

The origin: During the early days of summer in 2004, a couple of students gathered after classes for a margarita, as is usual for adult students in the early days of summer. This small group of students knew each other somewhat, but not closely, having never worked on a project together, nor socialized with each other extensively. But open to conversation, as well as open to margaritas, they wandered towards the conversational ideal of sharing information without regard to outcome or history. Out of one informal conversation, the DriveBy educational seminars were born.

The setting: In academia historically, groups of people gathered together in order to share ideas, in order to listen to great speakers, and in order to discuss and dissect concepts and concrete examples of ideas. The Greek Academy organized schools according to number of pupils who happened to show up, organizing by self-defined students. In ancient China, academies allowed students to come and go, and emphasized the self-teaching aspects of learning. Intuitively, students themselves grapple towards knowledge, searching for answers. At ITP, an institution that is an intellectual descendent of these models, students come highly motivated to learn and create things that reflect their learning. Classes are sometimes organized around topics, but often classes are also organized around specific technologies or uses of technologies, the medium of interactive telecommunications.

The initial idea was simple: create an informal learning space for students to share information as peers, filling in gaps that the larger curriculum was not.

The problem: With the extreme diversity of students admitted to ITP every year, there are necessarily gaps in technical knowledge between students, gaps that cannot be filled by throwing students into advanced technology classes and hoping for the best. Mentoring on a one-on-one basis is also unavailable, tutoring is unknown and help sessions are often too broad for the intermediate student and too advanced for the beginning student. Many students come with an array of amazing talents from around the world, often with unusual artistic talents that may never be known to everyone. Additionally, students who were highly knowledgeable in one technical subject were often overwhelmed with pleas for assistance, and the student-run lists often too noisy to receive answers. Open class discussion and critique are often weak in classes, with many students simply struggling to master the tools of the trade or absorbing the basic theory of interactivity, neglecting the artistic aspects of their own work. Much of this type of discussion does happen though, but informally, at bars and living rooms and cafes and nooks, the benefits of such discussion never affecting the larger community. A need was identified out of this set of information: a need for students to state for themselves where gaps were, and a place for other students who are variously talented and

very generous to offer assistance in a more constructive way. Acknowledging the strengths of the ITP curriculum – the open format, very open standards for student work, open space for student-led activities and participation on all sides, and support for creativity and improvisation– the DriveBys aimed at complementing the current curriculum, never replacing it in any way. From the extreme degree of freedom at ITP, some smaller symptoms had appeared that could be remedied by allowing students to solve their own communication issues.

The solution: Rather than designing an alternate curriculum, or trying to create some master plan that might solve all the above problems, it was decided to simply suggest a framework that students could co-build together. This was the DriveBy seminar solution. The framework would allow students to create a shared learning space to discuss and problem-solve together. The framework consisted of a weekly meeting at ITP, with both class topics and class times suggested, voted on and chosen by students. The DriveBy format was shaped in total cooperation with the community, the basic concept being posted to the list, with evolving organizational methods owned by interested students at all points. Two students provided consistent leadership in communicating the idea, organizing the students, innovating the structure and answering requests on the fly. The administration has been very helpful towards this effort, providing physical space and organizational support, along with validating the concept as aligned with ITP’s educational approach.

Certain classes focus too heavily on technology.	No time left for discussion of how what we just learned relates to larger ideas.	More discussion space in DriveBys, hierarchical relationship of teacher-student discouraged by peer-to-peer education.
Some classes sometimes weak on critique.	People feel they are not equipped to successfully critique or have social fears of “coming off like an ass.”	Peer-to-peer education allows students to ask questions more easily by breaking down teacher-student hierarchy. If everyone is a peer, then critique is more acceptable. This doesn’t address the need for other teachers to be more informative on how a good critique is given; it only allows students to begin developing their own methods.
Classes decided by administration with unclear feedback loop.	Some students feel highly empowered to make curriculum demands of administrators; many others feel they have little choice.	DriveBy classes are both suggested and chosen by students, leading to a completely student-designed curriculum.
Class structure sometimes uneven	Sometimes syllabus is very strict, sometimes so loose as to be non-existent. Students have trouble fitting their talents in unclear syllabus	Students design classes, with heavy feedback from peers.

