Convocation Address

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CHECK AGAINST DELIVERY

Madame Chancellor, Mr. President, Members of the Platform Party, Graduating Students, Ladies and Gentlemen, I am deeply honoured to be here today to receive an Honorary Doctor of Laws degree from Simon Fraser University.

The University has been an integral part of my life for nearly forty years. I earned my Masters and Doctoral qualifications at Simon Fraser; and served for six years on the Board of Governors where I played a part in the continuing development of the dynamic, highly regarded institution Simon Fraser University has become.

The University is close to my heart and I have followed its progress for the last forty of its fifty years of existence, as it has become recognized nationally and internationally as a school of high standing. And I take immense pleasure in its continuing growth and in its fine reputation.

My work for peace, disarmament, international law and human security is a continuing work in progress - and oftentimes seemingly unsuccessful given the state of the world - so I am deeply appreciative of the honour Simon Fraser University has conferred on me for my contribution.

And Fellow Degree Recipients who are graduating today, I congratulate you for your achievement, and commend you for the years of research and study you have undertaken. I hope that as you move on into the working world, utilize this learning, and immerse yourselves in the day-to-day activities of living, that you will continue to seek knowledge with an open mind and an open heart.

I made my career choice at Simon Fraser. Thirty-five years ago, here on Burnaby Mountain, I decided to establish The Simons Foundation - an operational and granting organization - with a mandate to work against the negative effects of technology, because I discovered that science and technological citizenship – that is ethics-***based science*** - was not the subject of discussion or reflection in the University.

I was concerned about this ***absence of thought*** on the negative effects of science and technology; and concerned because many scientific and technological developments are exceedingly inhumane and work **against** life - instead of **for** life.

For example weapon development has changed the nature of war from predominantly military to military killing to killings, on an immense scale, of civilians. In World War I the civilian death toll was 5%. In World War II the civilian death toll rose to 50%, with 10; and some 200,000 civilians killed by just two atomic bombs on Hiroshima and Nagasaki.

The Vietnam War civilian death toll rose to 90% with 400,000 killed by the Chemical Weapon, Agent Orange. And at present, in Vietnam, there are more than three million Agent Orange victims, including children of the second and third generations.

In the recent Israeli- Gaza war according to U.N. figures, the civilian death toll was 72%. And in Syria, the government is using chemical weapons and other indiscriminate weapons – cluster munitions and barrel bombs - killing its citizens. All these civilian deaths are euphemistically labeled "collateral damage."

I chose nuclear disarmament as my specific area of focus because a contemporary nuclear weapon has a blast effect of far greater magnitude than the atomic bombs used on Japan. An attack on a highly populated city, with one nuclear weapon would kill one million outright, and another million people would die within a week. My goal was to eliminate these devastating weapons of mass destruction which I believe were - and still are - one of the greatest dangers faced by humanity.

The first grant from The Simons Foundation was to Simon Fraser University for a doctoral scholarship for a woman entering science.

There were no women on the faculty in Physics. I imagined that a woman physicist, pursuing research on radiation and the atom, would be a Marie Curie, and use her knowledge of atomic physics and radioactivity to alleviate suffering, rather than an Edmund Teller, the so-called father of the Hydrogen Bomb who used his knowledge to create immense capability for death and destruction.

I admit it was a sexist appointment and I acknowledge now that it is not an issue of man or woman. Rather it is an issue in the domain of ***ethics and morality***. Nuclear Physicist and Nobel Prize Recipient, Sir Joseph Rotblat, concerned that Hitler was attempting to develop an atomic bomb, worked on the joint British and American Manhattan atom bomb project.

When he learned that the Germans efforts were failing, and was shocked to learn from the Manhattan Project Administrator that the bomb's development would continue because the real purpose was to drop it on Japan, as a demonstration to the Soviet Union, Sir Joseph withdrew from the project, the only scientist to do so. From then on he refused to work on weapons - and following Madame Curie - chose to apply himself to medical applications of nuclear physics of benefit to humanity.

Science and technology are doubled-sided. They always have a shadow side. The products of technology are not benign, not neutral, not outside morality. They are created, developed and used by human beings capable of distinguishing between right and wrong - *moral beings*.

