



Engineers make our lives better

by Chris Cragg, M.A.Sc., MBA, P.Eng.

Unlike other professions, such as doctors, lawyers, or dentists, we seldom ever set up appointments to meet an engineer face-to-face. Yet, we (unknowingly) rely on their expertise in practically every aspect of our lives.

Of course, while we know what doctors, lawyers and dentists do for a living and how they help us in our daily lives, we seldom know or appreciate what engineers do and how much they contribute to our quality of life.

Imagine someone stopping you on the street one day, or someone you know coming up to you and quite simply asking you, “What do engineers do?” How would you answer?

Stumped? Well, don’t worry. You’re not alone. Because despite the profound impact that professional engineers have on our economy and many aspects of our everyday lives, they practice their craft virtually unseen and behind the scenes. So much so, that the majority of the public have no idea how engineers make our lives better by improving the quality of our lives.

Engineering ingenuity is with us 24 hours a day.

Take your typical day for example. You may not see the impact that professional engineers have on your life, until you start to look closely at everything around you. Let’s start when you’re fast asleep, enjoying a well earned rest.

As you lay there softly sleeping, oblivious to the room around you, the clock radio suddenly brings you to life. It’s six o’clock. Time to prepare for the day ahead. And while you take for granted that clock radio that has stood the test of time, you should know that the clock radio that wakes you each day was based on a patent first filed by engineer Nicola Tesla in 1900.

Now, it’s off to the bathroom, where you flick on the light, turn on the water tap, and pour yourself a glass of clean, refreshing water. And as you drink, you are oblivious to the fact that each and every day, we take the cleanliness and safety of our water supply

for granted. Because that glass of water that you pour from your tap, is a direct result of water systems and processes designed by professional engineers.

And while we're waking up and taking things for granted, what about the electricity that makes its way into our homes. That same electricity that powers up our lights, heating, home appliances and dare I say it, that wonderful, refreshing air conditioning in the hot, humid summertime.

In fact, if we continue to look at every single part of our day, you'll find that professional engineers are responsible for nearly everything you use and see each day. Whether it's the refrigerator and other appliances in your home, or your telephone, computer, fax or printer – all are courtesy of the innovations of professional engineers.

The car, truck, bus, or motorcycle that you took to work was also designed by engineers. And don't forget about those computer graphics chips which provide the stunning graphics in your computer, cell phone, and computer video games. Again, all designed by engineers.

And do we even have to mention your home, apartment, or office building? Or how about the roads and highways that connect us to our loved ones? Or the plane that took you on the last family fun trip? Yes, yes, and yes. All the result of engineering creativity, ingenuity and innovation.

Professional engineers are committed to excellence.

Of course, while engineers are tasked with making our lives better, becoming an engineer is no easy feat. It takes dedication, commitment and a strong desire to want to improve our quality of life. Because it is engineers who are inevitably responsible for public safety in everything you do and the conveniences that you enjoy.

And becoming an engineer is no easy feat. To qualify, one must endure four years of intense studying to obtain an engineering degree from an accredited engineering university. Graduates then work for four years under the supervision of a professional engineer.

Finally, each engineer must pass a rigorous professional-practice examination in law and ethics. Once all these requirements are successfully achieved, Professional Engineers Ontario (PEO) grants a licence and awards the coveted P.Eng. designation.

While not a formal definition, the Canadian Academy of Engineering captures the essence of the engineering profession in the following description:

Engineering is a profession concerned with the creation of new and improved systems, processes, and products to serve human needs. The central focus of engineering is design – an art entailing the exercise of ingenuity, imagination, knowledge, skill, discipline and judgment based on experience.

It's time we celebrate professional engineering.

Once you begin to see how much professional engineers contribute to our quality of life, you begin to see how we can't live without them. That's why I think most of us would agree that we are glad engineers are out there – protecting the public, designing innovative products and processes and above all, improving our quality of life.

For the moment, we have only touched on a small number of things that are the result of the work of professional engineers. To delve into everything that professional engineers touch in our lives would take infinitely more space – and no doubt a professional engineer to figure out how to fit it all into our computer.

Things like the invention of the Minivan. Or the enormous contributions made by professional engineers in Pediatric Rehabilitation and how they are helping to enhance the quality of life for children with disabilities.

Suffice to say, that nearly everything we see or use each day is a result of professional engineers. And once we understand how much professional engineers influence our lives each and every day, it's a cause for celebration.

And more importantly, a time to take a moment to celebrate all of those professional engineers who are your sons, daughters, husbands, wives, relatives, neighbours and co-workers in your community.

So, the next time you come across a professional engineer, take a moment to say thank-you. And let them know how much they mean to all of us.