SCIENCE-Fiction Fanzine **Vol. XXVII, No. 09; September, 2015**

Don't miss the ICON 2015 Fest (29 Sep-01 Oct): http://2015.iconfestival.org.il/

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

פסטיבל אייקון 2015 בפתח!

אירוע הדגל השנתי של חובבי המדע הבדיוני, הפנטזיה ומשחקי התפקידים יתקיים השנה תחת הנושא "**הרפתקאות**". הפסטיבל מאורגן על ידי האגודה הישראלית למדע בדיוני ולפנטסיה והעמותה למשחקי תפקידים בישראל ונערך בשיתוף פעולה עם המחלקה למופעים, עיריית תל-אביב–יפו. גם השנה נארח אורח כבוד מחו"ל: סופר המדע הבדיוני האמריקאי עטור הפרסים **טד צ'יאנג**. לכניסה למערכת ההזמנות: program.iconfestival.org.il

תערוכה "פנטזיה של יצירה" 11-12 ספטמבר 2015

תתקיים בבית העם במושב נורדיה (ליד צומת בית ליד) – תצוגה ומכירה של יצירות ומוצרים מעולם הפנטזיה והמדע הבדיוני.
/https://www.facebook.com/events/1051719944851141

מועדון הקריאה של חודש ספטמבר

יעסוק באסופת הסיפורים "היה יהיה 6" (אגודה ישראלית למדע בדיוני ולפנטסיה, 2014) ויתקיים בירושלים ובתל אביב.
המועדון בירושלים יתקיים ביום חמישי, 10.9 ב-19:30, ב"תמול שלום", יואל משה סלומון 5, ירושלים. מנחה: גלי אחיטוב.
המועדון בתל אביב יתקיים ביום חמישי, 17.9, ב-19:30, ב"קפה גרג", ויצמן 2, ת"א. מנחה: דפנה קירש.

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 לרשימת התפוצה או לדף האגודה בפייסבוק.

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

In this issue:

Is there anyone out there?

While millions are spent on the SETI program to look for intelligent aliens in outer space, and extravagant TV shows/movies have been produced to seek out new civilizations, etc. … We'll settle for knowing if people on the mailing list are actually reading CyberCozen and like (or G-d forbid) dislike the monthly content.
Here we have one brave fellow who's drummed up the courage and sent in a modest but heartwarming comment:

> **From:** Gary Roth
> **Sent:** Tuesday, August 4, 2015 1:54 PM
> **Subject:** Re: CyberCozen (monthly SF fanzine) - August 2015 issue
> I like the guest column in particular. Of course, the other reviews were enjoyable, even if they were not raving approvals of their stories.

Who will be the next adventurous soul to let us know how we are doing…?

More on AI + Book Review – Part III

By Leybl Botwinik

Artificial Intelligence (AI) really becomes interesting when mechanical devices start resembling humans in form, speech, and action.

It came to my notice, however, that it's unclear to some folks, what the difference is between the various types of automatons (robots, cyborgs, androids) so we'll start with some defs (definitions) first.

AI Machine Terminology – A Robot by any other Name…

Following are the 3 most common differentiating terms used for the automata we often lump together under the title 'ROBOT':

- Robot
- Android
- Cyborg

In order to differentiate between them, they must also be compared to Humans. I discovered a very well prepared series of descriptions on a website called "**differencebetween.net**", and I offer up some of the summaries they conclude their comparisons with.

Humans vs. Robots

Summary:

1. Humans are organic beings, while robots are not.
2. Humans are far more complex and superior to robots in almost all aspects.
3. Humans are highly social beings compared to robots.

See: http://www.differencebetween.net/technology/difference-between-human-and-robot/

Robots vs. Cyborgs

Summary:

1. A robot is an automated machine while a cyborg is a combination of an organism with a machine.
2. Robots aren't alive while cyborgs are.
3. Robots can be simple or very complex while cyborgs are typically very complex.

See: http://www.differencebetween.net/technology/difference-between-cyborg-and-robot/

Cyborgs vs. Androids

Summary:

1. An Android is a robot that resembles a human being while a cyborg is an organism that is part organic and part machine.
2. Androids have largely been the domain of science fiction while cyborgs, in the strict sense of the word, have long been in existence
3. Androids are specific to robots in human form while cyborgs can also be animals
4. Androids are not living beings while cyborgs are

See: http://www.differencebetween.net/technology/difference-between-android-and-cyborg/

Homework for Next Time

And because I'm such a nice guy – interested in your well-being, enlightenment, continuing education, etc., etc. – here's some homework for next time:

Exercise #1: Explain who or what is a "Cybernaut" (where did the word originate or was first used)?

