

**SCIENCE-Fiction Fanzine** 

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The Israeli Society for Science Fiction and Fantasy 2015 חדשות האגודה – נובמבר

<u> LECTURE \*\*\* הרצאה: חיים בחלל - במערכת השמש ומחוץ לה – 5 לנובמבר, גבעתיים \*\*\*</u>

https://www.facebook.com/events/1659181224365855/

<u>\*\*\* ערב גיקים ומשחקי קופסה – 8 לנובמבר, תל אביב \*\*\*</u>

https://www.facebook.com/events/1514829895504461/

JOSS WHEDON DAY \*\*\* יום עיון אקדמי בנושא: מבט ביקורתי ביצירותיו של ג'וס וידון – 12 לנובמבר, תל אביב \*\*\*

http://www.facebook.com/events/1185715194775423/

<u>כנס "מאוֹרוֹת 2015 – קץ הילדות"</u> - האוניברסיטה העברית, יום ה', 12 לדצמבר, נר רביעי של חנוכה.

/http://meorot.sf-f.org.il/2015

כל האירועים של האגודה מופיעים בלוח האירועים (שפע אירועים מעניינים, הרצאות, סדנאות, מפגשים ועוד)

לקבלת עדכונים שוטפים על מפגשי מועדון הקריאה ברחבי הארץ ניתן להצטרף ל<mark>רשימת התפוצה</mark> או ל<mark>דף האגודה</mark>

Society information is available (in Hebrew) at the Society's site: http://www.sf-f.org.il בפניסבוק.

#### In this issue:

- 1) Update with pics from the recent ICON fest
- 2) Is that clear? ... The eye drop of the future is here and now
- 3) What's new: For fans of STAR WARS and BACK TO THE FUTURE
- 4) MORE on Artificial Intelligence (AKA: AI) Part VI
- 5) Sheer Science: "Did the Kepler Space Telescope Find Aliens?"
- 6) GREAT NEWS & UPDATES from SpaceIL (E-mail from the Israeli Space society)

- Leybl Botwinik (CyberCozen editor)

## ICON 2015 and Aharon Sheer's Memorial Table (+ Back Issues)

Like every year, ICON is a wonderful get-together of the weird, the wacky, and the wonderful. Unfortunately, due to time constraints, I couldn't attend the events, and just had some spare time to man the memorial table for a few hours. I'd like to thank Arye Setter for giving up some of his free time to be at the table for a few hours as well.

Although we managed to hand out all the DVDs and books, no one was particularly interested in the back issues of CYBERCOZEN (from 1988-2011). They have been subsequently packed off to the paper-recycling bin – but not before we've scanned them all. We will be putting up more of those back issues online as they are readied for consumption.

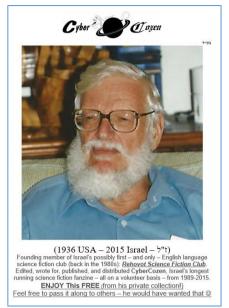
Following are some pics from before and during ICON.



CyberCozen back issues sorted and packed



Books & DVDs ready to go



Aharon's pic + short bio printed and pasted as an insert for the books and DVDs



Your ever enthusiastic effervescent editor (with back issues + DVDs)



"Arye tell her which book(s) to take!"



A proposal / dance? + A satisfied customer

#### TO SEE BEYOND THE NORM – Submitted by Gary Roth, OD (optometrist).

Dear Levbl:

In one of the Star Trek movies featuring William Shatner and Leonard Nimoy, Kirk mentions that he is allergic to an eyedrop that would otherwise enable him to read without magnifying eyeglasses, which Dr. McCoy provides for him. This is due to presbyopia, which means old sight – the natural process whereby people over age 40 can no longer focus fully at near-point. Here is a news item about a new product that promises to make that sci-fi futuristic eye drop come true now:

http://www.ophthalmologyweb.com/1315-News/179459-Encore-Vision-Inc-Announces-First-Subject-Enrolled-in-Study-of-Topical-Treatment-for-Presbyopia/

## What's New: For lovers of...

• If you like **STAR WARS** – See this:

http://edition.cnn.com/2015/10/19/entertainment/star-wars-force-awakens-final-trailer-feat/index.html

• If you like **BACK TO THE FUTURE** – See this:

http://www.cnet.com/how-to/back-to-the-future-everything-you-need-to-know-before-october-21/?ftag=CAD3c77551&bhid=25983503734030224049931423730627

### More on AI - Part VI

By Leybl Botwinik

In the previous discussions, we presented Artificial Intelligence (AI) in mechanical devices (mostly) resembling humans in form, speech, and action. In addition to the 'traditional' Robot, thinking machines and AI software across networks are becoming more a part of our life – and in literature and movies – more a part of the Science Fiction culture.

