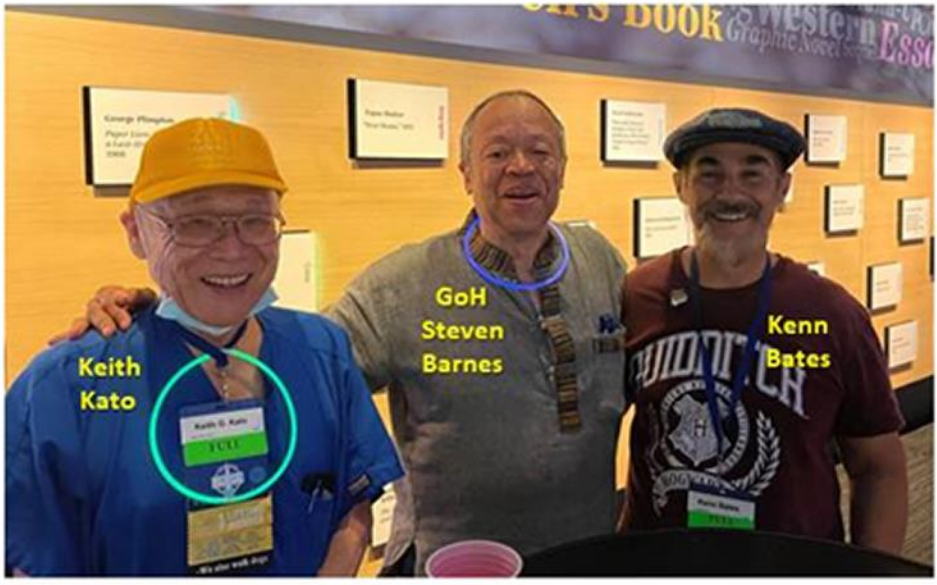
THE HEINLEIN SOCIETY

August 2024 Newsletter



Cover: In honor of Keith Kato's upcoming (final) Worldcon party in Scotland, we have a picture from the 2022 Chili Party at the Chicago Worldcon, held at the American Writers Museum. From left to right: Keith Kato, Guest of Honor Steven Barnes, and Kenn Bates, SF and martial arts buddies since 1980.

Editor: Jim Dutton

Society Directors and Committee Chairs

The Heinlein Society is a 501(c)(3) charitable organization.

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Letter from the Editor

It's a busy time of year for the Science Fiction Community and the Heinlein Society. First, we have the annual election of new Board Members. This year that's easy. The three Board slots up for election all have the incumbent officers willing to continue in their roles, and they wound up being the only nominations for the Board this year. So in a sort of blink your eye to see what's new, there's nothing new. 😉

The **annual meeting** is coming up on September 8th, tentatively at 4PM US Eastern Time. During the meeting **we have a drawing for a Virginia Edition**. If your membership isn't current, you need to renew to be eligible to win! We'll have a further email confirming the schedule and containing a Zoom link. Please attend! Last year was my first and I found it fascinating.

Robert Heinlein's birthday was July 7, which is inconvenient since we publish in even numbered months. Maybe we need a birthday party special edition in July each year!

Speaking of special editions, I plan to do a shorted Worldcon special edition in September to include any interesting Worldcon news and a report on the Annual meeting.

After our wonderful experience at BaltiCon and meeting other members, including my fellow officers on the Board of Directors, I got inspired and renewed with a Lifetime Membership. It's a good feeling to contribute to the good works of this organization.

Finally, each summer brings our Annual Scholarships winners. This year I'm privileged to have the winning essays and pictures of the bright students who so impressed our Scholarship Committee. A here is a shoutout to the committee, who donate a lot of their personal time to read and evaluate all the submissions each year. More details later.

Make sure to visit our **Facebook pages**. The next **group discussion** is ***The Star Beast***, voting for dates in late August or September is underway.

Jim Dutton – July 25, 2024

Letter to the Society

Karen Kirkpatrick recently found out about THS through the H4H program and sent us this wonderful letter:

Hi John,

Thanks for reaching out to me. I finished Citizen of the Galaxy and really am hoping there is a sequel to that...I want to know what else happened! I was unable to put that book down. I don't have electricity to my house yet (can't afford it), so I stayed up with headlamp on and read until I was finished, lol. I tell people I "gobble up books like some people gobble up food". I'm currently reading Strangers in a Strange Land...that's the book held together with duct tape, lol. It was printed back in the day when pages were curved on the corners. I also picked up The Moon Is A Harsh Mistress.

Between Planets and Beyond This Horizon are in transit to the Big Lake library on the inter-library loan system. That's all we've found so far. The librarians in Wasilla were very helpful. I wish we had a library here in Houston, AK, but at least Big Lake isn't too far away.

I would absolutely LOVE to have some more books! I have a kindle and an e-reader...but nothing compares to the heaven of holding an actual book and turning the pages. (Plus, you don't have to worry about charging a real book, lol). If you like, when I am through with the book(s) you send, I can take them to the VA clinic in Wasilla where they have a book case where veterans can take/leave books. I think I've pretty much read everything there. I'm trying to get them to devote an entire room in the facility for a library, with books, computers, etc. Books have gotten me through many a rough and lonely winter. I have a PO box, because USPS doesn't deliver mail to homes in rural Alaska.