A former Judge and Vice-President of the International Court of Justice questions whether a scientist can shut his mind to the purposes for which his expertize is required and reminds us that "the same rules of engineering that will construct a church will construct a torture chamber."[1] Yet the view of J. Robert Oppenheimer, Director of the

[1] C.G. Weeramantry, *The Lord's Prayer: Bridge to a Better World*, 1998,156)

Manhattan Atom Bomb Project is that "When you see something that is technically sweet, you go ahead and do it."[2]

Since the Enlightenment when the great humane ideals of freedom, justice and equality co-existed in harmony with scientific thought, the understanding of human progress, to paraphrase Albert Schweitzer, has dwelt more and more on the results of science and less and less on reflection on the individual, society, humanity and civilization.

The triumphant rise of technology, beginning during the Second World War, has transformed our world and is now beginning to threaten our survival. While there are many benefits - education, greater food availability, communications, and particularly in medical science, - technology has progressed to the extent where in many cases the dangers outweigh the benefits. We are experiencing dramatic changes to the balance of our climate and eco-systems.

Cambridge University Theoretical Physicist, John D. Barrow warns of the "prospect that scientific cultures like our own inevitably contain within themselves the seeds of their own destruction [and] will be the end of us. Our instinctive desire for progress and discovery," he says, "will stop us from reversing the tides in our affairs. Our democratic leanings will prevent us from regulating the activities of organizations. Our bias towards short-term advantage, rather than ultra-long planning, will prevent us from staving off disasters. In projecting "a future of increasing technological progress", he continues, "We may face a future that is increasingly hazardous and susceptible to *irreversible* disaster" [3]

Our species is at risk from climate change caused by the massive exploitation of the earth's natural resources: resulting in environment degradation of the land, the oceans and the air, destruction of the rain-forests, the overfishing of oceans, the loss of biodiversity and disappearance of thousands of species.

We are at a critical juncture - engaged in a struggle to maintain the delicate balance between progress achieved through technology and permanent destruction of this delicate balance. We see this struggle played out in microcosm, around - and potentially beneath the ground of -our University, between exploiters of the fossil fuel industry and those who understand that the proposed doubling of the pipe line, the transmission, storage and shipping of the tar sands product – one of the world's most polluting fossil fuels - not only pose contemporary environmental and health dangers. It is not only a *"Not In My Backyard*" protest - but also concern for the long-range prospects of our world. Continuing dependence on fossil fuels has catastrophic long term environmental and ecological consequences which endanger the lives of present and future generations.

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[2] US Atomic Energy Commission Transcript of Hearing Before Personnel Security Board, p. 81 (1954).

[3] John D. Barrow, *Impossibility: The Limits of Science and the Science of Limits*, Oxford, 1998, 112,150,74; my emphasis)

I do not want to dampen your pleasure on the day we are honouring and celebrating your achievements. But we all ***do*** have a responsibility to act.

We, the graduates of Arts and Social Sciences – I too am a graduate of this faculty – are the carriers of the humanistic tradition, the carriers of the culture. Our knowledge and expertise is in human life, human engagement in the world - individual, community, nationally and internationally. And our First Nations faculty and students come from a tradition of caretakers of the Earth – as stewards of the planet.

As carriers of the humanities culture, our task – as we make our way in the world, is not only to *remember our humanity*[4], but to also encourage our friends, colleagues, employers, politicians and world leaders to *remember their humanity;* to consider the sacred balance between human life and our eco-system, and the necessity for stewardship of this finite world which hosts us in order that human beings can live on this earth forever.

Only when human beings understand the degree of their responsibility will our world be saved from all that threatens it today. So I urge you to keep these fundamental issues in your minds as you pursue your everyday lives, for your sake, for the sake of your children, and for the sake of future generations.

We, as graduates of the Faculty of Arts and Social Sciences have a special responsibility to be the guardians of humanity.

I wish you every success in achieving your goals as you move forward in your lives.

Thank you!

Jennifer Allen Simons, C.M., Ph.D., LL.D.
President,
The Simons Foundation

June 10th, 2015

[4] "Joseph Rotblat - Nobel Lecture: Remember Your Humanity". *Nobelprize.org.* <http://www.nobelprize.org/nobel_prizes/peace/laureates/1995/rotblat-lecture.html>