Some of the better known examples could be (starting at the lowest level):

1) the nuisance of the infamous Microsoft Windows talking paperclip (TM) — that would prompt you every time it thought you needed help in writing something. It literally tried to take over your writing space (— talk about sinister Al...)



2) In the movies, we have many examples of AI attempting to taking over society, or at least a person's life:

"H.A.L. 9000" (from Arthur C. Clarke's classic "2001: A Space Odyssey" film from 1968) – manipulating and endangering the lives of astronauts on a mission.



"Colossus" the supercomputer created by the US government to control all of its nuclear missiles in the 1970 movie: "Colossus: The Forbin Project".



"SkyNet" – from the "Terminator" movies (+TV series) – trying to take over the world and destroy mankind. What is unique here is that in many of these films we have Als fighting Als.



"HER" (2013) – about a new personal software that is designed to be your companion and becomes quite intimate with its user (This movie deserves special coverage).



There are, of course, many more instances of Al trying to take over our lives, the world, or even the entire universe (e.g. in "Battlestar Galactica" or Marvel comics' techno-organic "Phalanx" or "Ultron"). Wikipedia uses several names for this, such as "robot apocalypse", "robot uprising", or "cybernetic revolt" (see: <a href="https://en.wikipedia.org/wiki/Al\_takeover">https://en.wikipedia.org/wiki/Al\_takeover</a>) for a nice review of the topic.

So, will AI/computers take over the world and enslave us, or will they instead be there to protect and serve us?

Following is some real-life news followed by an opinion that everything will be OK (nothing to fear from AI? – But can you prove it ...?...).

#### The Bad News?

This Startup Could Put An End To Personal Assistants



### This Startup Could Put An **End To Personal Assistants**

A couple months ago, I had a serious case of deja-vu. After I emailed an entrepreneur to schedule an interview, she CCed her assistant to handle the dreaded ping-pon... View on www.linkedin.com

Preview by Yahoo

Preview by Yahoo

#### The Good News?

Out of control AI will not kill us, believes Microsoft Research chief - BBC News



### Out of control AI will not kill us, believes Microsoft R...

The chief of one of Microsoft's research divisions says he does not believe artificial intelligence systems are going to run out of control, threatening humankind.

... OK, but is there a chance they may want to take over and control every aspect of our lives – like some kind of benevolent dictatorship?

NEXT MONTH, we'll take a look at one such perspective in the recent movie "Transcendence".

# Sheer\* Science: ALIENS... (\* In memory of Aharon Sheer (7"7) – Founding Editor)

## Did the Kepler Space Telescope Find Aliens?

- Prepared by: Doron Calo\*, PhD (\*our new CC Sheer Science editor ©)

View on www.bbc.com

This sounds like the beginning of a great science fiction book: a bunch of amateur astronomers toil in anonymity and stumble upon mind-blowing evidence of advanced alien civilization, right in humanity's back yard. Wouldn't that be nice? It probably would. Except that the story doesn't go exactly like that. It is still mind-blowing, though.

It all started 4 years ago, when volunteer members of Planet Hunters – a "citizen science" project aimed at identifying planets outside our solar system - found a set of really bizarre findings from KIC8462852, a star roughly 1500 light-years away between the constellations Cygnus and Lyrae. What they actually found was highly unusual "dipping" in the amount of light emitted by the star.

Usually, dipping can be explained by planets passing in front of the star; but these result

in regular, narrow shifts, and KIC8462852 wasn't looking anything like that. The dipping pattern discovered by the Planet Hunters looked like nothing anybody had ever seen before.

Naturally this was thought to be a glitch. So Kepler kept watch over the star for the next 4 years, and astronomers were also keeping busy comparing the dipping pattern to more than 150,000 other stars observable by the space telescope. Guess what? KIC8462852 turned out to be one of a kind.

Whatever it was that they were seeing, it was not a technical malfunction. It had a light pattern that strongly suggested a star with a huge clutter of celestial objects in orbit around it.

So what might this orbital mess be? The first answer that comes to mind (that is, other than ALIENS) is the huge clumps of dust, debris etc. that usually gravitate towards recently-formed stars.

Since KIC8462852 is not quite young, this solar-system-formation story immediately falls through. The team responsible for the discovery, offered several explanations that might just fit, although there are no aliens in any of these scenarios, either.

