

THE GREAT DIGITAL DIVIDE: USING POPULAR MEDIA TO TEACH ECONOMICS

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ABSTRACT

Economics instructors have increasingly embraced the use of popular culture as a teaching resource to enhance their lectures. The use of television shows, music and media clips presumably makes economic theories, concepts, and terms more relevant to today's students. For example, shows like The Simpsons, The Office, The Big Bang Theory, Seinfeld and many others have been suggested as great teaching tools for Economics due to students' familiarity with the content. We evaluate this claim by surveying students at three institutions over two years to identify which television shows and musicians are most popular with students. Our results indicate that the popular media frequently used by instructors are not always correspondingly popular with current students.

INTRODUCTION

The research on economic education in the past decade has provided economic educators with many innovative and diverse pedagogical methods. Becker and Watts (1996) found that the median economist spent about 83% of class time lecturing, leaving little time to incorporate alternative pedagogy. In a more recent paper, Watts and Schaur (2011) find that the median economist still spends about 83% of class time lecturing, although the average time lecturing fell from 73% to 65%, suggesting that there is a movement - albeit slowly - towards incorporating alternative teaching methods such as cooperative learning, flipped classrooms, and classroom experiments, among many others. One such innovation, and the focus of this study, is the use of popular media in the economics classroom. Economics educators have suggested that the use of popular media, especially television shows, movies and music, may help students learn economics better by connecting concepts to something with which students already have a frame of reference (Sexton, 2006; Mateer and Li, 2008; Gillis and Hall, 2010; Mateer, Ghent, and Stone, 2011; Al-Bahrani and Patel, 2015; Hall and Lawson, 2008).

The pedagogy tool of using popular media in economics classrooms is based on an assumption that students are familiar with the television shows and music that instructors use. However, we are not aware of any studies that formally survey students on their preferences. Therefore, we conduct a study across three institutions to gauge student preferences and match them with the resources currently available. We find that a "divide" exists between what instructors use and what is currently popular with students.

While economic educators have been somewhat flexible in trying new teaching methods, they may not be making the connection with the students based on the differences in what is considered "popular." Future students are digital natives; that is, they have always lived in a "connected" world. MTV is calling these generations "The Founders" - a group that do not know

a time before being consistently plugged in (Sanburn, 2015). This makes popular media a potentially useful resource to engage students in economics classrooms. In this paper, we examine student preferences to see if they align with the television and music resources currently available to economics educators.

There are currently several resources available for economics educators to use when incorporating television shows and music into their courses. Instructors are able to choose from shows like *The Simpsons* (Luccasen and Thomas, 2010), *The Office* (Kuester et al., 2014), *The Big Bang Theory* (Tierney et al., 2016), *Seinfeld* (Ghent, Grant, and Lesica, 2011), *ESPN 30 for 30* (Al-Bahrani & Patel, 2015), *Shark Tank* (Acchiardo et al., 2016) and many others that are currently in the developmental stage. Often the claim is that these shows are popular amongst students and therefore can be leveraged for educational purposes. Our findings demonstrate that many of the most popular television shows among students do not currently have an accompanying resource devoted to illustrating the economics within the show. Thus, there is a so-called “divide” between what economics educators tend to choose to use to enhance their courses and what students actually watch regularly. While we cannot say with certainty, this divide is likely due to a number of plausible reasons, including differences in age, gender, tastes/preferences, and availability of media. In highlighting the divide, we hope to provide instructors with an extra resource to enhance their courses. Although we are aware that the popularity of the shows will continue to evolve over time, the purpose of the paper is to determine if there is currently a divide between faculty and student preferences. Our survey indicates there is a difference between the resources faculty currently have available and what students actually watch regularly; therefore, faculty need to think deliberately in terms of what shows/music to invest their time in if they wish to incorporate these resources into their courses.

LITERATURE

Economics educators have recently begun to embrace the use of popular media in the economics classroom. Harter (2003) and Hoyt (2003) have advocated for the use of popular media as a way to better connect with students, and to help explain economic concepts in ways that students understand. With the recent technological advancements, students are able to watch TV shows, movies, and music videos instantly from virtually anywhere. Faculty can enhance their courses by incorporating students’ favorite popular media and connecting it with important course concepts. This form of engagement has the ability to increase students’ learning and motivation (Harter, 2003).

