

Supporting women in online construction communities to enhance inclusive behaviour across the industry.

Building Good is not just about solutions; we're about revolutions—opening minds and tapping into our capabilities to elevate people and our industry.

EXECUTIVE SUMMARY

Women have made great strides in many industries, but the construction industry remains a male-dominated field with only 12.8 percent of women holding employment in the sector and a shockingly low number of 4.8 percent of the workforce on sites¹. Despite being highly skilled and capable, some women face barriers to entry and advancement, or generally do not see the construction industry as a place for them.

Women working in the industry often promote opportunities for others to join while at the same time acknowledging that change is needed to be fully inclusive of women and other underrepresented groups. This is the fine balance that many women in construction are walking; one that involves changing things from the inside-out. And often, what holds women back from considering construction as a thriving career choice isn't just gender bias but the overall reputation, perceived work environment (think dirty porta-potties, extreme weather, and vulgar language), and social stigmas about working in construction, especially on site.

Those of us working in construction know that the positives far outweigh the negatives, such as hands-on work with a lot of variety, challenging projects, and a highly collaborative environment. So how do we help create a more supportive and welcoming environment for women? How can we break down the perceived barriers around the construction work environment and related social stigmas?

Building Good saw an opportunity to dive into these questions, aligned with our focus on creating a more equitable and inclusive industry. We turned our attention to the online community. Growing in importance and increasingly dominating the content consumption habits of multi-generations, we looked to social media to determine whether the industry should focus on building a more inclusive and supportive online construction community, in addition to work taking place on sites and in offices across the country.

¹ 2023 BuildForce Canada Estimates

Over the past six months, with the help of Areto Labs, a women-owned Canadian tech company focused on creating safe and welcoming online communities, we tracked the commentary on social media around women in construction.

Through our listening campaign, we gained insight into the rate of abusive comments and gender microaggressions towards women in construction and other notable trends that we will break down in this report. While we were encouraged to see an overwhelming number of positive comments and sentiments on social media, we identified several trends that we want to call attention to.

We know that most companies and the construction industry at large recognize the unique challenges faced by women and other underrepresented groups in the industry and are taking proactive steps to support them. Our hope, in publishing this report, is to call attention to online behaviours and rhetoric that impact women directly and the industry's reputation more broadly, which can hinder our ability to attract and retain women, youth, and other underrepresented groups.

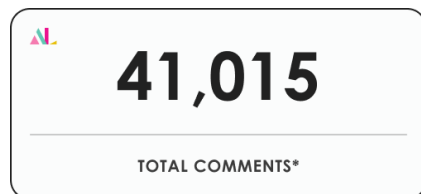
METHODOLOGY

Goal: Building Good, with the help of Areto Labs, tracked online toxicity in relation to women in construction.

Timeline: September 2022 to February 2023

Accounts: Tracked commentary on nine Twitter handles and six Twitter hashtags.

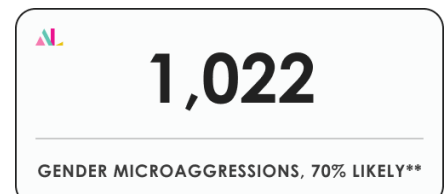
Data collected:



**About 28% of total comments came from possible bot accounts, using hashtags like #womeninSTEM to artificially amplify the promotion of their initiatives.



**Of the nine accounts and six hashtags, four accounts received over 97% of all highly abusive comments.



**About 36% of gender microaggressions came from possible bot accounts, using hashtags like #womeninSTEM and #womeninconstruction to artificially amplify the promotion of their initiatives.



Theory: While the total community of accounts tracked was limited to Twitter, we can make some assumptions about how these behaviours translate to other platforms, like Instagram, for example. Instagram has a higher rate of engagement than Twitter, which likely translates to more comments. While Instagram has great privacy controls, the type of accounts and hashtags we tracked would point towards more public than private accounts on Instagram.

INSIGHTS

Three Important Insights about Women in Online Construction Communities

It's good news that most comments tracked during our monitoring period were positive. The over 96% of comments with a positive sentiment reflect the great progress that women in construction have made over the last decade and the supportive community around them. But there's still work to do. And our insights point to actionable areas that organizations and community members can work on improving.

The comments we tracked over six months clearly pointed towards three targeted areas of online abuse that affect women in construction. As noted in our methodology, we focused our monitoring on Twitter, but online abuse is cross-platform. It is likely the issues and insights identified in the report are systemic and therefore require an integrated and engaged industry approach.

