THE ACCIDENTAL AGONY AUNT: REFLECTIONS OF AN ON-LINE TUTOR*

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ABSTRACT

This paper presents a case study that examines whether a nearly anonymous on-line tutor can provide significant assistance to the teaching of large introductory courses. By confining the on-line teaching role to queries concerning subject matter alone and by limiting contact to what can be accomplished in such a virtual teaching environment, the case study shows that effective assistance to students can be provided while at the same time relieving pressure on tutors and lecturers in a noticeable way. As in any instance of teaching, success rests largely on the skill and patience of the teacher and the willingness of administrators to refrain from micro-managing.

Keywords: undergraduate economics, on-line teaching, tutorials.

JEL classifications: A22.

* Craig Freedman, Australian School of Business, University of New South Wales, NSW, 2052, Australia, Email: cfreedma@hotmail.com. The role of on-line tutor was undertaken solely by Craig Freedman and the experience then explored and analysed by the two people responsible for this work. Use then is made of the first person singular when actually describing the course of this particular adventure into the realm of the on-line. Accordingly, the authors would like to thank all the online students who made what could have been a tedious task, lively. Thanks also to Michael Dobbie for running a well-structured first year course and as always to a pair of anonymous referees for pointing out shortcomings.

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1. LEAPING INTO THE VOID

be not afraid of greatness: some are born great, some achieve
greatness, and some have greatness thrust upon 'em.

(Malvolio, Shakespeare’s Twelfth Night)

In July of 2009 I was returning to work after a profitable six month
sabbatical. Unfortunately, a chronic problem with a set of inflamed
vocal chords was no better despite some sixteen months having passed
since the initial infection. (The problem had been exacerbated by
continuing to lecture while barely being able to croak out a sentence
louder than a whisper.) After consulting numerous specialists and
undergoing many unpleasant tests, I was no closer to a solution than I
had been at the start of my difficulties. With a new semester soon to
begin and a complete inability to hold conversations of more than five
minutes in duration without seriously irritating my already inflamed
larynx, resuming normal lecturing responsibilities was not an option. I
was instead assigned the task of providing online tutorial support for a
large (1300+ students), first year microeconomics course. This paper
provides some reflections on this role, its challenges, its benefits and
value, and the best approach to take to such a task in order to execute
it effectively. It was an unusual teaching experience for the author
concerned but one that revealed much about the nature of teaching
economics generally as well as about teaching in an online context.

2. CIRCUMSTANCES ARE EVERYTHING

I used to be Snow White … but I drifted.

(West and Weintraub 1975, p.47)

The actual role of online tutor had to be constructed from whole cloth
since no prior consideration had been given to such a position and no
one else except me, as the designated tutor, seemed particularly
concerned. There was no prior idea as to how much time performing
as an electronic presence would require. That was left largely in the air
as was what would constitute satisfactory performance of such an
innovative role. (None of the other courses had this type of assistant.
Previously, whether in classes large or not so large, answering posted
inquiries remained the responsibility of the lecturer-in-charge of the
course, or in some cases was delegated to a second in command – a
tutor-in-charge.) Feeling a responsibility to the hordes of confused
students, I did take the position quite seriously. Because I felt obliged
to answer each enquiry clearly, painstakingly and intuitively, I ended up spending on average ten hours a week formulating my answers, some of which were detailed and lengthy. More time was naturally spent around impending exams and assignments than at other periods of the semester, though questions continued to flow week in and week out. The total number of active users (students asking questions or providing answers) fell a shade under ten per cent of those enrolled. However, there is every indication that many times that number did keep track of the on-line interchanges. When this passive component is added, about a quarter of those enrolled checked this discussion board regularly. If we then add the more sporadic users, total numbers increase to just under forty per cent. With users building as the course progressed, there is every indication of a word of mouth effect creating this success. Satisfied students tended to spread the word and those who used the service remained remarkably loyal for the rest of the term.

Participation was larger than expected since students came to realise that although their name appeared when entering an enquiry (the program did not allow for anonymity or for pseudonyms), I had no influence on their assessment. In fact, they would not ever have the chance that semester of meeting me in person. My fragile voice made more than a ‘hello’ difficult. So my sole relation to these students was a rather phantom one. Such boundaries perhaps encouraged shyer students (as well as more indolent ones) who would be loath to appear during consultation hours and uncomfortable in dealing directly with those doing the actual assessment in the course. Many overseas students, particularly those who found it difficult to express themselves fully in English fell into this category. Conclusions of this type are buoyed by the fact that in periods before the mid-term and final exam, noticeably fewer students appeared to consult those directly responsible for teaching the course compared to previous years. We could undoubtedly assume that there was something radically different about this particular group of students, but more careful inspection showed no noticeable deviations from prior years. The result then was that the on-line tutor acted as something of a safety valve for the rest of the staff involved in the course. Smaller numbers at their doors before exam dates meant an improved ability to deal with those students who did appear, as well as less of a drain on their time. It is however difficult to judge whether on-line tutoring
improved performance since it is difficult to determine the effect on the more phantom users. However anecdotally, some of the more active users did perform well. Whether this is a case of self-selection or not is again not simple to discern. However, a number of students did go out of the way to thank the on-line tutor for his assistance. Given that there were no existing incentives for students to do so would indicate that these were genuine responses.

