To design products for women, hire them

Female engineers add perspective that makes good business sense

By CAROLYN VO

ompanies are making decent progress in creating products and services that cater to women. But much work remains to be done. And women, by and large, are in the best position to make it happen.

Embracing female perspectives in product design makes good business sense. In the financial sector alone, there is a \$700 billion revenue opportunity that could be seized if firms can address this discrepancy, according to our new research at global consulting firm Oliver Wyman. Now add in all of the other industries around the world and you can see the scope of the prob- $\operatorname{lem}-\operatorname{and}\operatorname{the}\operatorname{opportunity}\operatorname{it}\operatorname{presents}$ for business.

Perhaps no white-collar occupation is more male-oriented than engineering. From cryptocurrency to drones, engineers are driving many of the megatrends reshaping the global economy. Because men still dominate

the ranks of engineers, their perspective continues to prevail in product creation and design, intentionally or not.

In all, only 18% of software developers and 28% of computer and information research scientists in the computer industry in 2019 were women, according to the most recent figures from the Society of Women Engineers.

But while much attention has been paid over the years to the dearth of female science, technology, engineering and math graduates, less discussed is the question of how this underrepresentation impacts product design and technical innovation.

To create more gender balance at the conceptual, technical and product-design stages, today's women in engineering need to think and behave differently. They have to be mavericks. And companies, for their own financial good and that of their shareholders, need to acknowledge, encourage and reward them for it.

I know this firsthand. My career at Oliver Wyman has been marked by two firsts: first female head of engineering and first female engineerturned-partner. My parents, who immigrated to the U.S. from Vietnam during the Vietnam War, had ambitions for me to forge a path in medicine or law. Always the contrarian, I chose software engineering, as I've always enjoyed stepping out of my comfort zone, taking risks and sometimes even bending the rules.

This maverick streak has helped define my professional life. Following the standard career playbook would have led to steady jobs, safe roles and reliable paychecks, but it would have closed off avenues to personal growth, innovation and fulfillment. I've always followed my interests and intuition rather than chase money and seek security.

Women can't change the entire system overnight. But they do have the power to shake up the status quo. There are four main ways women can unleash their inner maverick.

Speak up: Mavericks are usually characterized by such traits as openness, directness, perseverance and creativity. They are team players, but they aren't quiet "yes" people. A maverick who has a vision makes it known. Ideas can't come to fruition if stifled.

Of course, this isn't always easy for women, who can sometimes be misconstrued as bossy. But mavericks can't be shrinking violets. I have found myself hesitant at times to speak up in groups of mostly men at senior levels of the organization. The key is to get comfortable being uncomfortable.

Take risks: Mavericks roll the dice. In engineering, they introduce new ways of working, coding, architecting, testing, building, deploying and automating. They do it because they want to redefine what their organization can do, and in the process they bring in new approaches to problem-solving that might seem disruptive but are necessary for the future of the business. They broaden the scope of the possible.

In my case, what started as a threemonth contract has turned into a two-decade career of solving thorny problems, trying different methodologies, experimenting with technologies and championing underdogs. Not every idea has been a success, but with failure comes growth.

Embrace unconventional career paths: Mavericks call the shots on their own careers. Some engineers, for example, might decide to remain strong individual contributors and add value by staying close to the code. Others decide to move into roles like chief technology officer, using their tech expertise to help operate the business. Both can be hugely impactful, and there is no rule saying mavericks can't toggle between the two.

As a practicing engineer, I never planned to go into consulting, much less become a partner. My unconventional journey has been one of the most rewarding and exciting experiences in my life. The lesson? Don't be afraid to deviate from what is considered the norm.

Shoot for the very top: The biggest opportunity for maverick female engineers is in the C-suite. Consulting, my industry, is no longer just smart guys in suits; it's also creative digital superstars in jeans, joggers and jumpsuits who are championing innovation and bringing fresh perspectives.

Female engineers should aim as high as possible. Research suggests that women score higher in most areas of leadership than men, according to Harvard Business Review, and perform better in crises. What's more, as women move higher up the chain, they can help identify other mavericks in the ranks, serve as role models and mentors, and help change their organizations' cultures.