Insight 1: Fear that gender equity takes opportunities away from men

Areto detected trends in comments that showcase the perception that promoting women in the construction or STEM fields means taking opportunities away from men. For example, a tweet promoting a grant to support employers hiring Level 1 Apprentices in Canada used an image that featured one female apprentice and received comments like "Do white males qualify?"

ABUSIVE COMMENT EXAMPLES: *Gender microaggressions*

"Do white males qualify?"

"Here's a tip to the young guys: check the LGBTQ+ box in the application. It will get you into the interview, and they can't legally ask or raise issue with it there"



“Many women have been very comfortable with discriminating against straight white males. Do you want them to stand up now and show solidarity for you? It is just not a good idea to f*** around and treat people badly. Absent solidarity, all workers will get sliced and diced”

“\$100,000,000 STEM program appears to exclude white men.”

Should I keep the term “old white men” out of my common app essay? “Update on “women in stem” common app essay”

“Why not just put all the men to pasture.”

Reflection:

It’s important to centre ourselves around the idea of ‘yes and’ which helps build an inclusive mindset versus ‘either/or’ which reinforces an exclusive mindset. And it’s from this perspective that we’ve approached our recommendations and calls to action.

The dichotomy created by taking an either/or approach (e.g., hire a woman **or** hire a man) reinforces our differences and divides people along gender lines. This line of thinking is often accompanied by the merit argument—the argument that hiring a woman might mean not hiring the best person for the job. There’s lots of research that dispels the merit argument, yet those who don’t want to accept the changing demographics of the construction workforce often focus on things like merit as an attempt to stave off change.

Insight 2: Hashtags with higher rates of gender microaggressions

The **#womeninSTEM** and **#womeninconstruction** hashtags received a higher rate of gender microaggressions and sexually explicit comments compared to the other tracked accounts and hashtags in this study. Furthermore, apart from these hashtags being used to share blog posts and positive news around women in construction and STEM initiatives, there is a consistent trend of people using the hashtags sarcastically, or with sexual innuendo, and hints of inferiority towards promoting more women in STEM fields. Areto’s proprietary gender microaggressions model detected these more subtle and indirect comments that discriminate against members of a specific gender.


COMMENT EXAMPLES: *Gender Microaggressions and Sexually Explicit*²

“#womeninconstruction it’s not that you’re a woman it’s that you are new on site and theory isn’t practice, try not to listen to extremists By the way that doesn’t pass code and that is not a passive floor Know what you are talking about and the men will listen”

“putting my balls in a blender to see what happens #womeninstem”

“just fixed a chair by hammering it with a wrench #girlboss #womeninstem”

“Male Scientists, It’s Time to Pack Your Bags #womeninSTEM”

“Hired a new safety girl, she’s really mean but keeps the boys in check #hardhat #womeninconstruction”

“how do you get a job as one of those basketball girls that just looks cute and throws shirts at people #dreamjob #womeninSTEM”

“/g/ - Are women in tech real? - Technology - 4chan #womeninSTEM”

“Opinion | Maybe we don’t need more women in STEM - The Stanford Daily #womeninSTEM”

“Anyone know who the other two #womeninstem are?”

Recognizing how bot activity may be driving gender microaggressions in online construction communities.

Our tracking detected several accounts that posted hundreds of comments mentioning the hashtags we tracked. Specifically, the #womeninSTEM hashtag accounted for the vast majority of mentions among the tracked accounts in this report, but it also received thousands of mentions from bot accounts to artificially amplify the promotion of various people and initiatives. Bots are ultimately created and controlled by humans, and depending on their programming, can influence mindsets and perspectives and even spread misinformation. Here are the top possible bot accounts detected by Areto.

² We have excluded examples deemed highly sexually explicit, vulgar or toxic.



POSSIBLE BOT ACCOUNT	# COMMENTS	TAGGED ACCOUNT	BOT SIGNALS
@amerikabug	3,516	#womeninSTEM	Few Followers, Few Following
@hughgg140m	342	#womeninSTEM	Few Followers, Few Following
@kayd010236790	231	#skilledtrades	Numerical Username, Few Followers
@ATQtrades	219	#womeninSTEM	Account Created Recently, Few Followers
@ATQ_Trades	173	#womeninSTEM	Account Created Recently, Few Followers
@kayd010236790	155	#womeninSTEM	Numerical Username, Few Followers, Few Following, Account Created Recently, Few Original Tweets

Reflection:

Microaggressions occur frequently towards members of all underrepresented groups, not just women. These subtle, often unconscious actions or remarks can create a negative environment and even escalate to more overt abuse. What was interesting about the instances of microaggressions in our study is that they can take many different forms, including negative comments or 'jokes'. Due to this implicit and unconscious form of bias, microaggressions are often dismissed or downplayed. And, even members of targeted groups, such as women in this case, can contribute to their proliferation.

