

Set Phasers to Teach: Star Trek in Research and Teaching



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Stefan Rabitsch, Martin Gabriel, Wilfried Elmenreich, and John N.A. Brown, editors. *Set Phasers to Teach: Star Trek in Research and Teaching*. Springer, 2018. Paperback. 236 pp. \$39.99. ISBN 9783319737751.

THE four co-editors of *Set Phasers to Teach* include three Austrian academics specializing in American Studies, History, and Computer Science, respectively, and one independent scholar and consultant (John N. A. Brown) specializing in UX (User) Research. All appear to be enthusiastic supporters of the feedback between *Star Trek* in all its iterations and the scientific and academic communities. This enthusiasm is reflected in the heading of their Preface: "Engage! Science Fiction and Science Inspire Each Other and Move Society Forward" (ix). Their fifteen contributors lay out in fifteen distinct and concise essays the variety of ways in which specific episodes, events and characters, and the overall themes and trajectory of the franchise facilitate this positive feedback loop.

The format and layout for each essay in the book includes original illustrative cartoons highlighting the theme of each essay, an abstract with keywords, a brief "Editors Log" summarizing the thesis of the essay, and illustrative quotations from specific episodes of one or more *Star Trek* episodes. Essays are broken down with informative subtitles, and contain Works Cited (Endnotes) and sometimes additional Recommended Readings and in-text footnotes.

The appendices are comprehensive lists of every *Star Trek* episode (through *Discovery*, Season 1) and film, listing them by Season, Episode, Title, Stardate, Director, Credited Writers, and Original air date, all derived from Wikipedia and the Memory Alpha Wiki, <https://memory-alpha.fandom.com/wiki/Portal:Main>. This information will enable a reader interested in following up specific themes and episodes mentioned in the essays to track them down and facilitate streaming them (or excerpts) for use in teaching and research.

The editors and authors make good use of available primary sources (the episodes and films) as well as commentary by contributors to their creation, and scientists, astronauts, and others who have commented upon the influence of *Star Trek* on their own lives and work. The emphasis is on the power of narrative to, as they quote Gene Rodenberry remarking in the *Introduction to Star Trek: The Next Generation Technical Manual*, "show humans as we really are. We are capable of extraordinary things" (xi).

The essays cover a wide range of topics, including using *Star Trek* to teach literature by

highlighting its frequent uses of and references to classical literature, and the ways episodes can be used to bring out themes such as self-sacrifice, revenge, and pride (Elizabeth B. Hardy, at 9). Erin K. Horáková provides an illuminating essay and critique of how the series engages "with Post-war American Jewish Identity" (13-27). Stefan Rabitsch explores the role of the original series in translating American culture to tell "modern morality plays" in the historical period of the Cold War when America was replacing Britain in a "benevolent" role as "protector and defender of the western world" (29-43). He notes, "Even though the original run ended in 1969, the *Star Trek* formula was such that it could easily be adapted to changing contexts by virtue of the frontier's inherent metaphorical characteristics while supported by a stable utopian world of scientific progress and discovery" (39).

"How to Name a Starship: Starfleet between Anglo-American Bias and the Ideals of Humanism," by Martin Gabriel (43-50), argues that the dominance of Anglophone names of Starships "shows us that the ethnocentric traditions of the twentieth century, maybe even an imperialist approach to cultural history, were vivid throughout the production of the franchise" (49).

"The Computer of the Twenty-Third Century: Real-World HCI Based on Star Trek," by Gerhard Leitner and John N. A. Brown (51- 61), explores how the Human-Computer Interface (HCI) was portrayed in the original series, how it inspired further developments, and what remains to be done to address reliability, security and privacy concerns, and ease of use, concluding "despite the many examples of advanced HCI that already exist in the home, we are still very far from the twenty-third century. . . That said, one of the next steps has already been taken. It is now possible to have reliable and secure voice-based interaction that seems natural and intuitive to the user, provided designers and developers are willing to take the time needed to build it" (60). In the context of the challenge to aircraft safety posed by the recent crashes of the Boeing 737 Max attributed at least in part to software updates, loss of pilot control over aircraft computer systems, and training failures, this essay is a particularly interesting contribution to the collection.

Other essays explore the energy system that propels the *Enterprise* and other Starships, comparing the required power to the available power on Earth itself (63-70); the relationship of Starfleet to pre-modern societies and the role of the prime directive (71-81); and the way *Star Trek* has inspired innovations in science and technology, citing the 2017 Qualcomm Tricorder XPrize and the close relationship of the franchise to NASA (83-93). Carey Millsap-Spears presents an exploration of the use of *Star Trek* in teaching rhetoric and process writing while addressing the concerns and issues facing the LGBTQ+ Community in the context of a college composition course, developing research and critical thinking skills (95-105).

Additional essays address "Using the Borg to Teach Collective Computing Systems"

(107-115); "Telepathic Pathology in *Star Trek*" (117-124); and an intriguing proposal for a better designed Video Game based on *Star Trek* after an assessment and critique of the games previously released since 2000 (125-135). Vivian Fumiko Chin presents a thorough review of the critical literature and interesting discussion of "Cognitive Science and Ways of Thinking About Narrative, Theory of Mind, and Difference" that explores the use of examples from *Star Trek* to introduce students to these concepts and ways of thinking about empathy and respect for difference, using Spock's mind meld with the Horta in the original series (TOS) episode "The Devil in the Dark" as one example (137-47).

In "La Forge's VISOR and the Pictures in Our Heads," Nathaniel Bassett gives a review of the critical literature and an explanation of the role of media studies and how socio-technical systems help mediate our experiences (149-160). In a concluding essay, John N. A. Brown discusses anthropology-based computing (ABC), cognitive bias, and the use of *Star Trek* to teach about scientific thinking (161-172). He observes, "A scientific thinker separates their personal perception of their own self-worth from their faith in what they think they know. They do this by assuming they are wrong and asking others to check their work. . . . And that is the purpose of teamwork in *Star Trek*: using many minds to improve ideas. In this way they show us how to seek new facts and new information; to boldly disprove ideas that everyone has believed before" (171).

Together these essays make an entertaining and rewarding overview of the many ways one can employ *Star Trek* in teaching and research. They can be deployed at all levels of education, regardless of discipline or areas of expertise. The book is printed on acid free paper, is well designed, and presents its materials in a manner accessible to a general reader while giving guidance for further research to faculty and students alike. It deserves to be widely read.

One omission from my perspective is any discussion of the use of *Star Trek* in teaching about legal issues, which has been explored on a number of occasions, e.g., Paul Joseph and Sharon Carton, "The Law of the Federation: Images of Law, Lawyers and the Legal System in *Star Trek: The Next Generation*," 24 *U. Tol. L. Rev.* 43 (1992); Michael P. Scharf and Lawrence D. Roberts, "The Interstellar Relations of the Federation: International Law and 'Star Trek: The Next Generation,'" 25 *U. Tol. L. Rev.* 577 (1994); "Law, Literature and Science Fiction: A Symposium," Bruce L. Rockwood, editor, 13 *Legal Studies Forum* 267 (1999). Perhaps the editors will bear this in mind if they pursue a follow-up collection, since the subject will continue to attract fans and scholars alike.