

Inspiration



Cosmologist Stephen Hawking, recipient of the Clarke Lifetime Achievement Award in December 2017

“Arthur Clarke said that ‘the only way to understand the limits of the possible is to venture a little way past them into the impossible.’ Keep believing in the linkages between the possible and the impossible! Even better, build your lives around that pairing of the two! But solutions to our planet’s perils demand more than imagination. Creativity must drive action. We must move from intentions to impact. That goes beyond creating brilliant technology. It goes beyond policy. It calls for the purely human qualities of willingness, humility, and high purpose toward a greater good.”

“Isn’t it amazing what we can accomplish with fair warning! Either we can imagine a different outcome and rethink the paths that we are taking in education, corporate development, ecology, science, policy, the arts, compassion endeavors, food supply, clean water, energy, and so on into every tentacle of our lives, with the result of shaping a healthy future. Or, we can stay on the paths we’re on. And then what?”

Stephen Hawking, December 2017



UNLEASH
IMAGINATION.
**SHAPE THE
FUTURE.**

October 17, 2019
Sidney Harman Hall
610 F St., NW, Washington, DC



clarkefoundation.org



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Event Volunteers

Mary Duncan

Pam Janus

Katie Logue

Ryan Logue

Deirdre K. Murray

Marta Nammack (photographer)

Dee Valleras

Lisa Younger

THANK YOU!

*It has yet to be proven that intelligence
has any survival value.*

Arthur C. Clarke

Program

- 5:00 pm Reception
Mezzanine Level
- 6:00 pm Unleash Imagination Dinner
Orchestra Level
- 7:15 pm **Intergenerational Forum**
Reimagining Climate Change and the Future of Earthlings: Fresh approaches to our future on Earth and in space
- 8:00 pm **Innovator Award**
- Brian Lamb**—Founder, Executive Chairman and recently retired CEO of C-SPAN. Author of The Presidents, and eight other books. Recipient of the Presidential Medal of Freedom and the National Humanities Medal
- Lifetime Achievement Award**
- Lord Martin Rees**—Astrophysicist, Cosmologist and Royal Astronomer. Author of On the Future: Prospects for Humanity and more than 500 scientific papers on diverse subjects including the origin of cosmic microwave background radiation, galaxy clustering and formation, and the distribution of quasars.
- Award for Imagination in Service to Society**
- George R. R. Martin**—Acclaimed author of the multi-volume, epic fantasy Song of Ice and Fire and executive producer of HBO's "Game of Thrones" based on that series. Author of many other works of science fiction, fantasy and horror. Winner of the Hugo, Nebula and Emmy Awards.
- 9:30 pm Coffee, Dessert, and Socializing
- 10:00 pm Adjourn

The Unleash Imagination – Shape the Future program is being live-streamed at <https://livestream.com/internetsociety/unleash2019>

It is also being simulcast on Facebook at <https://www.facebook.com/clarkefoundation/video>

Unleash Imagination – Shape the Future Major Sponsors



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The Foundation's mission is to
promote, enable, and recognize
the power of imagination
to benefit humanity.

Support Us

Arthur C. Clarke worried about, and had hopes for, the future of the Earth and its inhabitants. He believed in the power of imagination in partnership with empirical rigor. He foresaw that we have entered a period of major change, and with it, major challenges. To address them we need fresh, big ideas and bold action. He believed that “The only way of discovering the limits of the possible is to venture a little way past them into the impossible.”

“Unleash Imagination – Shape the Future” is premised on Arthur Clarke’s optimism that we can secure the future of humanity by promoting imaginative thinking and harnessing its power. Throughout this Centenary year and beyond, we will be launching programs in which we will try to answer the questions:

- How can we tap the imagination and views of younger generations who will live with the results of the decisions and actions we do or don’t take today?
- What can we do to help the world’s youth turbocharge the power of their imaginations across multiple skills and perspectives?
- What can we do to inspire adults and institutions to nurture imaginative approaches to challenges both big and small?
- How do we direct this renaissance in imagination toward the challenges of the future?

