"The last thing I need is another email"

Piazza helped one Lecturer at Tufts eliminate his crowded inbox for a large introductory class.

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Q: *Tell me about the classes you teach.*

A: "I teach three courses per semester. Currently I'm teaching web programming, which has 90 to 100 students, usually ranging from sophomores to seniors. It's the course after the two intro courses here at Tufts. I'm also teaching an introduction to computer security, which has 50 undergrads and graduate students. I often teach web engineering, which has anywhere from 40 to 60 students. But this semester I'm teaching a mobile medical devices class. That class has about 20 students."

Q: *Are these classes taught traditionally, in a lecture hall?*

A: "Yes, my web and security courses are lecture-based. The mobile medical device and apps course—we're in a classroom, but each week we have student presentations."

Q: *What technologies do you use in the classroom?*

A: "The two things I depend on most are Piazza and GitHub. I require all of my students to use GitHub, not just because I give so many assignments, but because GitHub revision control is such a critical skill to have. It's a skill that most computer science curriculums don't enforce, but a lot of employers will ask a new hire, Do you know how to use a revision tool like GitHub? And students will say, Not really, what? You need to use revision control if you're building software in the professional world. It also forces students to develop good habits such as documenting their code and making note of their changes."

Q: *And why do you use Piazza? How did you first hear of it?*

A: “I’m never a fan of tools unless they’re really, really spectacular. But I noticed that a colleague of mine who teaches an infamous programming language—it’s one of the most rigorous programming language courses around; he uses a textbook he wrote himself—was using it. And he’s not a believer in tools, either. But I was like, Wait a minute, if this guy is using Piazza, and I trust this guy with my life, maybe I should look into it. I don't trust a lot of people, but this guy is just really smart. I forget which class I first used Piazza for. But I loved it. Immediately.”

Q: *Why?*

A: “It just works. It’s like an Apple product: They focus on usability. The usability of Piazza has been phenomenal from day one. It’s like hearing to a song and liking it on the first listen, which doesn’t happen a lot. First impressions matter, and I really can’t say more about Piazza’s. When you go to Piazza, you get the gist of what it’s all about—what are the critical problems, what’s the need? When I first went there, I made an account, started a course, and it was really seamless. The setup was easy. Then I said, You know what? I’m going to make this a policy: I’m telling my students that if they have questions, they should send everything via Piazza and not email. I made that decision very early on.”

Q: *Was email a specific problem for you?*

A: “I’ve always had a problem with email—everyone does. Students love to send emails with questions for the professors or TAs, but the last thing we need is another email, especially when multiple students are asking the same question. Back in the day, you’d just cut and paste the same response. Now there is a centralized location for asking questions and getting answers. It saves me 20 to 40 emails per day, easily.”

Q: *Do you also have your on web page?*

A: “I write my own websites. At Tufts we have a system but it’s an abomination to use. Even the students notice it. I just need a page that gives information and a few links, so my course website is handmade by me. Although the servers go down intermittently when there are too many people using them—usually once a month there’s some sort of fail. So now all my course websites are served on GitHub pages.”

Q: *So you like to rely on your own resources, not the university’s.*

A: “Exactly. I need to work fast, I need to be efficient, and the students always come first. You know how it is at a college or university—people tend to do things at the last minute. I need to make sure that systems aren’t going to fail when things are due.”

Q: *How do you feel that Piazza has changed your students’ experience?*

A: “It does a lot of things very, very well, not only for my teaching but for the students. In addition to using it for Q&A, I use it as a medium for classroom participation. I think one of the problems we’re seeing right now is that we have an education system where students are afraid to ask questions.”

Q: *Why do you think that is?*

A: "Because a lot of school systems focus, from K through 12, on tests. When students come into a college or university they assume everything is also based on tests, and there's very little creativity. One thing I've done with Piazza is to stress that participation means a lot not only to me but to the class, to their classmates. I make it 10 percent of a student's grade in all my classes, and I use Piazza as part of that. It's great because Piazza has a reporting tool where you can see who asked questions, who asked the really good questions, and what someone has contributed to the Q&A."

Q: *Has participation actually gone up since you started using Piazza?*

A: "Definitely. But the caveat is that I need not only to encourage it but make sure that I don't put people down. People can preach, Oh, we need more collaboration in class. But the instructor needs to set an example. First, you've got to answer every question. Right now in my web programming class, which has 80 students, my average response time is 12 minutes. That helps big-time. Students think, Holy cow, if I can ask a question and get a response that quickly, why not? But the other thing you have to do is show restraint, even if it's the dumbest question you've ever seen. I've found that some of the best questions, ironically, are the ones that initially seem really dumb. Probably because it's something I just didn't cover well enough, or because there's a lot of nuance. So you have to encourage all questions. Piazza is not going to change everything; it depends on the instructor as well."

Q: *Do you encourage students to answer each other's questions?*

A: "Because I answer them so quickly myself, students tend to wait for my response. And I think I'm okay with that. At least there is an answer really quickly."

Q: *Do you use the platform differently in a big class versus a small class?*

A: "Well, I notice that there is a lot more question and answer with bigger classes. In the smaller classes the Q&A is less widely used, but it's still a great place to broadcast announcements and notes. In the old days I used Twitter for that. Now Piazza is the place for news. You can see how tightly integrated I am with all my courses."

Q: *Do you have any words of encouragement for other professors looking to adopt new technologies?*

A: "That's a hard question. I'm pretty tech savvy so I've adopted things pretty quickly. I guess the first thing to ask yourself is, What are you actually trying to accomplish? If you want to encourage collaboration and communication not only among students but also with you and the TAs, Piazza is probably the best tool for you to use. I see a lot of educational technologies out there. And they're not very good at all. Some of it is snake oil, even."

Q: *What, for you, defines success?*

A: “I don’t define it based on grades. I define it as—and I think I’ve done pretty well with this—opening up opportunities for my students. That’s number one. Number two is helping students realize what they could be, not what they should be. I can’t tell you how many students have said to me, “I became really fascinated by computer science when I took web programming, and that’s the reason I became a CS major.” Or, “The web programming course helped me get my first job or internship.” That says it all.”