



SearchLites

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The Quarterly Newsletter of The SETI League, Inc.

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Announcing The New SETI Technosearch Website

by Dr. Jill C. Tarter (tarter@seti.org)

Emeritus Chair for SETI Research, SETI Institute

Colleagues, I wanted to let you know about a new SETI tool that's recently been posted to <https://technosearch.seti.org/>.

This web site is an outgrowth of an archive of SETI searches that I've been keeping since I was in grad school. With the help of a number of students, this archive is now online, including links to the original published paper for most of the searches. I hope you can find ways to use it and make it better.

Regarding that last idea, if you have conducted a SETI search that has been published, please look through Technosearch to make sure that we've captured your work, and also check the entries to make sure that we didn't make any mistakes; e.g., did we get the sensitivity correct? Are the specific targets or strategies correct? If we got your entry correct, but haven't been able to link your published paper, please send me a copy so I can incorporate that as well.

Let me know about ways you'd like to see this site improved, particularly if you are interested in helping to do so!

The screenshot shows the top portion of the Technosearch website. The header features the word "Technosearch" in white text on a dark background with a pattern of red and white circles. Below the header is the "About Us" section, which contains text describing the website's purpose and the data it tracks.

Guest Editorial:

I Really Cannot Do It Alone

by **H. Paul Shuch**

Executive Director (Emeritus)

When I helped start The SETI League in 1994, one of my first tasks was to establish a website on this new medium called the Internet. To hold public interest and encourage frequent repeat visits, president Richard Factor and I decided that website should be updated once per week. The idea was to generate new content on an ongoing basis. Thus, we've strived for the past quarter-century to post a new Featured Photo every week; a fresh editorial, as well as a link to a new SETI SuperStar award winning website, every single month; and a new Press Release several times a year.

As the Web matured, and new social media outlets emerged, most organizations saw the function of a website evolving. Today, websites generally host evergreen content (that is, information that changes seldom, if at all). For latest news, it is common to provide very frequent (often daily) updates to Facebook pages, and even more frequent (perhaps every few hours) posts to Twitter. And, to make this happen, a new job title, Social Media Director, was created.

Although, not so at The SETI League. Lacking the volunteer or financial resources to employ an individual to develop and expand our media footprint, your Executive Director persisted in personally performing weekly web updates, and writing most of the content for quarterly newsletters. Although he solicited from the membership contributions of photos, guest editorials, award nominations, and technical articles, few such contributions materialized.

Still, during the decade that I had the honor of serving as The SETI League's sole fulltime employee, I did my job as best I could: weekly

web updates, frequent press releases, and quarterly newsletters continued to flow. I even managed to launch a Facebook page to keep the membership and the press updated, replacing expensive mailings and awkward online forums. But, like our entire membership, your leadership team is now graying. It's uncertain how much longer I shall be able to carry the torch. Reluctantly, I've had to make adjustments during my retirement, more carefully to husband my limited energies.

As The SETI League enjoys its 25th year, you can expect to see our website become more of a repository for evergreen content. I will still do occasional updates, when suitable material is provided to me. But, I will need your help. I appeal to you, our members, to contribute interesting, SETI-related content. If you attend an interesting conference or meeting, please submit a photo for website posting or use in *SearchLites*, our quarterly newsletter (which I promise to continue publishing, as long as health and energy permit). If a question of science or policy captures your imagination, please draft a Guest Editorial (which I will be happy to edit as necessary; you need not be a professional writer). If you see a website which you feel will be of interest to the SETI community, kindly nominate it for our SuperStar award. And if you have technical material which you think will fire the imaginations of your fellow members, please write it up!

Leading The SETI League has been an incredible experience for the past quarter-century. With your help, I will enjoy the ride well into the future. But, I really cannot do it alone.

Disclaimer: The opinions expressed in editorials are those of the individual authors, and do not necessarily reflect the position of The SETI League, Inc., its Trustees, officers, Advisory Board, members, donors, or commercial sponsors. ❖

The Hard Problem

by Dan Duda

from the December, 2018 issue of Penn Central,
the monthly newsletter of Central PA Mensa,
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Recently I re-read the book *The Big Picture: On the Origin of Life, Meaning, and the Universe Itself*, by Sean Carroll. Frankly, I disagree with Carroll's assumption that science has just about completed its understanding of the basic rules of the universe – at least enough so that he could take a solid position on ontology. My view is that we know so little about the universe that the Core Model, which includes the Standard Model of particle physics, cannot be accepted as a close-to-final picture regarding what it's all about.

