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American industrialist, Henry Ford, once stated that most of his Model- T automobile customers, would have simply settled for faster horses. Nonetheless, a faster horse was a completely justifiable desire in those times, but without Ford's mission to manufacture automobiles for the growing middle class, transportation would be radically different today. Ford may never have revolutionized transportation and industry, had he stuck to the popular belief, "If it ain't broke, don't fix it". The long- believed notion can be found plastered throughout home improvement stores and garages alike, but as seen with Ford, if it can be better, it might as well be broken. Many years later, United States Navy Rear Admiral, Grace Hopper, challenged that very same concept by pushing computer science away from its continually accepted abilities to even further depths, all while shattering the typical stereotypes of women.

Originally born in New York, Admiral Hopper led an eventful life by devoting her time to the Armed Forces, as well as computer science, all over the country, but ultimately chose to settle in urban Arlington, Virginia. Names like the "first lady of software" and "Amazing Grace", were not doled out lightly, as Admiral Hopper earned those honored terms for her groundbreaking work and perseverance. Since she was a child, Admiral Hopper had always been an inquisitive thinker, whether she was disassembling alarm clocks to understand the inner workings or programming the first computers, she never let the longstanding beliefs of society hold her back. Admiral Hopper was told for years not to experiment with the old, established practices of software programming, as they had always proven fine, but fine was never good enough for her and she set out to improve and revolutionize the old ways. She did exactly that with the development of COBOL, one of the first high-level computer programming languages, by incorporating the English language with computer language to advance computers towards

the present day computers. Admiral Hopper saw no difference between a man's job and a woman's, and although her road to success was not an easy one, Hopper constantly fought for women as she refused to take no as an answer, carving a path for equality. Admiral Hopper once stated, "I had a running compiler and nobody would touch it. They told me computers could only do arithmetic". Admiral Hopper faced many doubters throughout her life, but they only motivated her more to accomplish her ideas and prove that with hard work and determination, even the impossible is possible.

As the proactive individual she had quickly become, Admiral Hopper wasted no time to enlist in the Navy for World War II. However, as was often the case with her, she was prevented from achieving her full potential, this time due to her advanced age and her job as a Mathematics professor at Vassar College, which was deemed too valuable for the war effort. Yet, once again, Admiral Hopper persisted and took a leave of absence from her job, to eventually join the United States Naval Reserve under the WAVES initiative. Once she was assigned to the, 10,000 pound, Harvard Mark I computer, her knowledge and dedication to computer programming was crucial for helping the World War II effort. By fighting for what she truly believed in, Hopper demonstrated extreme passion and devotion to her country. Admiral Hopper is an inspiration for men and women alike, as she selflessly committed her life for the safety of her fellow Americans during such troubling times of need.

Grace Hopper may never have actually fought in the war, but she was most definitely a fighter. Admiral Hopper fought through society because nothing could hold her back, whether it be the "normal" perceptions of women, skepticism and doubt, or even her age, she paved her own path. Even when her every move was scrutinized, her every mistake was blown out of

proportion, her every idea was shot down, and her every theory was questioned, Admiral Hopper prevailed.

In a society where the "glass ceiling" is still intact and complete gender equality is still not a reality, her story stands as a reminder to women of all the limitless possibilities that exist in the world. Every individual has the power in them to change the world, a concept Admiral Hopper was fond of after teaching young minds for much of her life. She considered the only person holding anyone back was them self, because the most dangerous phrase to her was, "We've always done it this way". A genuine inspiration, Admiral Hopper was a revolutionary woman in military, academia and science; a bona fide triple threat.

Without a doubt, Admiral Grace Hopper is a tough act to follow. Yet her dedication to the country and women, compels me to strive for my own goals. I may not be programming any complex computers in the near future, but however I impact the world, I will never let doubters stop me. Admiral Hopper focused on her supporters, as will I, because many skeptics will arise throughout life, but faithful supporters are what truly matter. As I continue to learn and grow, I hope to influence others through my actions, because even the smallest change can have a tremendous difference on someone's life. Though most importantly, I aspire to give back to my community that encouraged and supported me, since no one should be denied an opportunity for greatness due to their identity.

Computer science was, and many argue still is, a male dominated field, nevertheless Admiral Hopper was not afraid to blur the lines for gender equality. Her ambition to prove to herself and the world that anything can be accomplished with the right mindset, still rings true today and years after her death, the oldest active- duty commissioned officer in the US Navy of her time, is still honored for her remarkable service, most memorably her 2016 posthumous

Presidential Medal of Freedom. Once described as appearing "All Navy" on the outside, but a pirate on the inside, Admiral Grace Hopper was many things; a doctor, an admiral, a wife, a professor, a scientist, and a pioneer, but most of all she was an American trailblazer for future generations of hardworking, determined women.

Works Cited

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