More women will conquer this final frontier over time. And when they do, they will have today's mavericks to thank for paving the way.

Carolyn Vo is a partner and head of engineering in the digital practice of the global consulting firm Oliver Wyman. She wrote this column for The Dallas Morning News.

War, what is it good for?

SUNDAY LETTERS

Words to remember

Throughout history, wars have given us famous slogans. "Nuts!" is one that comes to mind given by a U.S. officer to a German demand to surrender in World War II. Another could be when the U.S. offered to evacuate the president from Ukraine and he responded, "I don't need a ride. I need ammunition."

Win or lose, I don't believe the world will ever forget the gutsy Ukrainian people who have shown the world their pride in their country and that they are willing to die to protect their freedom. Hopefully the aid coming from neighboring countries can turn the war in Ukraine's favor. God knows they deserve it. Tom Stamey, Fort Worth/Western Hills

On the sidelines



cow, Buinaksk and Volgodonsk, which provided a pretext for the second Chechen war and catapulted Putin into the presidency, were carried out by the Russian Federal Security Service." From the National Review.

James C. Francis Jr., Carrollton

Fighting with digital pen, paper

As a descendant of Ukrainians who came to America in 1905-06, and whose wife Nadia and daughter Ania are from Kyiv, my heart and pravers are with Ukraine. While I am no longer able to fight due to health issues at age 74, I am writing dozens of emails in support of Ukraine to over 134 media outlets, both cable and newspaper, in the United States and Europe.

I have visited Kyiv in the past and it upsets

As Russia mounts its invasion of Ukraine, the world watches from distant sidelines. We offer support. Yet we watch. We watch a country fight for its life. We see a country with less military might use its only strength to fight the Russians: will.

Most of the world cheers for Ukraine. Some of the world sanctioned Russia. None of the world has tried to stop Russia. Economic sanctions may cause inconvenience, but Russia has built a fortress economy that will tolerate economic sanctions. While Ukrainian President Volodymyr Zelenskyy defiantly broadcasts from the streets of Kyiv and citizens take up arms ready to sacrifice their lives to keep Ukraine independent, the U.S. and the European Union stand by.

With eyes closed, we can't be surprised if Russia continues its expansion. Or China takes Taiwan. Or Iran takes Iraq.

As Einstein said, "Weakness of attitude becomes weakness of character." The Western world should be embarrassed.

Guy Mercurio, Dallas

Placing bets

The fact that Ukraine used to be a forced member of the Soviet Union should not give Russian President Vladimir Putin a free invasion card.

The lesson that history will teach is that egotistical loose-cannon dictators with nuclear weapons can do whatever they want and expect merely a financial slap on the wrist.

I'm betting North Korean leader Kim Jong Un is taking note that Putin's nuclear threat has kept all the Western powers from coming to Ukraine's defense. China will surely now be encouraged to invade Taiwan, and Putin is already threatening Sweden and Finland not to ioin NATO.

Only a fool would think Putin does not have his eyes set on all previous Soviet satellite states.

The U.S. lost face in North Korea, Vietnam and Afghanistan, all wars foolishly fought at great logistical disadvantage.

Might I be so bold as to suggest the U.S. better start getting really good at cyberattacks before Putin harnesses artificial intelligence algorithms strong enough to permanently shut out all hope of bringing him under control?

John Williamson, The Colony

Jeff J. Mitchell/Getty Images

Stingers turned the tide before

When the Soviet Union installed a puppet regime in Afghanistan during the Soviet-Afghan War in the 1980s, the United States armed the mujahedeen, Muslim guerrilla warriors fighting against the Soviet occupation, with Stinger missiles. These surface-to-air anti-aircraft weapons gave the resistance the ability to destroy Soviet aircraft, turning the tide of the war and eventually leading to full withdrawal of Soviet troops.

Despite not being a member of the North Atlantic Treaty Organization, Ukraine, a sovereign democratic European nation, is deserving of full-throated protection against Russian hegemony. The United States must join its NATO allies in supplying Ukraine, in the most expeditious manner, with as many Stingers as necessary. Sanctions may inflict pain on an economic level, but they do not stop tanks, helicopter gunships or murderous dictators like Russian President Vladimir Putin.