Exercise #2: Sort the following list into its correct category (I gave you some as an example)

- Data, Jocasta, C3P0, Cyborg, Brainiac, Ultron, LMD, Iron Man, Bicentennial Man, Number 5, Steel, Terminator, Vision, R2D2

Robot	Cyborg	Android	Other
Number 5			Iron Man
R2D2			

*[Bonus points #2 – Tell us something interesting about any of these automatons or any favorite one]

*[Bonus points #2 – List some other well-known SF automatons]

Book Review: The Robots of Dawn – Isaac Asimov

Reviewed by John Purcell

Asimov, Isaac. *The Robots of Dawn*. New York: Ballantine Books (1984). 398 pages.

There is little doubt that Isaac Asimov (1920-1992) is one of the titans of the science fiction genre. In addition to his Foundation series, Asimov's robot stories are among his most beloved, largely in part because he does an excellent job of playing with the Three Laws of Robotics[*], extrapolating scenarios from them that are both interesting and entertaining.
[* More about these laws, next time – LB (editor)]

The first two novels in the series – *The Caves of Steel* (1954) and *The Naked Sun* (1957) - establish the primary characters of Elijah Baley, a detective from Earth, and his humaniform robot aide and friend, R. Daneel Olivaw. Essentially these novels are blends of the mystery and science fiction genres, two areas that Asimov excelled at as a storyteller.

The Robots of Dawn is a classic example of a locked-room "whodunit" murder mystery. Detective Baley has been summoned to the planet Aurora from Earth to solve a "roboticide": a humaniform robot named R. Jander Panell has had its "existence terminated," but the only person with the knowledge capable of doing such a deed is Jander's own creator, Professor Han Falstofe, the pre-eminent roboticist of all the known planets.

The thing is, Falstofe proclaims his innocence while acknowledging evidence that points to himself being the "murderer," so Falstofe has hired the famous Detective Baley to prove his innocence.

As it turns out, a prior character (from *The Naked Sun*) Gladia Delmarre, whom Baley knows well, had hired Jander from Falstofe, and it was while the robot was in her possession that it/he was killed, er, had his function terminated.

During the course of the investigation it turns out that Gladia became, shall we say, "intimate" with the humaniform robot Jander, throwing this story into an entirely different direction.

From there, the story follows a meticulously crafted and detailed plot (a hallmark of Asimov's writing). While the basic concept is good, there is so much information dumped on the reader – especially during the first 150 pages – that the narrative positively bogs down to a crawl. Once a reader gets past the explication segment of this book, though, the pace picks up and the rest of the novel is typical Asimovian fun reading.

I started reading *The Robots of Dawn* one night a few months ago because I like to unwind before bedtime, and at times the book really did put me to sleep.

When Asimov stops describing every little detail and explaining them and just tells the damn story, it's a fun book, but honestly: I don't need to know how bathrooms (the "Personals") on planet Aurora work and why they're set up that way. Seriously! This has always been one of my bugaboos about Asimov's stories: sometimes there is way too much detail. Just tell the story while working necessary information into the narrative. When he does that, Asimov turns into a fine writer. I think he deserves his place in the pantheon of great SF writers, but his work is dated with a clunky, heavy-info dump style. I find that I have to be in the right mood to enjoy his stories.

As it stands, any serious science fiction fan should read Asimov. The robot series (ends with *Robots and Empire* [1985]) is as recommended as is his Foundation series.

Just be prepared for some very slow sections.

Don't say I didn't warn you.

John Purcell is the editor/publisher of the American SF fanzines *Askance* (www.efanzines.com) and *Askew* (paper-only).

Sheer Science: COOL…*

(* Title in memory of Aharon Sheer (ז״ל) – Founding Editor)

Albedo Modification: Cooling the Planet by Reflecting Sunlight

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

Planet earth is getting hotter at an alarming rate, melting the ice caps, raising sea levels everywhere, and having a very tangible effect on the global weather. The major culprit is greenhouse gases, predominantly CO_2, and as such, lowering their level in the environment has been the prime focus of environmentalists and climate scientists.

Should the situation become much worse, a last-ditch option to tackle this issue could be through so-called climate engineering. This is often considered a taboo among activists since it involves a direct intervention in the climate. Nevertheless, every year that passes without meaningful action against greenhouse gas emissions brings us closer to a situation where using desperate measures will become unavoidable.

Such measures mainly include the active removal of CO_2, which are generally considered to be low-risk, and *albedo modification*, which means changing the amount of short-wavelength solar radiation that's reflected from the Earth back to outer space. Unlike CO_2 removal, unfortunately, albedo modification is a riskier business.