Yet not every organization, and not every environment welcomes imagination as more than interesting, but not applicable to the challenge at hand. In promoting Sir Arthur’s legacy, the Foundation and its partners see imagination as:

- 1) The essential tool to address the complex, consequential, and thorny challenges humankind is facing.
- 2) The connective tissue between science and the arts.
- 3) Central to the future of our planet.

We begin today to examine how to unleash the power of imagination.

www.clarkefoundation.org/donations/

Why Unleash Imagination?

The Arthur C. Clarke Foundation and its partners, the Arthur C. Clarke Center for Human Imagination of UCSD and KID Museum, launched “Unleash Imagination—Shape the Future” in 2017 to foster imaginative young leaders and an educational and workplace environment that promotes fresh ideas for addressing some of society’s greatest threats and opportunities. Sir Arthur understood that humankind’s most powerful tool to shape its future is its imagination. His own prolific work in science fiction and science fact seamlessly melded cognitive and creative elements together. Unleash Imagination explores the partnership between imagination and empiricism to create a better world. Insights gained through the first three years of Unleash Imagination, 2017–2019, will help the Clarke Foundation and its partners build dynamic intergenerational collaboration to promote ingenuity in how we lead, rather than trail, key challenges facing Planet Earth and its inhabitants.

A centerpiece of Unleash Imagination is its intergenerational dimension. All generations have something to teach one another and contribute to the future. Children have naturally rich imaginations but have yet to acquire expertise and experience. Adults have expertise and experience but can be unwilling to accept the time and risks involved in testing fresh ideas. Intergenerational collaboration strengthens critical decision-making and develops a pipeline of innovative talent and solution seekers.



Unleash Imagination combines:

1. Young Leaders program focuses on science, technology, engineering, arts, and math powered by imagination (i-STEAM). This includes the Clarke Changemakers and a Youth Video Challenge. Over time, the vision is for Young Leaders to establish Clarke Changemaker Clubs across the country, connecting imaginative young people into a broad alumnus.