I was thrown into this tutoring role shortly before the beginning of the semester. I had little time in which to prepare. Again, I felt that I could more than adequately combine the necessary ingredients to provide successful advice for students. I subconsciously adopted the position of a successful agony aunt. In those columns the key to success is patience, empathy and the ability to tell a good story. Above all, when lending a kindly ear to the woes of a posting student, an online tutor must never be curt or short tempered with those who enquire, unless the questioner is being persistently unreasonable or obnoxious. On-line discussion boards can promote humour but never a lack of mutual respect. Again it is the responsibility of the designated agony aunt to set and enforce effective boundaries.

The first task for an e-learning teacher is to develop a sense of trust and safety within the electronic community. In the absence of this trust, learners will feel uncomfortable and constrained in posting their thoughts and comments.

(Anderson 2008a, p.350)

In essence, the same characteristics needed for good parenting also form the base for success as a digital agony aunt to a horde of students taking their very first economics class. Without patience and empathy, no other tricks of the trade will have a hope of success. These key elements are what will see you through even during those times when you are at a loss for a successful strategy. While patience allows you to grasp what a student’s problem might be, it is empathy that brings you to the level of that very confused student. Only by understanding what is impeding any further progress can a teacher begin to provide effective assistance. This would seem to be the most difficult leap that anyone in the educational sector is required to make. It would be sufficiently difficult to make such a Proustian journey if it only required slipping back to that time when the teacher was a beginner, a raw student who had never been confronted by the complex mystery of economics. But the actual task confronting lecturers, textbook
writers, let alone on-line tutors, is far more difficult. Those who became fully fledged economists are atypical of most of the first year students they subsequently attempt to educate. Such individuals are unlikely to have faced a time or state when economics was totally incomprehensible to them. The instructional implication is that explanations have to be geared to those students who are the most puzzled. The stories drawn in the way of providing insight have to be constructed in a basic, intuitive manner that is laid out step by step with each and every connection spelled out. Nothing under these conditions can be taken for granted.

Lastly, an educator must remember that responses should be individually tailored. There is no such thing as a representative student. What is most helpful under these very realistic circumstances is to try to identify exactly where the student’s difficulty lies. Much like a doctor, the key is to ask probing questions to pinpoint the source of any problem. Instead of having students simply say that they don’t understand a question, it is far more effective to try to elicit from a student the source of confusion about this question, namely what exactly the student doesn’t understand in this particular example or case.

Thus the effective online teacher is constantly probing for learner comfort and competence . . .

(Anderson 2008b, p.48)

3. WHEN CONSTRUCTIVISM CEASES TO BE PRODUCTIVE

Difficult do you call it Sir? I wish it were impossible.

(Samuel Johnson quoted in Seward 1797, p.267)

How people learn is one of those debates where every teacher assumes expertise much like every customer in a restaurant thinks they know how to run one. Over the years there has been a certain tone of superiority attached as first each philosopher, then educational expert and finally psychologist has felt entitled to pontificate on the subject. Certainly education forms a core component of Plato’s Republic (1968), Locke’s *tabula rasa*¹ (2009) or Rousseau’s *Emile* (1979).²

¹ Locke’s *tabula rasa* has proven to be more of a palimpsest that an empty canvas. Very few educationalists these days would imagine that teaching involves sketching on a blank surface. We have returned to the days when teachers were required to be
Given the right environment and small enough numbers, by both training and instinct the authors would tend to adopt something of a constructivist approach to education since it is consistent with our experience that students tend to learn best when they are taking an active and at times a leading role in the activity.

Contrary to criticisms by some (conservative/traditional) educators, constructivism does not dismiss the active role of the teacher or the value of expert knowledge. Constructivism modifies that role, so that teachers help students to construct knowledge rather than to reproduce a series of facts. The constructivist teacher provides tools such as problem-solving and inquiry-based learning activities with which students formulate and test their ideas, draw conclusions and inferences, and pool and convey their knowledge in a collaborative learning environment. Constructivism transforms the student from a passive recipient of information to an active participant in the learning process. Always guided by the teacher, students construct their knowledge actively rather than just mechanically ingesting knowledge from the teacher or the textbook.

Clearly active learning should always be the preferred model when practical. But any constructivist theory needs some major modification when operating within the context of an assembly line version of mass education. Here an online tutor is more a member of a triage team trying at least to help those students who recognize their own confusion and maintain a sufficient level of required initiative to compel them to seek help. In a limited sense the online tutor provides, in a modest way, a chance for first year students, even those that are terminally shy, to take a more active role in their own education.

Except for the most extroverted and confident student, large lectures are intimidating. Most students lapse into total passivity during class...
with the lectures themselves being more closely related to performance art or crowd control than active learning even when defined in the broadest sense. Tutorials are meant as a device to reinforce learning but also as a remedy which can spur students into greater activity when engaged with the tutor in smaller groups. Still, the courage to raise a question can mean risking the possibility of appearing foolish. In other words, “I must be the only one who doesn’t understand since everyone else is sitting there quietly.” The tutor can try to skillfully draw individuals out, but not without the chance of painful embarrassment. In such cases, an anonymous online tutor may have a distinct advantage over the tutor with a face, definite meeting times and a distinct personality.3

Arguably the most time consuming aspect of teaching online is the time spent communicating with students. Communication is significantly more difficult because students are contacted in written form and usually individually. Answering individual emails require more time then answering questions in a classroom because questions answered orally require less time. In an in-class course the entire class is present to hear not only their questions and the instructor’s answer but also the entire class also is available to hear the context in which the question was asked.

