

THE DEVELOPMENT OF THE SOCIAL COMMUNITY SYSTEM OF THE ASTRONOMER AND THE SCIENTISTS WHO CONTRIBUTED TO IT

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ABSTRACT

In the article, I will write about the development of astronomy in the process of social society, about the universe and our current place in it, about the attention, actions and activities of the social community towards this science. During this period, important changes in astronomy can be seen. It is stated that it was done. In addition, great astronomers and physicists contributed their parts to the social community system for the further development of the science of astronomy.

Keywords: Social community in the future of astronomy, cultural perspectives, development techniques, social revolution, cultural heritage and astronomy, astronomical discoveries, technology development, space exploration, social community structure, attracting capital to astronomy, great astronomers.

Access: The development of astronomy during the period of social community has had a significant impact on our understanding of the universe and our place in it. Astronomy, the study of celestial objects and phenomena, has always been influenced by the social and cultural fabric of human society. Let's explore some of the key developments in astronomy during this period. Cultural Perspectives: Different social communities have diverse cultural perspectives and beliefs about the cosmos. These beliefs have influenced the development of astronomical ideas and observations. For example, ancient civilizations such as the Egyptians, Greeks, and Mayans developed intricate mythologies and cosmologies centered around celestial bodies and events. These cultural perspectives laid the foundation for early astronomical observations and theories. Observational Techniques: The advancement of observational techniques played a crucial role in the development of astronomy. Social communities often provided a supportive network for astronomers to share and refine their techniques. For instance, during medieval times, Islamic astronomers made groundbreaking advancements in observational techniques, including the use of astrolabes and celestial

globes. These tools facilitated precise measurements of angles, positions, and motions of celestial bodies. Knowledge Transmission: Social communities have been vital in propagating astronomical knowledge throughout history. Scholarly networks, religious institutions, and centers of learning served as hubs for the exchange of astronomical ideas, observations, and theories. The rise of universities in medieval Europe, for example, provided a platform for scholars to share their astronomical knowledge, leading to the dissemination of ideas across social communities. Scientific Revolution: The period of the Scientific Revolution in the 16th and 17th centuries was marked by a shift from purely qualitative and speculative astronomy to a more quantitative and empirically driven science. Prominent astronomers like Nicolaus Copernicus, Johannes Kepler, and Galileo Galilei challenged existing models of the cosmos and proposed new theories based on observations and mathematical calculations. These revolutionary advancements transformed our understanding of the universe and had a profound impact on society. Technological Innovations: Technological advances during the period of social community also greatly influenced the progress of astronomy. The invention of the telescope in the early 17th century, for example, revolutionized our ability to observe celestial objects in detail. Astronomers like Galileo used this new tool to make groundbreaking discoveries, such as the moons of Jupiter and the phases of Venus, which challenged traditional cosmological views. Collaboration and Peer Review: Social communities provided a platform for collaboration and peer review, enabling astronomers to refine their work and build on each other's discoveries. Scientific societies and journals emerged during the 17th and 18th centuries, fostering a rigorous approach to astronomical research. Notable examples include the Royal Society in England and the French Academy of Sciences, which served as forums for astronomers to present their work, exchange ideas, and engage in critical discourse. Overall, the development of astronomy during the period of social community has been shaped by cultural perspectives, observational techniques, knowledge transmission, scientific revolution, technological innovation, collaboration, and peer review. These factors have collectively contributed to our ever-expanding understanding of the cosmos.⁷ Astronomical Discoveries: The period of social communities has witnessed numerous significant astronomical discoveries. For instance, in the early 20th century, Edwin Hubble's observations using large telescopes revealed that galaxies are not fixed but rather expanding away from each other, leading to the discovery of the expanding universe. This discovery revolutionized our understanding of the cosmos and gave birth to the Big Bang theory. Space Exploration: The development of space exploration during the period of social community opened up new frontiers in astronomy. Social communities played a crucial role in supporting space programs and missions, such as the Apollo missions to the

Moon in the 1960s and 1970s. These missions allowed for the collection of valuable data and observations that provided insights into lunar geology, the Earth-Moon system, and space environment, enhancing our understanding of celestial bodies.

