transportation between sets, and employee and corporate transportation will all be taken into account to produce a cohesive idea of company-wide transportation progress. The tool will also take into account alternative and additional green practices implemented by incorporating a checklist of best practices.

Data entry will be broken down by mode of transportation; from helicopter travel to trips taken via public transit, from commercial flights to on-site golf cart maneuvers, from carpools arranged in a hybrid vehicle to bicycle trips to work. For all modes of transportation, both on-site and between-sites, the tool will track simple yet essential metrics such as miles traveled, vehicle mileage, fuel type, idling time, and cost of fuel. When these baseline metrics are entered, any resulting metrics (e.g. total miles traveled, total fuel cost) will auto-populate further in the tool. These metrics and this organization can be seen in the rough tool layout draft shown below:
As seen above, the web-based interface is split into three different categories to ensure that metrics which do not apply to all types of vehicle are not asked unnecessarily. On the mobile interface, depending on the transport purpose and vehicle type first indicated, the mobile input tool will automatically ask only relevant information. For example, if a commercial flight is indicated as the type of travel, the tool will not ask whether the vehicle was a hybrid. This has the same effect as splitting the web-based interface into three categories. An image of what that mobile tool might look like is shown to the right:

The outcome will be a report of overall travel in terms useful to tracking environmental progress: gallons of fuel used, quantity of carbon dioxide released, dollars saved, and equivalent number of trees planted. Four charts will be available in the outcome report: 1) a pie chart indicating the percentage of total emissions resulting from each type of vehicle over a given period of time, e.g. monthly; 2) a stacked bar chart indicating how much of total emissions over a given period (e.g. monthly) come from on-site transport and how much comes from between-sites transport; and 3 / 4) a pie chart and a stacked bar chart as mentioned above, only the information will be cumulative, using interactive charts that auto-populate as information is entered into the input section of the tool.

**Potential Stumbling Blocks**

In tracking transportation metrics, it must be clear who is tracking the data and when. Developing a widely-understood and easily-accessed system that enables all employees to document relevant trip information as it occurs may be tricky, while simultaneously assuring the tool runs smoothly and all data is collected in the same compatible format. Identifying how to track trip metrics on public transit and other methods controlled by agencies other than the company could also be difficult, and may have to be approximated. Another challenge is the question of which trips are significant; should small trips from one end of the set to the other be tracked, or should such short trips be tracked on a daily basis? Lastly, tracking any information related to employee commute to and from work has several complications, especially regarding the personal nature of the data and the responsibility it places on each individual employee. Systems to determine an appointed tracker would be a likely solution to many of these stumbling blocks, and systems of approximation should be developed to account for any additional stumbling blocks related to absent data.
Deliverables

In order for the entertainment industry to be a leading force of environmental stewardship, it must have a method of tracking sustainability goals that is easy, efficient, and effective. Our solution is an all-in-one environmental tracking tool that is user-friendly, and available in both a web-based and mobile form. The tool would be accompanied by step-by-step guides and a sample completed form, to ensure consistency throughout the tracking process. Metrics will be easy to measure, and environmental accounting reports will be easy to understand.

The result of this project is an organized and effective tracking tool to provide Sony Pictures with easy-to-understand indicators of progress toward reaching its goals, enabling higher goals to be made, environmental awareness to be spread, and sustainability to be achieved.

Recommendations and Next Steps

Getting used to tracking metrics and setting goals based on the results can take time, and therefore it is recommended that the tool is tested out by a small number of users and great attention is paid to the differences in emissions by vehicle type and purpose. Though great variation between productions is expected in terms of flights taken and miles traveled, metrics that consistently appear should be noted and strategies for improvement should be made based off the results. Since each case varies greatly it is not exactly reasonable to create one baseline recommendation for reducing emissions and impact, but the two most modifiable factors that could be changed in transportation to reduce emissions is 1) the type or mileage of vehicle used and 2) how many people are transported in a single trip. Switching to a smaller and/or more fuel-efficient vehicle when possible is a great way to cut environmental impact in transportation; thus if the resulting pie chart from the tracking tool indicates that a majority of trips are taken in large jets or non-hybrid vehicles, smaller jets and hybrid or electric vehicles could take their place to reduce the impact. Likewise, if emissions are heavy from private jets or private buses/shuttles, commercial flights or public transport could be utilized instead, to spread the environmental impact of the fuel used over a greater number of passengers, thus increasing efficiency per passenger. The same logic should be utilized in carpool incentives for personal vehicles.

Since this tool is still in the planning stages, the next step is to integrate it with the tracking tools for energy, procurement, water, waste, and education, such that the input process is seamless and the results work together in a cohesive fashion. Consistency in interfacing and interactions between different sectors are key in ensuring a streamlined tracking process for gauging the overall environmental impact of production.