As I continued to ruminate about Carroll's presentation, another critique emerged in my mind – he all but ignores the possibility that consciousness is primary rather than an emergent quality of matter. This is important because the major theme of his book is a very compelling case for atheism. Full disclosure: I'm a skeptic (aka agnostic). Spoiler alert: after reading and being thoroughly inspired by his ideas, I'm still a skeptic – and, ironically, he's pushed me more toward theism than atheism.

Carroll grew up an Episcopalian. He reports that his religious experience was rewarding and an important part of his childhood. However, he was later drawn to science and philosophy to satisfy a quest for understanding reality. That's what led him to "poetic naturalism" (aka atheism), for which he makes a strong case in this book. My problem is that he refutes theism primarily based on his critique of the dogma of the religious philosophy he's most familiar with.

Interestingly, as I re-read much of the book, I found that many of his ideas are compatible with pantheism – the philosophy that the universe itself is a conscious entity. The one pivot that would lock the positions together is the definition of consciousness. Consistent with the theory of evolution, Carroll holds strongly that consciousness emerged accidentally from the jostling of particles over billions of years. Just as consistent with evolution as well as pantheism is the idea that universal consciousness came first. That a conscious universe has been "experimenting" with reality.

According to science writer Philip Perry: "In quantum mechanics, particles don't have a definite shape or specific location, until they are observed or measured. Is this a form of proto-consciousness at play? According to the late scientist and philosopher, John Archibald Wheeler, it might. He's famous for coining the term, "black hole." In his view, every piece of matter contains a bit of consciousness, which it absorbs from this proto-consciousness field."

This is also consistent with the speculation of philosophers from Aristotle to Spinoza. And current particle physics experiments consistently confirm the possibility of its idea. Carroll also disclaims Cartesian dualism – the idea that the mind and the body are separate entities ("I think therefore I am"). This is based largely on Carroll's view of emergence. However, much of science as well as philosophy support the notion of duality.

Back to an earlier point – I remain a skeptic. And it's my contention that a true scientist should also be skeptical, avoiding a hard stand on ontological issues. The universe is just too vast, and our knowledge and experience too slight, to be anything but agnostic. Therefore, I don't "believe" that the universe is conscious, or that pantheism is the answer to our questions. I just feel that the concept and the science are compelling enough to legitimately earn our attention.

Despite being a self-proclaimed atheist, I admire Sean Carroll. He is an important thinker, and I highly recommend his book. Cognitive scientist David Chalmers is also a self-proclaimed atheist. But as you evaluate his thinking, you'll likely conclude that he's really an agnostic. In Chalmers' own words: "Studying consciousness tells us more about how the world is fundamentally strange. I think we have a few revolutions to go yet before we get to the bottom of it." ❖

Event Horizon

SearchLites readers are apprised of the following conferences and meetings at which SETI-related information will be presented. League members are invited to check our World Wide Web site (www.setileague.org) under *Event Horizon*, or email to us at info@setileague.org, to obtain further details. Members are also encouraged to send in information about upcoming events of which we may be unaware.

March 22 - 24, 2019: *Zenkaikon 2019*, Lancaster PA.

April 14, 2019, 1300 EDT: Twenty-Fifth SETI League *Annual Membership Meeting*, Little Ferry, NJ.

May 24 - 27, 2019: *Balticon 53* Baltimore Science Fiction society Annual Convention, Baltimore MD.

July 11 - 14, 2019: *Readercon 30*, Quincy MA.

July 12 - 14, 2019: *Shore Leave 41*, Baltimore MD.

August 15 - 19, 2019: *77th World Science Fiction Convention*, Dublin, Ireland

September 13 - 15, 2019: *Albicon 2019*, Albany NY.

October 18 - 20, 2019: *Capclave 2019*, Rockville MD.

October 21 - 25, 2019: *70th International Astronautical Congress*, Washington DC.

November 8 - 10, 2019: *Philcon 2019*, Cherry Hill NJ.