Possible (yet unlikely) explanations included a thin asteroid belt and collisions that occur within it and the aftermath of a large impact between the planets in the system. A slightly less improbable scenario involved a clump of comets that were entrapped in the star's gravity.

This may be possible, but just barely – it can only be possible if another star happened to pass through the KIC8462852 system, dragging in its wake a big bunch of passerby

comets. You just don't see that happening every day, right?

When astronomers start talking about extremely unlikely explanations for superrare stellar observations, the obvious questions inevitably pop up: Could these be aliens? Is the Kepler space telescope looking at an ancient, ultra-sophisticated megastructure built by an **alien civilization**?

Why not? It's not me saying this, actually. Some astronomers say, sure – it's highly unlikely, but it could be the real thing – after Occam's Razor did away with all the other explanations.

Maybe it's a Dyson swarm – a huge clump of megastructures that encircle the star from every direction (hence the popular term "Dyson sphere") – the movements of each coordinated precisely in order to avoid collisions.

Every member of the swarm could carry big solar panels, for instance, to capture a maximum amount of solar energy. Maybe these collectors are actually facing outwards to capture stellar light.

Plenty of wiggle room for the imagination.

We might come closer to an answer to this riddle in the foreseeable future. Scientists are proposing to point some big radio telescopes in the direction of KIC8462852 and see if any signals from a technologically-advanced civilization could be picked up. It's a long shot, and it's a long way away, but this might actually work. I truly hope that one day soon, a group of astrophysicists will gather around a table in a conference room and present the world with the ultimate good news: "We're Not Alone in the Universe!"

This will truly put everything else in our lives in perspective.

#### Links

Article in The Atlantic: <a href="http://www.theatlantic.com/science/archive/2015/10/the-most-interesting-star-in-our-galaxy/410023/">http://www.theatlantic.com/science/archive/2015/10/the-most-interesting-star-in-our-galaxy/410023/</a>
Scientific paper: <a href="http://arxiv.org/pdf/1509.03622v1.pdf">http://arxiv.org/pdf/1509.03622v1.pdf</a>

#### We'd love to hear your thoughts on any of the above subjects and we may publish some of them!

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\*\*\* SEE THE E-MAIL BELOW FROM **spaceIL** – THE ISRAELI SPACE SOCIETY (and visit their site – גם בעברית

@ SpaceIL - we have much to share! (Oct 29 2015)



#### Dear Friends,

Two weeks ago, the SpaceIL staff and I were standing in awe at the residence of Israel's President Reuven Rivlin in Jerusalem. As we stood alongside Israel's president, for the purpose of announcing our historic launch agreement, we were overwhelmed with the sense pride that our project brings to Israel as a nation, and the impact Israeli innovation makes in the way that people across the globe see Israel. By far, this was our greatest moment after years of hard work and dedication at SpaceIL. For me personally, the event with President Rivlin, with the attendance of tens of journalists from Israel and across the globe, was a highlight as SpaceIL's CEO, representing the pinnacle of two years of work. It was truly an honor to share this milestone with the Israeli public.

October's focus was all about the launch announcement, and it was a month packed with special events and celebrations. SpacelL's presence was clearly felt at the International Astronautical Congress in Jerusalem; SpacelL news coverage and reports in both the Israeli and international press flooded the media; we participated in the annual GLXP summit in Japan with representatives from all the competing teams; the SpacelL celebration gala to thank all of our supporters was a success; and,

finally, we will never forget the memorable meeting with living legend Astronaut Buzz Aldrin at the SpaceIL offices.

With our heads held high, we are now moving full force in building the spacecraft. Our talented SpaceIL engineers will continue to work tirelessly to develop and build the first Israeli spacecraft; our education team, with its dozens of volunteers, will go on teaching various programs across the country to inspire students; our marketing department will actively carry on in spreading the word of the SpaceIL mission; and and our Business Development team will continue to seek potential partners to raise the remaining funds needed to make the SpaceIL dream a reality.

To date, we have raised approximately \$40 million - but we need additional \$10 million to complete the spacecraft and ensure an effective launch. This means that my team is hard at work raising the remaining funds. What motivates us every day to make this cutting-edge endeavor come true is best highlighted in the words of President Rivlin to the SpaceIL team:"You are a model of courage, success, and an embodiment of Israel's groundbreaking spirit"which rings in our ears and strengthens our belief that we can land Israel's first spacecraft on the Moon.

To the Moon and Beyond!

Eran Privman

CEO, SpaceIL

Always happy to hear from you.

