

Teaching and Learning Schumpeter: A Dialogue Between Professor and Student*

John T. Dalton (Professor)[†]

Wake Forest University

Andrew J. Logan (Student)[‡]

Wake Forest University

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Abstract

Joseph Schumpeter's contributions to economics, including theories about innovation and entrepreneurship, creative destruction, and the debate over capitalism versus socialism, all remain relevant today. There is evidence, however, that Schumpeter's ideas have long received less attention in the classroom than they deserve given the importance economists attach to them. This paper provides a description of a discussion-based course on Schumpeter. Using a dialogue between professor and student before, during, and after the course, we describe the structure of the course and specific details related to content. We also include a syllabus, sources for class materials, and a list of over forty discussion questions. The dialogue allows us to show the dynamic nature of a discussion-based class, something we think Schumpeter would approve.

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[†]Contact: Department of Economics, Kirby Hall, Wake Forest University, Box 7505, Winston-Salem, NC 27109. Email: daltonjt@wfu.edu

[‡]Contact: Department of Economics, Kirby Hall, Wake Forest University, Box 7505, Winston-Salem, NC 27109. Email: logaaj17@wfu.edu

1 Introduction

The contributions of Joseph Schumpeter to economics and the social sciences remain relevant for both economists and their students. Innovation, entrepreneurship, and creative destruction are central concepts for understanding, among others, market dynamics, technological change, and economic growth and prosperity. Academics recognize Schumpeter’s contributions, as evidenced, for example, by the continued increase in annual citations to his work, which are enough to even outstrip those to John Maynard Keynes (Diamond 2009a, Dalton and Gaeto 2018). Yet innovation, entrepreneurship, and creative destruction remain undertaught (Diamond 2007, Gwartney 2012, Phipps, Strom, and Baumol 2012).

This paper describes a discussion-based course on the life and economics of Joseph Schumpeter. Schumpeter’s work still provides an excellent introduction to the study of innovation, entrepreneurship, and creative destruction, along with many other topics including the optimal role of government in the economy, i.e. capitalism versus socialism. We provide an overview of the course, including a syllabus (Online Appendix A.1), as well as detailed discussion about specific course content.¹ We also provide specific teaching materials for use in the course. These include source information for a recent documentary on Schumpeter, case study materials for examples of creative destruction, a list of over forty discussion questions for use in class (Online Appendix A.2), and a list of aphorisms by, or liked by, Schumpeter (Online Appendix A.3). In short, this paper covers everything necessary to prepare the course and, thus, should dramatically reduce the cost of offering a course on Schumpeter.

Why teach a dedicated course on Schumpeter? First, Schumpeter’s work is rich and full of nuance. As we have argued elsewhere (Dalton and Logan 2020) in the case of *Capitalism, Socialism and Democracy* (*CSD*), Francis Bacon’s dictum applies: “Some books are to be tasted, others to be swallowed, and some few to be chewed and digested. . .” A full semester dedicated to unraveling Schumpeter’s work allows students to tease out the nuances, the chewing and digesting necessary to absorb the power of his ideas. As an example, the class would have sufficient context to engage in a substantive discussion about whether Schumpeter really was

¹We reference online appendices throughout the paper. These appendices reside at <http://www.wfu.edu/~daltonjt/research> and contain information for implementing a course on Schumpeter, including a syllabus, discussion questions, and a list of aphorisms by, or liked by, Schumpeter.

being satirical when discussing the feasibility of socialism in *CSD*, a discussion we explore in detail in the paper. In our experience of teaching the course, students express appreciation for going in depth into a particular economist's work, something they rarely, if ever, do in other economics courses. Second, Schumpeter is especially relevant during times of technological change and disruption, such as the ongoing creative destruction in the political sphere caused by social media. Students feel a personal connection to these events, and Schumpeter's ideas help students understand the changes taking place in society.

Of course, our paper will also be of use for those looking to integrate specific topics related to Schumpeter into existing courses, such as on innovation and entrepreneurship, history of economic thought, and Austrian economics. For example, our discussion of Schumpeter's theory of innovation and entrepreneurship or our case studies of creative destruction could easily be used as modules in another course.

As the title of our paper suggests, we choose to organize our discussion of teaching and learning Schumpeter in the form of a dialogue between professor and student. Although our dialogue is fictional, it is inspired by our experience as professor and student in a real-life course on Schumpeter. The dialogue takes place before, during, and after the course. Why did we choose to write the paper as a dialogue? There are a few reasons. First, Schumpeter was one of the earliest economists to place dynamics at the center of his theories about the economy. A dialogue allows us to show how both the professor and students grow and change intellectually through teaching and learning, which is a way to mimic Schumpeter's central insight about how growth occurs as a result of creative destruction, albeit on the intellectual front. Second, a dialogue allows us to show how the professor and students interact, including during classroom discussions, which provides a sense of what one should expect to get out of a discussion-based course on Schumpeter. It also shows how student discussion creates a synthesis to achieve an understanding of Schumpeter's ideas. This approach emphasizes the importance of critical thinking in learning and doing economics. Third, a dialogue allows us to simultaneously convey the content of the course to instructors considering teaching Schumpeter while also creating a teaching tool. We think the dialogue itself can be read by students to get an introduction to Schumpeter's ideas.

One of the unintended consequences of structuring the course around discussion, which

became apparent throughout the course, was that it forced students to engage with one another about highly contentious topics in an academic setting, e.g. capitalism versus socialism. This is a nontrivial benefit during a time of heightened political polarization and when the public square is becoming fractured through the use of social media. Although the benefits of a discussion-based course would be obvious to colleagues in the humanities, this seems worth pointing out given the emphasis on chalk-and-talk instruction in economics.² Moreover, economics, especially the economics contained in the classics such as those written by Schumpeter, is actually quite well suited for discussion-based courses and, thus, has much to offer students by way of preparing them to deal with contentious topics arising in the public sphere. We think showing that process of back and forth between students in the form of a dialogue is valuable to see for instructors considering a discussion-based course.

Before we begin, let us make some brief remarks about the dialogue. Each section of the dialogue begins with stage notes and a statement of the main point of the section. We also make extensive use of footnotes and online appendices in the paper. Although parenthetical to the dialogue, the footnotes throughout the paper contain important information on course content which will be of use for those looking to teach their own course or integrate some of the ideas into existing courses. The same is true of the online appendices. We choose to use footnotes and online appendices so as not to interrupt the natural flow of the dialogue.

2 Before the Course: Overview

The dialogue opens in Professor Dalton's office. One of his students, Andrew, has just come in to ask a question from the previous day's intermediate macroeconomics lecture. This section of the dialogue motivates the course and provides an overview of course content.

Andrew: Hello, Professor Dalton. I was wondering if we could discuss the Total Factor Productivity (TFP) variable from yesterday's lecture on the Solow growth model.

Professor Dalton: Hello, Andrew. Of course—please, take a seat.

²Watts and Schaur (2011) show chalk and talk remains dominant in economics, but there is evidence that classroom discussion is becoming more popular. Jensen and Owen (2003) find less lecturing and more discussion encourages students to take more economics courses. Hansen (1983) provides many helpful hints for improving discussion in economics classes.

Andrew: The model itself is intuitive; I appreciate how it can capture complex economic processes with such elegant mathematics. However, I'm confused by how we get the TFP variable. In every example we've done, it's just been exogenously given; you've described it as no more than a "black box." What goes into that box?

Professor Dalton: That's an insightful question. TFP is made up of a whole host of factors, ranging from the strength of political institutions to the demographic profile of the economy being examined to its natural resource endowment. While economists often disagree on which specific factors are most important, there is a fairly broad consensus that technology and the pace of innovation constitute a substantial portion of TFP.

Andrew: Interesting. What does the model do to obtain a mathematical output for "technology and the pace of innovation" to get TFP?

Professor Dalton: It doesn't; we have to make our best estimate that aligns with prior research and empirical results. Much of that is aided by a substantial and still growing body of literature on the relationship between entrepreneurship, innovation, and technological growth.

Andrew: I don't understand how that information can be helpful or credible if it's not quantifiable. I remember you mentioning that the field of economics is technical and mathematically driven, with a strong preference for empirical research and mathematical expressions that package economic behavior into solvable systems. If TFP will always be exogenously given as a "black box" whose purpose is to make the rest of the equation work out, why bother studying entrepreneurship, innovation, and technological growth from an economics perspective?

Professor Dalton: [*hands a book across the desk*] Here's a man who can help guide your search for answers to those questions: Joseph A. Schumpeter and his *The Theory of Economic Development (TED)*.

Andrew: Looks like it was first published in 1911! How can a book written so long ago have such explanatory power for contemporary economics questions?