Thank you!

What are Members Up To?

Lifetime Member and former THS President Keith Kato will be at Worldcon the second week of August hosting his famous Chili Party, which Keith has widely announced will be the last in a series going back decades. Maybe I can prevail on Keith to write an article for a future newsletter giving a history of this event with some intriguing anecdotes from over the years. (Hint, hint Keith!)

The picture I requested from Keith got the cover. I tried to make it fit like a cover photo, but it would have come out like this:

Keith reports:

"This year, the Worldcon party jointly hosted by The Center For Ray Bradbury Studies, The Heinlein Society, and Dr. Keith G. Kato will be Saturday, 10 August 2024, 8:00 PM to midnight. All we know at the moment is our party has been placed at the Crowne Plaza Glasgow in the Scottish Events Campus. All *bona fide* members of THS are welcome. Come check in at THS's Fan Table for location and a badge ribbon to let you in. If you can volunteer to help set up beforehand (6:00 PM), or help tear down and clean up afterwards (midnight), leave your name at the Table."

We're glad to report any news members wish to share with each other, so if you have get-togethers or any other Society related news or stories, send them to me. Pictures welcome!

Send any Newsletter contributions to:

News for the Heinlein Society Newsletter

Robert Heinlein's Birthday

Who remembers that the Veteran's Administration made RAH the Veteran of the Day on August 25, 2022? Well, it slipped right past me, but I thought I'd revisit the honor for a birthday remembrance. Here's what the VA site posted, and they informed me everything on the VA site is in the public domain, so even though I asked permission to reprint it, I didn't have to.

Robert Anson Heinlein was born in Butler, Missouri, in July 1907. The arrival of Halley's Comet in 1910 sparked his lifelong interest in astronomy, and by the time he entered high school in 1920, he had read every book on the subject available at the Kansas City Public Library. Heinlein was also an avid reader of science fiction and was influenced by authors such as H.G. Wells, Jules Verne and Edgar Rice Burroughs.

Heinlein served in the Junior Reserve Officers' Training Corps (JROTC) in high school and enrolled at the U.S. Naval Academy in 1925. He graduated in 1929 with the equivalent of a bachelor's degree in naval engineering and was commissioned as an ensign. He served as a radio operator aboard the USS Lexington until 1932, then transferred to the destroyer USS Roper. Life aboard Roper was difficult for him; the constant rocking of the ship gave him chronic seasickness, and in 1933, he came down with tuberculosis. Although he survived, he was medically discharged from the Navy in 1934 with the rank of lieutenant.

Heinlein then tried several other careers, including silver mining, selling real estate and entering politics; none were successful. In 1939, he wrote his first short story, "Life-Line," submitting it to the pulp magazine "Astounding Science Fiction." Heinlein's story was accepted, beginning a writing career that lasted nearly five decades. By the 1940s, he had become one of the leading writers in the science fiction genre.

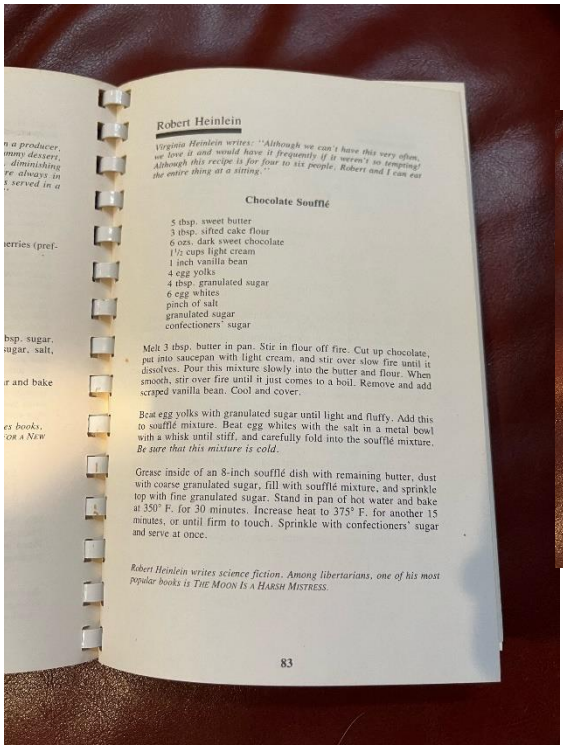
After the United States entered World War II, Heinlein attempted to reenlist in the military but was rejected for medical reasons. Instead, he became a civilian engineer at the Naval Air Experimental Station in Philadelphia, where he worked on high-altitude flight suits for pilots. He recommended that the Navy hire fellow science fiction luminaries Isaac Asimov and L. Sprague de Camp for their technical expertise—de Camp was an engineer and Asimov was a chemist—leading all three to work together in Philadelphia. He also wrote letters urging the Navy to pursue space travel, a responsibility that later fell to the Air Force and the National Aeronautics and Space Administration (NASA).