(Cavanaugh 2006, p.2)

However, these apparently binding constraints can in fact provide strengths and opportunities. Minor inconveniences can also be overcome. Certainly posting on a discussion board reduced the number of times answers had to be repeated. An online tutor is clearly more time efficient than an e-mail counterpart. But the differing context of classroom versus website can in these certain circumstances be turned into an advantage. The very anonymity meant that students could imbue this ghostly presence with whatever characteristics they wished using only the impressions that could be garnered from the written responses on the discussion board. A clever use of words provides the student with the proper grist to construct the tutor best

3 The particular discussion board using the standard Blackboard system failed to maintain complete anonymity since the online tutor’s name was published with each posting and alternatives, such as using a virtual nom de plume, were not possible. However, students chose not to seek me out physically but rather to maintain a personal, yet anonymous, relationship. (What is interesting is that despite the many students who used the service, none tried to make contact. They preferred that their on-line tutor retain a ghost-like presence.)
suited to him or her. It is thus easier for the tutor to create a virtual personality free from most, if not all physical distractions. The student can be allowed to create his or her own distinctly personal vision of their kindly correspondent. Through skilful responses the student will conceive of that person tapping away at the keyboard as one he or she can trust and with whom he or she is comfortable. Moreover, by checking postings with some regularity, the vigilant online tutor can insure that students receive answers and comments when they most need them than according to a pre-set schedule. In this manner the online tutor can complement the work done by the rest of the teaching staff and provide a powerful component of a first year course.

Economics uses many technical concepts, often using math and graphs to illustrate models and theories. Being able to help students by using a formula, or sketching a graph, or figure is much easier face-to-face then when communication is via email or telephone.

(Cavanaugh 2006, p.2)

Even overcoming the graphical hurdle is hardly insurmountable while equations are even more amenable to the deft use of the discussion board. Unquestionably graphical explanation would be nearly impossible from a virtual platform if such an approach were to be used for an initial or even secondary presentation of the material. But the online tutor is not a substitute for face-to-face teaching but, as just stated, a vital complement. Students raising questions in these virtual forums have already experienced lectures and probably tutorials where these simple first year models have been explained. The virtual tutor then is only referencing that which has previously been revealed. Moreover, being deliberately forced to respond without the crutch of posting diagrams is much like tightrope walking without the provision of a reassuring safety net. Being compelled to do so definitely sharpens one’s concentration. The tutor is forced to explain with exact precision, placing each step in its proper place and verbally conveying the model in as intuitive way as is conceivable. This is where a constructivist flavour of active learning can be introduced to the process. Carefully crafted words can lead the student into constructing the correct model by him or herself.

Clearly graphs of various intricacies can be posted along with the answer. But this is not only very time consuming for the poor online tutor composing lengthy and comprehensive answers but one that can thwart the learning process.
True, the online tutor remains an agony aunt of sorts. When questioned, the tutor cannot respond, ‘What do you think?’ People have for decades written into these columns not wanting or expecting to be admonished to provide their own answers. So the online tutor must deliver the goods. However to prevent unthinking or lazy questioning, rules of exchange can be encouraged. The online tutor when asked the answer to a particular question can helpfully respond by in turn asking what exactly the student doesn’t understand. The pretext for such a response is that the tutor can only provide useful answers if each response can be specifically crafted to each individual student’s confusion. This encourages students to try to puzzle out what they don’t understand, which often is the first step to productive learning.

4. THE PRACTISING AGONY AUNT

My father is a bastard,
My ma's an S.O.B.
My grandpa's always plastered,
My grandma pushes tea,
My sister wears a moustache,
My brother wears a dress,
Goodness gracious, that's why I'm a mess.
(Sondheim and Bernstein, West Side Story)

Teaching economics involves a fine balance especially at the first year level. There are of course a number of basic principles and fundamental models that must somehow be conveyed in such a way that students get at least something of an intuitive grasp of not only how these work, but why they are useful in understanding observable phenomena. If students are to make this knowledge their own they must be able to transcend a mere mechanical understanding of economic models.

Over the years we have found that an over-balancing towards the general and abstract might be good training for the one per cent of a class who may be seriously considering a career as academic economists, but tends to convince the bulk of any group of students that economics is just another meaningless subject that demands brute memorization in order to pass rather than repeat the unit. The way around this conundrum is to provide concrete examples which show
how various concepts and graphical models can be employed to provide practical insights.

Such methods should not be dismissed out of hand as being insufficiently rigorous unless the lecturer is confusing rigor with rigor mortis. It is in fact far easier to teach a strict model based curriculum and certainly easier to test such material as well. But to proceed this way is to cheat students of what is intrinsically interesting about the subject. Even for those more interested in proceeding with an economics based career, developing some intuitive as well as technical skills can only prove to be invaluable to the student in the future. Concrete examples are then a key to understanding. Thus if we are to demonstrate the potential usefulness of equipping any large scale first year economics course with an online tutor, demonstrating how such a virtual staff member can add value to the course becomes essential. The Appendix contains just a few varied examples of the actual interchanges made while being an online tutor for a very large first year microeconomics course. The case study starts with the actual instructions for students using the specialised service.

