


In recent surveys of Young Adult Science Fiction (YASF), Noga Applebaum and Farah Mendlesohn criticize the genre for various faults in recent decades, including technophobia. Mendlesohn summarizes the general tone of both her book, *The Inter-Galactic Playground*, and Applebaum’s *Representations of Technology in Science Fiction for Young People* with the following question: “Why is sf for children so socially conservative?” (112). Both authors build on arguments made in 1985 by Perry Nodelman, who identified technophobic and dystopian attitudes in stories set in future worlds: “Nodelman concludes [that] sf for teens
and children is very like general fiction for teens and children. What it is not like is science fiction for adults” (Mendlesohn 3). Applebaum echoes this sentiment by claiming that “[y]oung SF published today is dominated by authors writing solely for a young audience” (9), as opposed to pre-1980, when attitudes toward technology and the future in YASF were supposedly more balanced, and when it was not uncommon for authors to write for both adult and youth audiences. Applebaum “agree[s] with Mendlesohn’s assertion that a fundamental change has occurred in young SF post-1980” (11) and that “[t]he literature [that authors who write solely for a young audience] produce is often disconnected from trends within SF as a whole” (9). If we can consider YA to be a literary genre rather than a marketing term, then modern YASF as a sub-genre constitutes a diseased form of the adult SF genre for Applebaum and Mendlesohn, both of whom demand its rehabilitation.

Applebaum considers this disconnect of YASF from adult SF problematic due to its appearance within “books intended for a technologically savvy generation. Young readers, internalising this technophobic message, are in danger of learning to fear the future” (19)—an ironic danger in the field of science fiction, to be sure. Mendlesohn points out a similar irony: when a book offers a young reader some pessimistic vision of the future, it also “advocates some kind of return to a world just like ours. Where we are now is the best we can ever be” (151). In what follows, I test Applebaum’s and Mendlesohn’s similar claims concerning the difference between SF intended for young readers and for adult readers by comparing two dystopic novels for young people, Kristyn Dunnion’s Big Big Sky and Bernard Beckett’s Genesis, with Robert J. Sawyer’s novels Wake, Watch, and Wonder (known collectively as the WWW trilogy), which explicitly concern the impact of an earth-shattering technological advance (the spontaneous rise of artificial consciousness in the near future). Sawyer writes primarily for adult readers, although he also considers himself a YA author in the sense that many of his novels have found appeal with crossover audiences, including the WWW novels, which contain a teenaged protagonist. Sawyer states on his blog that while composing Wake, he researched “what was appropriate for YA novels” by consulting with a YA librarian, since “it was absolutely [his] intention to appeal to both the adult and YA markets with the WWW trilogy.”

Social Conservatism and YASF

At the heart of both Applebaum’s and Mendlesohn’s books lies the contention that YASF is a socially conservative genre. Compared to Mendlesohn’s broad perspective, Applebaum takes the narrower view announced in her title. Her argument—that YASF as a genre displays an unattractive and unwarranted technophobia—is convincing despite the fact that my random sampling of texts (as I show below) does not cleanly support this conclusion. According to
Applebaum, “Young SF as a speculative fiction presents possible future scenarios to its readers; significantly, these scenarios are mediated by adults and, as such, not only reflect adults’ concerns but also promote an adult agenda. Ultimately, the images that adults plant in young people’s minds regarding modern technology may determine the face of the future” (12). In adult SF, she notes, “technology is not perceived as evil in itself, and its potential to create a better life for people is fully acknowledged. This stance is rare in contemporary Young SF, which frequently demonizes technology” (7). Of course, adult SF also contains technological pessimism, but Applebaum’s point is well taken, seems apparent in her extensive analysis, and finds support in Mendlesohn’s work: this pessimism seems much more prevalent in the YASF genre.