Tinari and Khadke (2000) incorporate music within economics courses by assigning students a paper that required them to listen to music and connect the lyrics to economic concepts. This approach was further enhanced to include new and popular music (Mateer and Rice, 2007; Hall and Lawson, 2008; Hall, Lawson, and Mateer, 2008). An emerging student favorite across several institutions is *Rockonomix* - created by Holder et al. (2014). This is a student-produced music video parody project in which students pick a song, rewrite lyrics based on economics concepts, sing, and create an accompanying music video.

The use of TV clips within economics classrooms has also gained popularity recently. Clips from TV series such as *The Simpsons* (Gillis and Hall, 2010) and *Seinfeld* (Ghent et al., 2010) were first introduced to facilitate active learning projects. Since then, several other current shows have been introduced as resources for instructors to use to engage economics students including, but not limited to, *The Office* (Kuester et al., 2014), an ESPN series called *ESPN 30*

for 30 (Al-Bahrani & Patel, 2015), and popular CBS television sitcom *The Big Bang Theory* (Tierney et al., 2016).

These resources are currently being extended further through TV shows such as *Shark Tank* (Acchiardo et al., 2016) and *Breaking Bad* (Duncan, Muchiri, and Paraschiv, 2016). However, several concerns arise when thinking about the effectiveness of this pedagogy model. Though Economics has been open to incorporating popular media in the classroom, the assessment of how effective these methods are has lagged. It is important to critically evaluate if the assumptions we rely on hold in the context of an economics classroom. This paper does not conduct an experiment to test the efficacy of such pedagogy tools. However, we think a necessary precondition to measure the effectiveness of such tools is to first measure how popular the resources provided by the instructors are with students. Our findings help identify what resources to use and/or which ones to begin to develop. If one use of popular media is to connect with students, then we need to create resources that students are likely to consume, rather than only what is most popular with instructors - ideally, there will be overlap between them.

STUDY DESIGN

Data collection was conducted during two academic years. During the 2015-2016 academic year, the survey was administered at Northern Kentucky University (NKU), University of Kentucky (UK), and University of West Georgia (UWG). The survey was administered during the first week of classes and included demographic data and TV/music preferences. We received responses from 995 students - 186 from NKU, 284 from UK, and 525 from UWG. Response rates were 68.89%, 54.62%, and 38.60%, respectively. Specifically, we asked students to rank their top 5 favorite TV shows and top 3 favorite musicians. It is possible that preferences are regional and may not be (inter)nationally generalizable. As such, we recommend that instructors conduct their own brief survey at the beginning of the semester to ensure appropriate selection of resources during the course.

Table 1
SUMMARY STATISTICS

	Obs	Mean	Std. Dev.	Min.	Max.
Age	924	21.482	4.127	15	58
Gender					
Male	978	0.506	0.500	0	1
Female	978	0.493	0.500	0	1
Other	978	0.001	0.032	0	1
Race/Ethnicity					
White	943	0.733	0.443	0	1
Hispanic	943	0.083	0.276	0	1
African-American	943	0.120	0.325	0	1
Asian	943	0.043	0.204	0	1
Other	943	0.021	0.144	0	1
Class Standing					
Freshman	973	0.303	0.460	0	1

Sophomore	973	0.368	0.482	0	1
Junior	973	0.247	0.431	0	1
Senior	973	0.082	0.275	0	1

RESULTS

Table 1 provides summary statistics for the sample. The average age in our sample was 21.5 years old, of which 50% of them are male. The sample is mostly white (73%); African-Americans are the second largest group representing 12% of the sample. Our study was administered to Principles-level courses at NKU and UK, while UWG surveyed all Economics courses. The majority of the students (37%) are sophomores, followed by 30% freshmen, 25% juniors, and 8% seniors.

Our goal is to better understand the popular media our students consume in an effort to provide more relevant examples. Since economics educators have created resources with the intent to engage students it is imperative to validate whether the resources available match students' consumption and stated preferences.

Table 2
TV SHOWS AND FAVORITE MUSICIANS - STUDENT PREFERENCES

Ranking	TV Show (Freq.)	Musician/Artist (Freq.)
1	Grey's Anatomy (109)	Drake (102)
2	The Office (102)	Taylor Swift (54)
3	Friends (101)	J. Cole (49)
4	Family Guy (75)	Future (49)
5	SportsCenter (71)	Luke Bryan (42)
6	The Walking Dead (70)	21 Pilots (39)
7	How I Met Your Mother (68)	Justin Bieber (39)
8	Parks and Recreation (67)	Adele (37)
9	The Big Bang Theory (56)	Beyoncé (30)
10	Game of Thrones (56)	Ed Sheeran (23)

Note: Each respondent could list their top 5 choices for TV and top 3 choices for music; the frequencies represent the sum of those choices.