Professor Dalton: Another good question. In fact, it's one that a class I'm offering this summer plans to answer. I'm teaching a course in Vienna, Austria at the Wake Forest Flow House examining the life and economics of Joseph Schumpeter.³ Schumpeter might be long

³Wake Forest University owns a property, referred to as the Flow House, in Vienna, Austria where professors and students live year-round on study abroad programs. Professor Dalton's course, "The Life and Economics of Joseph A. Schumpeter," was offered at the Flow House during the summer of 2018. Living in Vienna afforded

dead, but he led quite an illustrious life. He often said that he sought to be the best economist in the world, the most talented horseman in Europe, and the greatest lover in Vienna. The punch line was that he had accomplished two out of the three but wouldn't say which ones. Here—take a syllabus (see Online Appendix A.1).

Andrew: [*chuckles as he scans through the syllabus*] Entrepreneurship, innovation, socialism, democracy... Seems like Schumpeter was all over the place.

Professor Dalton: You're more right than you realize—Schumpeter was all over the place. We'll read a biography by Thomas McGraw (McCraw (2007)) which argues that many of Schumpeter's ideas were directly influenced by the tumult and tragedy of his personal life.⁴ You see, Schumpeter was one of the first economists to view economic growth as a dynamic process that could not be adequately described by the equilibrium models in vogue at the time. His life was certainly dynamic: born into a leading family of Triesch, a small town located in the Austro-Hungarian empire in what is now the Czech Republic, his father died when Schumpeter was a young boy; Schumpeter's mother then remarried for status and money that she hoped would bring her son Joseph greater opportunities and moved to the city of Vienna. Vienna exposed Schumpeter to economics. He had a talent for the subject and became a successful academic until World War I disrupted Austrian society. Schumpeter leveraged his academic experience to become the finance minister of the post-war Austrian government, a position in which it was nearly impossible to succeed given the dire situation of the Austrian economy. He was sacked after only seven months. Schumpeter landed on his feet, however, and became president of the private Biederman bank. After a short three years, Schumpeter's poor business decisions and extravagant lifestyle had racked up considerable debts. He was forced to resign when the bank

the students the opportunity to better contextualize Schumpeter's early life. For example, the first assignment of the course required students to take "Schumpeter Selfies" around the city at locations central to Schumpeter's upbringing and education. The von Kéler apartment where Schumpeter grew up, the Theresianum where he went to school, and the University of Vienna where he began his economics education in earnest can all be visited today. The Arkadenhof of the University of Vienna contains plaques of Carl Menger, Friedrich von Wieser, and Eugen von Böhm-Bawerk, which can be used to facilitate discussion about the early Austrian School of economics and the intellectual environment in which Schumpeter began his career as an economist. Indeed, a course on Austrian Economics has been taught at the Flow House before (see McCannon (2011) for details). Although Professor Dalton designed the Schumpeter course with the Flow House and Vienna in mind, the content of the course would not be substantially changed if taught elsewhere. For example, Professor Dalton taught the course on Wake Forest's campus in spring 2020 and plans to offer the course on campus in the future.

⁴McCraw (2007) provides a comprehensive view of Schumpeter's life and economics, is written in an accessible style suitable for a class of undergraduates, and is currently available as a relatively inexpensive paperback. Other useful biographies on Schumpeter include Allen (1991), März (1991), Stolper (1994), and Swedberg (1991).

failed in 1924. Having failed in both politics and business, Schumpeter returned to the academy only to have his mother, wife, and newborn child all die within the span of a month and a half. Schumpeter eventually landed a position at Harvard University and became a US citizen, where he wrote what the world considers to be his magnum opus *CSD* while World War II raged around the globe.⁵ He died in 1950.

Andrew: He certainly lived a life of many ups and downs. Yet why does that make him relevant for today? You said it yourself—Schumpeter died in 1950: long before personal computers, the internet, iPhones, and other recent inventions driving the growth in technology today. When it comes to questions like how we dissect TFP, why does Schumpeter matter?

Professor Dalton: Schumpeter may not have imagined the exact qualities of specific innovations like the internet or the smartphone. However, he was one of the first economists to acknowledge the role innovation plays in the business cycle and economic growth. Entrepreneurs and innovation were at the heart of his theories about the economy. Studying Schumpeter provides you with a deeper understanding of what’s inside the “black box” of TFP. More importantly, Schumpeter’s theories help you to understand the emergence of modern economic growth, the transition of economies from a state of Malthusian stagnation and decline to seemingly endless increases in standards of living, what the economist Deirdre McCloskey refers to as “The Great Enrichment” (McCloskey 2016). Schumpeter also considered many of the social ramifications of the introduction of new innovations in a phrase he popularized: “creative destruction.” Flip over to the syllabus: as you can see, a good chunk of our course will be dedicated to applying Schumpeter’s theories to real world examples, including contemporary ones.

Andrew: Interesting. Looking at the syllabus, I don’t see many lectures, or much mathematics. It seems that most days are discussion based. That’s certainly unusual for economics!

Professor Dalton: It is, but I’ve deliberately designed it that way to mimic Schumpeter’s theories. Schumpeter viewed the economy as a dynamic process in which entrepreneurs create new paths along which growth can occur, and I want this course to be equally dynamic in its structure. Discussion-based classes are inherently dynamic and uncertain; how they unfold depends on the participants. I’ll play the role of facilitator in a free form discussion to

⁵See Dalton and Logan (2020) for a detailed review of *CSD* and an argument in favor of its continued relevance for modern readers seeking to better understand our dynamic world.

let the class discuss and/or challenge Schumpeter’s ideas. Schumpeter’s focus on entrepreneurship, innovation, and its social ramifications is often unfortunately neglected in introductory economics courses. I hope students will take this course to first understand, then appreciate, and then even perhaps challenge Schumpeter’s key ideas and apply them to different cases. Just because the class isn’t lecture based doesn’t mean it won’t be involved for either students or myself. We’ll be reading selections from the three books I’ve already mentioned: the McGraw biography and Schumpeter’s *TED* and *CSD*.⁶ We’ll be dissecting the books through open class discussion. We’ll also be applying his theory of creative destruction to contemporary cases like Netflix/Blockbuster and Uber/taxicabs, in addition to watching the film “The Man Who Discovered Capitalism” to understand how Schumpeter is relevant for the present day.⁷ We’ll top the course off with a group project, where students will pair up to search for a real life example of creative destruction and give a class presentation on it.⁸ I expect that the class will also be a challenge for myself; like you said, discussion-based classes are not common in economics, and I’ve never taught one before. However, I believe that this class format will be the most rewarding for everyone involved. Schumpeter is such a rich economic theorist whose work is incredibly nuanced; each time I read one of his books I pick up on new details. I can’t wait to see what we discover as a class this summer.

Andrew: I couldn’t agree more, Professor Dalton. Where can I sign up?

3 During the Course: Examples of Course Content

The dialogue picks back up at the Vienna Flow House. The class has just finished reading Chapter Two of TED and is about to discuss. This section describes Schumpeter’s theory of innovation and entrepreneurship.

⁶All three books are still in print and available as relatively inexpensive paperbacks.

⁷“The Man Who Discovered Capitalism” tells three narratives: the story of Schumpeter’s life, the development of his ideas, and how the digital revolution illustrates them. The film lasts about an hour and can be used as an introduction to the course. It presents relevant information with a high production quality and includes interviews from numerous entrepreneurs and economists, including Philippe Aghion, Robert Solow, and Larry Summers. Through the contemporary examples and interviews, students immediately realize a course on Schumpeter is highly relevant for understanding the economy and its continual evolution. Licenses for the film are available for \$220, but, where available, a university’s library streaming service may be used instead. See <https://www.schumpeter-film.de/?lang=en> for further details.

⁸The group project is described in more detail in Online Appendix A.1.

Professor Dalton: Over the weekend you all digested the first heavy economics reading of the course. Let's jump right into discussion. Does anyone have an opening question?

Andrew: I'll start us off. What did you all think of Schumpeter's definition of innovation? I thought it seemed overly broad.

John, another student, jumps in, followed by others in the course.

John: Well, as I recall from the text, Schumpeter defines innovation as the carrying out of new combinations. It doesn't seem to be especially broad; he lists the five types of activities that can be considered innovations.

Steve: Right. He notes that innovation can be either the introduction of a new good or quality of good, or the introduction of a new method of production, or the opening of a new market, or finding a new source of supply, or carrying out a new organization of an industry. In fact, his definition almost seems to be too narrow.

Andrew: Why do you say that?

Steve: Well, Schumpeter draws a distinction between inventions and innovations. It's nuanced but important. Inventions are the new combinations themselves and aren't especially important on their own. When carried out by bringing them to market, however, inventions become innovations and can puncture the status quo economic equilibrium.

Karen: It's interesting that you phrase your response that way. Such a disruption of the economic equilibrium is what I think we previously identified as creative destruction in both the movie we watched and in McCraw's biography. Schumpeter (1950, p. 83) defines creative destruction as the process that "...incessantly revolutionizes the economic structure *from within*, incessantly destroying the old one, incessantly creating a new one."

