

# Reaching for the Stars in your Golden Years: The Importance of Outreach for Senior Citizens

**Valerie Rapson**

Rochester Institute of Technology  
VRapson@gmail.com  
<http://astro.rit.edu/~var5998>

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## Summary

Astronomy outreach is often geared towards young children, but rarely towards senior citizens. This article shares the author's experience of conducting astronomy outreach activities at senior living communities and discusses why senior citizens are an equally important demographic to educate about astronomy.

## Introduction

Astronomy outreach is often conducted in science classrooms, museums, observatories, and even at the local park. The intended audiences are usually families with young children, who we are training to be the next generation of scientists, inventors and world-changers.

But what about the other end of the spectrum, the senior citizens of our community? Astronomy outreach is rarely geared towards this demographic, and yet this group can be the most receptive audience, willing to share past experiences and engage in learning. Educating our seniors about astronomy, especially current discoveries, upcoming technology, and funding challenges, is of the utmost importance. One of the easiest ways to educate a large number of seniors is to give talks at senior living communities.

Many senior living communities have adopted a lifelong learning initiative, in which the community holds educational programmes on a variety of topics, including exercise routines, cooking classes, history lessons and science lectures. These hour-long programmes often consist of lessons and/or hands-on activities that are designed to be fun and engaging as well as educational. Recently, many seniors in communities around Rochester, New

York, USA, requested the inclusion of science- and astronomy-related topics in their enrichment programme, and thus astronomy lifelong-learning lessons began.

## Teaching astronomy to senior citizens

This programme of teaching astronomy at senior living communities in Rochester, USA began three years ago. The programme originally consisted of a set of four one-hour presentations covering the basics of, and different fields within, observational astrophysics. The lessons were very non-technical and filled with many pretty pictures from the well-known NASA/ESA Hubble Space Telescope. These lectures were presented on a weekly basis at the Highlands at Pittsford Senior Living Community and they were very well received. Roughly forty members of the community attended each lesson and were very excited to learn about astrophysics at a level that was understandable to them. After the session many people shared stories about their experiences observing the sky with their children or grandchildren, or their recent visits to NASA centres. Some residents had even worked on the NASA/ESA Hubble Space Telescope's back-up primary mirror at the Kodak headquarters in Rochester, USA.

Since then, the programme has been expanded to monthly lessons at three different senior living communities in Rochester and sporadically (1–2 times per year) at three others. The topics covered have included NASA's Great Observatories, the possibility of life beyond Earth, galaxies and black holes, recent astronomical discoveries, and even Einstein's theories of relativity.

During the summer months, seniors are further engaged through star parties at each of these communities. They are given the opportunity to observe Solar System objects through a telescope and learn which constellations are visible. The lessons and star parties attract anywhere from 5–50 people, depending on the topic, and there is usually a 50/50 mix of men and women. Many seniors attend the lessons regularly, and often suggest new topics that they would like to be covered at upcoming events.

## Why it is important to engage seniors with astronomy?

Most astronomy outreach conducted today is geared towards the next generation of scientists. We want to promote astronomy to children so that they grow up wanting to become scientists, and continue the ground-breaking research that is occur-



**Figure 1.** Residents at the Highlands at Pittsford Senior Living Community in Rochester, New York, USA observing the Sun during a daytime star party. Credit: Valerie Rapson.

ring today. This is wonderful, but we can't forget about the current generation, whose choices today govern whether or not our children will live in a science-friendly future.

Seniors have a love and appreciation for astronomy that is unmatched in today's society. They lived through the space race and watched man set foot on the Moon for the very first time. Our seniors lived in a time when space science flourished, and they understand the importance of providing government funding for telescopes and space programmes. By conducting outreach in senior living communities, we can keep seniors up to date on current astronomical endeavours and help keep their passion for space alive; a passion that we hope they will pass on to future generations.

Senior citizens are also a very vocal group and likely to have a strong influence on whether astronomy and other science research will be well-funded in the future. In 2008 and 2010, senior citizens 65 and older made up 19% and 23% of the total voting population in the USA, respectively<sup>1</sup>. In both years they also had the largest percent of eligible voters in their age bracket to actually vote. If we include adults age 45 and older in the former statistic, the total percentage of voters increases to 58% and 66%, respectively.

It is clear that our elders have a strong influence on which politicians hold office and, ideally, we want them to choose representatives who support the advancement of science and astronomy. Therefore, we need to take the time to share with our elders the most recent astronomy discov-



**Figure 2.** Residents of St. Ann's Community at Cherry Ridge in Rochester, USA enjoying an astronomy lesson. Credit: Valerie Rapson.

eries and advancements in space-related technologies. They will be the ones who ultimately decide whether or not our children live in a world that provides funding for astronomy research. Focussing all our efforts towards training young people to become astronomers and scientists will be fruitless if there is little government funding and thus few jobs for them to fill in the near future.

Last but not least, seniors truly enjoy learning about astronomy. Many seniors in these communities did not have the opportunity to go to college or, if they did, they may not have studied what they were truly passionate about. Often the men's college degrees or careers were interrupted by war and financial crisis, and many of the women opted to stay home and raise children instead of going to college. Now that they have reached retirement, seniors have the time to study any topic they like, and astronomy seems to be a popular choice. By conducting outreach at senior living communities, we enrich the lives of many people by presenting enjoyable lessons, as well as increasing the visibility of astronomy within the general public.

### Extension of the project elsewhere

Astronomy outreach at senior living communities has been an incredibly beneficial experience in these cases. These

communities offer a wonderful venue for astronomers of all ages to conduct outreach and share their own love of astronomy with a group of people who are often equally passionate about the subject. Many senior living communities throughout the country have their own life-long learning programmes that would likely be very willing to host astronomy lessons or activities. I encourage all astronomers to visit their local senior living communities to help educate the public and create a more astronomy-friendly world.

### Notes

<sup>1</sup> <https://www.census.gov/compendia/statab/2012/tables/12s0399.pdf>

### Biography

**Valerie Rapson** is a PhD candidate in Astrophysical Sciences and Technology at the Rochester Institute of Technology, USA specialising in star and planet formation. She is also the president of the Rochester Academy of Sciences Astronomy Chapter, runs star shows at the Strasenburgh Planetarium, and participates in astronomy outreach in Rochester, New York, USA. When she has completed her degree Valerie hopes to either become a college professor or work in the field of astronomy outreach.