We asked students to list their favorite television shows. These are summarized in Table 2. We found that the most frequently listed show is *Grey's Anatomy*, followed by *The Office* and, the popular 1990's-era show, *Friends*. Economics educators looking to incorporate media in the classroom can create a resource based on *Grey's Anatomy* or they can utilize work by Kuester, et al. (2014) on *The Economics of the Office*. Less popular but also with an economic resource available, *The Big Bang Theory* and *Parks and Recreation* are also in the top 10 list. Tierney et al. (2016) provide a website with clips to help connect economic content using popular media to the *The Big Bang Theory*, while Clark and Conaway (2015) have a paper on using *Parks and Recreation*.

When we divide the sample by gender (see tables 3a and 3b) we find that, out of the economics resources available, *The Office* is the only show that appears in both top 10 lists,

while *ESPN* and *SportsCenter* are only in the top 10 list for males. The only popular media resource focused on sports that we are aware of is that by Al-Bahrani and Patel (2015) that uses *ESPN* documentaries to teach economics. Although these documentaries cover a wide range of topics outside of sports, it might require more introduction to interest non-*ESPN* viewers.

Table 3a
FAVORITE TV SHOWS (BY GENDER)

Ranking	Male	Female
1	SportsCenter (71)	Grey's Anatomy (106)
2	Family Guy (61)	Friends (71)
3	The Office (59)	The Bachelor (46)
4	The Walking Dead (50)	The Office (43)
5	Breaking Bad (47)	New Girl (41)
6	ESPN (43)	Scandal (39)
7	Game of Thrones (41)	Criminal Minds (39)
8	South Park (39)	Pretty Little Liars (34)
9	How I Met Your Mother (38)	American Horror Story (33)
10	Parks and Recreation (37)	How I Met Your Mother (31)

Note: Each respondent could list their top 5 choices for TV; the frequencies represent the sum of those choices.

Table 3b
FAVORITE MUSICIANS (BY GENDER)

Ranking	Male	Female
1	Drake (62)	Taylor Swift (47)
2	Future (37)	Drake (40)
3	J. Cole (35)	Justin Bieber (35)
4	Eminem (21)	Adele (32)
5	Wiz Khalifa (20)	Beyoncé (30)
6	Kendrick Lamar (17)	Luke Bryan (29)
7	Kanye West (17)	21 Pilots (26)
8	21 Pilots (13)	Carrie Underwood (17)
9	Kenny Chesney (13)	Ed Sheeran (15)
10	Luke Bryan (13)	Maroon 5 (15)

Note: Each respondent could list their top 3 choices for music; the frequencies represent the sum of those choices.

One concern about our data is the lack of information on the medium students use to view these popular media. Other than the devices (smartphones, TV, laptops, etc.), students have a wide array of choices when it comes to accessing their favorite TV shows/music. These include whether students choose to have cable, Netflix, Hulu, HBO Go, etc., or whether they access TV shows using the log-in information of family/friends. The more narrow the students' choices, the more it directs them to certain media. What they watch could be affected by their prior decision device, subscription service, etc. Another concern is whether the data can be generalized to the

rest of the student population. Though we include the preferences of students from three different types of institutions, the data may still be biased based on the type of student that chooses to go to a particular type of school.

CONCLUSION

The use of popular media by faculty to relate economics concepts to students is growing, as evidenced by many recent papers on the topic. Researchers are decoding shows/movies/music that seems to be trending with the general population in an effort to use them in the classroom. However, these shows may not be students' favorites. We conduct a survey of student perceptions at three institutions to gauge the current popularity of TV shows and musicians. In summary, though there is some overlap between the resources currently available and student preferences, there appears to be a great divide between what faculty and students think in terms of TV/music popularity, at least when considering the resources faculty have invested time to develop. This has implications for pedagogical efficiency. The easiest choice of media for the faculty member to use as an example in class may not be the optimal choice to engage the student and enhance their learning experience. Researchers in this area should continue to update the number and type of TV/music resources that are available. In addition, careful studies of the efficacy of such methods are warranted.

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