Andrew: Ah. So that must make entrepreneurs the engines of creative destruction. To your point about the distinction between invention and innovation, Steve, doesn't that imply that even simple changes in production processes can qualify as innovations, making even the average Joe an entrepreneur?

Steve: I suppose so. It seems that when we think of entrepreneurs, we too often turn to the myth of the Silicon Valley hero, holed up in a garage frantically coding away the next Facebook. Under Schumpeter's definition, however, it seems entrepreneurship is actually quite broad. For example, I think that an assembly line worker who changes how he welds car doors would be

considered an entrepreneur, because he is carrying out a new method of production.

Rebecca: That seems like too literal of an interpretation of what Schumpeter is saying. Such people might be innovating, but that doesn't make them true entrepreneurs. I think that *TED* discusses entrepreneurs in the context of the broader business cycle, talking about the cumulative effects notable innovations have on the ebbs and flows of the economy. That's why he notes that access to credit, provided by capitalists, is so vital for economic growth. Only through the credit mechanism can entrepreneurs afford to take risk, which enables them to carry out their new combinations.

John: I have to disagree with Rebecca. I consider myself an entrepreneur; my friends and I pooled our own resources and started a straight-to-dorm cookie delivery business. Our business didn't noticeably affect last quarter's GDP growth and didn't require a loan, but that doesn't mean that we aren't functioning as entrepreneurs.

Andrew: I think that John is right, to an extent. Entrepreneurship has a broader definition than Rebecca suggests, and, as such, John was an entrepreneur when he introduced his business. However, I don't think that John is still an entrepreneur. Once an entrepreneur introduces their new combination to the market and it is carried out, i.e. established, the entrepreneurial process has ended and so has the role of entrepreneur. From that point forward, we would consider John to be a manager, at least until his business innovates again.

Professor Dalton: John, what has your experience as an entrepreneur been like? Do you particularly identify with any of the obstacles to entrepreneurship Schumpeter points out?

John's face turns red.

John: Ummm... I didn't get that far in the reading.

Professor Dalton: Someone help him out.

Steve: Schumpeter identifies three obstacles: market uncertainty, subjective reluctance, and resistance from outside forces.

John: Ok let me think a minute... Of those three, the last one has been most difficult for me. I was confident that there was a demand for hot cookies on a college campus, and I am naturally a risk taker. However, I have been getting substantial resistance from outside forces. The university's food service provider has not taken kindly to my business and is threatening to petition the university to shut me down.

Professor Dalton: Interesting. Note how the food provider uses a legal response—we’ll have to revisit that when our class discusses Uber at a later date. In the interim, do others agree with John?

Susan: I’m really surprised; my response was the exact opposite. I’m not a risk taker at all, and the idea of starting a business and risking my time and resources into a venture that may not succeed doesn’t seem like a good idea to me. I am definitely held back by my own subjective reluctance.

Steve: I completely agree with Susan. Entrepreneurs must be a special kind of person to be able to tolerate that risk. What do you all think motivates them to be like that?

Andrew: Schumpeter discusses exactly that in *TED* when he analyzes the psychology of the entrepreneur. He notes that entrepreneurs have dreams of building a private kingdom, have a will to conquer, and find great joy in the process of conceiving and implementing new ideas.

Kristen: I get the point that Schumpeter is trying to make, but those points seem almost like checkboxes. I can say that I possess all of those characteristics, and yet I am no Steve Jobs. I think that there must be something else the entrepreneur possesses, perhaps a special magic that allows them to see opportunities in the world in a way we don’t.

John: To your point, Kristen, I think that Schumpeter would disagree with how you’ve lionized the entrepreneur. An entrepreneur is no mythological figure endowed with superhuman talents; I certainly am not. All Schumpeter is trying to say is that the lowest common denominator between successful entrepreneurs is that they possess those characteristics and the courage to act on them.

Professor Dalton: There’s lots here to think about, but I’m afraid we are out of time. Thank you all for a wonderful discussion.

The dialogue returns at the Vienna Flow House. The class is about to unpack two case studies of creative destruction, Netflix/Blockbuster and Uber/taxicabs, after completing a set of readings in the previous class.⁹ This section highlights how creative destruction can play out differently

⁹The readings include Antioco (2011) and Schmidt (2017) for Netflix/Blockbuster and Birkinshaw (2017) and Editorial Board (2018) for Uber/taxicabs. Schmidt (2017) is representative of the many articles published in the popular press about the collapse and final days of Blockbuster, whereas Antioco (2011) provides the perspective of Blockbuster’s former CEO. Birkinshaw (2017) provides an overview of the case of Uber/taxicabs and is also representative of the many articles written in the popular press about Uber. Editorial Board (2018) provides a good example of the ongoing debate at the city-level for how Uber should or should not be regulated. Diamond (2009b) summarizes several video clips that can be used when teaching creative destruction. These video clips

depending on the particular market or institutional context.

Professor Dalton: Let's start off today's discussion with a recap of creative destruction. How is it defined?

Steve: Schumpeter (1950, p. 83) defines creative destruction as "...industrial mutation... that incessantly revolutionizes the economic structure *from within*, incessantly destroying the old one, incessantly creating the new one." He calls creative destruction the essential fact about capitalism.

Professor Dalton: Great. Let's apply that definition to the Netflix/Blockbuster case study we read last class. Is that an example of creative destruction?

John: The competitive interplay between Netflix and Blockbuster absolutely illustrates creative destruction. Netflix jointly introduced two innovations—mail-shipped DVDs and a subscription based service without late fees—that cannibalized Blockbuster's market share, closed down hundreds of stores, and wiped out thousands of jobs. Netflix's "new combination" was everything Blockbuster wasn't; it was easier on the consumer as they didn't have to travel to a store to pick up content, and the subscription based service meant that there were few limits beyond the time required to mail DVDs on how much a person could rent out. Most significantly, Netflix's subscription model had no late fees, which was a gripe many Blockbuster customers had. Given that, it's no surprise that Netflix's product disrupted the marketplace for DVD rentals, pushing out Blockbuster in the process. They were doomed.

Professor Dalton: I think that raises an interesting question—is there anything an existing business can do to guard against the creative destruction process?

Andrew: Like our reading from last class suggests, I think that there's a lot Blockbuster could have done to guard against Netflix. The company was financially robust and had a physical store presence in practically every American neighborhood, advantages that they could have leveraged to protect Blockbuster's dominance in home video.

John: So, why didn't Blockbuster survive? I think that the creative destruction process is practically inevitable; once a new and better good comes along, it seems like the companies that produce the now obsolete products are fated to be destroyed.

Andrew: Maybe, but not necessarily. In Blockbuster's case, for example, they created

could be used as an alternative or complement to our case study approach.

Blockbuster Video on Demand to directly compete with Netflix's online service. Blockbuster's online service might have worked, but company executives killed the innovative idea before the new strategy could be seen to fruition. Just because a particular firm and/or entrepreneur is introducing an innovation, doesn't mean that they are the only ones that can produce it.

Steve: Perhaps the problem with the companies is their leadership. Firms are made of people, and people can get complacent when they've been at the top of the market for enough time. They can get wedded to specific organizational practices that make them less efficient or traditional products that may no longer align with the preferences of consumers. In that sense, even if they have the capacity to stop the creative destruction process, they may be too complacent to do anything about it.

Rose: I think Schumpeter discusses Steve's point as well; he notes how, after the entrepreneur establishes a firm, successive generations of leadership slowly lose the initial spark of creative brilliance which then steadily fades away.

Professor Dalton: That certainly is one possible outcome, Rose, but there are other examples out there where existing firms have successfully fought against new innovations. They may have lost their creative brilliance for innovation, but they still put up a fight. In fact, one of Schumpeter's main points was that companies, like the business cycle, are dynamic; they'll do everything in their power to either suppress or co-opt the new innovation. Given that, let's return to the discussion question at hand: what else do existing businesses do to guard against the creative destruction process?

Kristen: I think that the competitive interplay between Uber and taxi services in major cities shows that the creative destruction process isn't necessarily inevitable, as John suggests.

John: How so?

Kristen: Well, Uber is a successful product that threatens to displace the jobs of thousands of taxicab drivers. It has wiped out the value of taxi medallions in New York City and has fundamentally reshaped the way many of us, including college students, commute. Yet taxi services persist, in large part thanks to successful lobbying for governmental protection. Our last reading noted that Uber is banned in several countries and multiple major US metropolises. What's more, Uber faces the threat of regulatory restrictions and/or mandatory reforms in other places like London and Turkey.

Ciara: Kristen brings up a good point. Perhaps at times an innovation can be so disruptive that other constituencies unite to suppress its adoption.

John: Yet Blockbuster had tens of thousands of employees, and we didn't see Blockbuster workers organizing in the streets against Netflix. What's the threshold for a sufficiently disruptive innovation?