After the war, Heinlein returned to writing full-time. He was a prolific author; during his lifetime, he penned over 150 novels, short stories and articles. He submitted his work under at least half a dozen different pen names because the magazines of his day were reluctant to publish multiple stories by a single author. Several of his works have been adapted for film, television and radio, and he was a six-time recipient of the Hugo Award, the top prize in the field of science fiction.

Heinlein died on May 8, 1988, at the age of 80. In recognition of his advocacy of space exploration, he was posthumously awarded a NASA Distinguished Public Service Medal. The citation for this medal described him as “a man dedicated to encouraging others to dream, explore and achieve.”

We honor his service.

Amy Baxter wrote to let us know she owns a cook book with a Heinlein recipe!



Robert Heinlein

Virginia Heinlein writes: "Although we can't have this very often, we love it and would have it frequently if it weren't so tempting! Although this recipe is for four to six people, Robert and I can eat the entire thing at a sitting."

Chocolate Soufflé

5 tbsp. sweet butter
3 tbsp. sifted cake flour
6 ozs. dark sweet chocolate
1½ cups light cream
1 inch vanilla bean
4 egg yolks
4 tbsp. granulated sugar
6 egg whites
pinch of salt
granulated sugar
confectioners' sugar

Melt 3 tbsp. butter in pan. Stir in flour off fire. Cut up chocolate, put into saucepan with light cream, and stir over slow fire until it dissolves. Pour this mixture slowly into the butter and flour. When smooth, stir over fire until it just comes to a boil. Remove and add scraped vanilla bean. Cool and cover.

Beat egg yolks with granulated sugar until light and fluffy. Add this to soufflé mixture. Beat egg whites with the salt in a metal bowl with a whisk until stiff, and carefully fold into the soufflé mixture. *Be sure that this mixture is cold.*

Grease inside of an 8-inch soufflé dish with remaining butter, dust with coarse granulated sugar, fill with soufflé mixture, and sprinkle top with fine granulated sugar. Stand in pan of hot water and bake at 350° F. for 30 minutes. Increase heat to 375° F. for another 15 minutes, or until firm to touch. Sprinkle with confectioners' sugar and serve at once.

Robert Heinlein writes science fiction. Among libertarians, one of his most popular books is THE MOON IS A HARSH MISTRESS.

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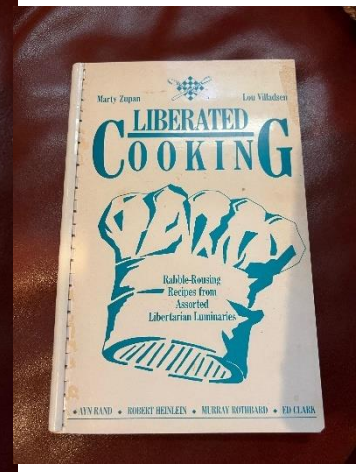


THS Board Elections

Note: As mentioned in the opening letter, the three seats noted below had only the incumbent Board members nominated, and they've graciously agreed to continue serving. Their official installment returning to the Board will occur at the annual meeting in September.

The nominating period for Board members for the 2024 election is now closed. The Board has three (3) seats up for election with three (3) sitting Board members, Walt Boyes, Mike Sheffield, and Betsey Wilcox agreeing to run for re-election. Nominations were open from 8 June to 13 July 2024.

Walt Boyes is the sitting Vice President and a member of the Scholarship committee.

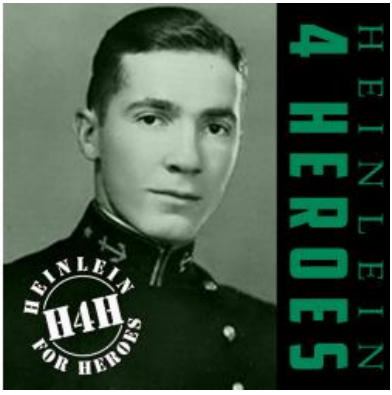
Mike Sheffield is a past President of the Society and Chairs the Scholarship committee.

Betsey Wilcox is our hard-working Society Secretary, who every month has to wait patiently for our committee reports and then scramble to get them included in the agenda for the monthly Board meeting.

Three great people, and it's a big sigh of relief to have them continue to serve the Society!

Heinlein for Heroes

Society Board member John Seltzer is the long-time face and muscle behind the H4H program. Board member Beatrice Kondo has recently joined the program. This month we broke ***50,000 books shipped*** in the life of this great program!



