

EPSOM U3A Inc.

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Website <https://u3aepsom.nz/>.

MEETING PLACE

Royal Oak Bowls, 146 Selwyn St, Onehunga
10am on the 2ND Thursday of most months

NEWSLETTER

February 2026

Next meeting
10-12noon
Thursday 12 February 2026

Welcome to U3A for 2026.

I hope you all had a great Christmas/New Year season. It's hard to know what this year will deliver. The world seems to be in some turmoil; economically, politically and socially. In New Zealand, we are protected by distance and culture from many of the problems that are troubling other parts of the world. To be sure, we have our own particular divisive issues but, in the main, we seem to deal with those pretty well.

I see U3A as a good forum for diverse points of view - some we will agree with, others not, but we have always been respectful of others' viewpoints. In the recent past, for example, we have had speakers who have championed and justified the Vietnam war, tried to explain the causes of Maori youth crime, and criticised the government for not doing more to combat climate change. We've been told that genetic engineering is improving the world and that Jacinda Ardern is so unpopular she can never live in New Zealand again. When all of these speakers were in full go mode, some of us nodded in agreement, others frowned in dissent. We agreed with some, disagreed with others. I see that as a good thing. I think being exposed to unfamiliar - or perhaps even unwelcome - opinions is positive. We're all made by different forces and experiences, and accepting that others are different is - I firmly believe - a sign of our maturity. We have welcomed, applauded and thanked all of our speakers, regardless of what we think of their message. I think that's a tribute to ourselves as a welcoming and understanding audience. Long may it continue.

Hopefully, we can find some entertaining, enlightening and maybe controversial speakers in 2026. I look forward to listening to them with you.

Ian Jost

EPSOM U3A EXECUTIVE

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Duncan MacDonald - 021 316 661

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Mike Matson - 022 630 7968

Newsletter

Jeanette Grant - 638 8566

Greeters:

Don Buchanan - 620 7572

Ngaire Mune - 624 0226

INTEREST GROUP CONVENERS

Applied Sciences

Peter Parsons - 021 521446

Appreciating Performing Arts

Shirin Caldwell - 630 1662

Architecture

Brian Murray - 021 026 68396

Art Appreciation

Kaye Buchanan - 620 7572

Art History

Emily Flynn - 021 0902 5094

Big History

Emily Flynn - 021 0902 5094

Book Chat

Helen Holdem - 021 260 3510

Comparative Religions

Duncan MacDonald - 021-316 661

John Locke- 021-187 8061

Current Affairs

Shirley McConvile - 622 3542

Fabric & Fibre Crafts

Charmaine Strang - 027-4177 556

Famous & Infamous Group

Shirley McConvile - 622 3542

Foodies

Graham Gunn - 027 445 0929.

Garden Appreciation

Betty Townley - 626 6673

Introduction to Family History

Bryn Smith - 027 280 5235

Latin

Phyllis Downes - 630 5867

Lunch Club

Shirley McConvile - 622 3542.

Music Appreciation

Carleen Edwards - 624 6298

19th & 20th Century History

Helen Holdem - 021 260 3510

NZ History

Kaye Buchanan - 620 7572

Philosophy

Jocelyn Hewin - 634-1552

Scrabble

Joslyn Squire - 021 168 0680

Te Reo Maori

Jenny Whatman - 027 353 2487

Travel

Diana Hart- 021 284 4402

Walkers & Talkers Group

Don Buchanan ph:620 7572.

FEBRUARY SPEAKER	<p>Our speaker for February is Judy Nicholl. She was originally intending to speak in October but had to postpone the talk because of Covid.</p> <p>Judy is a businesswoman who is Chief Executive of Counties Power Ltd, a company that supplies electricity to over 49,000 homes, businesses and farms in the South Auckland – North Waikato region. Prior to accepting this position, Judy had full operational responsibility for Auckland Airport, including rescue, fire, engineering, utilities, forecasting and the processing of close to 10 million passengers per year.</p> <p>Judy will talk to us about two main topics – first, her career journey, beginning as a school teacher and progressing through senior management positions in Fonterra, AFFCO, UNITEC and the NZ Police.</p> <p>Judy & her management team</p> 										
SUBSCRIPTIONS INFORMATION	<p>The 2026 Epsom U3A subscription is \$50 per person This should be paid into our ASB bank account no later than March 31. Payee: U3A EPSOM INCORPORATED 12 – 3067 – 0204618 – 00 Please enter subs in the "code" section and your name in the "reference" section in order for us to have a record of your payment.</p>										
INTEREST GROUPS	<p>John Locke and Ian Jost are hoping to start a chess group. Any interested members can sign on at the meeting on the 9th February at the back table. The time and venue will be decided after consultation with those who are interested.</p>										
2026 MEETING DATES Thursdays, 10am	<table border="0"> <tr> <td>12 February</td> <td>12 March</td> <td>9 April</td> <td>14 May</td> <td>11 June</td> </tr> <tr> <td>9 July</td> <td>13 August</td> <td>10 September</td> <td>8 October</td> <td>12 November AGM</td> </tr> </table> <p>NB Always wear your name badge and be seated ready at 10am</p>	12 February	12 March	9 April	14 May	11 June	9 July	13 August	10 September	8 October	12 November AGM
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JEANETTE'S JOTTINGS