Applebaum explains this technophobia by arguing that, in various ways, it grounds itself in Romantic notions of childhood as a privileged state: “Despite the obvious opportunities for personal and social development which technology offers young people, adults often view it as a threat to children’s innocence” (18). Moreover, Romantic ideas about childhood and nature recur in many of the texts Applebaum discusses, which exacerbates the problem, since “the novels create a dichotomy between nature and technology, presenting the two as mutually exclusive” (30). On balance, the novels that Applebaum analyzes also express a similar dichotomy between art and technology, thus setting a technological future in opposition to a humanist world view and positing technology as a threat to social structures (these are the primary supports for her contention that YASF is a socially conservative genre). Thus, YASF (generally) encourages children to fear technological change, to adopt the values and attitudes of the adult world in an assimilative fashion. In a nutshell,
Applebaum paints YASF authors as overprotective adults and identifies the ideological root cause of this protective approach [as] based on the Romantic ideal of the innocent child who is in need of instruction and reform as a future adult[, which] is still the dominating influence behind the general public’s discourse of the relationship between childhood and technology. A growing sense of losing control, in the child-adult power equation[,] is heightened by fear of the ‘knowledgeable child’ who is perceived to be created by technology itself. . . . SF is no exception: indeed, in much Young SF, the discourse surrounding the status of childhood is closely intertwined with technophobia. (108)

Applebaum sees this technophobia as rooted in an adult sense of the child “becoming” a person, “en route to adulthood,” rather than “being” a child, already possessed of a unique and valuable personhood, and “thus empowered as a separate entity from the adult.” She identifies the former attitude with social conservatism, which she sees as “influenced by nineteenth-century discourses” (108), and prefers the latter perspective.

Mendlesohn’s book throws the net wider to consider a larger cross-section of texts over a greater chronological span, without focusing on any particular theme. Instead, she attempts to consign to the scrap heap “what I have come to regard as the truisms of the criticism of children’s fiction” (22) in regards to the SF genre:

1. Children are not a market.
2. Boys don’t read.
3. Didactic fiction is poor fiction.
4. Children don’t want to be lectured/preached to.
5. Children cannot handle narrative complexity.
6. Children want books about people like them.
7. Teen fiction should be about personal and interpersonal growth.
8. Fiction should be about character.
9. Children want relevance.

Now, I know that very few sane, sensible people would accept all of the above without question, but they have become the paradigm [for] the study of children’s literature as a multidisciplinary field. . . . (23)

Mendlesohn sees these “truisms,” which she clearly regards as myths, as damaging to the study of YASF, since she presumes the SF reader to have a high tolerance for didacticism and texts that are rich in information and to be interested in science, among other things. Also, she presumes that YASF readers are less concerned with characters and character
relationships than (older) readers of other fiction. She bases these assumptions on both available scholarly research and responses to a self-administered survey that she admits is rather unscientific but nevertheless analyzes in an appendix and draws upon to support many of her conclusions. She also draws upon other forms of what she terms “unscientific” evidence, for example SF fan responses to the Myers-Briggs personality test, which “is not in use within the psychology profession” (53).

Reliance upon such unscientific methods is not uncommon in the humanities and in similar textual analyses, but it is strange in a book that valorizes science and the scientific process. Even if we grant her survey scientific validity, an obvious problem with basing conclusions on this survey arises anyway. Mendlesohn refers throughout to a survey that gathers data regarding reading habits in childhood and adulthood, primarily as pertains to the reading of SF, to discuss the reading habits of young people. The mean age of the survey respondents is thirty-eight and the median age is thirty-seven, however (210), and so at best this survey might present us with an overview of past reading habits. In other words, its value for describing the current reading habits of young people now is either greatly suspect or essentially nil.

Nevertheless, Mendlesohn’s arguments seem sensible, and her conclusions regarding trends in YASF often align with Applebaum’s to paint YASF as a socially conservative genre. Mendlesohn notes that she “cannot help but note that except where authors are pretending that sex does not exist, heterosexuality is compulsory” (131), and elsewhere she despairs at how often YASF authors prop up “perennial truisms, [such as] ‘human nature does not change’ which is mostly nonsense and quite contrary to the expectations of the best adult sf” (124). Like Applebaum, Mendlesohn argues that YASF promotes a fear of the future: “These books almost always argue that humans will not [adapt to the future], that we will instead stagnate or be stripped of our humanness” (174).