June 2024 Report

H4H Report for JUNE 2024	
Donations	
Betsy	$50.00/monthly
Books Donated in JUNE	
Mike Sheffield	102 SF
Books purchased in JUNE	
Seltzer – eBay Kondo - eBay	109 RAH SF 47 RAH SF
Shipped in JUNE	
31 boxes	613 books
H4H activity for Fiscal Year 2024 (10 months)	
325 boxes	6,238 books
H4H Program Total Since Inception	50,592 books

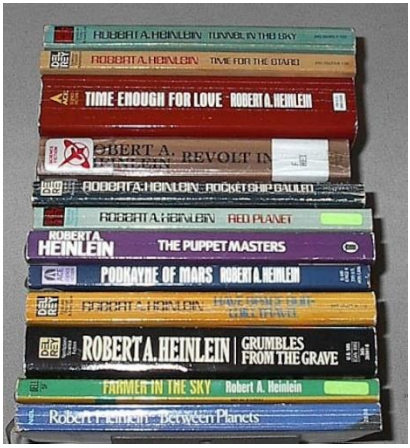
July 2024 Report

H4H Report for JULY 2024	
Donations	
Betsy	**$50.00/monthly**
Books Donated in JULY	
Tilden – BSFS **Miller – Half Price books**	**181-SF** **52-SF**
Books purchased in JULY	
Seltzer - eBay	**210-RAH-SF**
Shipped in JULY	
32 boxes	**636 books**
H4H activity for Fiscal Year 2024 (11 months)	
357 boxes	**6,874 books**
H4H Program Total Since Inception	**51,228 books**

THANK YOU LETTERS

Greetings!

Thank you very much for your recent shipment of paperbacks to our ship, USS CHOSIN (CG 65), stationed here in beautiful, sunny San Diego, CA.



Our Sailors are grateful for your generosity, and the opportunity to read things other than Navy manuals. It's true, a good chunk of Sailors would rather watch Starship Troopers than read it, but a surprising number still enjoy the unique experience of curling up with a good book and spending time in the theater of the mind.

If you're ever in San Diego, or plan to visit, let me know - I'd love to give you a tour of the ship and afford our Sailors the opportunity to meet dedicated supporters and friends.

Very Respectfully,

LCDR John Tarr

Command Chaplain

USS CHOSIN (CG 65)

The Heinlein Society Scholarships

First, I'd like to thank this year's Scholarship Committee. These members put in a great deal of time to read all the essay entries and find the four winners.

Jason Aukerman
Nancy Berkoff
Carlin Black
Walt Boyes
Mike Sheffield
Joel Davis
Jennifer Kehret
Gerald Nordley
Sharon Sheffield
Julie Wilusz

From Mike:

Our Scholarship Winners for 2024

We had a major change to our scholarship program this year–incoming freshmen are no longer eligible. This resulted in a substantial reduction in the number of applications we received, from 744 last year to 235 this year. A much more manageable workload for our committee, though it didn't make it any easier to select our 4 winners. There were 40 international applicants, including 4 who had multiple citizenship. There were applicants from 28 different countries, from Angola to Vietnam.

As always, we had far more female than male applicants. There were 174 female, 47 male, 2 non-binary and 12 who made no selection or declined to state. Ethnically our numbers were: 95 White, 42 Black, 32 Asian, 25 Hispanic, 4 Middle Eastern, 2 Pacific Islander, 14 multi-racial and 21 who made no entry. Applicants who supplied their age ranged from 17 to 36 years old.

Even with fewer applicants, making the top ten was not easy. In fact, we had a tie for tenth place, so there were eleven finalists this year. Here are our four winners:

Gabriel Black – Gabriel is our *Robert A. Heinlein Scholarship* recipient. He is majoring in Biochemistry at Western Washington University with a minor in Astronomy and will start his junior year in the fall. He also works in the undergraduate chemistry research lab at the school and plans to pursue a PhD in Astrobiology. He is a member of the National Honors Society and served as treasurer of his local chapter while tutoring elementary and middle school students.

Elizabeth Bradshaw – Elizabeth is this year's *Dr. Yoji Kondo Scholarship* winner. In the fall she will begin her junior year at Purdue University, majoring in Aeronautical and Astronautical Engineering. She earned a Girl Scout Gold Award by authoring the book "Your Place in Space: A Career Guide for Girls" based on interviews she did with women working in Aerospace. She donated the books to local schools and libraries. She attended Space Camp in middle school and hopes to make her way back to Mission Control after completing her degree.

Maya Krolik – Maya wins this year's *Virginia "Ginny" Heinlein Scholarship*. In the upcoming academic year she will be a sophomore at Massachusetts Institute of Technology, majoring in Artificial Intelligence and Decision Making. In middle school she competed on her school's Science Olympiad Team and in high school served as team captain and programming lead for the First Tech Challenge competition. She is a member of the Society of Women Engineers and is currently performing research on creating new chemical molecules using AI.

Luxanna Sands – Luxanna is the winner of the *Dr. Jerry Pournelle Scholarship* for this year. She begins her junior year at William Jewell College in the fall, majoring in Physics. She plans to also study Aerospace Engineering as part of her college's dual program and to pursue her master's after completing her bachelor's degree. She performs community service through food drives at her local church. She has stated that "Physics isn't just what I study, it's my life".

Our other top finalists are:

> Pearl Bless Afegenui, Seohyun Kim, Pinyu Liao, Bella Ott, Hiba Ouadii, Elizabeth Rusnak, Jasmine Wongphatarakul

We wish our winners, and indeed all of the applicants, great success in their academic pursuits and in their future careers. We have no doubt that they will use their knowledge as a springboard to Pay It Forward.