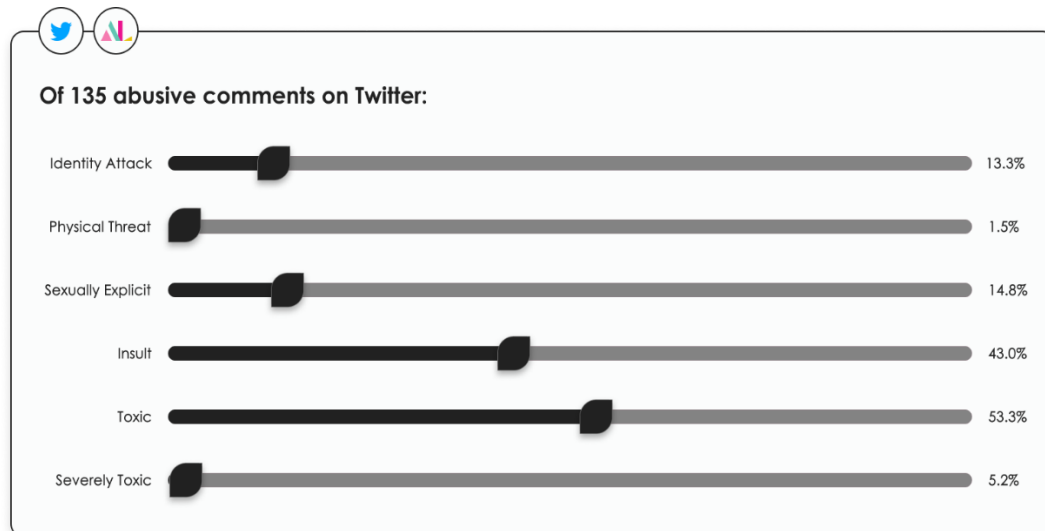
It's important to acknowledge that microaggressions are real and can perpetuate the abusive language and toxic behaviours that we uncovered explicitly in the online tracking project, contributing to negative perceptions.

Insight 3: Abuse towards industry organizations creates an unwelcoming environment

In the study, industry associations and organizations had the highest rate of abusive comments (with at least 1,000 mentions in the sample size) and the lowest rate of positive comments. These accounts often end up in the line of fire alongside announcements from government and education officials, and other commentary around workers and labour issues. This can create an online community where women, youth and other underrepresented groups feel less welcome to engage and participate in construction. Further, toxicity online can create a perception about toxicity on construction sites.

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**Totals may not add up to 100% because each comment can be flagged with more than one category.

Identity attack <i>(racism, sexism, transphobia, homophobia)</i> Negative or hateful comments targeting someone due to their identity.	Physical Threat <i>(death threats, rape threats, doxing)</i> Intention or suggestion to inflict pain, injury or violence against an individual or group.	Insult <i>('you're an idiot' & other types of name calling)</i> Rude, inflammatory, or negative comment towards a person or a group of people.
Toxicity <i>(excessive profanity & exclusionary language)</i> A rude, disrespectful, or unreasonable comment that is likely to upset, alienate, polarise, or silence users.	Sexually Explicit Contains references to sexual acts, or lewd reference to body or sexual expression.	Severe Toxicity <i>(aggressive, negative & prejudiced language)</i> A very hateful, aggressive, disrespectful comment or otherwise very likely to cause outrage or make a user leave a discussion or give up on sharing their perspective. This score removes some false positives including positive usage of profanity.

****We have excluded examples of the highly abusive comments that were tracked due to the sexually explicit, vulgar and toxic content.**

Reflection:

Abusive language in online construction communities can have a negative impact on the well-being of employees, the overall culture of an organization, the perception of the industry, and the ability to attract and retain diverse talent.



Industry groups are often the face of the industry, taking policy positions and working alongside businesses, academics, and governments to ensure the future includes a strong and successful construction industry. Because of this, these organizations are tasked with navigating various stakeholder groups with often competing priorities and positions on industry initiatives.

The level of abuse surrounding the industry organizations we included in our study on social media is concerning. The way in which we address this abuse is critical in shifting perceptions and reducing the amount of hate circulating on accounts. Taking a stance on issues is difficult, especially when balancing a multitude of stakeholders, but now more than ever, it's what we need.

WHAT'S NEXT? HOW DO WE CONTINUE ON THE PATH TO INCLUSIVITY?

Online construction communities are not the same as the communities we're part of on sites and in offices but as the industry seeks to grow and attract more women, youth, and other members of underrepresented groups, the influence of social media will continue to gain importance.