The idea of cooling the Earth by increasing its reflectivity is actually not new. In the spirit of previous attempts to control global weather, Mikhail Budyko suggested as early as 1974 that this could be achieved by releasing aerosols into the atmosphere, similar to the effect of erupting volcanoes.

This was mainly theoretical at the time, and the potentially negative effects of this solution (such as acid rain) were yet to be explored. However, years of research have suggested that stratospheric aerosol albedo modification (SAAM) could be the most realistic approach for albedo modification.
Once sulfate aerosols reach the stratosphere, they tend to stay there for relatively long periods of time (probably for years), reflecting sunlight away from the planet's surface. When injected over the Arctic, for instance, these materials could possibly reduce the local melting of the icebergs – although making the aerosols stay in one place and not scatter around is and will remain a problem.

Another method for increasing albedo also involves the use of aerosols. The marine cloud brightening (MCB) approach is aimed to make low-lying clouds over the oceans more reflective to sunlight by introducing aerosol particles to their base. These will act as condensation nuclei that will increase the number of water drops in each cloud. Unlike SAAM, which is largely untested and derives most of its data from theoretical modelling, there is plenty of evidence that aerosols increase the albedo of clouds. For example, satellite images of clouds often show bright "ship tracks" inside clouds, which are produced from the exhaust of commercial liners.

Several studies have shown that these "tracks" are more reflective than the surrounding clouds, and are associated with increased precipitation. However, the effect of aerosol over larger cloud areas remain to be tested. This could be achieved using seawater spray, or, in the case of smoke emissions, engines that burn paraffin oil could become a workable solution. As a matter of fact, this material is already in use today to create clouds on a very small scale – namely, in "skywriting".
Increasing the planet's albedo can be achieved by other means, although these are relatively unexplored. A large reflector (or a lot of small ones) could be placed in low orbit and reflect sunlight away from the Earth. The planet surface itself could be modified to increase reflectivity – for instance, by planting "whiter" crops, by covering the deserts with reflective material, or by generating numerous microbubbles in the oceans to brighten their surface.

Another option is to tamper with cirrus clouds – those wispy tendrils flouting high in the atmosphere, containing mostly ice crystals. Cirrus clouds contribute to the greenhouse effect by reflecting long-wavelength radiation from the Earth back to the surface, so thinning them down may reduce the planet's temperature.

Incidentally, the condensation trails created by high-flying aircraft are essentially artificial cirrus

clouds, so decreasing the number of these flights could probably cool the planet!
Although albedo modification seems to be effective, it will probably cause only a temporary cooling of the planet, and it will come with unknown environmental price. While the technical know-how exists for several albedo modification methods, we know very little about the possible side effects, whether environmental, political, or ethical ones. For instance, what will happen if only one country, or maybe several countries, will decide to undertake this project on their own?

It is clear that the challenges of climate change require multiple approaches, and making the planet more reflective is only a partial solution. Reducing net emissions is the primary task among the various environmental tools to be used, whether by carbon sequestration, by switching to non-carbon based energy, and by improving the energetic efficiency worldwide. At any rate, the solutions are out there, and they should be utilized – the sooner, the better!

Links
Report by the National Academies:
http://www.nap.edu/catalog/18988/climate-intervention-reflecting-sunlight-to-cool-earth

Don't forget ICON 2015 Fest 29 Sep-01 Oct:

http://2015.iconfestival.org.il/about-icon/

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

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NEWS Update:

1) A special table in memory of Aharon Sheer (ז"ל) will be set up at the upcoming ICON fest. One of the purposes will be to display and distribute his books and DVDs for free, on a first-come-first-served basis.
2) Aharon's library contained the (almost) complete set of printouts of the CyberCozen issues from 1989-2013. I have managed to pick through almost 24 years of issues, collate, and scan almost all those that were missing from Oleg Sverdlov's CyberCozen repository. So far, all issues from 1994-1997 have been scanned and lumped into 4 large PDFs containing a year's worth of issues. They are now available at: http://www.kulichki.com/antimiry/cybercozen/
3) The issues from 1989-1993 were more problematic in scanning, since most were not camera-ready as such, and were often of non-standard size, and/or contained pasted-on drawings, newspaper articles, etc. or poor printout quality. I hope to have these up on the site soon.
4) Volunteers are needed to separate the issues into PDFs per month – Anyone?
5) Volunteers are needed to wo/man the ICON table. For the moment, one of my sons will keep an eye on things, since their table will be next to Aharon's – but help would be appreciated.
6) The aforementioned CyberCozen printouts have been bagged by year in complete and incomplete sets (there were many duplicate printouts) and will also be distributed for free at ICON. If anyone wants me to 'reserve' sets (or specific issues) – please let me know (or you can read and download/print directly from Oleg's site).