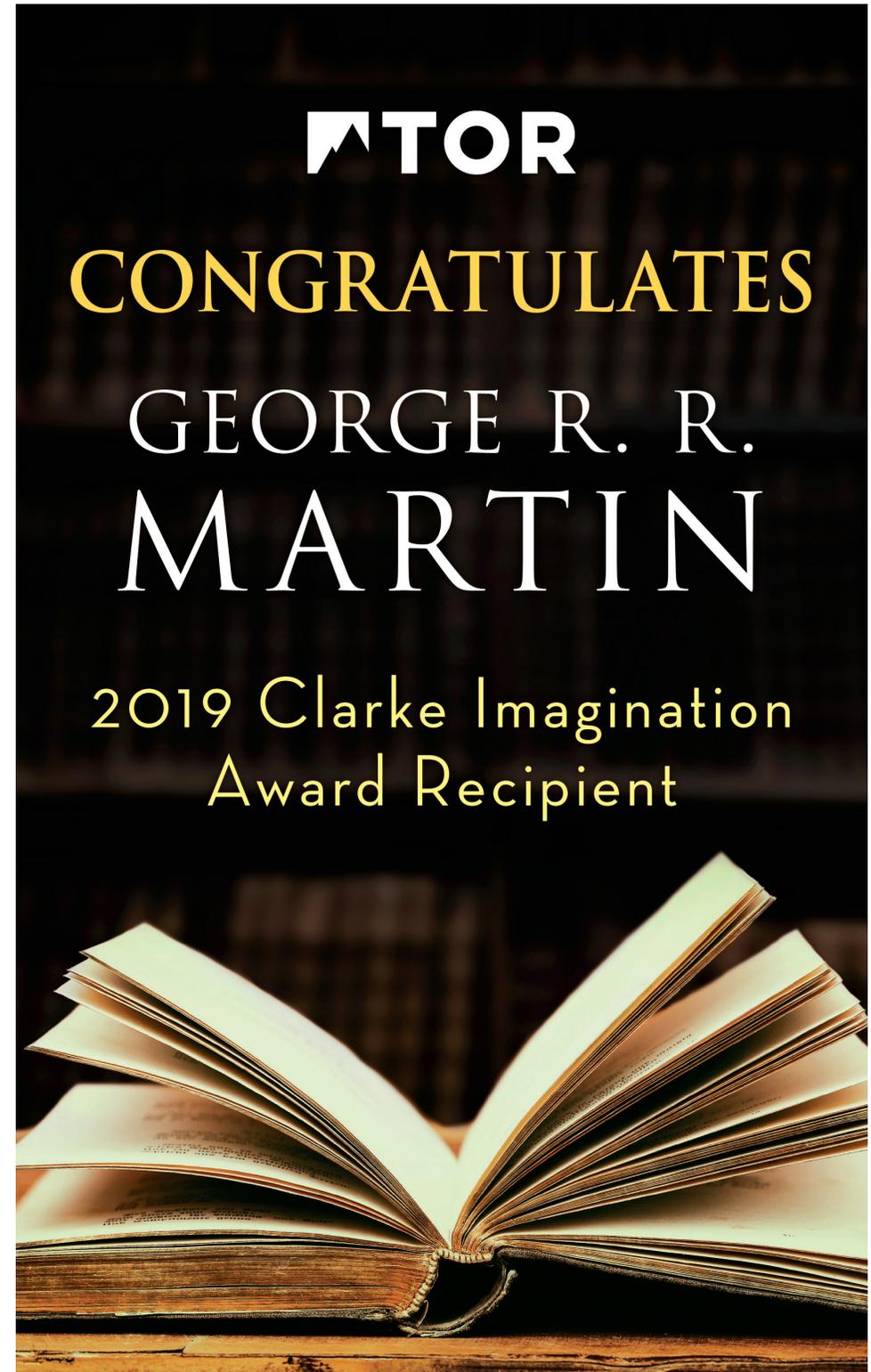


Sisters, Stephanie and Elizabeth Vicarte, were two winners in the first Unleash Imagination Youth Video Challenge for their short video that focused on cyberbullying.

2. Clarke Conversations on Imagination bring together exceptional professionals spanning disciplines in business, education, the arts, science and technology, policy, and other communities to promote a culture for fresh ideas open to innovative and creative young workers.



Google's Vint Cerf and MIT's Ian Wickersham challenge each other and the audience in a Clarke Conversation on December 8, 2017.



RANDOM HOUSE

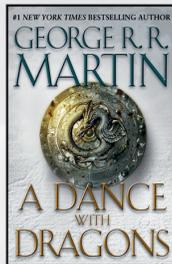
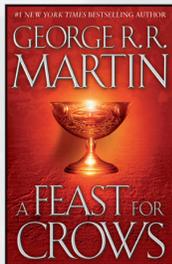
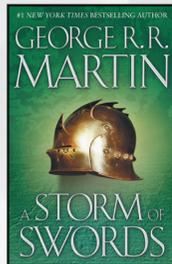
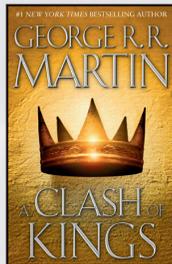
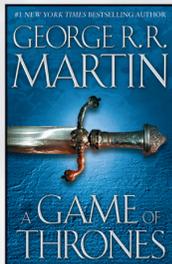
proudly salutes

GEORGE R. R. MARTIN

as he receives the 2019 IMAGINATION AWARD



PHOTO: © MINESH BACANIYA



3. The Intergenerational Forum providing the opportunity for heightened intergenerational communication and collaboration, helping today's leaders build bridges to the future through the unique perspectives of youth.



2018 Intergenerational Forum participants, left to right, Sheldon Brown, Eli Schwartzman, Cecile S. Rousseaux, Antonina Zakorchemna, and Anat Shaha examined how to reimagine human life in 2043 vis a vis climate change.

4. The Clarke Awards, which recognize and celebrate the world's most accomplished and creative thinkers, scientists, writers, technologists, business leaders, and innovators.