<p>Uneven talent levels among student body</p>	<p>Many students with unusual talents remain unknown to the student body, their special skills only available to their small social group. All students have unique and valuable knowledge, and most are more than willing to share but have no formal place to do so.</p> <p>Over-reliance on informal "help" from some students also happens, and very unevenly. It is not uncommon for a student who knows a lot about programming to be deluged for bits and pieces of help at all hours of the day and night, while other students feel they need technical help constantly and are not getting it in class. It is not helpful to have some administrators that say "just ask your fellow students" because this compounds the problem.</p>	<p>This need does not have a full solution, though DriveBys aim at solving some of it.</p> <p>DriveBys attempt to solve this problem by providing a forum for certain students to share their talents and help a bunch of their peers at ONE time. This identifies hidden talents and allows for single help sessions instead some students informally, continually, and repeatedly answering some of the same questions again and again.</p> <p>DriveBys, help sessions and seminars provide some of the assistance towards this problem. But it doesn't solve the problem of continual help needed by some students, nor does it address the imbalance of technical and artistic talent. A further suggestion would be mentoring system. This system might allow entering ITP students the option of having a mentor and allowing 2nd year students to volunteer to be a mentor. This would allow continual smaller requests to get airtime that often get ignored on the list, dismissed by fellow students, or simply repressed by isolated first-years.</p>
<p>Semesters go by so fast!</p>	<p>The beginning of your ITP experience and the end of every semester get very intense, but students immediately disperse afterwards. Social needs are intense at first and social gaps appear in the absence of the intensity of school after the semester ends.</p>	<p>DriveBys are also an excuse to socialize and share love with fellow students in a less formal and structured environment, but still focused on ideas that we love and skills that we appreciate in each other.</p>

The experiment:

Christina Goodness and Meghan Trainor generated the DriveBy idea on that summer evening. Surprisingly, the first discussion came about in response to a posting to the ITP student listserv on May 18, 2004, entitled "Student Run Seminars/Courses," posted by Joe Versoza. Joe mentioned a student-run course at Carnegie Mellon and asked if something like this should happen at ITP.

Subject: Student Run Seminars/Courses
 From: "joseph versoza" <jjv222@nyu.edu>
 Date: Tue, 18 May 2004 15:02:22 -0400
 X-Message-Number: 42
 I was reading up on the new Nintendo games made at Carnegie Mellon, and I noticed that they were created in a student run course. The course was part of StuCo (<http://www.cmu.edu/stuco/>) which is basically a bunch of classes designed and taught by students at Carnegie Mellon... for actual credits. What about something like this at ITP? Not even for credits (er well maybe), but just creating and organizing a student run curriculum at ITP... maybe for stuff like sewing, or silk-

screening or programming in C... some sort of structure (registration, course proposals, schedules, etc.) to make doing something like WIG easier. Or would that just complicate things?

Also - completely unrelated - but does anyone else wish that the list was a forum so it'd be easier to search for previous/archived posts?

Joe

Still formulating plan of action, Meghan and Christina responded to the list.

Subject: Re: Student Run Seminars/Courses
From: Meghan Trainor <megatron@nyu.edu>
Date: Tue, 18 May 2004 15:26:08 -0400
X-Message-Number: 44

Actually Christina Goodness and I are putting something like this together for the summer. We're taking a little time to exhale after finals/thesisStream/springShow to kick back, but basically we're thinking of each student involved doing a one time 1 or 2 hour seminar on a subject they excel in. The idea being that everyone comes into ITP a rockstar at one thing and oblivious to others. For example I still can't figure out how to blog, but i'd be happy to show you how to rivet. The idea isn't to replace curriculum, but to augment simple skill sets. Sort of a drive-by approach. Maybe this can coincide with the summer reading list wiki...