Gabriel Black's Essay

Robert A. Heinlein Scholarship

In a cold and lifeless universe, dust blown out from the death throes of stars pulls back together, forming new stellar bodies, planets, and moons. When conditions permit, entropy drives billion-year-old matter and energy into animation; pulling from this dust, complex, self-sustaining, and self-replicating systems of chemistry: life. The study of how life emerges from an unliving cosmos is core to the field of astrobiology, and it is this study and field which I seek to devote myself to. In pursuing the prospect of life in the universe, it is essential to take a big-picture perspective. Life is extraordinarily complex, and variables from the grandest, cosmic scales to the smallest, quantum fluctuations all determine how and when life arises in the universe. To understand this complexity, astrobiology must be fundamentally interdisciplinary, drawing collaboration from a vast array of STEM and non-STEM disciplines. Thus, the Heinlein quote "specialization is for insects" could not be more applicable to this field. The scope of astrobiology is too vast to cover in this essay alone, so I will instead focus on three distinct disciplines I see most directly contributing to my future exploration in this field.

In a cosmos of unfathomable immensity, astrophysics attempts to wrangle the vastness into something we can begin to comprehend. The observation systems used in astronomy are essential tools for astrobiological research. Launched with the intent of observing the universe in greater detail than ever before, Hubble could be considered one of the most important pieces of technology to the field of astrobiology, unveiling over 5000 exoplanets in three decades: 5000 new hiding places for living matter. The successor to Hubble, the James Webb Space Telescope, peers deep into the recesses of time, collecting ancient light in an effort to study the evolution and structure of our universe. Not only will this telescope increase the number of known planets, its on-board NIRSpec instrument provides the opportunity to analyze the compositions of planetary atmospheres, searching for the fingerprints of life stamped into the gases enshrouding these alien worlds. The question becomes what signs to look for. To decode this question, I will need to draw on my understanding of biochemistry, the subject of my undergraduate study.

I see two aspects of biochemical study being the most useful in my career as an astrobiologist. The first is lab bench experimentation, synthesizing and investigating alternative biochemical structures which could be utilized by lifeforms in non-Earth environments. Such experimentation has been done to probe the potential for the formation of cell membrane-like structures in non-polar hydrocarbons like those of the methane/ethane lakes of Saturn's moon, Titan. The second major benefit biochemistry brings to astrobiology is the ability to focus the search for biosignatures on alien worlds. When using instruments like the JWST NIRSpec, astrobiologists search for signs of life in the light passing through alien atmospheres: chemicals associated with biological processes or unknown to form by non-biological means. Biochemical research can develop hypothetical pathways whose products become a list of potential biosignatures to search for. However, in speculative science, it is all too easy to keep your mind bound to Earth, blinding you to the diversity of possibility offered by the universe. As Heinlein's Lazarus Long also said, "You can go wrong by being too skeptical as readily as by being too trusting." The human mind is imperfect, passing over open possibilities as well as overstepping the bounds of reality: being both too skeptical and too trusting.

This limitation brings me to a field I know will be indispensable in my career: computer science. Vital to the two fields mentioned previously, advanced computation is one of the greatest miracles the scientific community has seen and is undoubtably essential to astrobiology. Rather than entirely replacing human thought and imagination, computer processing serves as a tool to overcome certain flaws in human capability, allowing researchers to test hypothesis in-silico, rapidly, and with a high accuracy. Computers are both more suited to keeping track of all the variety of compounding factors present in science as well as sometimes being capable of providing answers to questions human researchers would not, or could not, have thought of. A prime example of the power of computing is demonstrated by the recent solving of the protein folding problem accomplished via the AI program AlphaFold. The dynamics behind protein folding are so complex and sensitive it was thought for decades that developing a succinct way to predict the 3D structure of a protein from its base sequence would be impossible. Yet, collaboration of biochemists and computer scientists yielded a program that is so accurate as to nearly outpace modern XRD technology. It is easy to imagine the implications of such a program in astrobiology, modeling pathways for biochemistry on worlds with entirely foreign chemical environments. Similarly, computer algorithms may offer ways to predict the

environmental conditions of distant worlds based on remote telescope data, allowing us to better understand the viability of life on these bodies.

With this final piece in mind, I envision a beautiful flow of interdisciplinary work unfolding in front of me. Light from distant worlds pours into the lenses of telescopes, passing into the hands of astrophysicists and computer scientists who construct models of these far-off planets, simulating potential atmospheres and surface conditions. This information is then forwarded to astrobiologists and biochemists who work in-tandem to formulate plausible mechanisms for the evolution of life under these new circumstances, drawing inspiration from Earthly chemistry or even developing entirely new systems of biological functionality with the assistance of computation. They then feed their results back to the astronomers who return their eyes to the heavens, searching for the signs of life proposed. Heinlein said, “specialization is for insects.” Yet, the interdisciplinary work exemplified in astrobiological research goes to show the power specialization can have when left open to collaboration: a single ant can only do so much, but as a part of an ecosystem it becomes a fundamental piece in the continuation of life.