“... [A]nything about Microeconomic Principles. You are to ask the online tutor questions about Microeconomics, nothing more, nothing less.”

The online tutor section of the course website made it clear that only questions dealing directly with the course content were welcome.\(^5\) Incorporated here is the concept of specialisation. Administrative questions could be handled online by the faculty teaching the course (specifically the tutor-in-charge who put the nuts and bolts of the program together). Doing this relieved the online tutor from having to learn or master such details. Without such distractions, the focus could remain on responding to all enquiries in a detailed and even painstaking manner. The extended excerpts from the online discussion board contained in the Appendix illustrate these principles and are arranged according to topic.

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\(^5\) Despite a clear description of the online tutor’s role, students were never completely deterred from asking administrative questions, especially at the beginning of semester. Such students were usually referred to administrative staff but questions of this sort were often answered by other students, and near the end of semester, students took on the role of admonishing the askers of such questions not to waste the online tutor’s time.
5. LESSONS LEARNED

A little learning is a dangerous thing;
Drink deep, or taste not the Pierian spring:
There shallow draughts intoxicate the brain,
And drinking largely sobers us again
(Pope 1711, Part ii:line 15)

The conclusions to be drawn from acting as an on-line tutor can be simply and clearly drawn. Large first year lectures are quite likely the most ineffective way to introduce students to any subject. It is something of a surprise that any of them persevere after such a regrettable introduction. Though in institutions where such first year classes are the norm, there is little, if any, viable alternative that remains. Taken pragmatically, the cost factor will continue to dominate at such universities and this equivalent of the educational assembly line will be unlikely to vanish. Staff then interested in rising above such constraints are condemned to find methods that will alleviate, to some degree, what is a poor learning environment. Online teaching has all too often been championed, usually by administrators, as the efficient salvation of this problem. Whether this is so or not is a matter for further investigation. However, one aspect of online teaching can reduce many of the logistical problems to such learning. An online agony aunt if in the hands of an experienced lecturer can play a key role in first year subjects.

6 It is important to clarify that we have not entered the ongoing debate as to whether online or face-to-face teaching offers superior results. “Citing research claiming that student performance in online courses is equal or better in quality than in lecture courses, academic administrators have embraced online learning as a cost-saver equivalent, especially with the decrease in state funding”(Bennett, McCarty & Carter 2011, p.10). After more than a decade of testing, researchers are no nearer to resolving this question of superiority. Much depends on how the test is structured and more fundamentally the objective of the course itself. Those who would like to stick a toe in these roiled waters can refer to Brown & Liedhom (2002), Goffe & Sosin (2005), Harmon & Lambrinos (2007), Vogel (2009), and Bennett, McCarty & Carter (2011). This paper however only investigates whether online tutoring can be an effective complement to face-to-face teaching rather than a substitute for it. It is suggested as a method for improving a rather unsatisfactory teaching approach, namely the large lecture.

7 Many departments would yield to the almost automatic tendency to delegate such an unglamorous position to some ill-regarded junior member of the faculty. Such an option would be extremely misguided. Experience and years of successful teaching of the specific subject is the minimum requirement to turn an apparently sow’s ear of a position into a silk purse for students. Junior faculty are more often overburdened, still
potentially free up the time of the face to face course lecturers and tutors. In fact, when handled adeptly, such a position, through the very anonymity of the role, creates an environment where students are free to ask questions and receive answers without making prior arrangements and without risking anywhere near the same level of potential embarrassment. Looking at the position through the eyes of Adam Smith, it is yet another case when we are dealing with sufficiently large markets such that specialisation and division of labour triumphs.

As it is the power of exchanging that gives occasion to the division of labour, so the extent of this division must always be limited by the extent of that power, or, in other words, by the extent of the market. When the market is very small, no person can have any encouragement to dedicate himself entirely to one employment …

(Smith 1961, p.21)

REFERENCES


APPENDIX
The following excerpts are arranged according to topic. Where student names were provided by the web program employed, pseudonyms are used to maintain anonymity. Students sometimes addressed the online tutor by first name. Again, one of the requirements for success was creating a comfortable space for students to raise issues and ask questions. Standing on an unnecessary point of dignity would seem counter-productive to such an achievement.8

A. Thinking Like an Economist
11 August 2009 10:21 PM
I have my different view with the lecturer, and a question about the cost-benefit principle. Cost-Benefit principle: An individual should

8 Spelling and grammar mistakes are untouched to provide verisimilitude rather than as some type of subtle critique. In some cases it may be clear that English is not the questioner’s native tongue.
take an action if, and only if, the extra benefit > the extra cost. In the lecture I attended, a student questioned about the “should” in the definition, the lecturer agreed it’s not necessary and crossed it out. I disagree with their view. From my understanding, principles in the economic modules are similar to rules in games. Under economic modules, there are principles, assumptions and so on to follow. Principles are like logical formulas, such as if A>B, then C, otherwise D. If Bene>Cost, then “should” Action, otherwise No Action. Therefore, “should” in CB principle definition has to be used. Please comment.