Ciara: I'm not sure that such a threshold has to exist, but it's worth considering the possibility that the success of a new innovation may be blunted by forces almost entirely outside the entrepreneur's control. In the case of Uber, it seems that it has become a victim of its own success, at least in some places.

Andrew: I think that this discussion perhaps misses a larger point about the nature of studying creative destruction. It seems that we can argue back and forth endlessly about the minutiae of the economic theory, but, at the end of the day, the empirical data speaks for itself. Why do we bother learning about all-encompassing theories in the first place when the specific empirical data of each case will differ regardless?

The class remains silent.

Professor Dalton: Let me respond to Andrew's question. I think that theoretical work is still valuable, because it can help frame empirical research. Theory can help us spot patterns in data that wouldn't otherwise be obvious. It can inject meaning and provide explanatory power for seemingly unrelated variables. While empiricism may be the workhorse of the economics profession at the moment, theory tells the horse where to go—and that has value in and of itself.

Andrew: Interesting. Thank you, Professor Dalton. I'll have to think on that.

The dialogue returns on the second day of discussion regarding the capitalism section, or Part II, of CSD. On the whiteboard is one of the many aphorisms recorded by Schumpeter in his diaries: "The trouble is capitalism does not believe in itself."¹⁰ This section of the dialogue describes Schumpeter's theory for how capitalism creates forces in society which actually undermine capitalism's support.

Professor Dalton: This is one of my favorite sections of *CSD* because it unpacks what I

¹⁰Online Appendix A.3 contains a list of aphorisms by, or liked by, Schumpeter suitable for use as a type of "Thought of the Day" for the beginning of class.

think is one of Schumpeter's most penetrating insights about capitalism. As background, let's remember we've already been exposed to Schumpeter's observations about some of the benefits capitalism has yielded for human society. In Europe, capitalism unlocked paths to wealth and prestige outside the traditional hierarchies under feudalism by rewarding those able to exercise supernormal business talent. This freed ambitious minds from, for example, the Church, creating a space for men and women to develop the foundations of modern scientific thought—which in turn helped mold society into the relatively more modern, prosperous, and progressive shape it has today. What's more, Schumpeter claims that capitalism and the profit motive have led to incredible gains in material prosperity, in art and cultural expression, and in the development of social legislation. Finally, by binding capitalists around the world in a golden straitjacket of trade and economic prosperity, capitalism has reduced the likelihood of interstate conflict.

Steve: And yet, despite all of that, Schumpeter (1950, p. 61) still comments: “Can capitalism survive? No. I do not think it can.”

Professor Dalton: You took the words right out of my mouth, Steve. My question to the class—why does Schumpeter think capitalism is doomed? The answer is what makes his logic here so brilliant.

Andrew: I think it's interesting how Schumpeter dedicates space in the capitalism section to demolishing other theories for capitalism's collapse. He has to be sure that his theory, and his alone, can accurately predict capitalism's failure.

Ciara: That is classic Schumpeter; he always has his own angle on every issue. In the process, though, I think he passes up on a perfectly plausible theory for capitalism's collapse that still holds sway today: the secular stagnation argument.

Kristen: Can you describe what you mean by that?

Ciara: Sure. Schumpeter discusses it in Chapter Ten, which he titles “The Vanishing of Investment Opportunity.” Today, it's called secular stagnation—an economic theory which essentially argues that we are running out of new discoveries and innovations. Since innovation is at the heart of capitalism according to Schumpeter's creative destruction model, capitalism will crumble once we've dried up the well of new innovations. I think I've heard this argument used to describe the world since the Great Recession.

Professor Dalton: That's right, Ciara. If you're interested, two recent references are the

books by Cowen (2011) and Gordon (2016).

Rose: Yet Schumpeter doesn't agree. He runs through a series of different iterations of the secular stagnation argument and rebuts them one by one using logic that makes intuitive sense to me. The whole point of the creative destruction process is its unpredictability; our inability to predict what the next great innovation will be is responsible for capitalism's dynamic nature and the ebbs and flows in the business cycle. Schumpeter is clearing the decks for his own brilliant conclusion: that the very strengths of capitalism Professor Dalton identified earlier are the things that will ultimately bring it crumbling down.

Professor Dalton: Spot on, Rose. What strengths of capitalism will create its downfall?

Steve: I found four different paths to the collapse of capitalism that Schumpeter outlined. My favorite was his argument about the role of the intellectual class. Schumpeter argues that capitalism creates a "will of the bourgeoisie" to design socially beneficial legislation. The passage of that legislation creates an environment where the level of education in society is artificially increased beyond what the market would normally provide. That leads to an oversupply of intellectuals: people who wield words without direct responsibility, which in turn causes their underemployment. When intellectuals are underemployed, Schumpeter argues that they are more likely to form alliances with organized labor and government bureaucracy, creating an intellectual vanguard that pushes capitalism to the point of collapse.

Andrew: I respect Schumpeter, but this was such a convoluted argument. And, I'm not even sure it holds today. For one, organized labor holds much less power than it did when Schumpeter wrote these chapters of *CSD*. What's more, it's unclear why intellectuals would seek to take down the economic system that they, just like other social groups, have benefitted from.

Rebecca: Schumpeter actually digs into exactly why intellectuals would attack capitalism in Chapter Thirteen, Andrew. He notes that arguments in favor of capitalism are inherently based around the long run prosperity it brings, but people tend to conduct cost-benefit analysis in the short run. Furthermore, capitalism is an economic system that is individualistic, which means it is unable to generate the emotional attachment that might characterize other economic systems. As a result, life's daily gripes about the capitalist system become irrationally greater than they might otherwise be.

Susan: I was confused by this argument. Who exactly is an intellectual? I struggled to understand Schumpeter's definition.

Rebecca: An intellectual is someone with the ability to write and comment without direct responsibility for what they say. Professors, teachers, and journalists are all examples of intellectuals. Schumpeter argues that the fruits of capitalism are what made the intellectual class possible in the first place by giving them an independent social grouping; innovations like the printing press made intellectual works accessible to a broader audience and not just a single Renaissance patron. This is where the brilliance of his argument really shines—he takes the very benefits of capitalism (i.e. the creation of an intellectual class and innovations like the printing press) and turns them on their head to illustrate how capitalism sows the seeds of its own demise.

Andrew: I was surprised when I read that argument in particular and all of Schumpeter's arguments for the collapse of capitalism in general. He doesn't come at the question from a traditional economics angle—he blends psychology, sociology, and history to explain capitalism's downfall.

Professor Dalton: You are exactly right, Andrew, and I think that is what makes Schumpeter's argument so elegant. His economic insights into the “beating heart of capitalism” and the creative destruction process made him a great economist, but what made him such an influential social scientist of the 20th century were his forays beyond economics proper. I think that Schumpeter stands out as one of the best scholars of capitalism because he was willing to reach beyond orthodox economic analysis to provide explanatory power for his theories. Part of my aim in teaching this course was to demonstrate the reach economics can have into other fields, and that other fields can influence economics in return.

Steve: And yet we've left hanging the biggest question raised by this whole section of the book—Schumpeter says that capitalism cannot survive, and yet it still exists today. Why?

Kristen: Well, I think it's important to note that Schumpeter doesn't give a timeframe for his argument; he doesn't specify when capitalism will collapse. Maybe he could still be right in the future.

Steve: Relying on that argument seems to undermine the validity of his claim; it becomes non-falsifiable. Under that logic, capitalism could collapse ten thousand years from now, and

Schumpeter would still be vindicated!

Rose: Even though capitalism hasn't collapsed yet, I think it's interesting to note the direction our society is moving in. I think that we are trending towards an erosion of support for capitalism. It's certainly gradual, but it is happening.

Andrew: What do you mean, Rose?

Rose: Over time, I think that Schumpeter's arguments are ringing truer and truer, and, as a result, capitalism's support structure is slowly being chipped away. Just glance at the news, and you'll notice a rise in anti-capitalist sentiment in developed countries. What's more, at least in America, many believe the economy is becoming increasingly concentrated in the hands of large firms that wield incredible power, and that can lead to a backlash. Think Facebook and Google. Think about the Amazon headquarters pulling out of New York City.

Steve: And, still, despite all those factors you identified, capitalism is still around.

Rose: It's the direction of the trend that matters, Steve. It's true that capitalism has survived, but it is always under threat from forces like those Schumpeter identified. I wonder if you'll still be able to so confidently say the same thing in the future.

Andrew: I really like your comments, Rose, but I have a slightly different take. I think you are reading this passage of Schumpeter quite literally. While it seems that Schumpeter is making a prediction about the downfall of capitalism, I think that he is actually sounding the alarm to call defenders of capitalism to action. The purpose of this passage is to startle those who support capitalism from a prosperous slumber and alert them to the many threats capitalism faces.

Rose: Hmm, that is an interesting take. I had never thought of that.

Professor Dalton: I'm afraid that's all the time we have today. There's a lot to think about there—thank you all for a wonderful discussion.

