I would have to say that Blackboard definitely falls into the category of a sovereign-posture application and certainly the makers of Blackboard have reserved the center stage for the provisioning of content which is what both Learning Management Systems (LMS) and Content Management Systems (CMS) are architected to do. I'm not quite sure if we are to be critiquing Blackboard or the course being presented within its confines since Blackboard is really the behind the scenes technologies teachers use to present their course materials. Any attempt to critique the Blackboard UI would depend on the implementation that is being viewed since each school and every teacher have different ways of implementing courses through the Blackboard framework. This is essentially how Blackboard is designed to work, they provide the tools and the framework and the frequently untrained instructional technologists develop and organize the content being provided.

I'll start with school implementations of Blackboard. At the college where I work, Mt. San Jacinto College, they have a URL assigned specifically for accessing their Blackboard homepage (http://my.msjc.edu). All that is needed for students to be able to access their online course(s) is a simple login. At Cal State San Bernardino, students can go to http://Blackboard.CSUSB.edu to login and have immediate access to their online courses. At CSU Fullerton you must first logon through the Fullerton.edu portal, select Blackboard from the navigation bar at the top of the portal and then click on a button representing the semester of the course you are enrolled in. In this particular case I think CSUF has the least efficient login process when it comes to accessing Blackboard. However, it is possible to go directly to CSU Fullerton's Blackboard LMS using http://Learn.Fullerton.edu but, in the past, I have had no luck logging in from there. This morning, as I was writing this paper, I tried again to login at the "Learn" URL and it did work in Firefox but not in Internet Explorer, I think Firefox worked because I was already logged into Fullerton's Blackboard on another tab. I'm not sure that the "Learn" URL is how Fullerton's IT department wants you to access Blackboard since MSJC's and CSUSB's Blackboard login pages are clearly branded and it is self-evident that they belong to the respective colleges, but CSU Fullerton's login screen at Learn. Fullerton.edu is not branded by the college at all, only by the Blackboard company itself. It appears to be the default, out-ofthe-box screen provided by Blackboard that viewers see. In defense of CSU Fullerton, I'm guessing they have decided that remembering more than one URL for retrieving college information and applications is too much to burden students with and have developed a "onestop" concept of providing Web access to their numerous resources. Once logged in, the choices at the top of the Blackboard screens vary considerably from school to school. CSUSB is the most minimal, offering students access to only their online courses from their tabbed menu at the top of the portal window. Fullerton has a link to the library from atop their Blackboard screens as well as community sites and Blackboard help. Upon arrival at the MSJC Blackboard homepage students not only have access to all of their online courses, but also their student email, Blackboard help, and the MSJC student course management system which enables them to view their grades, add and drop courses, purchase parking permits, view and manage financial aid, view their user ID, and change their password. CSUSB and CSU Fullerton do provide the ability to send email and check grades in the *Tools* box on their Blackboard portal home pages.

All of the colleges, where I have experienced Blackboard in use, implement student course selection in the same manner, with the course number and titles appearing on the right of the screen in a box whose border color most closely matches one of the school's branded

Pantones. Once entering a course, consistency goes out the door. Every course is as different as it can be, parlaying each and every option available for making a course different. From a course designer's stand point it's Blackboards flexibility that makes it advantageous to use, however from a student's perspective it's a nightmare; having to learn a new interface first, each time they enroll in a new online course. Our college has tried to implement templates to solve this problem, but to no avail. The reality is each course does have its own requirements and many times one course's button names and functions makes no sense or has no value in another course. Having spent a lot of time evaluating this situation, I think that there are some generic buttons that most courses can use. The Announcements button should be there in all courses, as it is good practice for teachers to make at least one announcement per week to their online students; outlining the materials to be covered for the upcoming week's assignments in an announcement, that is both posted and emailed to all enrolled students, is a good idea. I also think that My Grades should always be there since most students don't think to look to the *Tools* button for finding things; they see it as a control panel type link. An *Email* button is a good idea so that students can quickly find a way of emailing their instructor or even fellow students should they choose to do so. For me, Syllabus is an important button to have since all courses are required to have one outlining the course objectives and expectations. Even though I list all of the course deadlines in my syllabus I've received emails from students asking what the assignments are and when they are due so I have also added a *Due Dates* button to my online courses – I might change that to Assignments like Professor Boynton has done, that might be clearer. I have even gone as far as to include a Start Here button which links to a page outlining the way the course works because I was constantly getting emails from online students stating "I don't know where to start." From the student perspective, one of the biggest problems I have encountered while taking online courses at several different colleges is that many course designers, just leave all of the default Blackboard course buttons in place and link them to nothing at all. It is left up to the student to discover which buttons actually have any value in the course and it's not always clear as to which buttons have which course materials linked to them – it becomes a regular scavenger hunt. I was happy to see that neither this course nor the IDT 510 courses are among that lot.