Subject: Re: Student Run Workshops/Courses
From: "christina goodness" <goodness@nyu.edu>
Date: Tue, 18 May 2004 18:14:32 -0400
X-Message-Number: 59

When we were talking before, we definitely were not trying to replace the curriculum. I think it was more like this.. You're struggling, youre sweating, youre eyes are crossed, you haven't eaten, then some normal ITP student walks by and reveals in less than 60 seconds the meaning of the known universe of Pcomp. revelation! revolution! Or you see some ITP schmo reveal with sleight of hand some hidden talent and slacker no longer, the person is a secret genius!

I would happily teach

- proposal writing (I have templates)
- For artists: How to get paid more money by Suits
- Video Shoot Lighting and Sound
- How to find the cheapest aiplane tickets
- how to make hawaiian food

I would happily learn

- Bluetooth basics
- how to build a perfect plexi box so i don't have to take materials cause thats all i want it for
- a review of best examples of ITP work - explanations etc.
- how to convert BX code to PIC in less than 5 minutes
- Scuba diving. Ok just throwing it out there.

Im wondering if there's a good regular day, it would be great to just not think about it much, just show up at a predestined time. Like thursday at 6 for example. I would also be into documenting the process to keep the knowledge alive for everyone in Taiwan/Israel/Spain etc over the summer.

-Christina

Immediately, responses came from Alyssa Wright, Elliot Malkin, Robyn Overstreet, Jonathan Goldstein, and Hans-Christoph Steiner, generating 14 messages the first day. In ITP-list speak, this is a fair response. The next day, May

19th, students kept the interest up enough to generate another 20 messages out of the 63 messages that day. In ITP-listserve speak, that is enough of a continuing interest to be paid attention to. If more than a third of the list is dedicated to one topic it is very significant, and if it is sustained over a day, it tends to translate into real action. Offers to teach, to contribute money, and anecdotes about other similar efforts were pouring into the list.

By May 20, enough discussion had happened on the list and around school and in informal conversations for Meghan and I to decide to put up a sign-up list in the form of a Wiki. The Wiki is a shared web space for anyone to modify a simple HTML page. The Wiki was announced on the list and mentioned to people in person. The Wiki experiment led to a large number of sign-ups from a much larger group of students. Fourteen classes were immediately offered by students, with approximately 50 students immediately signing up to attend. Over the course of the next week, in response to regular discussion on the student list, Meghan and I discussed our general educational approach in the form of a FAQ, and began grouping classes according to similar topic. For example, several materials classes were combined into one class, the teachers being contacted via email or in person and encouraged to co-teach, in order to schedule a broader number of classes. A separate Wiki was set up to get feedback/voting on preferred time to hold DriveBys, Thursday nights at 6 winning out. I also contacted Nancy in order to see if class space could be scheduled and subsequently Room 406 was scheduled throughout the summer. The FAQ is below:

The Deal

Each student can take as many classes as they like, but must volunteer to teach or lead at least one seminar or workshop. If you see a class with out a teacher, please sign up to teach it. The classes should be fun (duh!) and loosely structured and we recommend that you allow for time for students to work on their projects after an initial lesson and then come back for trouble - shooting.

Teachers: You are listed on DriveByClassList under the classes you signed up to teach, if you aren't interested anymore delete your entry or name, if you are interested it would be cool if you made a Wiki page for your class and gave a more descriptive Wiki name to your class, like DriveByBlogging101?. Each class should be either an intro class going over the basics or a specific class covering specialized knowledge, basically, what can you cover in a single class. If you think you can't lead a whole class or want to collaborate, contact teachers listed. Maybe all the language classes could be combined? Or maybe Tiramisu and XML? WE WILL CONTACT YOU ABOUT SCHEDULING based on a bi-variate formula of most-voted for class and teacher availability. Students: Make sure you are signed up by adding your name to the Student list under each class i.e.; Students: Christina, Meghan, Joe, Matt

FAQ

Q: When are these classes?

A: Thursday at 6pm [more or less] at ITP. Mostly in Room 406, unless another room makes more sense. Classes start Thursday, May 27th.

Q: How many classes can I take, can I take only one, can I take them all?

A: Doesn't matter, yes and yes.

Q: Wait so I can teach a class and sign up for a class as well?

A: Yes.