You are welcome to write us: <a href="mailto:contacts@spaceil.com">contacts@spaceil.com</a>



## Say Mazal Tov! SpaceIL is the First and Only GLXP Team to Announce a Verified Launch Agreement

We are delighted to announce that we signed a confirmed and verified launch agreement to space, on an American SpaceX Falcon 9 rocket for the end of 2017. The Google Lunar XPRIZE (GLXP) directorate confirmed that SpaceIL is the <u>first and only team</u> to achieve this critical milestone in the competition. During a festive announcement ceremony at President Rivlin's residence in Jerusalem, a new spacecraft design was revealed, as well.

Click for more >> Photo Gallery>>



#### **Introducing Our New Spacecraft Design**

In recent months, our engineers have redesigned the SpaceIL spacecraft in order for it to carry more fuel, as well as to meet the specific requirements of the launcher that will carry the spacecraft to space. With the completion of the new engineering design, we realized that the external look and feel of the spacecraft is also important, particularly as the spacecraft represents a national source of inspiration for kids and adults alike. We therefore reached out to well-known Israeli industrial designer, Alex Padwa, for inspiration. Watch>>



## Intergenerational Meeting: Living Legend, Astronaut Buzz Aldrin, Met with the Israeli Moon Mission Team

Second man to walk on the Moon, Buzz Aldrin, paid a special visit to SpaceIL's offices in the town of Yehud. He met with members of our team, shared his thoughts and opinions on the engineering plans which were presented to him in detail, and gave concrete ideas regarding the Israeli Moon mission to our engineers. Not every day does SpaceIL have the opportunity to get advice for a living legend! At the end of his visit, Aldrin autographed a lunar globe as a souvenir, right on the landing site of Apollo 11. Click for pictures >> Click for an item on The Jerusalem Post>> Watch Buzz Aldrin's first interview for Israeli TV, together with his close friend Morris Kahn>>



#### Konnichiwa! The Annual GLXP Summit in Tokyo is Underway

Representatives of all GLXP teams from across the globe have gathered in Tokyo, Japan in order to update each other on their Moon missions. Our representatives at the conference are SpaceIL CEO, Eran Privman and Mission Scientist, Prof. Oded Aharonson. For More >>



#### **SpaceIL Receives Widespread Media Coverage**

SpaceIL's dramatic announcement of a launch agreement contract received widespread media coverage in Israel and worldwide.

News and feature stories were published in various languages and platforms (print, TV, Internet, radio). To show its support, Google Israel went above and beyond with a <u>rare tribute</u> to SpaceIL on its home page. Click for all articles>> Press Release >>



## Until Next Time: The 66th International Astronautical Congress IAC2015 was Held in Jerusalem

Between October 12-16, and for the first time ever, Israel hosted the annual IAC congress in Jerusalem. SpaceIL was there, of course! In addition to a booth at the exhibition where we presented our new spacecraft prototype, SpaceIL representatives spoke in two panels. The first lecture was given by our VP of Education, Ayelet Weizman. The article she presented dealt with SpaceIL's educational vision, which combines inspiration, role-modeling and connecting Israeli youth to this groundbreaking project. As she explained, SpaceIL's educational program seeks to create significant long-term impact in the way school kids engage with science, technology, and engineering, similar to the "Apollo Effect" in the US in the 1970s. The second lecture was given by our mission analysis team: Adam Green and Adam Michaels presented their paper titled "Navigation of a Lunar Spacecraft as a Secondary Payload: SpaceIL's Google Lunar XPRIZE mission".

Picture Gallery>> Click for an item on The Jerusalem Post>>



#### A Story in *Ulpan Shishi*, Israeli Channel 2

A team from Channel 2's "Ulpan Shishi" TV Magazine accompanied the SpaceIL team in the months leading up to the launch announcement. They documented the SpaceIL milestone in a widely watched feature story on Channel 2.

Watch the English version>>



## Physics Students at the Leo Baeck School in Haifa Join SpacelL's Education Team

No age is too young to inspire the next generation of scientists and engineers! On Sunday, October 25<sup>th</sup>, a special training session was held for physics students at the Leo Baeck School in Haifa. The students were trained to join our team of lecturers and share with other students the story of the first Israeli spacecraft. We welcome this cooperation and hope to expand this model to other schools. For more >>

SpaceIL's new young lecturers join the old generation of volunteers and education staff, opening the new school year >>



#### **Sing-along Celebration for the Launch Agreement**

At an event held on October 19 in Herzliya, SpaceIL thanked dozens of volunteers, donors, partners and employees for their contribution to the unprecedented achievement of the signing of a launch agreement. With the help of singer Einat Sarouf, the SpaceIL team marked this milestone with a sing-along celebration. Pictures and Info>>