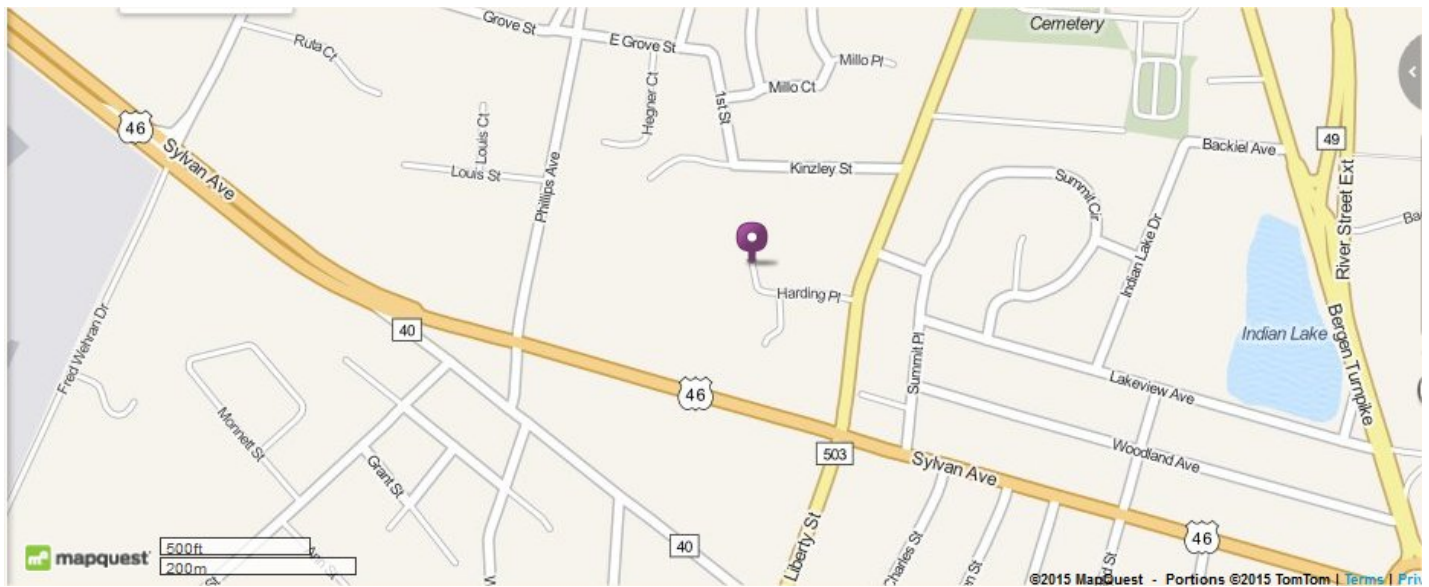
August 15 - 23, 2020: *43rd COSPAR Scientific Assembly*, Sydney Australia. ❖

Want a painless way to support The SETI League? Browse to www.smile.amazon.com. In the "Pick your own charitable organization" box, just type in "SETI League." Now, every time you shop Amazon, they will donate a half percent of your purchase price to SETI research!



Announcement of the Twenty-Fifth Annual Membership Meeting Sunday, 14 April 2019, Little Ferry NJ

In accordance with Article IV, Section 1 of our duly approved Bylaws, the Trustees of The SETI League, Inc. hereby schedule our Twenty-first Annual Membership Meeting for 1 PM Eastern time on Sunday, April 14, 2019, at the conference room of Eventide, Inc., One Alsan Way, Little Ferry NJ 07643. This office is located adjacent to The SETI League office, one block north of Route 46 and one mile east of the Teterboro Airport, accessed off of Route 46 via Liberty Street to Harding Avenue to Alsan Way. Here is a map, courtesy of MapQuest.



We recommend that out-of-town members and guests flying in commercially use the Newark International Airport (EWR), which is about twenty minutes South of our office. There is a wide variety of hotels available at the Newark Airport. A rental car is recommended. From Newark, drive North on the New Jersey Turnpike to US Route 46 Westbound, cross over the Hackensack River, and two long blocks after the traffic circle, turn right onto Liberty Street.

Our members and guests using General Aviation are invited to use the Teterboro Airport (there *are* landing fees and a security fee). Of the half-dozen Fixed Base Operators offering transient parking, we recommend Atlantic Aviation (ask Ground Control for parking in the Atlantic Midfield). They should be able to assist you with ground transportation, and will waive the ramp fee if you purchase fuel. Please coordinate your schedules and needs in advance through our secretary via email to heather_at_setileague_dot_org.