NANOTECHNOLOGY IN FRESH WATER

Nanotechnology is playing a crucial role in addressing the freshwater crisis by providing innovative solutions for water purification and desalination. Here are some of the key applications of nanotechnology in fresh water:

- Desalination: Nanofluids and multistage flash distillation processes utilize solar energy to generate clean water from seawater, offering a sustainable alternative to traditional desalination methods.
- Water Purification: Nanofiltration membranes and nano-adsorbents are used to filter out contaminants, including heavy metals and pathogens, from water. These systems are particularly effective in remote areas where water sources are inconsistent or heavily contaminated.
- Water Reclamation: Nanotechnology is being harnessed to enhance water recycling and management, especially in regions with limited natural freshwater sources.
- Water Treatment: Nanomaterials like carbon nanotubes and silver nanoparticles are employed to remove pollutants and disinfect water, ensuring safe reuse and access to clean drinking water.

These advancements not only improve water quality but also contribute to environmental conservation by reducing the need for chemical treatments that are harmful to the environment. The future of nanotechnology in fresh water is promising, with ongoing research expected to further enhance efficiency, cost-effectiveness, and environmental impact.

TRANSPARENT SOLAR CELLS

MIT researchers are making transparent solar cells that could turn everyday products such as windows and electronic devices into power generators—without altering how they look or function today. How? Their new solar cells absorb only infrared and ultraviolet light. Visible light passes through the cells unimpeded, so our eyes don't know they're there. Using simple room-temperature methods, the researchers have deposited coatings of their solar cells on various materials and have used them to run electronic displays using ambient light. They estimate that using coated windows in a skyscraper could provide more than a quarter of the building's energy needs without changing its look. They're now beginning to integrate their solar cells into consumer products, including mobile device displays...

Three years ago, a team in MIT's Organic and Nanostructured Electronics Laboratory proposed making a solar cell that would absorb all the energy from the sun except the part that allows us to see. All light is made up of electromagnetic radiation spanning a spectrum of wavelengths, each containing energy that potentially can be harvested by a solar cell. But the human eye can detect only part of that spectrum—the so-called visible light. With the right materials and design, the light that we can detect would pass through the solar cell to our eyes; the rest would be absorbed by the solar cell—and we'd never miss it...

The cost of implementing the technology will vary with the application, solar cell efficiency, and other factors. But Barr cites several sources of potential cost savings over traditional solar systems. For instance, the processes used in fabricating the new transparent PVs are environmentally friendly and not energy intensive. Indeed, the coatings are deposited at nearly room temperature, so the transparent PV can be laid down on essentially any type of surface. There's no need to use glass, which is a costly component in the fabrication of conventional systems...

Barr expects to have their first commercial products—for mobile electronic devices—ready within a few years. Enabling such devices to gather energy from ambient light and recharge their own batteries will provide significant benefits, including added convenience, greater freedom from the power grid, and a better user experience. Perhaps more important, in the process of developing products for mobile devices, the team will learn how to make larger energy-harvesting systems so that a few years later they can scale up their techniques to the size of windows.

EASTER ISLAND MYSTERY SOLVED

One of the biggest mysteries surrounding Easter Island may finally be solved - as scientists pinpoint who built the iconic stone heads over 900 years ago. In the past, researchers assumed that the 12 to 80-ton statues would have required the combined efforts of hundreds of labourers to build and move. However, new archaeological evidence shows that the statues, known as moai, were not carved by a single powerful chiefdom. Instead, each moai was carved by a small clan or by an individual family, with as few as four to six people working on a single statue.

Using a new 3D model of the island's main moai quarry, archaeologists identified 30 unique 'workshops' where the statues were produced. The researchers found that each clan seemed to have had their own unique artistic style, specialised techniques, and preferred digging sites.

Lead author Professor Carl Lipo, of Binghamton University, says: '*We see separate workshops that really align to different clan groups that are working intensively in their specific areas. You can really see graphically from the construction that there's a series of statues being made here, another series of statues here and that they're lined up next to each other.*'

HOW LONG FLIGHTS AFFECT YOUR BODY AND HEALTH

Long-haul flights affect your body in more ways than just causing jet lag. Here's what happens to your body when you stay seated for hours, and what experts recommend to ease the discomfort. Even small stretches and regular breaks can make a big difference to comfort and overall well-being.

About half of the air inside an airplane cabin comes from outside at high altitudes, where humidity levels are extremely low. This can cause your eyes, nose, and mouth to feel dry. Drinking water before and during the flight helps keep your body hydrated and supports circulation.

Pressure changes during takeoff and landing can cause pain in the nose and ears, especially for those with sinus issues. Experts suggest using decongestants, staying hydrated, and taking anti-inflammatory medicine if you're congested. Although many people feel like they get sick after flying, exposure usually happens in crowded airport areas rather than on the plane itself. Cabin air is renewed 20 to 30 times per hour and is half HEPA-filtered.