I have a question about the wording “extra” in the definition. “Extra” means more than usual, addition to the original, addition to necessary amount. In other words, it’s something added on the top of original things. There must be a base where can be topped up.

Could you please explain what the “extra” means in the Cost-Benefit definition? What is the “base” then? Is it because economists only concern about extra benefits and costs? They don’t analysis original benefits and costs. Say if an individual buy a bike in an original price (without doing any research), this case is excluded from the economic module? (rationality assumption?) Sorry I am confused here. Many thanks for your time and response.

13 August 2009 1:16 PM

Sorry for the delay in answering. I was only put on the system today. You have asked two very interesting questions. In economics, if a person is acting rationally then that person should always take an action when the total benefits of that action are larger than the full costs of that action. In other words, people are assumed not to want to leave themselves worse off. So the answer is that they should. However you might ask if a person will always do that. The answer is no, because anyone is capable of making a mistake. Again, we are talking in terms of economics and no other subject.

Your second question gets to another key idea. A key basis for economic thinking is what is called the marginal approach. It looks at incremental or additional changes. Therefore if you are deciding whether to eat an ice-cream cone you would have to consider the additional benefits you would derive from eating that cone versus the extra costs. Here the costs are not only the price you pay but also implicit costs like the weight you gain, the discomfort you might feel immediately afterward and any other consideration. So the base is always the state that you are in when you make the choice. You look only at the additional or incremental benefits and...
costs in making your decision. Feel free to ask any follow up questions if this is not entirely clear. Your on-line tutor

14 August 2009 7:42 PM
Thanks a lot for the answers. It really helps me to understand further of the concepts. Very much appreciated your time.

B. Opportunity Cost

20 August 2009 11:52 AM
Hey, for some reason this question has got me stuck! (Possibly because im overthinking, and confusing myself):

“Sonya is employed at a stock brokerage firm where she earns $25 per hour. The office she works at is located downtown. To get to work each day, she must either ride a series of buses that takes one-and-a-half hours at a cost of $2, or take a cab that takes 30 minutes and costs $20. Assuming she goes to work, the opportunity cost:

A) of riding the bus is $2, and taking the cab is $20;
B) of riding the bus is $27, and taking the cab is $20;
C) of riding the bus is $35.50, and taking the cab is -$5;
D) of riding the bus is $39.50, and taking the cab is $32.50.

Feedback: Page 9: Opportunity cost takes into account the total value of the next best alternative forgone. Taking the bus means forgoing an hour of work at a cost of $25 in forgone wages, and a $2 bus fare. The opportunity cost of the taxi is the fare of $20.”

What confuses me, is that if opportunity cost is the TOTAL VALUE of the next best alternative forgone, then by Sonya catching a bus.. she is losing 1.5 hours of work.. if she works $25 p.h.. Wouldn’t her opportunity cost be the value of 1.5 hours of work (that is, $25+12.5)? And why is the $2 bus fare part of the value of the opportunity cost, because if she catches the bus.. she wont be FOREGOING the bus fare?

20 August 2009 3:08 PM
I think the bus fare is included in the opp. cost since by riding the bus she is foregoing the alternate uses of the $2. For example, if she didn't ride the bus the $2 could be used to purchase a chocolate bar. I don't like this question since it implies that if Sonya arrives at work an hour early she will still be able to receive her $25 an hour salary for that hour. In reality it is more likely the opportunity cost of catching the bus would be equivalent to the value she assigns to an hour of sleep. Since by choosing to travel by bus, she

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9 Feedback refers to explanations posted on the textbook website.
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would have to wake up earlier to allow for additional travel time. For any rational employee, they would only consider transport options that allowed them to arrive to work on time. Any comments on that Craig?

20 August 2009 3:20 PM

Let me commiserate with you. The idea of opportunity cost is the most important idea in microeconomics and often the most difficult to get correct. I have known of individuals who claim to be economists who get muddled up when trying to actually apply the idea. The intuition is simple. Every time you make a choice you have to forgo or give something up. Opportunity cost is never 0 unless you live in a world in which you can do everything at once or where you have no choices to make.

With that long introduction let's look at the problem. The issue is what Sonya is actually giving up when she is traveling to work (her opportunity cost). That is what it means to forego something. If she takes a cab she is giving up the $20 fare. In other words she won't have that $20 to spend on something else. If she takes a bus she has to be willing to give up the $2 fare. But that is not all. It will take her an additional hour to get there. (90 minutes instead of 30 minutes). How do we value her time? Usually we think of the wage she could earn if she was working instead of sitting on a hot, crowded bus with strangers sneezing in her face. (I speak from personal experience.) The problem tells us she could be earning $25 an hour. Therefore she is not only giving up the $2 in cash by riding a bus but also implicitly giving up an additional $25 by spending an additional hour in travel time. Her total opportunity cost is therefore $2 + $25 = $27.

Notice that by taking the bus she is only foregoing an extra hour of her life in travel time. That is because her only given alternative (a cab) will still take 30 minutes. Unless there is a way in which she can get to work without any travel time (working at home for instance) her travel time will never be zero. (We are assuming that she has decided it is worthwhile to go to work so the only consideration is what she is giving up by taking alternative forms of transportation.)