As attendance by one percent of the League's membership constitutes a quorum, all members in good standing are encouraged to attend. The preliminary agenda for this meeting, per Bylaws Article XII, appears below.

Per Article IV, Section 3 our Bylaws, written or electronic notice of this Meeting is being provided to all members in good standing, not less than ten days nor more than ninety days prior to the meeting date. Members are encouraged to submit additional Old Business and New Business items for inclusion in the Agenda. Please email your agenda items to paul_at_setileague_dot_org, not later than April 1, 2019. For planning purposes, we would appreciate it if members would also RSVP to our secretary, heather_at_setileague_dot_org, if planning to attend.

The annual Board of Trustees Meeting required per Bylaws Article V, Section 3 will immediately follow the Membership Meeting. All SETI League members in good standing are welcome to attend.

Preliminary Agenda

- Call to Order
- Minutes of 2018 Membership Meeting
- Financial Report
- Committee Reports
- Old Business
- New Business
- Good and Welfare
- Adjournment



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Annual Renewal: Is This Your Last SearchLites?

SETI League memberships are issued for the *Calendar Year*. Please check the expiration date indicated on your mailing label. If it reads December 2018 or earlier, you have already expired, and *must* renew your SETI League membership **now!** Please fill out and return this page along with your payment.

Please renew my membership in this category:

Full Member	\$50 / yr
Supporting Member (elderly, retired, or disabled)	\$35 / yr
Scholarship Member (full-time students only)	\$25 / yr
Household Member (same address as a Full Member)	\$15 / yr
Household Life Member (same address as a Life Member)	\$300
Life Member (until we make contact)	\$1,000
Sustaining Life Member – a generous <i>annual</i> pledge of:	\$1,000 / yr
Patron (priority use of The SETI League’s radio telescope)	\$10,000
Director (Patron membership plus seat on advisory board)	\$100,000
Benefactor (a major radio telescope named for you)	\$1,000,000

Annual memberships are issued for the calendar year. Those processed in January through April expire on 31 December of that year. Those processed in September through December expire on 31 December of the *following* year. Those members joining in May through August should remit half the annual dues indicated, and will expire on 31 December of the same year.

Order Your Membership Premiums:

	(u/c)*	(o)*
Pocket protectors	\$ 3	\$ 4
Mouse pads	\$ 5	\$ 7
<i>Tune In The Universe! (CD-ROM)</i>	\$25	\$30
<i>Proceedings of SETICon01</i>	\$20	\$27
<i>Proceedings of SETICon02</i>	\$20	\$27
<i>Proceedings of SETICon03 (CD)</i>	\$15	\$18
<i>Proceedings of EuroSETI04 (CD)</i>	\$15	\$18
<i>Proceedings of SETICon04(CD)</i>	\$15	\$18
<i>SARA Conference Proceedings:</i>		
2006, 2007, 2008, 2009 (specify)	\$20	\$27
<i>SETI League Technical Manual (CD)</i>	\$10	\$13
<i>Project Cyclops 2nd Edition</i>	\$20	\$30
<i>The Listeners</i> by James Gunn	\$15	\$21
<i>Sing a Song of SETI</i> (Songbook)	\$10	\$13
<i>Sing More Songs of SETI</i> (Songbook)	\$10	\$13
<i>Sing a Song of SETI</i> (music CD)	\$15	\$18
<i>Sing More Songs of SETI</i> (music CD)	\$15	\$18
<i>Demented!</i> (music CD)	\$15	\$18
T-shirts, specify M, L, or XL	\$15	\$22
SETI Nerd Gift Set (one each Mouse Pad, Pocket Protector, <i>Project Cyclops</i> and <i>Tech Manual</i>) at 20% Savings to <u>Members Only</u> :	\$30	\$45

***Includes postage to (u/c) US/Canada, or (o) other locations**
Payments in US Dollars, check payable through a US bank

Pleased to Accept PayPal

The SETI League invites you to pay your membership dues and additional contributions via credit card, using the PayPal online payment system. Simply log on to www.paypal.com and specify that your payment be directed to paypal@setileague.org.

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