

Option 3C  
Calculating the Calculations  
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Carbon footprint calculators are popping up all over the internet as our country's population becomes increasingly aware of the importance of reducing carbon emissions. A carbon footprint calculator measures the amount, in pounds, of CO<sub>2</sub> an individual emits over the course of one year (3Degrees). These emissions are linked to global warming, which is becoming a greater risk to the environment every day. As the awareness of this issue, and many others, becomes more apparent, individuals, as well as businesses, are discovering the benefits of carbon calculators in terms of protecting the environment (Carbon Footprint).

However, it would be pretty hard for one to calculate their carbon footprint without sufficient criteria. In order to give accurate calculations, carbon footprint calculators must take many variables into account, so I was surprised to see only three categories to complete on the 3Degrees website: home electricity, car travel, and air travel. This may give a general overview of one's carbon emissions, but it has nowhere near the precision of that of the calculator on the Carbon Footprint website. Not only does this calculator give the option to choose motorbike or bus and rail as method of transportation instead of simply a car, it also has a whole section of secondary information including, but not limited to, food preferences, fashion, and recycling. This information is more comprehensive and is very important to the process of calculating a carbon footprint.

Take food preferences, for example; someone who eats only food grown from plants, or a vegetarian, would have a smaller footprint than someone like me, who eats meat. Vegetarians eat on the lower trophic levels; therefore they consume the highest amount of energy possible with the smallest amount of food because "energy is lost at each trophic level." 3Degrees's calculator does not even take into account whether or not the food you eat is locally grown. This is also an important aspect because locally grown food takes a lot less, if any, energy to ship.

Food in your backyard garden does not have to travel as far as the food shipped to all the Publix stores in Florida; thus, food grown locally saves a lot of energy and dramatically lowers your carbon footprint (Ricklefs).

The 3Degrees carbon calculator is also missing an option for dorm room style living. It only has the selection of an apartment or home, ranging from small to large, and the Carbon Footprint website does not even have the apartment option. In a dorm, bathrooms, kitchens, and laundry rooms are usually shared by a number of students; there are even common areas equipped with televisions and furniture that students use in common with each other. In an apartment, on the other hand, each unit has its own bathroom, kitchen, laundry room, and furniture. An individual having his or her own everything uses a greater amount of energy than those who share facilities, yet an apartment is the closest option to choose in place of a dorm. It is hard for college students living on campus to gain an accurate carbon footprint without an accurate representation of their living arrangement.

While the method of calculating one's footprint is lacking, the information on each website is highly substantial. Each includes background information on what a carbon footprint really is and why it is important to lower this footprint; as well as ways to help the environment and lower carbon emissions. The Carbon Footprint website goes into great depth on the effects carbon has on the environment. I think it is important for the viewers to see the major consequences of CO<sub>2</sub> emissions; it might just act as a wake up call and get more people calculating their carbon footprints. I believe this website has a greater impact on its viewers and gets them interested in changing the way they live by lowering their footprints.

While the Carbon Footprint website may have taken the cake in every other aspect, 3Degrees definitely won the visual presentation points; as Castelluccio puts it, those that know

the information don't always know the graphics. This is simply because graphic design uses the right side of the brain; the "analytic lobe's distant cousin that lives on the other side of the mountain; a place you can't even see from within the folds where project budgeting gets done (Castelluccio)." The 3Degrees website hit all of the "four basic principles of design: proximity, alignment, repetition, and contrast (Castelluccio)." The graphics were put together well with a unique design and bright, contrasting colors. The overall website seems to be of an original design that took a lot of time and hard work, rather than just a pre-made template. While both websites share a sense of cohesiveness with repeating color, logo, and title patterns, the 3Degrees website has a more advanced design scheme; the main table even casts a shadow onto the background, which is an interesting sequence of small circles fading out as they get closer to the bottom of the page (Castelluccio).

According to research done by Wattenberg and Viegas, the "presentation of data through advanced visual techniques [also] generates" a greater amount of participation. More viewers ask questions, make comments, and in this case, calculate their carbon footprints when viewing something that is visually pleasing. With such "pretty" graphics, 3Degrees must get a lot of participation from its viewers since visualization prompts feedback (Wattenberg and Viegas). It is too bad that the calculations all of those viewers are receiving are not very accurate.

In fact, if we took the information and ideas from the Carbon Footprint website and the graphics from 3Degrees, we would probably have ourselves a perfect website for a carbon footprint calculator. While the Carbon Footprint website only needs to spruce up its visuals and maybe add an additional option here and there, for example, a dorm option for living arrangements; the 3Degrees website needs everything but the graphics. It needs to include specifics like the secondary information that Carbon Footprint added on their website as well as

better background information. At this point in time the 3Degrees website provides little information; instead, they have frequently asked questions which you are suppose to look through yourself to find the answers you want. I think they should re-do the questions and answers and just turn it into headed paragraphs of information. With regards to inspiring change in consumer behavior, I think better graphics will be the best help, as well as explaining what one's personal footprint actually means. If carbon calculators could somehow range footprints by what it directly means for the environment, for example, tell that a footprint between 40,000 and 45,000 kills approximately 1,000 trees per year, or that a footprint between 20,000 and 30,000 causes deforestation over a twenty acre radius, I believe it would inspire change in the behavior of individuals because they would see exactly how they were affecting the environment.

All in all, each calculator has its ups and each has its downs, but in my opinion, the 3Degrees calculator is more effective in that its graphics attract more viewers and more participation. It may not provide its viewers with extensive amounts of information, but it does its job and gives individuals their general carbon footprint, hoping that they use this calculation wisely and make changes in their lives to help lower it. Just remember, it's just like golf, you want a low score.

## Works Cited

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