What could we conclude if Sonya ends up taking the bus despite the higher opportunity cost? (This is not as strange as it might seem. We all know people who are willing to take all sorts of back roads and spend additional time doing so just to avoid paying tolls.) There are a number of possible explanations and I'm sure you could come up with some. But we might conclude that Sonya is making an error when estimating the value of her time or that she simply values it at under $18 an hour. (She has to pay $2 for the bus fare and as long as she values her time at under $18 the
opportunity cost of taking a bus is under $20. This would make it a better option than the cab.)

I hope this overly long answer helps.

Your online tutor.

20 August 2009 8:34 PM

William Vickrey: Ho ho ho, I get it, but isn't the bus ride 1.30 hours? So she is implicitly losing $2 bus fare, $25 hours work + $12.5 for 0.5 hours of work; thus total opportunity cost of $39.5?

20 August 2009 8:38 PM

William Vickrey: BTW, what about the opportunity cost of taking the cab?

According to my knowledge, Sonya's hour is worth $25, so when she is taking the cab, she is losing $12.5 of the work and $20 for the cab, so is the total of that $32.5?

20 August 2009 9:28 PM

That was my trail of thinking... Maria Edgeworth

20 August 2009 9:50 PM

If she catches the bus it takes 1.5 hours, if she catches a taxi it takes 30 minutes so the real savings is only 1 hour of work if she takes the taxi at $25 so if she catches the bus she is worse off by the cost of the $2 bus fare and the $25 which is 1 hour of work she misses out on total $27 George Akerlof

20 August 2009 9:55 PM

Maria Edgeworth: Great! Thank you :) I never saw it like that!

21 August 2009 11:12 AM

This is a standard economics approach as I mentioned. The idea is that you always have an option of working another hour. Therefore the value of your time in terms of opportunity cost is the wage you give up by not working.

As I mentioned, many people's actions indicate that this is not how people act. They appear to value their time at a much lower rate indicating that either they don't seriously think there is an option of working another hour at that rate or there are other mitigating factors influencing their decisions.

In the problem as stated, Sonya must get to work. Since she can't apparently work at home there must be some travel time. In other words, some travel time is involved in earning her salary. She only appears to have two options. The opportunity cost of taking a bus is the additional time she spends traveling which is an additional hour.
However, the question of how we should value an hour of our time is an interesting one and is often quite important in cost/benefit calculations. How do you think an hour of time should be valued?

Your online tutor.

21 August 2009 11:59 AM

Actually, I hate those kind of question, they are not so clearer...also make us confused William Vickrey

21 August 2009 12:10 PM

William Vickrey: Let me make it clearer here,

1. whatever bus or cab, she have spend time for travelling.
2. the opp cost is compare bus and cab.
3. take bus need 1.5 hrs, cost $2, (-2)
4. take cab need 0.5 hrs, cost $20, (-20) another 1 hr can earn $25 (+25). totally +5
5. compare bus and cab is +5-(-2)=7 so, the answer is 7. Is that right?

21 August 2009 12:31 PM

As long as you are willing to assume the cost of Sonya's time is $25 an hour (what she can earn by working) the rest is fairly straightforward. But you have to think very clearly or you can get confused.

She needs to get to work. She can't work from home. So there will be a minimum travel time. Remember we are not trying to figure out the opportunity cost of working but the opportunity cost of getting to work. Also remember that any time we pay for anything we are foregoing spending the money on something else.

The minimum time to get to work is 30 minutes. The quickest option is the cab. It costs $20

A bus costs $2 but you are foregoing another hour by taking the bus instead of the cab. That hour is worth $25. So the opportunity cost of taking a bus is $2 + $25 = $27.

The problem shows that although some option might appear on the surface to be cheaper (like taking a bus instead of a cab) it really isn't in terms of what you are foregoing (opportunity cost).

In your answer you are confused because opportunity cost is always positive. The assumption is you are always giving up something of value when you make a choice. Therefore using negative numbers can have no corresponding economic meaning. What you have done actually makes no sense from an economic standpoint. For instance, in step 4 if you are gaining $25 then you are not foregoing it. Opportunity cost is
what you are willing to give up. You can't calculate it if you confuse what you are giving up with what you are gaining. That would be like muddling costs and benefits together. Your online tutor.

21 August 2009 4:32 PM
"The assumption is you are always giving up something of value when you make a choice". Yes, I think I am almost there....Thanks for your patient. William Vickrey.

22 August 2009 11:47 PM
Hi Craig, Franco Modigliani,

Can I use "sunk costs" to discript the 30 minus travel? The 30 minus, as a sunk cost, cannot be avoided if she needs to get to work. It should be ignored. Would it be easier to explain why the cost of 30 minus are excluded from opportunity cost in both actions (take a bus or a cab). Please comment. Thanks

23 August 2009 4:56 PM
Using sunk cost just to describe the 30 minutes spent travelling can be a bit confusing. A sunk cost reflects any investment that can't be recovered once made. For instance, once a baker bakes a cupcake, the cost of doing so is largely a sunk cost. It is why toward the end of the day, the baker may offer it at a reduced rate since once it is stale it will have a value close to zero.