2018 Clarke awardees Cixin Liu, Jill Tarter and Irwin Jacobs.

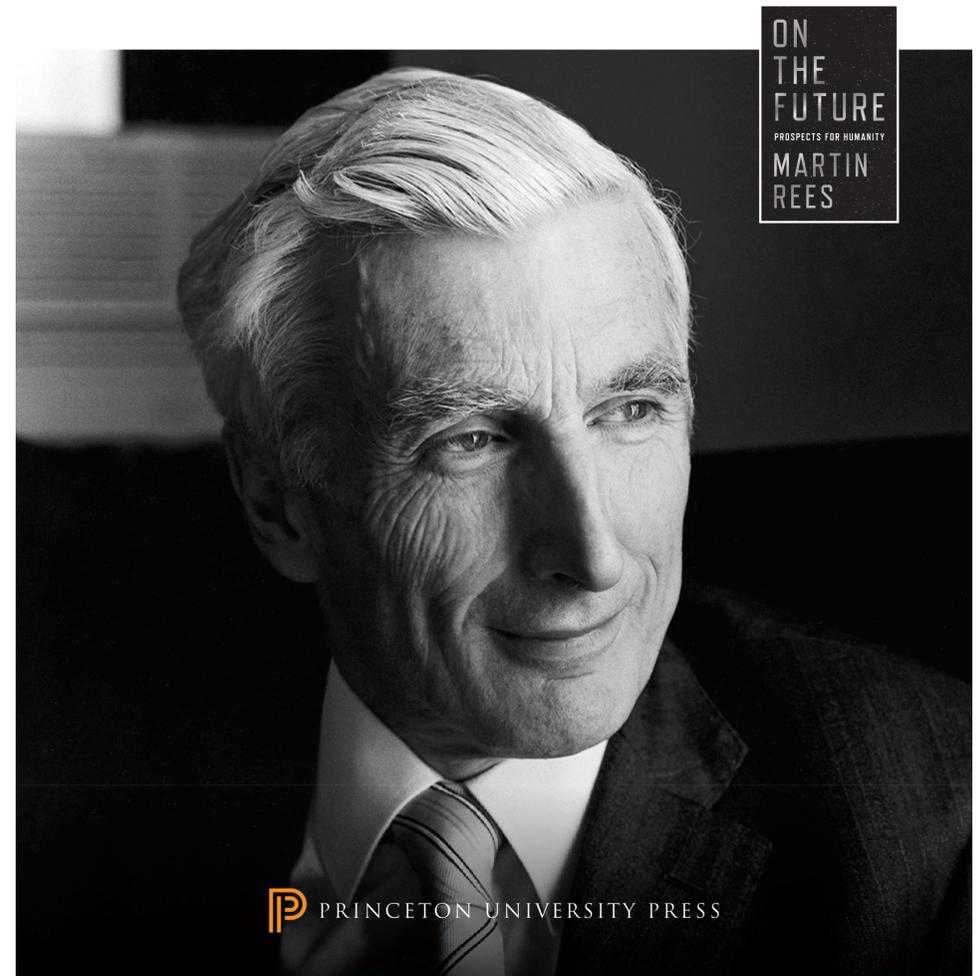
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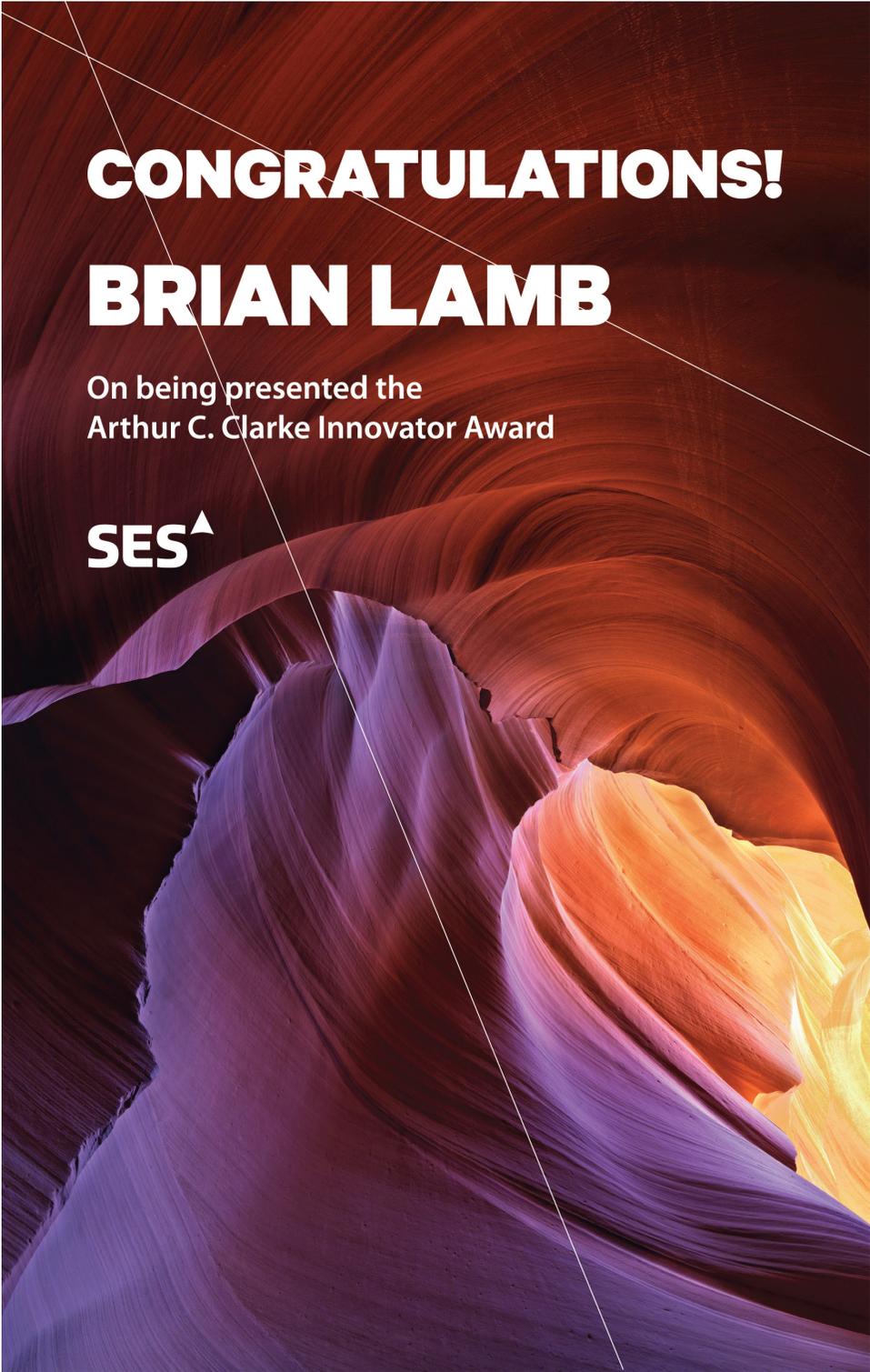