Elizabeth Bradshaw's Essay

Dr. Yoji Kondo Scholarship

As Robert Heinlein imagined in Red Planet, the true Age of Science will open when humanity becomes a multiplanetary species. In my field of astronautics, Mars is always presented as a distant goal and long-term vision, a dream to be realized by the next generation- or the next. For myself and my classmates at Purdue University, this is especially apparent: Purdue alumni were both the first and the most recent boots on the Moon, and we speak about the fifty-year-old Apollo program as the pinnacle of aerospace achievement. Since Apollo 17 in 1972, humanity has retreated into the safety of low Earth orbit. If we renew our commitment to venturing beyond this small celestial neighborhood, the golden age of a dual-planetary human species can be realized in my lifetime.

The challenge of Mars is not a technological one. Between NASA's Space Launch System and SpaceX's Starship, Mars-capable rockets will be ready to ferry supplies and astronauts to Mars within the next several years. Rovers have been successfully traversing the Martian surface since the mid-1990s, and NASA's Ingenuity helicopter demonstrated the future potential of aerial vehicles on the Red Planet. Yet, despite their promising results, each of these programs has been unsustainably expensive: NASA's Perseverance rover required 2.7 billion dollars, and the Space Launch System program has consumed nearly 12 billion dollars resulting in, so far, just one test flight. In order to support the dozens of rockets, fleets of rovers, and swarms of drones a sustained human presence on Mars would require, the philosophy of Mars exploration must change.

As my classmates and I join the workforce as engineers and mission analysts, we must adopt a plan of in-situ resource utilization (ISRU) to achieve the goal of sustainable Mars exploration in our lifetimes. ISRU calls for missions to use local resources to develop and build infrastructure and hardware. One of its most promising use cases is harnessing Mars's atmospheric carbon dioxide to generate methane rocket fuel, thereby bypassing the complex and costly process of hauling fuel-filled rockets from Earth to Mars. Martian resources can be used in other ways: 3D-printed Martian soil could form buildings and other structures, and the planet's polar ice caps could provide a critical water supply for both consumption and agriculture. With the philosophy of ISRU, engineers could potentially support

a sustained and sustainable human presence on Mars with technology that is only a few years away. However, today's engineers are not enough.

In order to push the boundaries of my field of aerospace engineering over the next several decades, it is vital to support and inspire future engineers, scientists, and aerospace professionals. It is these future engineers, not myself or my classmates, who will carry forward the goal of establishing a long-term human presence on the Red Planet. While countless initiatives exist to introduce students to science and technology concepts, there are not enough resources to connect this inspiration to a viable career path. I am working to solve that problem through outreach events for middle- and high-school students both in person and through my book, Your Place in Space: A Career Guide for Girls. This fall, I founded a multidisciplinary team of undergraduate students to take advantage of the upcoming April 2024 solar eclipse. My team and I are designing and hosting hands-on workshops to inspire middle- and high-school students to enter careers in the space industry. If the golden age of Mars exploration will be possible in my lifetime, I must continue this work to help advance the space program by fostering a capable and motivated space workforce.

I will not merely let the age of science- the dawn of a multiplanetary human species- happen in my lifetime. I will work to ensure that it does. As a student at Purdue University, I am working towards a degree in Aeronautical and Astronautical Engineering while pursuing a career in mission control and human spaceflight operations. The combination of technical knowledge, leading a capable team, and high-stakes decision making is what I plan to spend my career doing as a Flight Director. Through my degree program, I am working to build the technical toolbox I will need to excel in the field of mission control. My Purdue coursework will provide me with the engineering background needed to troubleshoot and solve complex anomalies in human spaceflight, and this knowledge will give me the foundation to support mission operations on Mars. I look forward to watching the next chapter of crewed space exploration on Mars unfold from the mission control room.

Maya Krolik's Essay

Virginia "Ginny" Heinlein Scholarship

One of the main reasons I decided to study Artificial Intelligence and Decision Making at MIT is because of AI's multidisciplinary nature. The field itself is a unique mesh of computer science, mathematics, and even elements of cognitive science. From chemistry and biology to philosophy and government policy, it is a topic that has applications and significant impacts in nearly every field. Most breakthroughs in AI are the result of joint efforts between computer scientists and experts in other disciplines. Having background knowledge of other fields allows computer scientists such as myself to better collaborate with specialists in those fields, creating a mutual understanding that is grounds for impressive advancements in all fields involved.

The recent discovery of a new antibiotic, halicin, serves as an excellent example of the power of multidisciplinary research as it was discovered largely with the help of AI. As halicin goes through rigorous medical testing, it is exciting to imagine a new antibiotic to help those with allergies to other antibiotics, and to help combat the ever-rising number of antibiotic-resistant bacteria. In fact, MIT researchers found that E. Coli, a common bacteria that causes food poisoning, did not develop any resistance to halicin over a 30-day period, as opposed to traditional antibiotics such as ciprofloxacin (MIT News). In order to make this discovery possible, teams of computer scientists, chemists, and biologists had to work together and understand the requirements of the other disciplines. Not only was this discovery critical for patients, but it also brought more attention to AI and its multitudes of possibilities and applications.