Any time spent is a sunk cost unless you own a time machine. I have been trying to figure out how to go back in time and correct some of my foolish decisions but to no avail. So if hard working Sonia travels 90 minutes to work that is also a sunk cost. That time spent will never be retrievable.

Again, the question is not whether she will go to work or not. The question is, “What is the opportunity cost of travelling to work one way versus another way?” Travelling to work has to take time. She could not be working during that thirty minutes because she does not work at home and must travel to work. So she is not foregoing anything in terms of extra time by taking a cab.

In contrast she is giving up money by taking either the cab or the bus. Why? Because she could walk to work and not make any explicit cash payment. It might take her many hours with a large opportunity cost attached but she can do so. By either taking the cab or the bus she is giving up or foregoing some cash that she didn't necessarily have to spend that way to get to work. But there is no way she can avoid spending some time travelling unless she works at home. So again, she isn't giving up the 30 minutes by taking a cab.
I hope this answer clears things up a bit more. If you don't understand one of my initial answers you should always feel free to ask again. Learning to think like an economist is initially a bit difficult. But if you make some effort to begin with (a sunk cost investment) you will find that it starts to make sense. Trying to memorize becomes more and more difficult as you take more courses in economics.

Your online tutor

C. Supply and Demand

20 September 2009 11:13 PM
Fred Hayek: The first one is:

4. The supply curve for ice cream slopes upward and the demand curve slopes downward. The equilibrium price in the market is $3.
A) The marginal cost of producing ice creams is $3 for all sellers.
B) The reservation price of all buyers is equal to $3.
C) The reservation price of the marginal seller is $3.
D) The reservation price of sellers is greater than $3.
The answer is C, but I thought it is A. Could you please explain that to me?

The other one is:

8. The demand curve for hybrid (electric cars) will increase when:
A) the price of hybrid cars decreases
B) the price of petrol increases
C) car manufacturers identify new low cost methods to produce batteries that store electricity
D) the government subsidises the production of hybrid electric cars
The answer is B. Although I'd considered B when I was trying to figure out the right answer, I still cannot understand why answer A is wrong. Is that because people's preference or anything else?

21 September 2009 11:20 AM
Nick Kaldor: The other question of the hybrid cars. Well "A" is not correct simply because it talks about a price change, which would only "increase the quantity demanded"- this is a movement along the demand curve, but the question clearly states "when will the "demand curve increase"" - now they are
asking a shift in the demand curve, thus petrol increase would increase the demand for hybrid cars (which uses solar energy). Get it?

21 September 2009 9:50 PM
Fred Hayek: Thank you for your answer as well, that does help me a great deal.

21 October 2009 12:11 PM
Let me first try to explain question four which really depends on understanding the terms being used.

First, as always, draw a supply and demand curve with the equilibrium market price of $3. Now realize that in this ice cream market there are many buyers and sellers. Some sellers are willing to sell at $1, others at $3, and others at $4, etc. The same goes for buyers. The demand curve shows you that different buyers are willing to buy at different prices. The way in which the term reservation price is used is tricky. It means the lowest price at which a seller is willing to sell. It also means the highest price at which buyers are willing to buy.

Let's then see how this works. Suppose the price of ice cream is $2. The supply and demand model shows us that there are more people willing to buy ice cream at $2 than there are sellers willing to supply it. This then is not an equilibrium price because there is an incentive for buyers and sellers to change what they are doing. Why? At $2 there are some buyers who can't buy ice cream but would be willing to pay more than $2. (Their reservation price is higher than $2. On the other hand there are suppliers who would come into the market if the price was higher. The current price doesn't meet their reservation price. If then the price were raised to $3 this would resolve the excess demand problem. It would drive out of the market all those buyers whose reservation price was lower than $3 and bring in all those sellers with a reservation price between $2 and $3. In other word the higher price would increase the quantity supplied while decreasing the quantity demanded. At $3 everyone who wants to buy ice cream at that price can and everyone who wants to sell ice cream at that price can.

You must also remember that in this market, where buying and selling occurs at $3, are consumers who would have paid more than $3 to get their ice cream and sellers who would have been willing to sell for less than $3. What is true is that the last seller coming into the market (the marginal or additional seller) has a reservation price of $3. This is just enough to bring that seller into the market. The marginal
consumer (the last consumer coming into the market or additional consumer) is the one with a reservation price of $3. This is the highest price that this marginal consumer is willing to pay. Anything higher and that consumer will vanish.

After this lengthy explanation let's look at the possible answers. Remember that we are not looking for the right answer but the best of the four.

Answer A claims that the cost for each seller of producing ice creams (cones, cups, shoe-fools) is $3. This can't be correct since the upward sloping supply curve says that some sellers are willing to sell the ice cream for less than $3. (In your model look at that portion of the supply curve where prices under $3 still elicits a certain quantity supplied.) For A to be correct we would have to assume that these sellers are willing to sell ice cream for less than it costs them to make (for below $3). In economics land this would make them crazy. Economists don't deal with crazy actions or crazy people. So answer A seems unlikely.

Answer B claims that the reservation price of all buyers is $3. However our downward sloping demand curve tells us otherwise. There are buyers willing to pay more than $3 for ice cream yet they are in the market buying ice cream for only $3.

Answer D can't be correct since those potential sellers with a reservation price greater than $3 simply aren't in the market. Price would have to rise before they decided to sell.