Unfortunately, abuse towards women in construction can be easily perpetrated online, where consequences for abusive behaviour can be hard to enforce. The increase in bot accounts and trolls make it even more difficult to navigate.

There are things ***we can do***, together, to contribute to stronger online (and onsite communities) that support women in construction. Here's where we can start:

Actions for individuals:

- ✓ Educate yourself about abusive or toxic behaviours and its impact on individuals and communities. Share your knowledge with others to help them recognize and combat abusive or toxic conversations.
- ✓ Unconscious biases can contribute to a lack of diversity and inclusivity in the workplace; consider unconscious bias training to become more aware of your own biases and how they impact your decisions, actions, and interactions with others.
- ✓ Set an example for others to follow by being respectful and constructive in your online interactions. Use your platform to promote positive values and respectful communications.





- ✓ Stand up against any forms of discrimination or harassment in the workplace. Most social media platforms have mechanisms for reporting toxicity and abuse, such as harassment or hate speech. Use them to help ensure that such behaviour is removed.

Actions for companies:

- ✓ Focus on creating a workplace culture that values diversity and inclusiveness, as well as providing training to employees on what constitutes microaggressions and how to prevent them, and how to address when witnessed. Talk about the culture in terms of onsite or in the office and online.
- ✓ Companies should have a process in place for receiving and investigating complaints for abuse (online and elsewhere), and employees should feel confident that they will be supported when they come forward. By taking a proactive approach, we can all support a safer and more positive work environment. Has your company reviewed or updated its whistleblower policy recently? Consider a small survey to see how many in the company know how to raise a concern.
- ✓ Ensure your organization has a clear social media policy that points to the need to apply respectful behaviours expected at work and online. Extend conversations about harassment at work to include standards around online harassment.
- ✓ Engage experts to proactively or retroactively protect your team online. Content moderation tools such as those used in this report can track, moderate, and counteract online abuse at scale, while protecting brand reputation and mental health.
- ✓ Build a positive online community that shares the success stories of team members, highlighting their contributions and experiences, share resources that support inclusivity and diversity, and encourage constructive conversations.

Actions for industry:

- ✓ It's the responsibility of all of us to prevent and call out abusive language, microaggressions or other forms of toxic behaviour or bias.
- ✓ Industry groups can take the lead on including education and awareness for gender related bias, abuse, and microaggressions as part of our highly effective safety culture.
- ✓ When incidents of abusive language take place, we should take an industry-wide zero-tolerance approach and be clear in communicating, both online and offline, that abuse, hate, and toxic behaviour towards anyone is unwelcome in our industry.





SUMMARY

Building Good resolves to facilitate open discussion about creating industry practices and procedures that are diligent and detailed to help remove barriers and systemic discrimination. And in order to succeed, our work has to start at home. Many of our organizations have been focusing more and more on creating diverse, equitable and inclusive cultures and at the same time, society is becoming more aware—and appreciative—of equity and inclusion, understanding we all need to work toward ensuring underrepresented groups have the same opportunities. There is progress being made, but is there enough?

Through this study, we turned our attention to the online community. Growing in importance and increasingly dominating the content consumption habits of multi-generations, we looked to social media to determine whether the industry should focus on building a more inclusive and supportive online construction community, in addition to work taking place on sites and in offices across the country.

From our six months of tracking, we saw that implicit and explicit abuse and toxicity are present in our online communities. Biases, microaggressions, toxicity, and abuse were present even in the relatively small cross-sampling of the full online community. The online behaviours and rhetoric that impact women directly and the industry's reputation more broadly can hinder our ability to attract and retain women, youth, and other underrepresented groups

Those of us working in construction know that this industry provides a dynamic, challenging and fulfilling career, with attributes such as job security, good pay, hands-on work, variety, teamwork and camaraderie, problem solving and opportunities for advancement, to name a few. In Canada, the construction industry employs over 1.5 million workers. In the coming years, we will begin to face a talent shortage. In this gap is our opportunity.

We can advance diverse, inclusive teams, and champion progressive policies to welcome underrepresented groups into the industry. However, to do this, we not only have to change from within, but we must also consider how we are seen from outside, and the perceptions – positive or negative, that may encourage or discourage individuals considering careers in the industry. We must break down the real and perceived barriers around the construction work environment and challenge social stigmas.

Our goal in sharing this report is to draw attention to a potentially overlooked community – the online community, where we can see there is still work to be done to ensure our industry is one where the best and brightest of all people, choose to build a career.

It's up to all of us. Let's continue to speak up and speak out, educate ourselves and build respectful and inclusive cultures, on site, in our offices and in our online communities.



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