Q: There are tons of classes on the Wiki list, are you going to offer them all?

A: No, the classes offered over the summer will be democratically selected during the week leading up to the 27th based on student sign up. If you are dead set on taking a class, make sure you sign up and get your friends to do it too.

Q: What will each of the classes/seminars/seminars be like?

A: Each teacher will have his or her own style, but the good teachers will be linking their classes to a Wiki page with further explanation to help decide.

Q: I have a great idea for an teacher who isn't an ITP student, can I have him or her sign up?

A: No, this is for students and recent alumni only, there are brilliant minds outside these walls, but the idea here is peer teaching.

Through regular conversation, Meghan and I kept the action going, responding to questions, formatting the wiki for better readability, and generally getting the word out. By May 21st, we had begun announcing preliminary sign-up results, in order to fuel more signups. After imposing a deadline for sign-ups, I began scheduling the seminars and we announced on May 25 that the first DriveBy on Processing would be held on May 27th. From idea to seminar in 3 weeks.

Subject: DriveBy Seminar #1: Proce55ing: Thurs 6pm

From: "christina goodness" <goodness@nyu.edu>

Date: Tue, 25 May 2004 11:36:57 -0400

X-Message-Number: 8

Hey all, Our big opening DriveBy Seminar will feature:

== Processing ==

This Thursday, May 27 at 6pm at ITP Room 406 with a total of 16 students and up to 3 teachers. Its a packed house, but even for those not signed up, feel free to come on down. We will soon confirm all with our processing gurus Joe, Eric and Brian.

Peer to peer education rulez.

Questions? contact Meghan megatron@nyu.edu or Christina goodness@nyu.edu

-c

Vital Components of the ITP DriveBys:

- ~~///~~ Shared signup/voting space
- ~~///~~ Listserv, flyers and conversation for announcements and feedback
- ~~///~~ Someone to promote, someone to organize
- ~~///~~ Continual culling of student body for new teaching ideas
- ~~///~~ A happy cooperative administration

The informal rules we generated to govern the DriveBy structure eventually became:

1. Allow all students to be teachers and students
2. Allow students and teachers to create as many class requests and signups as they chose
3. Put a time limit on sign-ups so that classes can actually be scheduled
4. Get feedback on the process continually to ensure buy-in
5. Make sure information is always available online and announcements and feedback are posted to the list at all points

6. Sort the classes by most to least sign-ups
7. Group classes that seem very similar in topic. If there were several teachers for one topic, teachers were specifically encouraged to communicate with other teachers to co-teach.
8. Classes that had fewer than 10 sign ups were deleted, and the rest of the classes were generally scheduled in order of rank of the teacher.
9. Contact teachers individually according to their rank and allow them to choose their preferred class day. Rank of the teacher was determined by number of signups for your offered class. So if you had the most sign-ups, you were the number one teacher, and you had your choice of Thursday nights first, and the second teacher had their choice immediately afterwards, etc. The interest level of the students determined the degree of freedom teachers had in scheduling their classes, giving both students and teachers agency within the process.
10. Teachers were encouraged to use the Wiki to post their ideas for class discussion or topics, and students encouraged to use the Wiki to post requests for specific information they would like to learn.

All of these rules were generated in response to student input from all directions, by both volunteer teachers and students. Classes scheduled for the summer included: DriveByProcessing, WebSkilz Drive By seminar (Basic HTML), DriveByGeek (LINUX, UNIX and C), DriveByIllustrator, DriveByBlogging, DriveByPHPMySQL, DriveBySignals, DriveByCellHack.

The number of actual participants in each of the summer seminars ranged from 3 to 25, depending on the topic. Meghan and I attended each one of the seminars, introducing the topic and answering questions. In the middle of each summer seminar, pizza was also served, funded by myself. By the end of the summer, approximately 100 students had either taught or attended one of the DriveBy seminars, totaling just under half of the student body.