The Hendricks Family

Edward & Deborah Horowitz

Princeton University Press
congratulates Lord Martin Rees
on receiving the Clarke Award
for Life Achievement





**Unleash Imagination – Shape the Future
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MINTZ



RANDOM
HOUSE

Walda W. Roseman

The Arthur C. Clarke Center for Human Imagination advances understanding of the phenomenon of imagination and its practical applications.

We research, enhance, and enact the gift of human imagination by bringing together the inventive power of science and technology, with the critical analysis of the humanities, and the expressive insight of the arts.

We work to develop more effective ways of using imagination to cultivate public engagement with the big questions of our time, to improve education and learning, and to enhance the application of imagination in meeting humanity's challenges.

Erik Viirre, M.D., Ph.D., is the Director of the Arthur C. Clarke Center for Human Imagination. Dr. Viirre holds joint appointments in UC San Diego's Departments of Neurosciences, Surgery and Cognitive Science, with interests including vision, hearing and the vestibular system and higher cognitive function. He has done research for the NIH, the US Navy's Office of Naval Research, DARPA, and NASA.



Erik consults for groups, such as the National Academy of Science and a variety of virtual reality technology companies, led the medical team that took Stephen Hawking to explore weightlessness on the Zero G aircraft, and served as the medical and technical director of the Qualcomm Tricorder XPRIZE competition. Dr. Viirre was the proposer and is the Co-PI of the current UCSD BOARDS spaceflight projects, which took brain stem cells to the International Space Station on SpaceX flight CRS-18 in July.