The symbiotic relationship between AI and Chemistry is especially relevant to my career thus far. Currently, I am conducting research at MIT's Computer Science and Artificial Intelligence Laboratory under the Computational Design and Fabrication group. My research involves using Large Language Models (such as GPT), to help generate better molecules for batteries. While the project itself focuses more on the improvements in algorithms and finding more efficient ways to use AI in disciplines other than just chemistry, the application of the project would mean more efficient and possibly cleaner batteries. In my day to day, I work

closely with specialists in chemistry and I draw on my background knowledge of chemistry to help design better prompts for the models. Because I have a basic understanding of chemistry, I can better communicate with the specialists in chemistry, resulting in a better workflow and better results, facilitating innovation.

Another field that I find important to the development of AI is the world of government policy. Along with the rise of AI applications comes the rise of AI threats. Dangers such as misalignment (i.e.. the model having hidden ulterior motives) and data privacy are integral to the advancement of AI that is safe and ethical. In MAIA (MIT AI Alignment Club), we read weekly papers on advancements in Alignment research and discuss ways to improve government policies based on the findings of the papers. This experience made me realize just how few people are aware of the potential dangers of AI, and how important it is that people dedicate their time to both understanding how policy works while still having the technical background to understand the risks and effective solutions. As AI and other increasingly invasive and powerful technologies gain prevalence, I predict that the cross between AI and Political Science will gain frequency and attention. I hope that the emphasis on stronger regulation of AI will not stifle progress, but rather inspire more research into better understanding how exactly AI works. It is common engineering knowledge that the more constraints you are given, the more creative and in-depth your solution must be. The same will be true for progress in AI, ushering faster, safer, and more accurate models which will subsequently improve the fields to which they are applied.

Pure specialization is exceedingly rare in Artificial Intelligence and Computer Science; more often than not specialists in AI are always learning more about the field they are collaborating with to better understand the constraints and possibilities of their models. Through interdisciplinary knowledge, experts in AI have a broader perspective, fostering collaboration and adaptability. As Heinlein said, the task of mindless specialization is simple, and progress will always find a way to automate it out of both research and industry. It is only through the creative cross-pollination of specializations that true innovation can be born.

Luxanna Sands' Essay

Dr. Jerry Pournelle Scholarship

Robert Heinlein consistently created characters that demonstrated depth and well-roundedness. Despite the themes of individualism that these characters demonstrate in many of Heinlein's works, these individuals find their ways to become involved with society and the community. Heinlein believed that "Specialization is for insects," meaning that, as human beings, we are called to develop a variety of skills and be able to conduct ourselves through all walks of life. This opportunity to develop such a wide range of abilities is an opportunity solely given to humanity, and by embracing this opportunity, humanity allows itself to advance through the joint efforts of a collaborative community. Knowing a variety of disciplines grants us access to new networks of thought and technique, opening the door to easier interdisciplinary communication, and effectively turning us into the oil of a well-functioning collaborative machine.

It is easy to misinterpret Heinlein's "Specialization is for insects" quote, into thinking that this discourages any specialization. Heinlein uses insects as his subject because it is known that insects have evolved to adopt certain roles in their ecosystem, effectively 'specializing' in their role for the entirety of their existence. This seems counterintuitive since these insects are performing duties that contribute to their own 'society', and have adapted to perform these duties in perfect harmony. But, an insect's 'society' is stagnant. Insects do not possess the creativity and demand for advancements that humans do. Heinlein is proposing that; because humans are capable of creation, innovation, and all of the things that separate humanity from the rest of what lives and breathes, that because of this, we cannot be specialists in the way that insects are specialists.

Heinlein believed that community and individualism both held much importance, and we can see this in works such as "The Moon is a Harsh Mistress." In this novel, Heinlein develops the image of a multitude of individuals making up the whole of a society, and in this case, a society with a single joint purpose, liberation from an oppressive government. Quite the challenge, but of course, it would not be a Heinlein novel without an intense plot. However, what is more

relevant for our purposes, is not the task this society faces, but rather, the society itself. Heinlein uses three main characters, Manuel "Manny" Garcia O'Kelly-Davis, Wyoming "Wyoh" Knott, and Professor Bernardo de la Paz, to demonstrate individuals with different strengths and skill sets collaborating to reach a common goal. Although each character performed a role specific to their strengths, each character was involved with every stage of the revolution. This is a reflection of how Heinlein believes society should function.

By combining Heinlein's ideals for humanity and society, we can create a model that depicts the ideal individual and how they contribute. This individual would be someone who possesses their own strengths; personally refined skills and talents, but are not limited to these things. This individual has a wide expanse of abilities, allowing them to collaborate with other individuals with different strengths. When this model is applied to my major, we can see how this well-roundedness contributes to a successful collaboration. I am currently a physics major in a dual-degree program, planning to pursue aerospace engineering. Although I will be trained in physics and specialize in aerospace, I will be able to write and analyze like an English major, able to negotiate and express my opinions like a law student, able to communicate my thoughts and ideas to people like a communications major, and much more. Although I might not be an expert with these skills, I would still have sufficiency in them, and enough to use them to create a high-functioning environment, and successful collaboration.

