

Science Education and Science Fiction



with
Peter van der Kwast
and Bevan McGuinness



What is Science Education



- In the Science learning area students learn to investigate, understand and communicate about the physical, biological and technological world, and value the processes that support life on our planet. Science helps students to become critical thinkers by encouraging them to use evidence to evaluate the use of science in society and the application of science in daily life.

'K-10 Curriculum Framework', Curriculum Council of WA

Every day Science

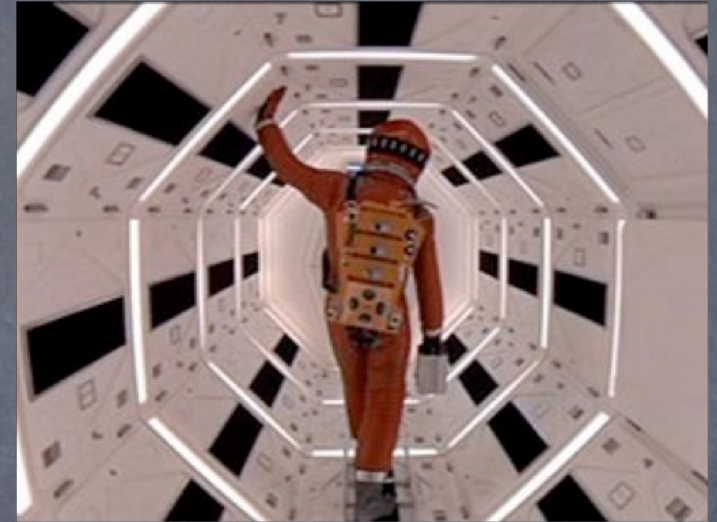


Science Fiction (defn)

- Science fiction is largely based on writing rationally about alternative possibilities. It is similar to, but differs from fantasy in that, within the context of the story, its imaginary elements are largely possible within scientifically established or scientifically postulated laws of nature.
- Rod Serling's definition is "fantasy is the impossible made probable. Science Fiction is the improbable made possible."

SUBGENRES of SCI-FI

- **Hard science fiction** – is characterized by rigorous attention to accurate detail.
e.g. 2001 Space Odyssey



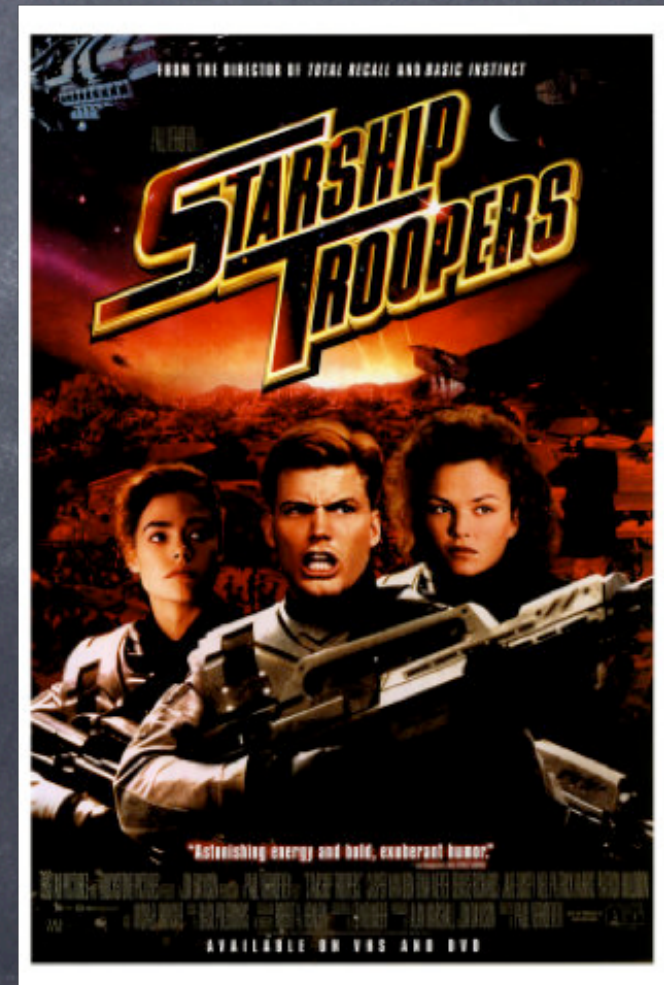
- **Soft science fiction and Social science fiction** – focus is primarily on character and emotion. e.g. Blade Runner, Cocoon



Cyberpunk – Common themes are advances in information technology and especially the Internet, artificial intelligence and prosthetics and post-democratic societal control where corporations have more influence than governments. e.g. iRobot, Soylent Green

SUBGENRES of SCI-FI contd

- **Time travel in fiction** – the use of a machine or phenomenon to change time frames. e.g. Back to the Future
- **Alternate history** – These stories may use time travel to change the past, or may simply set a story in a universe with a different history from our own. e.g. Butterfly Effect
- **Military science fiction** – set in the context of conflict between national, interplanetary, or interstellar armed forces. e.g. Last Star Fighter, Starship Troopers



SUBGENRES of SCI-FI contd



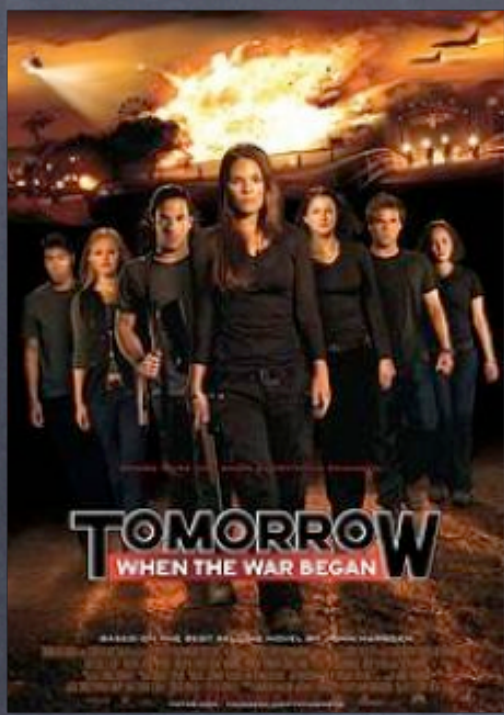
- **Superhuman** – humans who have abilities beyond the norm.
e.g. Superman, Batman



- **Apocalyptic and post-apocalyptic fiction**
– concerned with the end of civilization through war, pandemic, astronomic impact, ecological disaster, or mankind's self-destruction. e.g. I Am Legend, Resident Evil.



SUBGENRES of SCI-FI contd



- **World War III (science fiction)** e.g. Tomorrow When the War Began.

- **Space opera** – adventure science fiction set in outer space or on distant planets, where the emphasis is on action rather than either science or characterization. e.g. Star Wars

- and, **Space Western** – typically involve "frontier" colony worlds serving as stand-ins for the backdrop of lawlessness and economic expansion that were predominant in the American west. e.g. Serenity



- The Philosophy of Hollywood (or the movie industry in general) “
Never let the facts stand in
the way of a good story.”