The dialogue returns the following class. The topic of the day is the socialism section, or Part III, of CSD.¹¹ This section describes Schumpeter's arguments about the viability of socialism and discusses whether Schumpeter was being satirical in his description of socialism.

¹¹Bogart (1995) argues the utopian society described in the novel *Looking Backward* by Edward Bellamy is nearly identical to the socialist system described by Schumpeter in this section of *CSD* and, thus, can be used as teaching material. Although the course we are describing here did not use *Looking Backward*, we point out Bogart (1995) for those interested in this approach.

Professor Dalton: Schumpeter (1950, p. 167) kicks off this section with a bang: “Can socialism work? Of course it can.” Is he right?

Steve: He certainly lays out a convincing argument for it. According to Schumpeter, a central planning board will be competent enough to efficiently allocate production, force firms to produce until price equals marginal cost, and distribute output according to a voucher system.

Rebecca: What’s more, he claims that the central planning board will be able to completely eliminate the business cycle, because the bureaucracy can plan progress. They can determine the rate and nature of new combinations, reallocate workers displaced by technological change, eliminate the friction between the public and private sectors, and force markets to clear thanks to the perfect information they possess.

Andrew: For an economist who often takes a harshly critical and contrarian view, Schumpeter sure is rosy about socialism’s prospects.

Karen: Yes, I noticed the same thing. He seems to be awfully accommodating to socialism and some of the problems it might present. For example, Schumpeter seems to have this irrational exuberance about the competence of the central planning board.

Ciara: I don’t think his exuberance is irrational at all. Schumpeter clearly lays out that the central planning board will be sufficiently large enough to obtain nearly perfect information, and, by controlling economic outcomes, it can eliminate any uncertainty associated with the remaining unknown information.

Andrew: Yet, unlike with nearly every other section in *CSD*, Schumpeter explores no counterarguments to his claims about socialism’s viability in any meaningful depth. It seems that he is presenting the arguments for socialism in the best possible light, and sweeping criticisms of it under the rug.

Kristen: I thought the same thing, Andrew. Some of Schumpeter’s arguments don’t seem to hold up under scrutiny. Take the section where he discusses the fruits of socialist output; Schumpeter (1950, pp. 190-191) claims that “Socialist bread may well taste sweeter to them [socialists] than capitalist bread simply because it is socialist bread, and it would do so even if they found mice in it.”

Karen: Good point, Kristen. What’s more, he also notes that workers in more difficult jobs will be rewarded with mere penny stamps; trinkets of recognition unassociated with any greater

material gain. Is this really a feasible argument?

Ciara: I think so. Schumpeter argues that under an egalitarian socialist system the entire incentive structure for society will transform. Under capitalism, we are incentivized by material benefits, because capitalism is a materialist system. In contrast, socialism emphasizes the collective ethic, meaning that material differences become irrelevant. Thus, social recognition will be more than adequate compensation for a more difficult job.

Andrew: I can't help but detect a hint of sarcasm in that argument. The whole purpose of socialism is to create total egalitarianism. Doesn't any differential in compensation, material or not, wreck why there was a call for socialism in the first place?

Ciara: Yes. Schumpeter (1950, p. 375) admits that contradiction himself when he states "...there is little reason to believe that this socialism will mean the advent of the civilization of which orthodox socialists dream." He's not being sarcastic; he's trying to illustrate that socialism can work but only at the cost of the egalitarian values it sought to create in the first place. Just like how the fruits of capitalism will ironically sow its demise, the irony of socialism is that, in order to make it viable, it becomes undesirable (Muller 1999, pp. 250-251).

Andrew: Your point is well taken, but I think there is a deeper level of irony in this section. Schumpeter's real use of irony is when he discusses socialism's feasibility, independent of the value system associated with it.

Professor Dalton: There is a body of academic literature that suggests the same, Andrew. *CSD* was such an intricate work that scholars are still trying to unravel Schumpeter's argument today. One strand of thought believes that Schumpeter was indeed being ironic when talking about socialism's feasibility.¹²

¹²See, for example, Muller (1999). Thomas McCraw subscribes to this view as well. In his introduction to *CSD*, McCraw (2008, p. XXIII) writes:

Schumpeter begins Part III, "Can Socialism Work?" with another strong assertion: "Of course it can." But a close examination of what follows may lead the attentive reader to conclude that he really means "Of course it can't." His statement is hedged about with so many far-fetched conditions and qualifications—all presented with a bland mock sincerity—that his argument drifts imperceptibly into irony and even satire. As a whole, the chapter represents one of his finest performances as a prose stylist. As the great satirist Jonathan Swift wrote in 1704, "Satire is a sort of glass wherein beholders do generally discover everybody's face but their own, which is the chief reason for that kind of reception it meets in the world, and that so very few are offended by it." Many readers missed the satire altogether. Some were so convinced by Schumpeter's apparent defense of socialism that they concluded he must be a socialist himself. But the point was that *they had kept reading*.

Andrew: Why would Schumpeter do that?

Professor Dalton: Think about the context: at the time, a debate was raging about whether socialism was a feasible economic system, the so-called “socialist calculation debate.” Some economic thinkers like Friedrich von Hayek or Ludwig von Mises thought no, and wrote uncompromising treatises vehemently attacking socialism. However, Schumpeter noticed that these works weren’t getting through to most socialist thinkers, who would dismiss their arguments out of hand. Thus, Schumpeter embedded his criticisms of socialism in a more sly, ironic manner to reel in a pro-socialist audience and get them to think critically about its genuine feasibility.¹³

Karen: Ahh, well that makes certain lines read completely differently! For example, I was confused when Schumpeter (1950, p. 129) wrote in Chapter Eleven of the previous capitalism section, “I am not going to argue that that achievement and that promise [of capitalism] are in themselves sufficient to support an argument for allowing the capitalist process to work on and, as it might easily be put, to lift poverty from the shoulders of mankind.” In context, that makes more sense—in saying he will not defend that, Schumpeter is ironically admitting that the argument makes sense.

Professor Dalton: Alright, I think that’s enough for today. See everyone next Monday.

The dialogue picks back up in Professor Dalton’s office in the Vienna Flow House. Professor Dalton and Andrew discuss the group project assignment for the course.

Professor Dalton: Hello, Andrew. How are you enjoying Austria so far?

Andrew: It’s been wonderful! I think being in Vienna has created a lot of value added for the course. The Schumpeter selfies were a great way to get introduced to the city, and it’s been a pleasant surprise to run into places that have new meaning after we’ve been in the course. For example, at the Zentralfriedhof cemetery, we went to see some gravestones of famous composers and ended up stumbling across the gravesite of one of Schumpeter’s mentors, Eugen von Böhm-Bawerk.

Professor Dalton: That’s great—I’d hoped that teaching the course in Vienna would help

¹³Muller (1999) argues this point about Schumpeter’s approach to criticizing socialism. Recall also the last sentence of the longer McCraw (2008, p. XXIII) quotation in footnote 12: “. . . the point was that *they had kept reading.*”

the material come alive, and I'm glad a visit to the cemetery has done that for you. How is your final project progressing?

Andrew: Honestly, after our discussion about the importance of theory for guiding empirical research, it's been much better. My partner and I found a great paper and dataset that have helped a lot for our real world example of creative destruction.

Professor Dalton: Glad to hear it. Tell me more!

Andrew: I think we went into the project with the wrong mentality. Like you pointed out, a good example of creative destruction needs to have a substantive dataset to back it up. However, it isn't sufficient to find a set of data that shows that one set of products is declining at the expense of another. Creative destruction is about identifying the competitive interplay between the firms producing both the disruptive and obsolete products. That's where the real richness in analysis come from; the data points themselves don't tell much of a story or motivate why creative destruction is occurring in the first place.

Professor Dalton: That's a good point. I'm glad that the course has helped provide some insight into why economic theory is so valuable. What real world example of creative destruction did you and Steve end up finding?

Andrew: We decided to look at the effect of the invention of the missile on the manned aircraft industry. From our research, we were able to conclude that the invention of the missile threatened to replace many manned military aircraft at the time, jeopardizing an industry that depended on continuous government contracts for business. This is where the economic theory became so important: Schumpeter explicitly talks about creative destruction, but I think his theory can be extended to the idea of "creative response," where firms under siege by the new innovation can work to improve their products, in the process "destroying" obsolete procedures and capital equipment and/or letting go workers. The manned airframe industry in this example did just that. We were initially confused by our findings—if the missile was superior and preferred for military contracts, why did several manned airframe firms survive? Once we expanded Schumpeter's theoretical vision to the idea of "creative response," we knew where to look for evidence, and the answer was suddenly clear: manned airframe firms made substantial capital investments and workforce changes in order to completely redesign some of

their production lines to produce missiles.¹⁴

Professor Dalton: Well done, that sounds like some very thorough work. I'm looking forward to seeing your presentation.

Andrew: We can't wait to give it!