Public Engagement: The growth of social communities and media platforms has facilitated widespread public engagement with astronomy. The advancement of technology, especially the internet and social media, has made astronomical knowledge and discoveries more accessible to people worldwide. This has resulted in increased interest, awareness, and participation in astronomy by individuals from diverse backgrounds, fostering a sense of community among enthusiasts and providing opportunities for citizen science projects.

Interdisciplinary Collaboration: Astronomy has increasingly interacted with other disciplines within social communities, leading to new insights and perspectives. Collaboration between astronomers, physicists, mathematicians, computer scientists, and engineers has greatly contributed to the development of innovative technologies, data analysis techniques, and computational models in astronomy. Interdisciplinary approaches have enabled advancements in fields such as astrophysics, astrobiology, and cosmology, expanding our understanding of the universe and its fundamental principles.

Cultural Heritage and Astronomy: Many social communities have rich cultural heritages intertwined with astronomy. Indigenous cultures, for example, have developed intricate astronomical knowledge and traditions over generations. The recognition and preservation of these cultural perspectives have contributed to a more inclusive and diverse understanding of astronomy. Efforts to integrate indigenous knowledge with scientific practices have not only enriched our understanding but also promoted cultural appreciation and mutual respect within social communities.

Ethical Implications: As our knowledge of astronomy grows, so do the ethical considerations associated with space exploration, colonization, and the search for extraterrestrial life. Social communities play a significant role in shaping debates and discussions about these issues. Questions of resource allocation, environmental impact, and moral responsibility require input from diverse perspectives to ensure a socially responsible approach to astronomical endeavors.

The development of astronomy during the period of social community continues to be dynamic and interconnected with various aspects of society. Social communities provide the platform for engagement, collaboration, and the dissemination of knowledge, fostering an environment in which our understanding of the universe can flourish and evolve. There have been numerous scientists who have made significant contributions to astronomy as active participants in the social community system. Here are a few notable examples:

1. Edwin Hubble (1889-1953): Hubble was an American astronomer who made groundbreaking discoveries on the nature of galaxies and the expansion of the universe. He actively engaged with fellow astronomers and scientists through conferences, correspondence, and collaborative research projects, which played a crucial role in advancing our understanding of the cosmos.

2. Vera Rubin (1928-2016): Rubin, an American astronomer, played a pivotal role in studying the rotation curves of galaxies and establishing the evidence for the existence of dark matter. She actively participated in scientific meetings, collaborations, and discussions within the astronomy community, which helped shape her research and further our understanding of the universe.

3. Carl Sagan (1934-1996): Sagan, an American astronomer and science communicator, had a profound impact on popularizing astronomy and making it accessible to the public. Through his television series "Cosmos" and his books, he engaged with a wide audience and encouraged a sense of wonder and curiosity about the cosmos. Sagan actively interacted with fellow scientists, educators, and the general public, facilitating scientific discussions and inspiring future generations of astronomers.

4. Jocelyn Bell Burnell (b. 1943): Burnell, an astrophysicist from Northern Ireland, co-discovered pulsars during her doctoral research. She actively participated in the scientific community, attending conferences and collaborating with other researchers. Despite initially being overlooked for the Nobel Prize, her contributions to pulsar discoveries were widely recognized, and she has since become an advocate for fostering diversity and inclusion in science.

5. Neil deGrasse Tyson (b. 1958): Tyson, an American astrophysicist, science communicator, and director of the Hayden Planetarium, actively engages with the public through various media platforms. He has played a crucial role in popularizing astronomy through his TV shows, books, and public lectures, thereby inspiring countless individuals and encouraging scientific literacy.

These are just a few examples of scientists who have utilized the social community system to engage with their peers, share their research, and collaborate, ultimately shaping our understanding of the universe. The contributions of astronomers within this system have been vital to the progress of astronomy as a scientific discipline.

Conclusion: Loading data from knowledge bases is very effective in teaching astronomy. For this purpose, it is necessary to enrich the scientific-research works of the literature related to the astronomy course. Astronomy course is developing rapidly like other fields where the management of the social community is very slow. . The

science of astronomy is also more in touch with other sciences, introducing new technologies and science.

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