As previously explained, for the last or additional seller coming into the market, $3 was just enough to get that supplier to sell. Therefore that marginal seller's reservation price was $3.

The next question tests whether you really understand the factors (other than price) that affect supply and demand. Graphically when these factors change it will be indicated by shifting either the supply or demand curve. We need to be careful here in order to reason out the cause and effect linking a factor to either the demand side of the market or the supply side.

So now let's look at the question. Draw your supply and demand curve. We are told that the demand curve for these cars increases. This means a shift upwards or to the right. As a result, cars are sold at a higher price and the quantity bought and sold will also increase.

Does Answer A describe this situation? As you see by your model it doesn't. A seems to be describing an increase in supply. If you start with the same model and for some reason (for example) the cost of making hybrid cars decreases then the supply curve will shift downwards or to the right (any
quantity of such cars will now be offered at a lower price). Notice the end result is that the price drops and the quantity supplied and the quantity demanded increase (more will be bought and sold). But we want the case where the price rises and the quantity demanded and the quantity supplied increases. So this can't be our best answer unless the rest are really ridiculous.

In fact, answer C describes the case where our supply would increase, namely it is now less costly to produce these cars (cheaper battery costs) so sellers will now be willing to sell any given quantity at a lower cost. So answers A and C are quite similar and neither one is very accurate.

D also describes a supply affect and we can cross that out for the same reason we eliminated answers A and C.

B is the only answer that describes a demand side factor. Higher petrol prices means the cost of running a petrol guzzling car increases as does the cost of running any standard car. This would drop the demand for these cars. Hybrid cars are considered as substitutes. (The cost of running these will increase as well but not by as much as standard cars.) You could buy these hybrids instead of buying a standard petrol car. Therefore the demand for these cars would increase describing the events demanded in the question.

These have been very long answers. But I am trying to go step by step as long as my fingers will last.

Hope that helps.

Your online tutor.

21 September 2009 9:46 PM

Fred Hayek: So “The demand curve for hybrid (electric cars) will increase” means the demand curve shifts to the right, I misunderstood it, I merely thought it is the movement along the curve.

For Q4, I do need to apologize for asking such a stupid question. Since I did not understand the definition of supply curve profoundly (I should always revise the lecture notes before commencing on-line quiz. ), I chose the wrong answer. Mr Freedman, thank you so much for typing such a long answer!

D. Utility Theory

12 November 2009 1:09 AM

John Stuart Mill: Example 5.2 on pages 128-130 of Bernanke talks about venison sausages and beef sausages and about how Alison might maximise her utility by finding the optimal combination of the two sausage varieties. The example
demonstrates that she achieve maximum utility essentially by making the marginal utility the same for both varieties. If there's any difference between the utility per dollar she's obtaining from spending on one type of sausage, where the utility per dollar is lower, she should reduce spending and where the utility per dollar is higher, she should increase spending.

Further, if the price for the two types of sausage happens to be the same, and she has no particular preference for either type, she should just spend half of her money on one variety and half on the other.

I'm thinking of a situation where sausage types are the same price and she is so wealthy that she could afford to buy both. If she has the same preference for both, economically speaking at least, there is no way to decide between the two choices on a particular occasion. Or could we say that it doesn't matter what she chooses because either choice on particular occasion will yield the same utility per dollar?

If she chooses beef today and venison tomorrow, does this actually suggest that she has a secret preference for beef because she chose to consume that first? Or to get away from sausages, if she wants both a soccer ball and a basketball and can afford both, how should she decide which to purchase first if they cost the same and she thinks they will give her the same enjoyment.

If a consumer is very wealthy and could easily afford to buy thousands of goods, does the order they choose to acquire those goods matter? I think this is called 'revealed preference theory', but is that a discredited idea?

Thanks for any clarification!

12 November 2009 11:59 AM

If unlike the example you quote, a sausage was simply a sausage to Alison then she would be indifferent to what combination or mix of sausages she bought (if in fact the cost of all sausages were the same). She would buy whatever she randomly reached for first. She might buy beef because they were located in a more convenient place then venison or it was easier to find beef than venison.

Now even if Alison was extremely wealthy, she probably wouldn't want to buy a huge amount of sausages. There are other goods and services she could purchase and at some level of purchase she would probably gain more utility by ceasing to buy sausages and buying other goods and services instead.

No, even if Alison was extremely rich she would still face the same situation. She doesn't have to spend all her income on
goods and services. She could save some portion or she could give some of her income away. Calculating how much she would want to save or give away would involve the same sort of marginal utility calculus as the sausage example.

Lastly, you always have to specify the time period over which such decisions are made. Is it an hour, a day, a week, a year, etc? There are a number of reasons why you would buy a soccer ball today and a basketball tomorrow. The analysis is the same but marginal utility could vary day to day depending upon whether it was a period when she usually played soccer or one where she played basketball. Costs may involve the fact that she wants to do some more searching before she buys a basketball but believes she has managed to gain a great deal for the soccer ball.

Let me know if you need me to babble about this at greater depth.

_Your online tutor_

_12 November 2009 12:12 PM_

_John Stuart Mill:_ Thank you Craig! That helps me to think more clearly about it, particularly the point about time periods.