Jim Paladino, Tampa, Fla.

Solely Putin's fault

Shame on some of our leaders seeking to blame President Joe Biden for the fighting in Ukraine. There is only one person to blame. It's Russian President Vladimir Putin. He is the bad guy. He is responsible. He is the one trying to rewrite history. He is the one who called for the invasion.

If I drive my car 100 miles per hour on North Central Expressway and have a wreck, I guess I should blame my car for going that fast. Suzanne Gaberino, Highland Park

The legal ramifications

One rational response to Russian President Vladimir Putin's invasion of Ukraine is to bring him before the International Criminal Court located at The Hague, Netherlands. To effectuate that process, Ukraine must become the 124th country to join the ICC.

The ICC's founding treaty is the Rome Statute. It provides for jurisdiction over war crimes committed in countries that are state parties including, but not limited to, the extensive destruction and appropriation of property, not justified by military necessity, and carried out unlawfully and wantonly. It certainly appears that Putin has run afoul of that provision.

Having signed the Rome Statute in 2000, all that remains for Ukraine to do is deposit an instrument of ratification with the secretarygeneral of the United Nations and then submit a referral to the ICC's prosecutor. For its own sake and the sake of aspiring democracies, Ukraine must do so posthaste.

As the world digests the depth and depravity of Putin's barbarism, the already broad and enthusiastic support for Ukraine will only solidify.

Lou Horwitz, St. Peters, Mo.

Hollow protests

Re: "Let's agree: Putin is aggressor - Republicans may question U.S. policy in Ukraine, but don't undermine it," Feb. 26 Editorials.

I'd like to thank The Dallas Morning News and Sen. John Cornyn for stating facts instead of fiction. Rep. Van Taylor and Sen. Ted Cruz blamed President Joe Biden for the invasion. Biden didn't start the war. Ukraine didn't start the war. Russian President Vladimir Putin started the war.

Following sanctions that Biden announced, some Republicans in the U.S. House of Representatives tweeted, "This is what weakness on the world stage looks like." What more did the GOP think Biden should have done? Send troops? One would have to have had a lobotomy to think that was a good idea.

Jo Anne Barnes, Fairview

Not a nice guy

Regarding Russia, never forget who the world is dealing with: Russian President Vladimir Putin came to power by killing his own people and starting a war.

'Vladimir Putin came to power as the result of an act of terror committed against his own people. The evidence is overwhelming that the apartment-house bombings in 1999 in Mosme to see what Russia has done to our country

I hope America stands beside the Ukrainians in their fight for freedom and territorial sovereignty. God bless President Volodymyr Zelenskyy and Ukraine. Keep up your courage and fight for freedom.

John Lemandri, Williamsburg, Va.

Democracy assaulted here, too

I am horrified by the Russian invasion of Ukraine. Russian President Vladimir Putin is taking over his democratic neighbor to make it a Russian puppet.

Democracy is under assault in the U.S., too. The extreme gerrymandering and voter suppression can be considered such attacks. on our democracy.

It seems like the GOP has aligned itself with Putin and is often critical of President Joe Biden's efforts to save democracy. Biden is not perfect, but he supports Ukraine and believes in democracy.

The 2022 midterm elections represent an emergency. If Republicans win a majority of the House or Senate, I believe they will be able to complete what was started on Jan. 6. This is not about liberal or conservative. The choice this year is more basic: democracy or dictatorship. Vote like our democracy depends on it because it does.

Jan Realini, San Antonio

Registering my protest

In protest of Russia's invasion of Ukraine, I have decided to destroy my collection of Russian nesting dolls. I'm pretty sure that when President Vladimir Putin is notified of my actions, he will immediately withdraw his troops and apologize to the world. At the very least, I think it will have the same impact as all the diplomatic efforts put forth by the U.S., its allies, NATO and other countries.

Ted M. Moore, Dallas/Preston Hollow

Putin is personally responsible

My heart breaks for the people of Ukraine. This brutal act of war is insane. I believe that Russian President Vladimir Putin is personally responsible for every single injury and death. Unless he is stopped, he will continue to threaten more democratic countries.

Mary E. Abney, Dallas/Lakewood