The Arthur C. Clarke 2019 Award for Imagination in Service to Society George R. R. Martin

George R.R. Martin was born September 20, 1948 in Bayonne, New Jersey. He began writing very young, selling monster stories to other neighborhood children for pennies, dramatic readings included. Later he became a comic book fan and collector in high school, and began to write fiction for comic fanzines (amateur fan magazines).

Martin's first professional sale was made at age 21: *The Hero*, sold to *Galaxy*, published in February, 1971 issue. In the same year Martin received a B.S. in Journalism from Northwestern University, Evanston, Illinois, graduating summa cum laude; completing a M.S. in Journalism in 1971. As a conscientious objector, Martin did alternative service with VISTA. He also directed chess tournaments for the Continental Chess Association, and was a journalism instructor at Clarke College, Dubuque, Iowa. Throughout the 1970s he wrote part-time while working as a VISTA Volunteer, chess director and teacher.



Photo by Henry Söderlund, Worldcon 75

Martin became a full-time writer in 1979, initially as writer-in-residence at Clarke College. Moving on to Hollywood, Martin signed on as a story editor for "Twilight Zone" at CBS Television in 1986. The next year, he became an Executive Story Consultant for "Beauty and the Beast" at CBS, subsequently serving as producer and then Co-Supervising Producer. He was Executive Producer for "Doorways," a pilot which he wrote for Columbia Pictures Television, which was filmed during 1992-93.

Martin's present home is Santa Fe, New Mexico. He is a member of Science Fiction & Fantasy Writers of America and of the Writers' Guild of America, West. The first volume of his most popular *A Song of Ice and Fire* novel was initially published in 1996; the first episode of the "Game of Thrones" premiered in April 2011. Starting in 1975 his writing has been awarded with Hugo and Nebula awards for novellas, novelettes, and short stories. For a complete list of his work, visit www.georgerrmartin.com.

Scott Shannon is the Executive Vice President and Publisher of SF/Fantasy & Digital Content for the Random House Group.



Alyssa Rosenberg is an editor and columnist at The Washington Post's Opinions section, where she writes about the intersection of culture and politics. She founded the culture and sports sections at ThinkProgress; her work has appeared in many publications, including The Atlantic, Slate and The Washington Monthly. She contributed a chapter to Beyond the Wall, a critical examination of George R.R. Martin's A Song of Ice and Fire.



Introducing George R. R. Martin



Interviewing George R. R. Martin

The Arthur C. Clarke 2019 Unleash Imagination Intergenerational Forum

Reimagining Climate Change and the Future of Earthlings: Fresh approaches to our future on Earth and in space

Arthur C. Clarke was an environmentalist before the term was popular. He understood the damage humankind can do to Planet Earth. He reminded us that our Earth is crying out and that we need to listen. Science fiction writers, whenever they describe utopias or dystopias, have inspired scientists and engineers—young and old—to think about what they can do to ensure better futures for us and our environment.

Decisions that government, business leaders and scientists make today will determine the quality of life our children (and their children) will have. Unfortunately, short-term thinking is blocking action on new policies and innovations needed to address the challenge of global climate change. Young people around the world know this and are speaking out. They remind us that action is urgently needed on many fronts.

Potential solutions include:

- (1) Daily and personal steps to reduce our carbon footprints.
- (2) Economic policies that foster and promote new technologies.
- (3) Geoengineering, such as capturing and recycling carbon dioxide.
- (4) Off-planet projects that could include establishing industrial supply chains in space, asteroid mining, and clean off-planet energy options.

Whether the solutions are ground-bound or in orbit, we need to think boldly and globally, which is something youth are particularly good at doing.

The Intergenerational Forum presents a conversation about how we might reimagine tackling climate challenges, pairing fresh ideas with empiricism. This conversation seeks to understand the perspectives of thought leaders across generations and disciplines and collaboratively to develop imaginative solutions for change.

As we focus on the future of Earth, what role do space technology and science play? How do societies quickly build a universal commitment to action? Which disciplines can make larger contributions to the problem? What role is there for the arts? What are some ways that imaginative and committed solution-seekers of all ages can spark positive change and drive creative action backed by resources to stem the ravages of global warming? How can young people and adults more effectively partner in our quest for new frontiers and the well-being of Earthlings?