It is also important to be well-rounded, specifically in the STEM fields. As an engineer, I must have knowledge of other STEM disciplines. This way, whenever I am working with these other disciplines, fundamental concepts and terms can be exchanged while in discussion. This allows everyone to be on the same page without having to oversimplify for people of different disciplines to be able to understand. Of course, not everyone can be an expert in every subject, which is why the greatest scientific breakthroughs happen when these experts in separate subjects come together and can innovate through the combination of ideas from different fields. Knowing other disciplines is what aids this process, allowing collaboration to develop with fewer complications, and ultimately contributing to a progressive society; similar to the ideal given to us by Robert Heinlein.

Member News

New Life Member

As mentioned in my letter above, we have a new Lifetime Member to welcome. I officially welcome myself, Jim Dutton, to the Lifetime Member ranks!

Virginia Edition Drawing

Every year the Heinlein Prize Trust helps out The Heinlein Society's membership drive by donating a full set of The Virginia Edition, which contains pretty much everything Heinlein. A $1500 retail value, this is a great gift for a lucky member. But your membership MUST be current. If you've let your membership lapse, come to the site and renew. Not only do you get a chance at the VE, your tax-deductible membership also helps fund the great programs we report in this newsletter!

Other Recent New Full Members

Welcome to the Society and thanks for your support!

George Heinly Jr.
Gary Kelley
Donald Howard
Michael Booker
Steven Sanderson
Lars Hedbor

Current Members

When your renewal comes up, **please renew!** The Heinlein Society does a lot of great work, and we need your support. Your annual membership supports blood drives and scholarships! Plus get **The Heinlein Journal** and a drawing for a free **Virginia Edition**!

What the Heinlein Society Does

Click the image to Join or Renew!!

And folks, membership in this great organization is slipping month by month. Please consider renewing your membership, getting your name in the Virginia Edition Drawing, and supporting all the initiatives above.

Heinlein Society Blood Drives

Blood Drive Chair report July 8, 2024

Hello everyone, we had one blood drive over the July 4th weekend, InConJunction 43 in Indianapolis. This is a small game convention, and they had a bloodmobile there, with a total of 22 possible donations (I am still waiting on the actual donation totals).

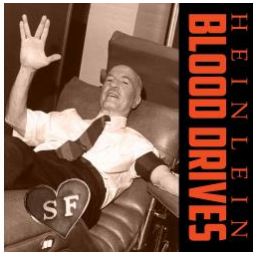
Looking forward to other conventions, we will have Gen Con at the beginning of August and Dragon Con at the end of August. Both should have very large participation and blood donations.

For Gen Con part of the promotions are giveaways provided by some gaming vendors. Chances to win some of the larger prizes are based on actions that participants take. Two of those actions include visiting The Heinlein Society Facebook page, and following The Heinlein Society on Twitter/X. I would anticipate that you will see more traffic to these locations over the next few weeks.

Cheers,

Joe Smiddie-Brush

If you know anyone who might be interested in coordinating a blood drive, have them contact BloodDriveChair@heinleinsociety.org.



We will do all the work with the Blood Center to make it happen.

And we have a Donor Wall page online.

The Heinlein Journal

THE HEINLEIN JOURNAL

The Heinlein Journal is seeking authors.

Do you have a neat Heinlein-related idea you thought you might write up in an academic manner some day? As a wise person once advised, put the seat of your pants in the chair in front of your keyboard and start!

And if you have some ideas for the types of articles you'd like to see in the Journal, let us know! We'll try to fulfill some wish lists!

Reach out to:

Herb Gilliland
Editor, The Heinlein Journal
editor@heinleinsociety.org

From the Archives – May 2003

Heinlein Society members Elizabeth Youmans, RN, Centennial Committee Secretary, and Jane Silver, Membership Services Chair, at MisCon in Missoula, Montana, on Memorial Day, "manning" fan table.
Photo courtesy of Charles Youmans

Upcoming Cons

This site keeps track of most upcoming cons, and there are always more being held than your editor would ever have guessed. Of course, the big ones the summer are Gen Con, in Indianapolis August 1-4, and Dragon Con, in Atlanta August 29-Sept. 2. We included the Dragon Con logo because we always get a great response to our blood drive there.
Worldcon is in Glasgow, Scotland, August 8-12.

Keith Kato sent us this Worldcon update:

The 82nd World Science Fiction Convention in Glasgow, Scotland (Glasgow 2024, a Worldcon for Our Futures) will be held 8-12 August 2024 at the Scottish Events Campus. A few (but "happy few") THSers will attend along with our friends from The Center For Ray Bradbury Studies. Of note for physical attendees:

THS and The Center For Ray Bradbury Studies have been assigned adjacent Fan Tables, to provide information and badge ribbons for the curious and interested alike.

Other Cons: For people not going to WorldCon, **August** sees Cons in Albuquerque, San Antonio, Fort Washington MD, and Darlington MD.

In **September** you can find fans in Ottawa, Austin TX, Hot Springs, Orlando, Rockville MD and Norwich England.

Maryland is a real hotbed of Con activity, it looks like!