In contemporary society an environmentally oriented woman entrepreneur faces daunting tasks among them are getting clients, visibility, business recognition, and protecting the planet. Social media can alleviate these tasks; however, some caveats must be considered. Gender norms and stereotypes are still present in society, including in social media and entrepreneurship, disadvantaging women and perpetuating inequality. For instance, beliefs of women entrepreneurs being risk-averse and less ambitious than men still persist today. How can a woman eco-entrepreneur manage others’ gender prejudices while developing her business? What should she consider when developing her entrepreneurial online presence? Women eco-entrepreneurs should understand those implicit gender norms and stereotypes and play them to their strength.

Gender norms assume and encourage differences between women and men in all aspects of their life (e.g., career paths, skills, knowledge). Women have been traditionally described as nurturing, caring, and compassionate, whereas men have been described as dominant, competitive, and risk-takers. Entrepreneurs have long been described using masculine characteristics, placing feminine characteristics as lesser ones for entrepreneurial endeavors. Despite that women and men are perceived with fixed characteristics (gender stereotypes), individuals may or may not reinforce these perceptions constantly, adjusting to different situations which reinforce or challenge gender stereotypes. For instance, according to some studies now that more women participate in economic and leadership positions, women are now perceived as equally competent as men.

We conducted a study to analyze how women eco-entrepreneurs reinforce or challenge gender norms through their online communications. We analyzed 2440 posts from LinkedIn, Twitter, and Facebook using modern AI techniques called Large Language Models (LLMs) to capture the semantic meaning of texts. LLMs are behind Google search, Facebook feeds, and ChatGPT. We conducted interviews with the women entrepreneurs behind the 2440 posts, nine entrepreneurs in total, to understand their environmental commitments and motivation to become eco-entrepreneurs.

We found that women eco-entrepreneurs prescribe to gender norms in accordance with their values, goals, and ideals. We identified three groups. Some will perform gender in the extremes, portraying stereotypical characteristics. Those who portray masculine characteristics tend to see the environmental crisis as a market opportunity. Their digital communications are as gender-neutral as possible, avoiding feminine traits. Those who portray feminine characteristics tend to develop a venture as a way to solve the climate crisis and believe in a deep transformation of societal and economic models that protect and sustain all types of lives. Their digital communications are emotional, and their audience is mainly feminine. The third group is in between the extremes. These women portray both characteristics according to different situations and audiences. Their digital communications include gender-neutral posts as well as emotional ones. Each group brings benefits and challenges. For instance, the first group will conform to “authentic” characteristics of an entrepreneur, however they will project a less feminine image risking penalization for deviating from their expected behavior. The opposite is true. When a

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woman is portraying feminine characteristics, she will be perceived as an “authentic” woman but less fit for entrepreneurship, reaffirming the stereotype that women create small and less ambitious businesses. It is tempting to believe that being in the middle is the safe option, however this is not that simple. It requires acute knowledge of “gender role play” rooted in awareness, practice, and support. It requires reflexivity, solidarity, and a safe space of expression offered by collective movements like green or feminist groups. Failing to play well can increase feelings of imposter, family balance issues, and may lead to burn-out.

Based on our findings we recommend that you don't change your nature, just understand it. Yourself, as well as others, have implicit gender beliefs that permeate in all our activities. Our first recommendation to women eco-entrepreneurs is to understand the implications of gender, so you can better adjust the message you wish to convey. If you present yourself too “masculine”, you may be perceived as detached and less environmentally engaged. If you present yourself too caring, you will be reinforcing gender stereotypes, even if you do not intend to, and will limit your audience to a female one. If you decide to balance both characteristics, know that you will be walking in a thin line managing expectations from both sides. Our second recommendation is to use each social media platform wisely. Gender is constructed through every message that you post. You can adapt your message according to each platform audience. Don’t recycle content, create original content for each platform, adapt to your audience and think about your word choice. LLMs can help you create content but remember that they are trained with old existent content which already contains implicit gender bias. Thus, play gender at your strength.

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