Forum Moderator

Mary Frost created her company, Power to Change US, in 2009. She teaches leadership courses to military officers and energy technology courses for NYIT and AACC leveraging a graduate engineering Energy Technology Certificate, Executive Leadership Certificate, and Masters in Media, English Literature and Education.

Mary has been CEO of GlobeCast America, ICO Global Communications, and CSI, Inc. She was the first woman VP, Broadcast Operations and Engineering at the ABC Network, responsible for the distribution of all programming. Mary is in the SSPI Hall of Fame and received NAB's Lifetime Achievement Award.



Mickeyla Clark is a 17-year-old senior at McKinley Technology High School. She has experience in programming through summer internships, extracurricular clubs, and programs (Girls Who Code, FIRST Robotics, Indie Co.) and is passionate about all forms of STEM, particularly engineering. Her experience in STEM gives insight into the future of technology in relation to the issue of climate change. Being a future engineer, Mickeyla hopes to make the world a better and cleaner place for generations of mankind.



Josh Izenberg is Co-Founder, COO and Chief Legal Officer of Off-World, Inc., headquartered in Pasadena, CA. Off-World is developing a robotic workforce for heavy industrial jobs on Earth, Moon, asteroids and Mars, and is a world leader in novel autonomous mining technologies. Off-World will play an integral role in developing large-scale, off-earth industrial projects, including solar-powered satellite networks in Earth orbit and Moon base infrastructure.

Josh is a member of the Board of Directors of the Challenger Center for Space Science Education. His credentials include: MBA, Georgetown University; J.D., University of Toronto; B.Sc. in Computer Science, McGill University. He also graduated from the International Space University's Space Studies Program.

The Arthur C. Clarke 2019 Lifetime Achievement Award Lord Martin Rees



Martin Rees is an astrophysicist and cosmologist, and the UK's Astronomer Royal. He is one of the 21 holders of the Order of Merit, a special honour in the gift of the Queen. Based at Cambridge University, Martin is the Director of the Institute of Astronomy. He served for 8 years as Master of Trinity College, Cambridge and is co-founder of the Center for the Study of Existential Risks. He is a nominated member of the UK House of Lords, and was President of the Royal Society (the academy of science for the UK and Commonwealth) for the period 2005-10.

He has been a visiting professor at Berkeley, Caltech, Harvard, Kyoto, Leiden, and the Smithsonian Institution, and is a Trustee of the Institute for Advanced Study at Princeton. He fosters international collaboration in science and space exploration through his own efforts and through membership in numerous advisory bodies and committees. He is a foreign associate of the National Academy of Sciences, The American Philosophical Society, the Russian Academy of Sciences, the Pontifical Academy and the Japan Academy. His awards include the Balzan Prize, the Bower Award for Science of the Franklin Institute, the Gruber Prize, the Crafoord Prize of the Royal Swedish Academy, and the Templeton Prize.

In addition to his research publications, involving many collaborators, he has written and spoken extensively for general audiences about long-term global issues—the pressures that a growing and more demanding population are placing on environment, sustainability and biodiversity; the impact of powerful new technologies and the prospects offered by space exploration; and in the philosophical implications of his work.

His ten books include [Before the Beginning](#), [Gravity's Fatal Attraction](#), [Just Six Numbers](#), [Our Cosmic Habitat](#), [Our Final Century](#), and the newly-published, [On the Future: Prospects for Humanity](#), already being translated into 14 languages.

Elin Burns
Acting Deputy Head of Mission, UK

Before arriving in Washington in August 2019, Elin served as Deputy High Commissioner in Karachi and Director of Trade for Pakistan from October 2017. In this role she led the UK's Deputy High Commission responsible for the UK's interests in Karachi and Sindh province, and led on the UK's trade agenda in Pakistan as a whole.



Elin has worked in a range of government departments including, the FCO, Cabinet Office and Home Office, in roles covering EU policy and negotiations and International HR. She earned a Masters in Public Policy from Princeton University, focusing on international economics and negotiation.