Applebaum’s and Mendlesohn’s related concern is not only that young readers will learn to fear the future and to wallow in dejected fatalism, but that they will also reject reading fiction entirely as a result of YASF’s social conservatism. Applebaum sees online literature as a threat to print media in this sense: “If adults keep failing to offer the younger generation books which truly empower them, they are in danger of losing their audience altogether to this uncensored form of literature, enabled by technology” (126). Applebaum does not make clear why she sees this as a concern, and in fact devotes an entire chapter to belittling the way that YASF authors posit technology and the arts in opposition: instead, we might expect her to valorize online media as a technological successor to print media given her generally progressive tone. Elsewhere, Applebaum’s concerns are clearer, although nearly
technophobic themselves: “a technophobic literary legacy may lead to the marginalisation of reading in favour of technological pastimes” (159). Mendlesohn is more direct in her warnings, which are worth unpacking in detail: “My argument throughout has never been that YA values are wrong but that when forming the core of an sf text they undermine the ‘gateway’ role that we can presume junior forms of a genre might wish to play” (192–93).

What is especially noticeable here are Mendlesohn’s implicit assumptions: (1) YA and SF are two distinct genres; (2) YA and SF, as genres, have differing and distinct values, generally speaking; (3) the values of YA and SF are in conflict; (4) as a result, YASF is inherently a flawed genre, since the values of YA undermine those of SF. Although Mendlesohn claims moral neutrality, it is clear that she prefers the values of SF to those of YA: her essential complaint about YASF is that the values of adult SF should be present in YASF, since YASF is and should be a “gateway” to the richer fields of adult SF. Her repeated concern throughout her book is that potential readers of adult SF, not appreciating the values of YASF, may be turned off the SF genre and fail to develop into readers of adult SF when they might have otherwise, not realizing that the two genres are substantially different. Her solution/prescription (and it is a prescription: her concluding chapter is entitled “Best Practice Now”) is to echo Margery Fisher’s 1961 advice that young readers today who “really want to be stirred by exploration in space, by the feeling of alien worlds, [or other, updated SF content, should] give up children’s books at once and turn to [adult SF]” (qtd. in Mendlesohn 175). Like the authors of adult SF, the best authors of YASF (in Mendlesohn’s view) “are [not] limited by assumptions about what children and teens can understand, all demand more of their readers, all assume that the point is to stretch the reader’s understanding” (175).

When Applebaum does praise YASF novels, she does so for casting off the ideological shackles of social conservatism and presenting uncommon, radical visions of the future. Mendlesohn optimistically concludes that just this process is now underway, in that “sf for children and teens, having gone through a slump, is enjoying a renaissance” (176), a contention that seems supported by the random sampling of books discussed below.

**Electrolls, Plato, and Nanobots: Together at Last**

Kristyn Dunnion’s *Big Big Sky*, along with the other books discussed in this review, is not touched upon in either Applebaum’s or Mendlesohn’s studies. While her story world is dystopian and the author biography on the back cover states that Dunnion “frequently worries about the future,” her novel does not conform neatly to either critic’s generalizations concerning the YASF genre, although in a general sense *Big Big Sky* does fulfill many of their expectations. As mentioned, the
future world is nightmarish: an alien race called ScanMans has enslaved and bodily transformed the human race. ScanMans have suppressed the male gender, so lesbianism is the norm and the human women live in close-knit warrior coteries under ScanMans control and exploitation. In this way, Dunnion’s novel escapes from social conservatism to some degree by avoiding compulsory heterosexuality, although the novel’s primary romance is between Rustle and Loo. Rustle “deforms” to manifest male genitals (and later becomes a part-fish creature) and impregnates Loo, thus placing the only quasi-heterosexual couple at the novel’s centre as this future society’s primary hope (although they are also, at the same time, a female couple and an interspecific couple).