The success of the DriveBy structure led to more people being incorporated into the planning process towards the end of the summer, Christine Brumback and Carlyn Maw. To begin the new semester with both an introduction to ITP information and to the DriveBy process, Meghan, Christine and Carlyn planned a workshop that summarized access and school information on one Wiki page and held an all-first-year DriveBy. The Fall 2005 semester began with enormous continued interest in the DriveBy seminars, with regular participation of an average of 25 students at each seminar. Knowledge about the DriveBy structure continued to be spread via person-to-person discussion, the ITP Listserv, and posted flyers around the floor. The informal roles Meghan and I roughly played continued through the Fall semester; with Meghan playing a key role in promoting and personally introducing the seminars and me playing a key role in organizing teachers, schedules and students sign-ups according to our shared philosophy. We now plan to hand of responsibility for the DriveBy structure to a new generation of students who I identified during

last semester as solid organizers in tune with the original groovy nature of the DriveBy approach – Jeff Gray and Jon Kirchnerr.

Some Surprises and Reinforcements / Analysis and Discussion:

There were continual surprises throughout the process.

- ~~///~~ The original idea was totally informal: people who consider each other peers get together and share talents, discuss ideas and have a forum to ask questions they didn't get to ask before, and learn about each other. However, as people filed into the classroom space, the priming and conditioning we've all had since childhood kicked in. Teachers often stood in the front of the class, talking in a monologue and showing slides or displayed information. Students often docilely sat down and silently opened up notepads. The roles we all play as students and teachers were not as freely changed as we originally guessed, given the change of rules.
- ~~///~~ Discussion was more frequent, but not as much as we would have guessed. The overall balance of teaching remains a one-way dissemination of skills, rather than an open symposium of shared ideas.
- ~~///~~ The seminars did reveal some hidden talents of fellow students, but more often than not, students who were widely known to have special skills were simply given a chance to teach.
- ~~///~~ The seminars did give people a chance to answer many questions at once from their peers, as opposed to answering individual questions again and again in an isolated way. This helped alleviate the problem of over-reliance on some student/teachers to help others. Two interesting things happened though
 - o For some students at the introductory level, they figured out whether the topic was actually that interesting to them. For example, I attended a DriveBy on OpenGL and Jitter, a topic I had heard about all previous Spring but never attended a class on. After sitting through a short DriveBy, I determined that I would never want to spend a whole semester on highly specialized Video tools, and I only needed a short introduction to determine that. This prevented me from wasting my own time and money, and that of my fellow students and professor sitting in a semester-long class that I wasn't fundamentally interested in.
 - o For other students at the intermediate level, they were able to have a greater vocabulary with the topic at hand. Intermediate-level attendees of the DriveBy Photography class, for example, were able to ask questions on more specific equipment and tie together techniques and concepts they had working knowledge of but an unsophisticated vocabulary. The DriveBy allowed them a learning space to verify previous information and open up new avenues of inquiry, leading to further growth.
- ~~///~~ Attendees of the first session of DriveBys, Summer 2004, were a mix of first-years and recent graduates. Attendees of the second session, Fall 2004, were overwhelmingly first-years. (With the exception of the single DriveBy Brains seminar taught by Amos Bloomberg, which was overwhelmingly attended by second-years). The first-year skew may show a couple of different needs:

- Social needs of first years
- Need to fill in specific skills to even out the talent pool for both years
- Need for second years to get knowledge on topics that apply broadly to many types of work at ITP

Conclusion:

The DriveBy Seminar structure has been a large success so far, with student-generated interest driving the process, fulfilling the ideals of academia and complementing a curriculum at ITP that is centered on student ideas. Meghan and I have received many positive reinforcements by current and former students and by members of the ITP administration. The process itself has been very educational, showing how the ITP list plays a vital role in communication, along with personal discussion and the ability for students to organize and successfully alter their own educational experiences for the better. For me, the DriveBy phenomenon has also been a fulfillment of several types of work I have done: grassroots organizing and designing structures to allow for self-teaching. It also fulfills what I might say is a personal ideal of mine: to use technology wisely, almost invisibly, in order to allow humans to speak clearly about what they can offer and what they need in a community. Giving community members a powerful voice to shape their experience by providing simple-to-use technology is the goal of my thesis as well, and I hope to continue this work throughout my life.