Introducing Lord Martin Rees



Lord Rees attended the World Science Festival.



Karla Stephan is a 15-year-old sophomore at Walt Whitman High School in Bethesda, Maryland. After organizing her school's walkout protesting gun violence, she became one of the five organizers of the March 2019 Climate Strike in Washington DC. Today, she is involved in the national team of US Youth Climate Strike as its National Finance Director and Co-Communications Director. She is committed to climate justice and appeals to people in power to take serious action to enact laws that protect future generations. Karla has been involved in politics attending protests and volunteering at voting polls with her mother since she was four.



Stacy Swann is the CEO and Founding Partner of Climate Finance Advisors. Stacey has twenty plus years of experience in finance, fund management and development, including with the International Finance Corporation (IFC) where she was Head of IFC's Blended Finance Unit, responsible for managing more than \$750 million in funding for climate-smart investments. While at IFC, she also supported World Bank Group efforts to work with policy makers and other financial institutions on issues related to blended finance, climate finance, climate-smart fiscal policies, and incorporating practical policy and investment approaches to managing climate risk. Stacy holds an MBA from American University, a Master's Degree from Harvard University and a BA from City University of New York - Hunter College.

The Arthur C. Clarke 2019 Innovator Award Brian Lamb

Rob Kennedy was named C-SPAN's President and co-CEO in April 2012, a position he shares with his colleague Susan Swain. Together, they are responsible for strategy and operations at the nation's only public affairs cable television network. Prior to that, he served as C-SPAN's President and co-COO, and has been C-SPAN's top financial officer since 1987.

Rob earned a B.S in Electrical Engineering from the University of Illinois and an MBA from the University of Chicago Booth School of Business.



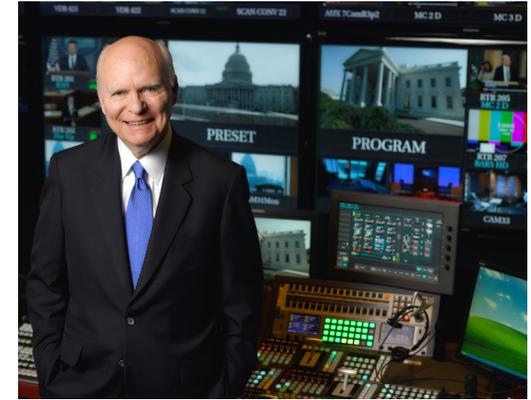
Introducing Brian Lamb

Robert Costa is a national political reporter for The Washington Post, covering the White House, Congress, and national campaigns. At the Post, he regularly travels the country and hosts in-depth live interviews with major political figures. He also moderates PBS's "Washington Week," an award-winning program that focuses on reporting and public affairs, and a political analyst for NBC News. He frequently appears on "Meet the Press," "Morning Joe," and C-SPAN. He holds a B.A. from the University of Notre Dame and a Master's from the University of Cambridge.



Interviewing Brian Lamb

Brian Lamb, founder of C-SPAN, currently serves as the C-SPAN Networks' Executive Chairman. Since C-SPAN's founding in 1979, Brian has been a regular on-camera presence, interviewing all presidents from Reagan through Obama, many world leaders, members of Congress, journalists and authors. Over 15 years beginning in 1989, Brian interviewed 801 nonfiction authors for a weekly series called "Booknotes". From 2004–2007, Brian hosted "Q & A", a Sunday evening interview program with people who are making things happen in the public sphere.



Six books of collected Brian Lamb interviews have been published based on the "Booknotes" and "Q & A" series, most recently, Sundays at Eight. C-SPAN's 10th book, The Presidents: Noted Historians Rank America's Best—and Worst—Chief Executives, was published in April 2019.

Brian's work with C-SPAN has been recognized with the Presidential Medal of Honor and the National Humanities Medal. In 2011, Purdue University, Brian's alma mater, announced the naming of the Brian Lamb School of Communication.

Brian is a longtime resident of Arlington, Virginia. When he's not devouring newspapers, websites, nonfiction books, or Thai food at his favorite local restaurant, Brian is likely in hot pursuit of the latest country music release.