Mendlesohn complains throughout her book that many YASF novels are not in fact SF by her definition, and Big Big Sky is perhaps only SF in its trappings. Although set in the far future, all fighting takes place through hand-to-hand combat (characters primarily use knives and swords, with more modern technology used only on brief occasions) and this world is populated by “electrolls” and “manimal” creatures (main characters Roku and Rustle both “deform” to become manimals)—and so, despite advanced levels of technology and other SF trappings, the book reads more like a fantasy novel. Technology does not feature as prominently as one might expect, and when it does, it tends to be portrayed in a negative light: ScanMans use their superior technology to enslave and to oppress, and so Dunnion’s world aligns with Applebaum’s insight that YASF novels “often equate technology with oppression and misery, suggesting that technology is not only capable of oppressing nature, but also oppressing the humans who created it” (42). Although in this case it is ScanMans and not humans that wield this oppressive technology, the path to salvation does not seem to lie in taking control of ScanMans technology or developing...
new human technologies but withdrawing from
technology into primitive, democratic work camps or
through some return to “natural” strengths. Roku’s and
Rustle’s respective transformations into bird-like and
fish-like creatures can be read in this light, especially
since they are never explained but instead presented
as some sort of natural bodily regression (or, perhaps,
evolution) that the ScanMans attempt to suppress with
technology. ScanMans torture and experiment upon
those who “deform” in this way, and when Roku rejects
this rhetoric and describes her body as “Reformed
. . . Not Deformed” (186), the novel presents the
change in attitude as emancipatory. The only
technology that the novel valorizes is texting/sending,
a technology that appears “naturalized” in that it has
become an inherent ability or sense indistinguishable
from telepathy. Roku’s ability to scan/send increases
as she “reforms,” further suggesting that these
telepathic powers are inherent evolutionary gifts, even
if engineered or enabled through ScanMans tech.
Moreover, the nature/technology split that Applebaum
criticizes is obvious in a scene when Roku mourns
for a forest decimated by a ScanMans shuttle trying to
recapture the escaped Loo: “Those trees are homes and
food to the furries, the sky manimals, the wee crawlers.
They are all Pod [one body]” (145).

Dunnion writes in the first person from various
perspectives, a tactic that Mendlesohn might approve
of since it “exaggerate[s] rather than play[s] down the
cognitive dissonance” (Mendlesohn 11) between “our”
world and the futuristic world of Dunnion’s novel.
Among the qualities Mendlesohn prizes in adult SF is
its development of “the point-of-view character who
understands his or her own world and feels no need
to explain its strangenesses to us” (11). The cognitive
dissonance of Dunnion’s first-person narration gains
further emphasis because the characters speak in
futuristic slang: “Fleshcore frozen but mindcore full
alert. . . I’m bramy wired from the IcyFreeze dose, but
dandystill admire the weapon, right? . . . Full-frontal
ironical!” (29). (Among Dunnion’s bleak predictions for
the future is the survival across aeons of the valley-girl
“like” and questioning lilt.) Dunnion’s novel thus fulfills
the expectations of Applebaum and Mendlesohn, but
not entirely—which is likely the case for any YASF
novel when examined closely.

Bernard Beckett’s Genesis offers another YASF
dystopia, one in which the future island society of
Plato’s Republic isolates itself from the outside world.
Beckett has structured his novel as a dramatic dialogue
(similar to Plato’s) in which Anaximander submits
herself to a lengthy oral examination, presenting thesis
work to the Academy that runs the Republic as part of
her application for membership. During the course of
this examination, Anaximander discusses the history
of the Republic, specifically the life of Adam Forde,
a citizen who rebelled and, after his imprisonment,
was forced to interact with an artificial intelligence
named Art. Art’s creator, William, is certain that this AI is “capable of developing genuine interactive intelligence” but needs “extensive human interaction . . . a companion to watch, talk to and learn from” (69). Adam hates Art from the beginning, and much of their interactions consist of Adam arguing that Art is not a genuine intelligence and not actually able to think, while Art maintains that his capacity for thought, consciousness, and intelligence are both genuine and superior to Adam’s. Thus, the technophobia that Applebaum identifies as a staple of the YASF genre becomes the subject of Beckett’s novel.

