

Declining Literacy Despite Increasing Book Sales

While book sales have increased substantially over the past few years (Milliot, 2022), both the percentage of US adults who have read any book in the last 12 months and the average number of books read by US adults have declined over the past 30 years, and steeply in the last five years (see figure, NEA SPPA). In addition, literacy rates have concurrently declined among middle- and high-school age students and adults (U.S. Department of Education). Literacy is essential for educational attainment, understanding and communicating ideas, and solving real-world problems, and declines in literacy rates are alarming. Reading promotes literacy at all ages; primary and secondary education curricula typically require several books per grade level, and students develop reading, writing, and analytical skills via literary analysis guided by teachers. In adulthood, reading is both a vehicle for maintaining or increasing literacy and engaging with current cultural trends; human capital is gained through engaging with the books themselves, popular ideas communicated in longform, in-depth writing, and authors of interest.

Books also confer cultural capital, signaling that the reader is “a reader” and has a certain taste and may have certain opinions about topics related to the book’s topic, as well as social capital in that connections can be formed around shared interest in a book or genre (formally, e.g., via book clubs). Crucially, the cultural and social capital gleaned from books does not require the signaler to have read those books.

Books have been decoupled from reading via the very social media-driven promotions meant to boost reading; books are often marketed for their readability and adherence to familiar storylines and tropes rather than for their novelty and literary value, driving consumers to prioritize buying relatively un-challenging, formulaic books that they perceive everyone else to be reading and to learn about what they should buy next by engaging with social media, which directly competes with reading time as a proportion of leisure. Habituating this mode of book consumption makes it more difficult to engage with more difficult works in the future, dampening potential literacy. Demand for these books drives writers towards writing based on familiar, marketable formulas and cultivating online presences where they promote their work, even summarizing the main plot points for their online audience.

The goal of this project is to formulate a model that can replicate the sales and consumption patterns of a good for which these two are aligned at first and then diverge as the value of owning the good diverges from the value of consuming the good through social processes meant to boost sales and consumption in tandem (promotion and signaling) and internal reinforcing dynamic (reduced capability of engaging) processes.

Commented [HR1]: Good puzzle to focus on. You have one hypothesis in your problem definition text. You could focus on only modeling that, or perhaps include another hypothesis that came from the class discussion as well: you may have different population groups, some who are reading a lot more, and others who are reading less. Also the question of kids vs. adults may be worth noting: you may have a lot more books sold to ‘kids’ while stats on adult reading is declining. Anyway, pick one or two hypotheses and set the modelling of those as your problem.

Commented [HR2]: Good summary of key reference modes, and nice to see graphs for 2 of them. Would be good to see graph on total number of book sales as well (and keep physical vs. audio in mind to make sense of any data). Your problem definition is then testing one or more hypotheses for how these reference modes have come about.

Commented [HR3]: This summary of benefits of reading and literacy is not at the core of the dynamic problem definition (more relevant for motivation), so could be cut significantly, e.g. into a single line.

Commented [HR4]: Note that this general hypothesis has multiple components, and it may be hard to model all of them in this exercise. Separate those explicitly and decide which ones you want to model. I can see the following mechanisms in here:

- Changes in social desirability/signaling value of reading based on social media trends. This would have impacts on both book purchases and actual reading. Formulating this single mechanism and its overall impact on the two trends would be a good starting point.

- Impact of ‘reading for social signaling’ on longer term reading habits and demand for different types of books. Note that to capture this you will need to have different book types (e.g. simple vs. complex) and formulate distinct demand patterns for those. I am not sure if you need to capture this mechanism, but OK to do as a bonus.

- Changes in the supply of books based on the market demands for different types of books. Again this requires distinguishing books of different types (sir ... [1])

Commented [HR5]: This seems to be summarizing one (of potentially many) hypotheses for explaining the trends observed. Treat it as a hypothesis (rather than the answer to the puzzle). Then your goal would be to model this hypothesis (though it is multi-faceted, so you may break it down into pieces and model each in one iteration) and see whether, and under what conditions, it can explain the observed trends.

Commented [HR6]: You don’t need to make it generic for a whole category of goods; stick with books so you can be more concrete in your formulations and see if later extensions to other goods are worthwhile.

References

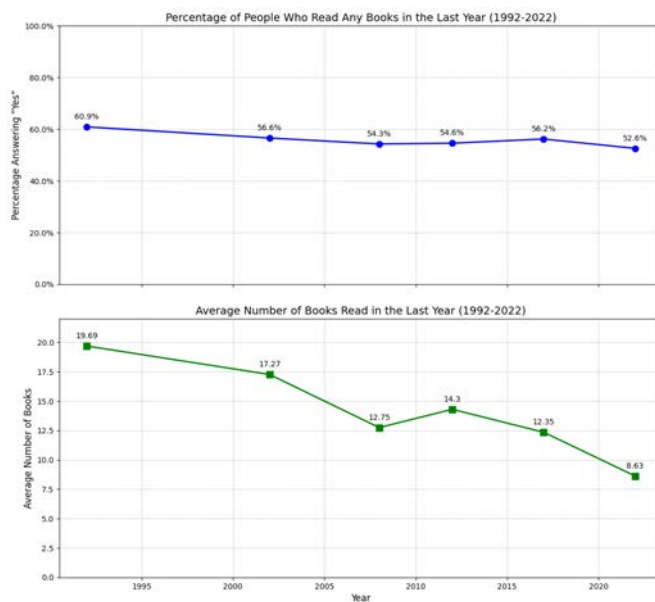
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Figure. Concurrent declines in adults reading any books and average number of books read per year (1992-2022)



Source: National Endowment for the Arts. Survey of Public Participation in the Arts 1992-2022 [United States].

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Impact of 'reading for social signaling' on longer term reading habits and demand for different types of books. Note that to capture this you will need to have different book types (e.g. simple vs. complex) and formulate distinct demand patterns for those. I am not sure if you need to capture this mechanism, but OK to do as a bonus.

Changes in the supply of books based on the market demands for different types of books. Again this requires distinguishing books of different types (simple vs. complex for example) and its impact on the trends is second order (though changing the availability of different titles; but marginal new title has very limited impact on overall book consumption given millions of books already in the market).

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