Blackboard itself is not a perfect beast. Its most notable flaw comes from a lack of accessibility. Blackboard is built on HTML framesets which is the best choice for LMS/CMS design, but the creators of Blackboard may need to re-think their use in the near future. I attended an Accessibility workshop this past summer and learned that a major drawback in Blackboard is that screen readers, which are used by sight impaired students, are only capable of reading its top level frame. This means they can only read the tabbed menus that appear at the top of the Blackboard screen, so the buttons that make up a course and the content that those buttons link to are not accessible by screen readers. I've been told that sight impaired students make up less than one percent of most college student populations, but still this becomes a big problem for colleges trying to adhere to their state's accessibility laws which can affect accreditation. I have asked my school's Dean of Technological Services to look into this and see if Blackboard plans to drop the frameset format in upcoming releases of their program. It will most likely be a challenge for the Blackboard developers when it comes to redesigning their system sans the framesets. I'm very interested to see how this plays out.

As an online instructor that uses Blackboard, I can say that one of my favorite aspects of the navigational choices is the breadcrumbs made available at the top of each page. So many things in Blackboard require numerous steps even when completing simple procedures, like assigning a grade to a student. There are four steps to completing the process even though once you type in the score and click OK the information is recorded, still you have two more OK buttons to get back to the grade book. With breadcrumbs I can return to the grade book much quicker. As a student I find that the breadcrumbs navigation can be quite useful when navigating the discussion threads as well. As an instructor, I also like the fact that I can gather student discussion threads all in one window for easy grading and the fact that I can access the entire student roster, when grading assignments, so that I can enter scores for all students at once instead of having to enter a score for each student one at a time. Ask any teacher and they will tell you that assessing, evaluating, and grading student assignments are the most time consuming tasks we are required to do, followed closely by the creation of online content.

I'm not sure if we are supposed to be critiquing the Blackboard Discussion Board interface or our instructor's implementation of it so I'll do both. The Discussion Board UI is different depending on Blackboard versions. Regarding the version CSUS Fullerton is using, I think the organization of the content could be done better. I don't really know how to improve it; I just know it needs it. The way responses to threads are organized can be very disconcerting, which is why I always try to remember to type the name of the person whom I'm addressing and then also sign my post with my name. I think Professor Boynton has done a good job of organizing and annotating each discussion forum, the topics are in the order of assignment with the week of the assignment consistently heading each one. I also like the fact that he has placed the pertinent instructions with each forum. I have had many online instructors who expect you to dig through their syllabus or some other document to find the details of how to complete their discussion forums; this can be very frustrating. The Assignments page is well organized, although the formatting of the content is not always consistent. I do appreciate the effort Professor Boynton has taken to match the grayscale background of the alternating rows to help provide continuity. Another idea I've had about the organization of this course is that I would recommend that if this course is going to display a *Tools* button or have a *Tools* box, which is redundant and causes some ambiguity, that all of the tools or items on the Communications page which aren't being used in the course have their links removed. I feel this causes too much confusion and distracts what components of the course are important.

Having used Blackboard as a student and an instructor for a number of years now, I feel I could go on and on for many more pages critiquing other aspects of it. For now, I think I have covered most of the main issues I've seen with Blackboard and this course. I hope this paper will help others to have some insight into the UI that they may not have been aware of. I am looking forward to reading each of my fellow MSIDT students' insights on this subject as well. Critical analysis of other designs is what I tell my HTML students is one of the best ways to learn to be critically analytical of their own designs.