Sitting still for long periods keeps your muscles engaged without movement, leading to soreness in the neck, back, and thighs. Moving, stretching, and doing small exercises like heel raises can reduce discomfort. Prolonged sitting puts pressure on the spinal discs, particularly in the lower back. When you remain sedentary, your digestive system slows down. This can lead to bloating or constipation. Getting up and walking during the flight supports digestion and blood flow. The most serious danger during long flights is deep vein thrombosis (DVT), where a blood clot forms in the legs and may travel to the lungs. Compression socks also help prevent blood from pooling in the legs.

STORING SOLAR ENERGY

Researchers at Sweden's Chalmers University of Technology have developed an advanced energy system that stores solar energy in liquid form and generates electricity. This system, called the Molecular Solar Thermal (MOST) system, has been in development for over a decade. It uses specially designed molecules made of carbon, hydrogen, and nitrogen.

When exposed to sunlight, the molecule changes its shape, turning into an energy-rich isomer. This isomer can be stored in liquid form for up to 20 years, says Moth-Poulsen in the Chalmers press release,. The isomer quadricyclane can holds 250 watt-hours of energy per kilogram. The energy is released as heat when a cobalt-based catalyst triggers the molecule to return to its original state. A recent breakthrough now allows solar energy transportable as a liquid fuel and the produced heat to be converted into electricity.

Working with a team of scientists from Shanghai Jiao Tong University in China, the Chalmers team has developed a compact thermoelectric generator. This device can convert stored solar energy into electrical power. While the system currently produces small amounts of electricity, researchers are optimistic about its potential. The ultra-thin generator can be integrated into electronics like smartphone, smartwatches and headphones. This marks a promising step toward self-charging devices that store and use solar energy on demand, addressing the issue of solar power's intermittency.

The MOST system provides a significant advancement in solar energy storage and production. Unlike traditional solar panels, it generates electricity regardless of weather, time of day, or location, without emitting carbon dioxide. Researchers are now focused on improving the system's efficiency and making it cost-effective for commercial use. According to Kasper Moth-Poulsen (participant researcher), we have tested it for 125 cycles without noticing any significant degradation. This technology could lead to solar-powered devices and home heating systems that operate continuously and sustainably, says MIT's Jeffrey Grossman (Massachusetts Institute of Technology).

Related Tech Updates:

WEDDING RINGS

Many cultures, marked weddings with rings. However, the practice of wearing our wedding rings on the fourth finger of our left hand has ties to ancient Roman and Greek culture. The ancient Greeks and Romans saw the fourth finger as the "medicated finger". It was the finger that had a vein directly to the heart. Wearing a wedding ring on this finger was a vow of love and devotion. However, it wasn't just the Romans and the Greeks who wore weddings rings.is also evidence of wedding rings being significant in the ancient Egyptian culture as well. During the Third Dynasty of the Old Kingdom, people would exchange rings to represent a binding agreement between two parties. Sounds like a wedding to me.

ICELAND SETTLED EARLIER THAN BELIEVED

In northern Iceland, archaeologists have uncovered the oldest Viking longhouses ever discovered in the country. The site, known as Stöð, could dramatically alter our understanding of the timeline of Iceland's earliest settlement. Located in a remote coastal region of northeast Iceland, Stöð lies between mountains and the sea, an ideal spot for early settlers dependent on farming and fishing for survival. The strategic location indicates the skill the Vikings had in selecting land that took care of multiple important needs, including food access and maritime travel routes. The findings show us not only the presence of Vikings in the land far earlier than we ever thought, but they also show how people adapted to a rugged new landscape.

A dedicated archaeological team uncovered the remains using a combination of modern scanning tools and traditional excavation methods. They identified foundations consistent with Viking longhouse building techniques Located in a remote coastal region of northeast Iceland, Stöð lies between mountains and the sea, an ideal spot for early settlers dependent on farming and fishing for survival. The strategic location indicates the skill the Vikings had in selecting land that took care of multiple important needs, including food access and maritime travel routes.

Excavations uncovered elongated stone foundations with central hearths, a structure widely recognized as classic Viking architecture. These longhouses show the clear signs of Scandinavian handiwork, with construction techniques emulating the traditional design used across the Viking world. The size of the structures hints at a significant gathering place or chief's residence.

The discovery shows that the Vikings may have established a foothold in Iceland long before traditional written historical claims, forcing a total re-think of the timeline of Nordic expansion. Experts believe the buildings could predate Iceland's officially recognized settlement era, which starts at around 874 AD. If it turns out to be true, Stöð could push the arrival of Vikings back several decades, or even as much as a century. This challenges the long-held beliefs about when Iceland really entered the Viking Age as a permanent settlement. The discovery shows Vikings did a lot more than raid and pillage. They established long-term viable communities as outposts, and they did it a lot earlier than anyone expected. Stöð suggests they expanded deliberately, not through random aggressive wanderings. The more evidence archaeologists dig up, the more Vikings look like skilled planners as opposed to roaming indiscriminate marauders.