4 After the Course: What We Learned

The dialogue returns at Wake Forest in Professor Dalton's office after the class has concluded. Professor Dalton and Andrew are chatting about how the summer program unfolded. This section of the dialogue discusses how descriptive or qualitative approaches can complement more formal and mathematical reasoning in economics. This section also highlights how students learn to discuss contentious topics in a constructive fashion by reading and discussing Schumpeter.

Professor Dalton: Hello, Andrew, good to see you. I remember our conversation in the spring about the Schumpeter course. Now that we've both completed it, what do you think?

Andrew: Honestly, I really enjoyed it. I came in expecting to learn about innovation and entrepreneurship and ended up walking away with so much more.

Professor Dalton: It sounds like the class did its job. What did you take away from it?

Andrew: Well, for one, I learned a lot about what makes up TFP—so much so that I understand now why economists call it a “black box.” A big component of TFP is exactly what you identified in our pre-trip discussion: technological change. By studying Schumpeterian creative destruction, I gained a lot of insight into how innovations are synthesized and proliferated across the market. Surprisingly enough, much of that analysis was less strictly economic in the sense of learning theorems and proofs and more psychological, in that our class, with Schumpeter as a guide to our discussions, dissected the motivations of entrepreneurs. We discussed the profit motive, the desire to build a lasting dynasty, and the struggles that entrepreneurs face when transitioning their company from a disruptor to an established player in the market. Those are all rich processes that, as far as I'm aware, aren't very well captured by mathematics yet, but

¹⁴This description of Andrew's group project in the dialogue is based on the actual group project he completed for the course. As described in Online Appendix A.1, the group project is designed to be open-ended and chosen by the students. This means the examples of creative destruction chosen by the students can vary widely, both within a course and across semesters if the course is taught multiple times.

it doesn't make studying or theorizing about them worthless.¹⁵

Professor Dalton: That's certainly a big shift in your opinion. What happened to your earlier belief that studying innovation and entrepreneurship was ultimately trivial because it couldn't be compressed into a mathematical model?

Andrew: I think my change in opinion had to do with two things. First was the specific material we talked about, and second was the way in which we talked about it.

Professor Dalton: Interesting; what specific material are you referring to?

Andrew: I went into the course with a fairly skeptical mindset, given the increasingly empirical direction the economics profession seems to be heading in. However, the case studies of creative destruction, the real world examples of innovation and entrepreneurship, the film, and the group project really hit home the idea that just because a course doesn't use an econometrics approach doesn't mean it fails to teach things that are applicable to the real world. For example, one of my favorite parts of the course was discussing the interplay between Uber and New York City taxi drivers. Not only did we read qualitative articles discussing the problem (Birkinshaw 2017, Editorial Board 2018), we also looked through descriptive data quantifying the effect ride sharing services like Uber have had on the New York City taxi industry.¹⁶ It was also interesting to hone in on more local Austrian examples, like Red Bull in Salzburg or Naschmarkt vendors that were only a few U-Bahn stops from the Flow House.¹⁷ The final project was what really pulled it all together; it gave us the opportunity to apply what we'd learned and map it to a real

¹⁵Of course, we do not mean to say that none of Schumpeter's ideas have been formalized in models. So-called Schumpeterian growth models, which try to operationalize the idea of creative destruction, are the best examples. Aghion, Akcigit, and Howitt (2014) provide an overview of this literature. For instructors interested in teaching students mathematical models related to Schumpeter's ideas, a Schumpeterian growth model would be the logical choice. If a course on Schumpeter took this approach, we recommend teaching these models last. This way students can see what parts of Schumpeter's theories have and have not been formalized in current models. In order to fit this added material into the course, cutting back on Parts I and IV of *CSD*, which are the parts on Marx and Democracy, would be the most likely places to make adjustments (see the syllabus in Online Appendix A.1).

¹⁶Analyzing over 1.8 billion New York City taxi and for-hire trips, including Uber trips, Todd Schneider's website provides one of the best publicly available overviews of the effects of Uber on the taxi industry. Students can easily visualize an example of creative destruction unfolding through the many graphs Schneider provides. The website resides at <https://toddschneider.com/posts/analyzing-1-1-billion-nyc-taxi-and-uber-trips-with-a-vengeance/>

¹⁷The Naschmarkt refers to the largest outdoor market in Vienna, which consists primarily of food vendors. We mention Red Bull, which is an Austrian company, and the Naschmarkt here, because the food industry is a prime example of Schumpeter's definition of innovation as the carrying out of new combinations. Different combinations of ingredients and new cooking methods leading to new flavors is something most students can relate to in the real world, with or without access to the Naschmarkt.

world example. Other than the experience of simply living in Vienna, creating and presenting that project was probably my favorite part of the course. That's when I started to recognize that topics don't become trivial if they can't be compressed into Stata; non-empirical discussion has value as well.

Professor Dalton: You also mentioned that the way we talked about the material helped shift your opinion. What did you mean by that?

Andrew: Well, to your credit Professor Dalton, I thought the decision to shake up the traditional economics teaching format and go for a dynamic, discussion-based class environment was an excellent move. Not only does it draw a nice parallel with Schumpeter's focus on dynamic economics, it also helped to create a space where my fellow classmates and I felt comfortable sharing ideas and working together, over lengthy class discussions, to find a common interpretation of Schumpeter's arguments. Thanks to that class format, I was able to share and deliberate with the class about my original belief that studying entrepreneurship was ultimately pointless if we couldn't convert it into a mathematical model. I think that in any other class format, I would have felt much less comfortable sharing an opinion that fundamentally challenged the premise of the course, but this pedagogical model enabled me to do so and in the process sparked a great class discussion that spilled outside the classroom. By the end of the program, I'd had enough civil conversations with other students in the class that my mind was changed.

Professor Dalton: I'm glad that happened, but creating that kind of space for student deliberation was an unintentional byproduct of the course. My original motivation for using a discussion-based format with the professor acting as an umpire rather than leader of the conversation was what you identified: to extend Schumpeter's dynamic conception of the economy into the classroom. However, as the course went on, and especially as we transitioned into Part IV of *CSD* which focused on democracy, I think I realized something much broader.

Andrew: What did you realize?

Professor Dalton: Well, I think that teaching Schumpeter in this specific format can lead to some really surprising outcomes, especially considering the current climate with respect to political polarization. *CSD* was intended to be the cornerstone of the course. I had a very specific vision of what our class should get out of each of *CSD*'s first four parts, at least for the purposes of an exam. Of all the parts, Part IV was more of an afterthought in my notes than

anything else. I'm an economist, not a political scientist, and, as such, I was less interested in the best definition of democracy and more in the cultural indeterminateness of socialism. To be honest, in my class preparation, I largely breezed over the other parts of the chapter. Yet once our class transitioned into discussing Part IV, I saw students' eyes light up when we discussed Schumpeter's thoughts on democracy. We had brilliant class discussions on whether democracy was a means, as Schumpeter suggests, or an end that should be valued in and of itself. The class conversation that struck me the most, however, was when we discussed Schumpeter's prescriptions for a well-functioning democracy. He mentioned a simple yet perhaps difficult idea to follow: that we should have tolerance and respect for different opinions. As I'm sure you probably remember, our class got especially animated on this point, with people sharing personal stories on contentious topics like free speech. Yet throughout a discussion that contained some substantial disagreements, our class was able to follow Schumpeter's advice and demonstrate tolerance and respect for one another.

Andrew: I noticed that too, actually. I think it's because the specific topics Schumpeter discusses in *CSD* combined with the judgement-free space our class discussion environment provided was the perfect cocktail to model what good democratic deliberation looks like.

Professor Dalton: Exactly! That same observation led me to the conclusion that the class ended up being so much more than I'd originally envisioned. What started off as a course about innovation and entrepreneurship also became a model for civil discourse in an era of rampant political polarization. Schumpeter gets us to the tough topics in an academic format, and the open space where all ideas are welcome enables us to bounce them around, recognize the common ground we share, and grow both our academic knowledge and empathy in the process. That's a lesson that no chalk-and-talk lecture could ever impart.

Andrew: Apparently to properly teach how Schumpeter punctures the static circular flow model, you need to puncture static economics teaching norms, too.

Professor Dalton: [*chuckles*] Good point. It was great chatting with you, Andrew. I'm so glad you were able to learn and grow through this course.

Andrew: It sounds like you did some learning and growing of your own, Professor Dalton.

Professor Dalton: Yes, I certainly did—all thanks to Schumpeter.

5 Conclusion

The goal of the dialogue and the teaching materials we provide in this paper is to inspire instructors to include more Schumpeter in their teaching, whether it be as a stand alone course or the integration into existing courses of some of the topics we cover. We think scholars interested in Austrian economics in particular will benefit from the ideas in this paper. Schumpeter's flamboyant personality appeals to students in a way other economists do not, and his canonical work still provides a compelling introduction to ideas central to Austrian economics. For example, the description of innovation and entrepreneurship in *TED* remains an excellent introduction to the topic. Part II of *CSD*, which features Schumpeter's use of the phrase creative destruction, is one of the single best descriptions of capitalism ever written. It still can be read and discussed profitably today. Moreover, *CSD*, in general, deals with one of the central questions in all of economics and the social sciences, i.e. the optimal role of government in society. All of these ideas have numerous real world applications, some of which we have described in our dialogue, which means a class on Schumpeter should prove contemporary and fresh for both professor and students.

