Much of the blame is put on the media as not always reflecting the latest trends.

Chapter 5 wraps up the issue of digital divide with articles on gaps by which democracy is measured, and how current information is drowned by the media with old and stereotyped studies. In his article, Compaine, the editor of the book, discusses the costs to the consumers for access to information and presents data for monthly and capital costs of traditional media during 1999–2000 (books, newspapers, magazines, cable TV) and capital and operational costs for Internet access during 1999. Based on the National Telecommunications and Administrations Report released in 2000, it is concluded that from the data presented, the overall level of US digital inclusion is rapidly increasing and groups that have traditionally been digital 'have nots' are now making dramatic gains.

Though the book deals mainly with the status of digital environment and its related issues in USA and is more relevant to that country, a lot of statistical information of interest is provided. Apart from being helpful to planners in other countries, it would certainly be useful as a model to those carrying out similar studies (individuals, non governmental and government agencies).

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Symmetry in Mechanics – A Gentle, Modern Introduction. Stephanie Frank Singer. Birkhauser Verlag, P.O. Box 133, CH-4010 Basel, Switzerland. 2001. 216 pp. Price: S Fr 58/DM 76.

Classical mechanics is the oldest discipline within physics, tracing its origins to no less than Galileo Galilei and Isaac Newton. As is well known, in the evolution of Newton's ideas the three laws of Johannes Kepler on planetary motions played a crucial role. Over the centuries the mathematical formalism of classical mechanics has witnessed many developments and elaborations, and this has continued until even very recent times. While this subject may not seem as philosophically profound as quantum mechanics, the richness of its formal structures is quite amazing and truly beautiful. Many of these developments have come over the past three or four decades, well after the establishment of quantum mechanics. Concepts such as symplectic manifolds, Hamiltonian flows and vector fields, symmetries as Lie group actions and the associated group orbits, the momentum map and the method of symplectic reduction have gradually entered the physics scene and physicists' vocabulary, even though originally pioneered by the more mathematically minded.

The aim of this short, clearly written and lucid book is to lead the average (US) undergraduate student of physics as well as of mathematics through these developments using the simplest of possible examples and in ever so gentle a fashion. The backdrop is the derivation of Kepler's Laws from Newton's equations of motion supplemented with his Law of Universal Gravitation, for the case of the two-body problem. This so-called Kepler problem of classical mechanics is solved at the start of the book in the familiar physicist's manner by passage to the centre-of-mass frame, and then the reduction to a purely radial problem. Naturally the conservation of total linear and angular momenta is exploited. By the end of the book this same problem is tackled using the machinery of symplectic reduction.

Along the way the author builds up, in short chapters brimming with (partially solved) exercises, a series of increasingly sophisticated concepts – manifolds; vector fields, forms and their wedge product; the pull-back idea; the physicist's phase spaces reinterpreted as symplectic manifolds, with examples; Hamiltonian vector fields and the power of the Hamiltonian in supplying a useful constant of motion as well as leading to the canonical equations of motion; symmetry operations of a given system realized as actions by Lie groups; special features of Lie group actions on symplectic manifolds leading up to the beautiful notion of the momentum map; and some material on (matrix) Lie groups and Lie algebras. At the end, the Kepler problem is taken up again, and solved using the technique of symplectic reduction. The two Lie groups most often used as examples to illustrate various aspects are the abelian three-dimensional translation group, and the nonabelian three-dimensional rotation group; however their combination in a semidirect product to form the Euclidean group is not attempted.

This book seems ideal for self-study. It is written from the viewpoint of a mathematician, but is valuable to a student trained in physics as well. There are frequent and generally amusing comparisons of the styles and temperaments of physicists on the one hand and mathematicians on the other – interest in the special features of the particular as against generality; practically gay abandon as against caution; use of infinitesimals versus proper derivatives, and so forth. The Lagrangian approach is not brought in at all, and the physicist's term 'canonical transformation' is also avoided. It may have been useful to say that the Cartesian product of two linear vector spaces is also known as their direct sum. There is frequent reference to the more or less standard undergraduate curricula in physics and in mathematics (in US colleges); and the examples chosen to illustrate the text are quite elementary. Lastly, it would be good to remember that Sophus Lie (like Abel) was a Norwegian, not a French, mathematician.

All in all a nice little book which accomplishes well what it sets out to do.

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A Passage to Himalaya. Harish Kapadia (ed.). Himalayan Club, Oxford University Press, Delhi. 2001. 351 pp. ISBN 0195657748. Price: Rs 500.
Himalayan Journal. Harish Kapadia (ed.). Himalayan Club, Oxford University Press, Delhi. 2001. vol. 57. 292 pp. ISSN 0195659805. Price: Rs 500.

If Forster's *Passage to India* (1924) was a fiction built upon the facts of the early 20th century India, *A Passage to Himalaya* is a selection of factual stories and articles that sound like adventurous fiction. Take, for example, the following