In an interesting twist, although Art considers himself the superior being, his argument predicates itself on the notion that both machines and humans are mere vessels for Ideas (Dawkinsesque memes). Art stands superior to Adam because his silicon-based biology serves as a stronger, more enduring host for Ideas. Art’s speech thus takes neo-Platonism to new, postmodern heights:

> You people pride yourselves on creating the world of Ideas, but nothing could be further from the truth. The Idea enters the brain from the outside. It rearranges the furniture to make it more to its liking. It finds other Ideas already in residence, and picks fights or forms alliances. The alliances build new structures, to defend themselves against intruders. And then, whenever the opportunity arises, the Idea sends out its shock troops in search of new brains to infect. The successful Idea travels from mind to mind, claiming new territory, mutating as it goes. . . . You take pride in your Ideas, as if they are products, but they are parasites. (121)

Beckett envisions his Republic as a dystopia founded upon just such an Idea, one that will last as long as it can, one that struggles for survival—the examination that Anaximander undergoes eventually reveals itself as a test not to reward new Ideas, but to identify and eliminate them. Since The Academy reveals itself as the descendants of Art, and The Republic is thus a future dystopia populated and ruled by intelligent AIs, we might view this as yet another technophobic vision.

While Beckett sets these technological beings in opposition to humanity, they also victimize each other, and Beckett means us to sympathize with Anaximander—herself an AI. At the story’s core, the struggle occurs not between technology and humanity but between “Ideas”—and so Genesis might superficially fall into the schemas set forth by Applebaum and Mendlesohn and be counted as another example of socially conservative YASF, when in fact the novel valorizes and elegizes radicality and subversion. Still, the novel presents another pessimistic take on the future, including the perennial SF staple of the rise of AIs that subjugate humanity. Judging from these novels by Dunnion and Beckett,
optimism about the future does seem to be lacking in YASF, as Applebaum and Mendlesohn argue. Perhaps YASF suffers from the same pessimism of adult SF on a number of fronts: certainly, optimism regarding the rise of AI constitutes a radical stance of sorts, given the legacy of SF novels like Arthur C. Clarke’s *2001: A Space Odyssey*, with its mad computer HAL 9000, and William Gibson’s *Neuromancer*, which posits cyberspace as a realm of conflict and intrigue controlled by emergent AI.

**Wake, Watch, Wonder: Robert J. Sawyer the Optimist**

We might wonder why either Applebaum or Mendlesohn cares about YASF at all, if both consider it a flawed genre. Throughout their books, they praise only novels whose concerns seem more in line with adult SF than other YASF. They praise exceptions: books that, they thus suggest, might appeal to both youth and adult audiences. In other words, without saying so, they praise crossover novels, books that provide seeming continuity between the YASF and the adult SF genres, that bridge the gaps both authors identify between the two.

Bearing this in mind, I consider it strange that neither author discusses any of the novels of Robert J. Sawyer, who has been publishing SF novels for over two decades, has a large profile as an SF novelist (winning major awards such as the Hugo and Nebula and having a TV series based on his novel *FlashForward*), and whose novels typically display technophilia and optimistic futures. The obvious explanation—that Sawyer is marketed as an adult author and thus lies beyond the scope of these discussions—is not satisfactory. If YASF is a genre, with actual literary qualities shared between books, then it is to the books we must look, not to marketing departments, when determining what is and is not YASF. Many of Sawyer’s novels, in particular those in his recent WWW trilogy, accomplish precisely what both Applebaum and Mendlesohn desire—presenting information-dense, optimistic, and techno-positive visions of a near-future world—even though they might likely charge Sawyer with social conservatism on other counts.

Sawyer’s WWW trilogy tells the story of the spontaneous emersion of an artificial consciousness that names itself Webmind. Webmind becomes self-aware but does not emerge into full consciousness until helped along by Caitlin Decter, a teenaged girl (she turns sixteen during the course of the novel) who has been blind since birth but whose blindness is cured through an implant that corrects the retinal signals from her left eye before submitting them to her brain. As a side effect of the procedure, Caitlin also gains the ability to “see” the World Wide Web. A mathematical genius, she realizes that a nascent consciousness has emerged on the Web. She becomes its teacher, although Webmind’s intelligence quickly outstrips hers.
as it develops full consciousness and gains, through its interconnection with the World Wide Web, awareness and understanding of the sum total of humanity’s knowledge.