Lastly, Wasserman (2019) argues one of the defining features of the early Austrian school, including one of its lasting contributions, was cultural, i.e. that Austrian economics was born out of the fiery debates surrounding economics taking place in seminar room and coffee house alike in fin-de-siècle Vienna. Schumpeter participated in Böhm-Bawerk's seminar. The Mises-Kreis is another example. Discussion is essential for sharpening economic ideas. We think a course on Schumpeter based on *discussion* will help introduce students to this important cultural aspect of Austrian economics.

A Online Appendix

A.1 Syllabus for “The Life and Economics of Joseph A. Schumpeter”

The information below contains the main components for the syllabus on Schumpeter but slightly abbreviated to not depend on being located in Vienna. The only substantive change this causes in the syllabus is to remove the Schumpeter selfie assignment from the course.

Course Description

Born in the Austro-Hungarian Empire towards the end of the 19th century and educated at the University of Vienna, Joseph A. Schumpeter would turn out to be one of history’s most influential economists. Schumpeter’s phrase *creative destruction*, which refers to the market process by which old firms or technologies recede into history as new firms and technologies emerge, is second only to Adam Smith’s *invisible hand* in the economist’s lexicon. The use of the term creative destruction in Schumpeter’s book *Capitalism, Socialism and Democracy* represents a type of rhetorical capstone describing his life’s work on the dynamics of capitalism and the role played by entrepreneurs in the evolution of market economies. Schumpeter’s ideas about entrepreneurs and the dynamics of capitalism fully emerged with the publication of his *The Theory of Economic Development*, which established his worldwide reputation as an important economist early in his career.

Students will study the early life of Schumpeter to contextualize the origins of his ideas. We will emphasize the creative destruction process and the role played by entrepreneurship in the economy, both in terms of their microeconomic and macroeconomic effects. Material for the course will draw from biographies of Schumpeter, primary works by Schumpeter, and recent case studies highlighting the concepts of creative destruction and entrepreneurship, such as Netflix and Uber.

Reading

The course will center around three books: *The Theory of Economic Development* by Joseph Schumpeter; *Capitalism, Socialism and Democracy* by Joseph Schumpeter; and *Prophet of Innovation: Joseph Schumpeter and Creative Destruction* by Thomas McCraw. Everyone is expected to own copies of the books and come to class already having read the lecture’s corresponding chapters. You should bring a discussion list of questions, passages requiring clarification, inter-

esting observations, and/or passages you disagree with to facilitate classroom discussion. I will call on each of you to provide material from your daily discussion list throughout the semester.

The reading schedule is attached below and will also be announced each day in class.

In addition to the books, I may also pass out extra readings. You are also responsible for these readings.

Course Requirements

The course requirements for a grade include submission of your discussion lists, participation in classroom discussion, one midterm, one group lecture, and one final exam. The timing of the assignments is given in the outline below. You are responsible for material covered in lecture as well as the assigned readings.

Grading

Table A.1: Grading Breakdown

Participation	10%
Discussion Lists	10%
Midterm	25%
Group Lecture	25%
Final Exam	30%

Group Lecture

Each group will organize a 25 minute lecture centered around an example of creative destruction. Your example can be from any period of history and any country. You might consider focusing on a particular industry, firm, technology, idea, etc. I will be available during office hours to discuss your lectures.

All lectures must contain at least some presentation slides to present the topic to the class. In addition to the slides, each group is responsible for making a 1-2 page handout summarizing their lecture's key findings. Other than these constraints, you are free to design the format of the lecture however you desire.

Grades for the group lectures will be determined by 1) the quality of the handout and presentation slides; 2) the substance, argument, organization, and clarity of the material presented; 3) the originality of the lecture; and 4) the overall presentation skills of the group.

Course Schedule

Table A.2: Class Outline and Reading Schedule

Class ^a	Reading ^b
Introduction Movie: The Man Who Discovered Capitalism	
Who Was Joseph Schumpeter?	<i>PofI</i> : Preface, Prologue, Ch 1-4 Discussion List Due
Who Was Joseph Schumpeter?	
Innovation	<i>TED</i> : Introduction Discussion List Due
Innovation	<i>TED</i> : Ch 2 Discussion List Due
Innovation and Creative Destruction Cases	
Midterm	
Marx ^b	<i>CSD</i> : Introduction, Part I Discussion List Due
Capitalism	<i>CSD</i> : Part II (Prologue, Ch 5-10) Discussion List Due
Capitalism	<i>CSD</i> : Part II (Ch 11-14) Discussion List Due
Socialism	<i>CSD</i> : Part III Discussion List Due
Democracy	<i>CSD</i> : Part IV Discussion List Due
Group Lectures	
Group Lectures	
Final Exam	

^a Each class block represents approximately two and half hours of in-class time.

^b *PofI* = *Prophet of Innovation: Joseph Schumpeter and Creative Destruction*, *TED* = *The Theory of Economic Development*, and *CSD* = *Capitalism, Socialism and Democracy*.

^c The section on Marx in *CSD* is by far the most difficult part of the course for undergraduates to understand and will likely require more preparation on the part of the professor to clarify certain passages.

A.2 Discussion Questions

Managing the multiple and uncertain ways a discussion unfolds during class can be a source of both joy and challenge for a professor. Discussions of Schumpeter's work are no different, especially those revolving around *Capitalism, Socialism and Democracy*. In this appendix, we provide a list of possible discussion prompts for the different sections of the course, as outlined in Table A.2. These prompts, along with the discussion lists created by students during the

course, should provide ample material to facilitate discussion.

The Man Who Discovered Capitalism

1. What are some characteristics a successful entrepreneur possesses?
2. Does Schumpeter's theory overemphasize the role of the individual entrepreneur? What factors outside the entrepreneur's control might contribute to the success of a company or product?
3. Which of the economists/entrepreneurs interviewed did you think had the best take on Schumpeter's ideas? Why?
4. Schumpeter's theory of creative destruction and dynamic view of the economy is difficult to translate into a mathematical model. Did this hinder or help the spread of his ideas? Compare and contrast with Keynes.
5. Do you agree with the policy conclusions at the end of the film, i.e. that government investment is necessary to keep innovation going?

Who Was Joseph Schumpeter?¹⁸

1. How do you think Schumpeter's upbringing in Vienna shaped his personal and academic goals?
2. How do you think Schumpeter's personal life affected his dynamic view of capitalism and the economic process?
3. Describe how the Classical School, German Historical School, and Marginalists influenced Schumpeter's approach to economics.
4. Schumpeter emphasizes positive (value-neutral) economics. What does positive economics look like today, given that facts and the truth have been politicized?
5. Is there any value to normative economics?

¹⁸The readings from McCraw (2007) provide the background for most of the discussion questions in this section of the course.

6. Schumpeter emphasizes the use of mathematics in economics, and yet his own theories are difficult to mathematically model or incorporate mathematics into. What do you think is the cause of this discrepancy?
7. Describe what Schumpeter meant by the term “Ricardian Vice.”
8. After reading Diamond (2009a) and Dalton and Gaeto (2018), what do you think are some reasons why Schumpeter’s popularity is on the rise, both in absolute terms and in comparison to Keynes?

The Theory of Economic Development

1. Describe Schumpeter’s criticism of the static equilibrium model. Why do you think it still persists? What value does it have to economists today?
2. Schumpeter defines development as the carrying out of new combinations of productive means. What are the five types of new combinations in Schumpeter’s theory?
3. Why is credit important to innovation? What would a world without credit available for entrepreneurs look like?
4. Identify the three reasons why being an entrepreneur is difficult. Which of these reasons do you think is the biggest obstacle holding back entrepreneurs? What has your own experience been?
5. Identify the different motivations of the entrepreneur. Which is most important and why?

Capitalism, Socialism and Democracy, Part I

1. In what ways was Marx a prophet? A sociologist? An economist? A teacher?
2. Do you think the idea of social classes is a useful concept?
3. In Schumpeter’s eyes, why is it important that Marx fails to distinguish between the capitalist and the entrepreneur?
4. Identify and evaluate the predictions derived from Marx’s economic theory.

