The knowledge gap hypothesis explains that [knowledge](https://en.wikipedia.org/wiki/Knowledge), like other forms of [wealth](https://en.wikipedia.org/wiki/Wealth), is often [differentially distributed](https://en.wikipedia.org/wiki/Income_inequality) throughout a social system. Specifically, the hypothesis predicts that "as the infusion of mass media information into a social system increases, segments of the population with higher [socioeconomic status](https://en.wikipedia.org/wiki/Socioeconomic_status) tend to acquire this information at a faster rate than the lower status segments, so that the gap in knowledge between these segments tends to increase rather than decrease".[[1]](https://en.wikipedia.org/wiki/Knowledge_gap_hypothesis#cite_note-Tichenor_Donohue_Olien_1970-1) Phillip J. Tichenor, then Associate Professor of Journalism and Mass Communication, George A. Donohue, Professor of Sociology, and Clarice N. Olien, Instructor in Sociology – three [University of Minnesota](https://en.wikipedia.org/wiki/University_of_Minnesota) researchers – first proposed the knowledge gap hypothesis in 1970.

Although first formally articulated in 1970, Tichenor, Donohue, and Olien[[1]](https://en.wikipedia.org/wiki/Knowledge_gap_hypothesis%22%20%5Cl%20%22cite_note-Tichenor_Donohue_Olien_1970-1) note that the knowledge gap hypothesis has been implicit throughout the mass communication literature.

Indeed, research published as early as the 1920s had already begun to examine the influence of individual characteristics on people's media content preferences. For example, Gray and Munroe[[2]](https://en.wikipedia.org/wiki/Knowledge_gap_hypothesis#cite_note-Gray_Munroe_1929-2) identified education – still used today as an operationalization of socioeconomic status in knowledge gap research (see, e.g., Hwang and Jeong, 2009)[[3]](https://en.wikipedia.org/wiki/Knowledge_gap_hypothesis#cite_note-Hwang_Jeong_2009-3) – as a significant and positive correlate of a person's tendency to prefer "serious" (rather than non-serious) print content.

Popular belief, however, held that such differences in preferences might be diminished by the advent of radio, which required neither the special skill nor the exertion of reading (Lazarsfeld, 1940).[[4]](https://en.wikipedia.org/wiki/Knowledge_gap_hypothesis#cite_note-Lazarsfeld_1940-4) Guglielmo Marconi, inventor of the wireless telegraph, even believed that the radio would "make war impossible, because it will make war ridiculous" (Narodny, 1912, p. 145).[[5]](https://en.wikipedia.org/wiki/Knowledge_gap_hypothesis#cite_note-Narodny_1912-5) Interested in whether radio had attenuated these individual differences in content preferences, Paul Lazarsfeld, head of the Office of Radio Research at Columbia University, set out to examine whether (1) the total amount of time that people listened to the radio and (2) the type of content they listened to correlated with their socioeconomic status. Not only did Lazarsfeld's data indicate people of lower socioeconomic status tended to listen to more radio programming, but also they were simultaneously less likely to listen to "serious" radio content. Contrary to popular belief at the time, then, the widespread adoption of the radio seems to have had little, if any, effect on a person's tendency to prefer specific types of content.

Further evidence supporting the knowledge gap hypothesis came from Star and Hughes (1950)[[6]](https://en.wikipedia.org/wiki/Knowledge_gap_hypothesis%22%20%5Cl%20%22cite_note-6) analysis of efforts to inform Cincinnati adults about the United Nations. Like Gray and Munroe (1929)[[2]](https://en.wikipedia.org/wiki/Knowledge_gap_hypothesis#cite_note-Gray_Munroe_1929-2) and Lazarsfeld (1940)[[4]](https://en.wikipedia.org/wiki/Knowledge_gap_hypothesis#cite_note-Lazarsfeld_1940-4) before them, Star and Hughes found that while the campaign was successful in reaching better-educated people, those with less education virtually ignored the campaign. Additionally, after realizing that the highly educated people reached by the campaign also tended to be more interested in the topic, Star and Hughes suggested that knowledge, education, and interest may be interdependent.

Based on observations implicit in mass communication research, Tichenor, Donohue, and Olien (1970) define the knowledge gap hypothesis as follows:

"As the infusion of mass media information into a social system increases, higher socioeconomic status segments tend to acquire this information faster than lower socioeconomic-status population segments so that the gap in knowledge between the two tends to increase rather than decrease" (Tichenor, Donohue, and Olien 1970, pp. 159-160).[[1]](https://en.wikipedia.org/wiki/Knowledge_gap_hypothesis#cite_note-Tichenor_Donohue_Olien_1970-1)

Additionally, Tichenor, Donohue, and Olien suggest 5 reasons why the knowledge gap should exist:[[1]](https://en.wikipedia.org/wiki/Knowledge_gap_hypothesis#cite_note-Tichenor_Donohue_Olien_1970-1)

1. *Communication skills*: higher status people generally have more education, which improves their reading, comprehension, and memory skills;
2. *Stored information*: higher status people are more likely to already know of topics in the news through previous media exposure or through formal education;
3. *Relevant social contact*: higher status people generally have a broader sphere of activity, greater number of reference groups, and interpersonal contacts and are thus more likely to discuss news topics with others;
4. *Selective exposure*: lower status people may be less interested, and therefore less likely to expose themselves to certain news topics; and
5. *Media target markets*: media outlets cater to the tastes and interests of their audience.
6. The knowledge gap hypothesis can be operationalized both for cross-sectional and time-series appropriate research. For cross-sectional research, the knowledge gap hypothesis expects that "*at any given time*, there should be a higher correlation between acquisition of knowledge and education for topics highly publicized in the media than for topics less highly publicized.[[1]](https://en.wikipedia.org/wiki/Knowledge_gap_hypothesis#cite_note-Tichenor_Donohue_Olien_1970-1) Tichenor, Donohue, and Olien (1970) tested this hypothesis using an experiment in which participants were asked to read and discuss two news stories of varying publicity. The results of the experiment support the hypothesis because correlations between education and understanding were significant for high publicity stories but not significant for low publicity stories.[[1]](https://en.wikipedia.org/wiki/Knowledge_gap_hypothesis#cite_note-Tichenor_Donohue_Olien_1970-1)
7. For time-series research, the knowledge gap hypothesis expects that "*over time*, acquisition of knowledge of a heavily publicized topic will proceed at a faster rate among better educated persons than among those with less education."[[1]](https://en.wikipedia.org/wiki/Knowledge_gap_hypothesis#cite_note-Tichenor_Donohue_Olien_1970-1) Tichenor, Donohue, and Olien (1970) tested this hypothesis using public opinion surveys gathered between 1949 and 1965 measuring whether participants believed humans would reach the Moon in the foreseeable future. During the 15-year span, belief among grade-school educated people increased only about 25 percentage points while belief among college educated people increased more than 60 percentage points, a trend consistent with the hypothesis.[[1]](https://en.wikipedia.org/wiki/Knowledge_gap_hypothesis#cite_note-Tichenor_Donohue_Olien_1970-1)