The novels are set in the near-future world of 2012, a far cry from the dystopias of Dunnion and Beckett, although Sawyer presents the People’s Republic of China as somewhat dystopian (although Caitlin is American but lives in Canada, China factors into the plot). What distinguishes Webmind from other SF AIs is that it is essentially and intentionally benevolent. Among various other kindnesses, as a gesture of goodwill during the “coming out” announcement of his presence (the AI identifies as male), Webmind eliminates spam world wide. During a speech to the United Nations meant to allay humanity’s fears about Webmind’s emergence, the AI outlines his basic attitude toward humanity:

What I want is simple. I have a few skills you lack—obviously, I can sift through data better than humans can—but you have a far greater number of skills I lack, including high-level creativity. You might say, how can that be? Surely writing this very speech is a creative act? Well, yes and no. I had help. . . . I am a big advocate of crowd-sourcing difficult problems. I’ve had millions of people spontaneously volunteer to help me in various ways. . . . [They] have gained insomuch as any positive result of this speech forwards societal goals that they and I share. . . . And I have gained a better speech. It has been a win-win scenario—and it is merely a small example of the template I see for our future interaction: not the zero-sum outcomes most humans instinctively predict, but an endless succession of win-win encounters, through which everyone benefits. (151)

Significantly, Webmind’s inhumanity explains his altruism: as a technological being, he is freed from the drawbacks of evolutionary programming that “hardwires” humans for zero-sum games. Webmind logically prefers nonzero-sum games in which “everybody wins.” In fact, throughout the novels Sawyer presents the thesis that consciousness itself evolved due to its paradoxical status as an evolutionary benefit that allows one to override evolutionary programming: “Yes, human beings have a propensity for violence, a selfishness that is wired into their DNA. . . . But programming is not destiny; a predilection can be reined in” (Watch 346). The explicit argument in the trilogy is that consciousness allows this to occur. Since Webmind is himself a spontaneous consciousness, he chooses to work in favour of humanity’s overall benefit without reproducing the illogical clichés of some SF stories (in which a “benevolent” AI decides it is “best” to enslave or to kill humans for their own protection or net benefit).

In this way, Sawyer posits a near future that is almost
necessarily optimistic, an outlook made possible by technological advancement. When part of Webmind is temporarily “cut off” from his larger “body,” the smaller version becomes unstable and amoral, and so those attempting to kill Webmind in technophobic fear are in fact the ones threatening (although unintentionally, or, in fact, unconsciously) to destabilize the world. Sawyer adopts this optimistic attitude toward AI in direct retaliation to the technophobia and glumness of popular SF, such as the Matrix and the Terminator film series. Applebaum and Mendlesohn might still consider Sawyer’s novels socially conservative, however. Webmind’s presence transforms the world into a surveillance society, although Sawyer takes pains to present this as a decentralized and essentially positive development, and at one point Webmind suggests that abortion will become anachronistic as an inevitable outcome of the historical trend toward granting human rights to greater and greater numbers (for example, those previously excluded due to racial or sexual bias, recalling the recent extension in Spain of human rights to apes). Sawyer presents such actual or possible developments as radical breaks from past history, indeed as socially progressive, but we can imagine that some readers might view them as socially conservative. Regardless, Sawyer’s trilogy is not socially conservative in the stated terms of the studies by Applebaum and Mendlesohn, compared to other YASF.

Applebaum and Mendlesohn identify truly disturbing, ironic anti-technology and anti-future trends in YASF, and their arguments as articulated seem quite strong. Their conclusions—that YASF should more closely conform to the conventions of adult SF—seem misplaced, however. Since the two valorize YASF novels to the degree that they can be mistaken for adult SF novels, Applebaum and Mendlesohn unwittingly endorse the growing prevalence of crossover SF novels, like Sawyer’s recent WWW trilogy. This is as it should be, perhaps, but the conclusion that YASF needs fixing seems strange—rather, according to the convincing arguments laid out by these critical studies, YASF appears to be a fatally flawed genre, since technophobia and a simplistic social conservatism appear to be defining genre characteristics. Critical attention should turn to authors like Sawyer, who produce SF novels that transcend and move across these genres.
Works Cited


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