5. Summarize Schumpeter's verdict of Marx.

Capitalism, Socialism and Democracy, Part II

1. Schumpeter's argument about the fate of capitalism is that its very success undermines the social institutions protecting it, which leads to capitalism's failure. What evidence do you see for and against this argument?
2. Does capitalism promote social welfare?
3. Schumpeter argues we should judge capitalism's performance over time, not at a particular point in time. Do you agree? If we do judge capitalism's performance over time, how should we manage its shortcomings in the short run?
4. Schumpeter argues competition from innovation is what really matters for an economy's performance, not the price competition favored by most instructors of economics. Do you agree?
5. Schumpeter defends capitalism from a variety of criticisms. How valid are his defenses of each? Have there been new developments since the publishing of *Capitalism, Socialism and Democracy* that might invalidate or confirm any of his points?
6. Describe the three ways in which the walls protecting capitalism are crumbling. Do you see evidence of the crumbling Schumpeter describes? What does this suggest about capitalism's future?
7. Describe the role of the intellectual in Schumpeter's theory. Is over-education really bad, as Schumpeter suggests? How does such a position implicate the role universities might play in capitalism's collapse?
8. What role does the disintegration of the bourgeois family play in Schumpeter's theory of capitalism's collapse? How do you think his argument has held up over time?
9. Do you agree with Schumpeter that the bourgeoisie just does not really care about supporting capitalism anymore?

10. Schumpeter argues transformation may be a better description than destruction. At what point does the transformation of capitalism become its destruction?

Capitalism, Socialism and Democracy, Part III

1. Was Schumpeter being ironic about the feasibility of socialism? Why or why not?
2. Schumpeter's prediction about the fall of capitalism and emergence of socialism was wrong...or was it? To what degree can government intervene in markets and an economy still be considered capitalist?
3. Schumpeter argues a socialist society would have to be run by an all-embracing bureaucracy but, not to worry, because we already have a thoroughly bureaucratized way of life. Schumpeter is arguing we already live in a socialist world more than we realize. What do you think? Are we plugged into The Matrix?
4. Do you think the development of certain technologies, e.g. AI, face and gait recognition, higher computing power, will make the socialist bureaucracy's enormous task possible?
5. Do you think Schumpeter's idea of social prestige would be enough to incentivize good performance under socialism? What unforeseen problems might emerge under this incentive scheme?

Capitalism, Socialism and Democracy, Part IV

1. Schumpeter criticizes the classical doctrine of democracy from different angles. Do you agree with his critique?
2. Is democracy a means or an end?
3. Describe Schumpeter's alternative theory of democracy. Do you agree with his analysis of political parties, for example?
4. Identify Schumpeter's four conditions necessary for a well-functioning democracy. Use these four conditions as a lens through which to evaluate the current state of democracy.

5. Schumpeter argues capitalism and democracy developed together. If capitalism fails, as Schumpeter suggests, will democracy fail with it? Are socialism and democracy compatible?

A.3 Aphorisms by, or Liked by, Schumpeter

Swedberg (1991) contains a list of over 100 aphorisms from Schumpeter's private diaries, which remain accessible to researchers in the Harvard University Archives. The aphorisms were written while Schumpeter was living in the United States. Although the aphorisms were written down by Schumpeter, they may not be original to him and instead might be recordings in a commonplace book. In either case, the aphorisms can be used before class as a type of "Thought of the Day" to give students a different perspective into Schumpeter's thoughts. The selection below contains aphorisms corresponding with topics from the readings, e.g. 4 and 11 are great to use when reading part II of *Capitalism, Socialism and Democracy*, while others simply provide insight into Schumpeter's thoughts about economists, e.g. 1, 7, and 8, and human nature, e.g. 2, 3, 9, and 10.

1. Catch a parrot, teach him to say "Supply and Demand" and you have an economist.
2. Mankind is prepared to believe anything except the truth.
3. People do not reason on facts but on creations of their fancies.
4. Capitalism pays the people that strive to pull it down.
5. Politicians are like bad horsemen who are so preoccupied with keeping in the saddle that they can't bother about where they go.
6. Bureaucracy is an engine for the Production of Regulation.
7. The economist's difficulty in speaking of practical measures is that he talks to—if he is not himself—a vicious child that screams and kicks and never wants the means when it wants an end.
8. An economist who is not unpopular like hell is not worth his salt.

9. We all of us like a sparkling error better than a trivial truth.
10. It is our mind that looks for simplicity, not nature.
11. The trouble is capitalism does not believe in itself.

References

- AGHION, P., U. AKCIGIT, AND P. HOWITT (2014): “What Do We Learn From Schumpeterian Growth Theory?,” in P. Aghion and S. N. Durlauf, editors, *Handbook of Economic Growth*, Volume 2, 515-563.
- ALLEN, R. L. (1991): *Opening Doors: The Life and Work of Joseph Schumpeter*, 2 volumes. New Brunswick, NJ: Transaction Publishers.
- ANTIOCO, J. (2011): “How I Did It: Blockbuster’s Former CEO on Sparring with an Activist Shareholder,” *Harvard Business Review*, April.
- BIRKINSHAW, J. (2017): “Uber—A Story of Destructive Creation,” *Forbes*, October.
- BOGART, W. T. (1995): “Looking Backward at Feasible Socialism: Using Bellamy to Teach Schumpeter,” *Journal of Economic Education*, 26(4), 352–356.
- COWEN, T. (2011): *The Great Stagnation: How America Ate All the Low-Hanging Fruit of Modern History, Got Sick, and Will (Eventually) Feel Better*. New York, NY: Dutton.
- DALTON, J. T., AND L. R. GAETO (2018): “Schumpeter vs. Keynes Redux: “Still Not Dead”,” working paper.
- DALTON, J. T., AND A. J. LOGAN (2020): “A Vision for a Dynamic World: Reading *Capitalism, Socialism and Democracy* for Today,” *The Independent Review*, 24(4), 567–577.
- DIAMOND, JR., A. M. (2007): “The Neglect of Creative Destruction in Micro-Principles Texts,” *History of Economic Ideas*, 26(4), 352–356.
- (2009a): “Schumpeter vs. Keynes: “In the Long Run Not All of Us Are Dead”,” *Journal of the History of Economic Thought*, 31(4), 531–541.
- (2009b): “Using Video Clips to Teach Creative Destruction,” *Journal of Private Enterprise*, 25(1).
- EDITORIAL BOARD (2018): “What Will New York Do About Its Uber Problem?,” *New York Times*, May 7.

- GORDON, R. J. (2016): *The Rise and Fall of American Growth: The U.S. Standard of Living Since the Civil War*. Princeton, NJ: Princeton University Press.
- GWARTNEY, J. (2012): “What Should We Be Teaching in Basic Economics Courses?,” *Journal of Economic Education*, 43(3), 300–307.
- HANSEN, W. L. (1983): “Improving Classroom Discussion in Economics Courses,” *Journal of Economic Education*, 14(1), 40–49.
- JENSEN, E. J., AND A. L. OWEN (2003): “Appealing to Good Students in Introductory Economics,” *Journal of Economic Education*, 34(4), 299–325.
- MCCANNON, B. C. (2011): “Teaching Austrian Economics in Austria as a Non-Austrian: A Note,” *Journal of Economics and Finance Education*, 10(2), 1–5.
- MCCLOSKEY, D. N. (2016): *Bourgeois Equality: How Ideas, Not Capital or Institutions, Enriched the World*. Chicago, IL: University of Chicago Press.
- MCCRAW, T. K. (2007): *Prophet of Innovation: Joseph Schumpeter and Creative Destruction*. Cambridge, MA: The Belknap Press of Harvard University Press.
- (2008): “Introduction to the Harper Perennial Modern Thought Edition,” in J. A. Schumpeter, *Capitalism, Socialism and Democracy*, New York, NY: Harper Perennial Modern Thought, IX-XXXII.
- MÄRZ, E. (1991): *Joseph Schumpeter: Scholar, Teacher and Politician*. New Haven, CT: Yale University Press.
- MULLER, J. Z. (1999): “Capitalism, Socialism, and Irony: Understanding Schumpeter in Context,” *Critical Review*, 13(3-4), 239–267.
- PHIPPS, B. J., R. J. STROM, AND W. J. BAUMOL (2012): “Principles of Economics Without the Prince of Denmark,” *Journal of Economic Education*, 43(1), 58–71.
- SCHMIDT, S. (2017): “Blockbuster has Survived in the Most Curious of Places—Alaska,” *Washington Post*, April 26.

- SCHUMPETER, J. A. (1950): *Capitalism, Socialism and Democracy*. New York, NY: Harper & Row.
- STOLPER, W. F. (1994): *Joseph Alois Schumpeter: The Public Life of a Private Man*. Princeton, NJ: Princeton University Press.
- SWEDBERG, R. (1991): *Schumpeter: A Biography*. Princeton, NJ: Princeton University Press.
- WASSERMAN, J. (2019): *The Marginal Revolutionaries: How Austrian Economists Fought the War of Ideas*. New Haven, CT: Yale University Press.
- WATTS, M., AND G. SCHAUR (2011): “Teaching and Assessment Methods in Undergraduate Economics: A Fourth National Quinquennial Survey,” *Journal of Economic Education*, 42(3), 294–309.