

FOREWORD

The pilot boat just moved away and its lights are already fading towards the coast of Northeastern Queensland over which Saturn is going to set. There is still quite some time to go before dawn. The big ship has now regained her cruise speed following its roughly northwesterly route in the South Coral Sea along the chain of nearby reefs. Few people are around at this time, except a dozen early birds sharing some 'shipshaping' exercise on the top deck and taking advantage of the relative coolness of the night.

On my way down to the stateroom, I cannot but stop once more in front of that elegant composition by British artist Brigid Collins (1963-) hanging in the monumental staircase between Decks 7 and 8. That piece of art, a $1.8 \times 1.8 \text{m}^2$ oil on canvas plus collage entitled *Bering*¹ in honour of the Danish explorer, gathers together many navigation-related themes of the time: Suns, Moons, planets, sky maps, astrolabes, small telescopes, as well as drawings, diagrams and charts of all kinds. It is somehow a digest of how astronomical information was then collected, made available, and used.

It is impossible not to make a connection with the present book, which is being put together and finalized on a pocket computer in the stateroom and via the Internet link of the ship. Astronomical information handling has come a long way since Bering's sailings. If modern travelling does not rely anymore on celestial triangulation, the fundamental human aim of our science has remained unchanged: understanding the universe, as well as the place and rôle of man in it.

¹Vitus Jonassen Bering (1681-1741), the Danish navigator appointed by Russian Tsar Peter the Great to determine whether Asia and North America were connected, concluded they were separated by the strait now bearing his name. He subsequently discovered Alaska and died on the island now also named after him.

The self-explicit graph on the next page gives a schematic idea of today's astronomy information flow, from data collection to processed information tuned to various audiences, including internal iterations and input from related disciplines. Such a variety of perspectives is to be found in the present volume.

The book starts with a description of the fundamental mission of the *International Astronomical Union* by its current General Secretary, Johannes Andersen. Then Stephen P. Maran shares his extensive experience with the news media as press officer for the *American Astronomical Society*, followed by Claus Madsen and Richard M. West detailing the impressive public outreach policies at the *European Southern Observatory*.

Next Cynthia Cheung and David Leisawitz detail NASA's complex data management together with its current trends and future directions. The exemplary *Flexible Image Transport System (FITS)* experience is then reviewed by Don Wells while George Jacoby and Doug Tody deal with the widely-adopted NOAO's *Image Reduction and Analysis Facility (IRAF)* system, followed by Patrick F. Wallace and Rodney F. Warren-Smith detailing UK's pioneering *Starlink* computing and processing network.

This more technical section is concluded, on the one hand, by two methodological papers, respectively by Rudi Albrecht and Fionn Murtagh offering sound insights into the future and, on the other hand, by a detailed description of information handling for the history-making *Hubble Space Telescope* by Robert J. Hanisch.

We then move to another area with James Lequeux sharing his experience as the long-time Editor-in-Chief of the professional journal *Astronomy & Astrophysics* who saw also the transition to electronic publishing. This evolution is also detailed in Uta Grothkopf's contribution on the key position manned by the librarians between the providers and the users of astronomical information.

Three chapters then deal with astronomy education: a comprehensive review by John Percy; a report on how astronomy distance education is operated at UK's *Open University* by Andrew J. Norton, Barrie W. Jones & Ulrich C. Kolb; and a contribution by Carolyn Collins Petersen and Mark C. Petersen on the irreplaceable educational rôle played by planetariums.

The book concludes with a detailed presentation by Janet A. Mattei and Elizabeth O. Waagen of the remarkable work carried out by the *American Association of Variable Star Observers*, followed by a few final comments from the Editor.

It has been a privilege and a great honour to be given the opportunity of compiling this book and interacting with the various contributors. The quality of the authors, the scope of experiences they cover, the messages

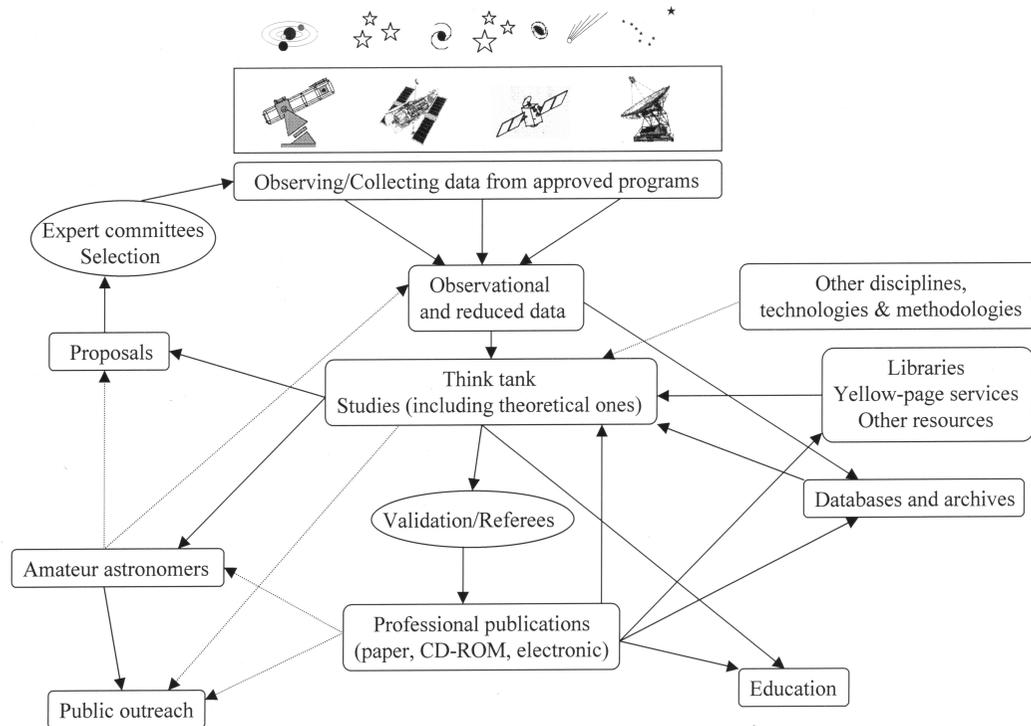


Figure 1. A schematic view of the astronomy information flow (from Heck 2000b).

they convey make of this book a unique publication – with an impressive breadth never achieved before.

The reader will certainly enjoy as much as I did going through such a variety of well-inspired chapters from so many different horizons, be it also because the contributors have done their best to write in a way understandable to readers not necessarily hyperspecialized in astronomy while providing specific detailed information, as well as plenty of pointers and bibliographical elements. Especially enlightening are those ‘lessons learned’ sections where authors make a critical review of the experience gained.

Finally, it is a very pleasant duty to pay tribute here to the various people at *Kluwer Academic Publishers* who quickly understood the interest of such a volume and enthusiastically agreed to produce it.

André Heck
‘Legend of the Seas’
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