Topic Leads

Each of you will take on the role of discussion leader on a software engineering or computer science topic. You will choose the readings and lead the discussion. Each topic will be discussed for 35 minutes.

Topic Lead Schedule

November 5:

November 12:

November 19:

Expectations for all Students

Before class:

• Read the two readings assigned for the day. If you have any notes, comments, or questions, then you should jot those down.

During class:

- Listen to the introduction by the topic lead and consider the discussion question(s) or issue(s) he or she raises.
- Discuss the issues raised, keeping to the subject of the readings, attempting -- preferably in this order -- to analyze, criticize, and connect:
 - Analyze the readings to gain a deeper understanding of difficult concepts, examples, the author's position, and the author's arguments.
 - Criticize the readings, articulating and defending personal opinions about the adequacy of the author's presentation and arguments.
 - Connect the issues you have analyzed and criticized to other material in order to discern broader themes, similar concepts, and comparable or contrasting opinions.
- As you participate, make good use of the readings, at times calling attention to specific passages relevant to the issue at hand. When working with such a passage, allow time for others in the class to locate it and then read it aloud.

Expectations for Topic Leads

Before class:

- Choose an article (or two) for the class to read. Get a copy of the article to Chadd one week before your are to lead the discussion.
- Formulate and write down four or five discussion questions based upon the assigned reading.
- Write a brief (less than 5-minute) opening statement about the reading. Your statement should set the stage for, and end by raising, one or more of your discussion questions.

During class:

• Read your opening statement, and lead the discussion of the topic. You should try to ensure that there is a continuous discussion by posing questions and

- summarizing the discussion so far.
- Ignore faculty during their period of enforced silence (around 15 minutes). Direct your attention to other students.
- Continue the discussion with the same goals after the faculty has joined in, using the faculty as needed to provide examples, explanations, and/or alternative positions.
- Take brief notes of points and examples that deepen your understanding; opinions that differ from your own; and arguments that you find helpful, convincing, or worth trying to refute. Do not, however, allow note-taking to cause you to lose the thread of the discussion.

How to Lead a Discussion¹

Most students have never led a discussion. It is normal to be somewhat fearful about your first try. Most of us (including teachers) are afraid we'll be embarrassed by saying something wrong, being contradicted, or running out of things to say. Here are some suggestions to help you overcome your fears, prepare, get the discussion started, and sustain it.

Preparing

To lead a discussion, you must be familiar with the assigned material. "Familiar with" is, we believe, just the right phrase. You need not have mastered the material; after all, a goal of discussion is to move everyone towards mastery, that is, to improve everyone's (even the leader's) understanding. To prepare for discussion (leadership or participation), first read and study the reading, underlining the more important or interesting points, and making notes in the margins. Then think about and write down some of the main issues that the author raises and a few questions pertinent to the issues.

If you can come up with a handful of questions, you're in good shape. Remember, everyone else in the class is formulating such questions: you can take advantage of their work to make your job easier.

Getting Started

Class has started so how do you begin? Simply clear your throat and read (or better, present) your prepared statement. End by asking the first question or asking for discussion of the first issue on your list. Before you know it, the hard part -- getting started -- is done

One word of caution: Start out on a positive note. Avoid beginning with an apology for being poorly prepared or for finding the reading difficult. Treat the topic as having real value. Openers like "I didn't get much out of this" or "I don't agree with anything the author said" will stifle, rather then promote, discussion. If you treat the readings as worthwhile, your classmates will follow your lead, join you in examining the topic, and thus make your job easier.

¹ Modified from http://www.usm.maine.edu/~rhodes/StdLedDisc.html

Sustaining Discussion

Discussions, like sleepy horses, need some urging to keep them moving. A discussion leader can often keep things moving with only modest prodding, giving the class its head when things are going well. Of course, if you can contribute something useful, do so; but other kinds of comments or actions on your part can sustain the discussion just as well as an injection of insight. Here are some suggestions:

- 1. Get students to talk to each other. Ask for a response to the most recent comments. (Anyone have a response to Clara's opinion?) Or ask a specific student to respond. (Clara, do you agree with Ralph?)
- 2. Get students to defend or explain their opinions. (Marvin why do you say that? What's your evidence or reasoning?)
- 3. Encourage an exploration of differing points of view. When you hear conflicting views, point them out and get the holders of those views to discuss their differences. Perhaps ask a third person to sum up the two positions.
- 4. Keep the class on the subject. If you are even halfway familiar with the material, you know when the discussion is no longer connected to it. Just say so. (We've gotten pretty far from the readings; let's get back on the subject.) Or simply consult your list of questions. Any sensible response to one of your questions is bound to be pertinent.
- 5. Point to a particular passage in the text relevant to a comment made by one person, or to a discussion among several. This might be a passage that challenges, or sums up and confirms, the views being expressed.
- 6. Don't fill every silence with your own voice. Any discussion will lapse occasionally. It is not your job as leader to avoid all silence. Some quiet periods are productive. Students who are not so quick to speak will frequently get the chance they need when others are quiet. If the silence gets too heavy, take advantage of the other students' lists of questions. (Ginny, give us one of the questions you brought to class.)

Remember, as discussion leader you do not have to be the brains of the whole outfit. You are not expected to know it all; the class is full of students who have read the same reading that you read. Your job is to give them a chance to talk about it and thus give others the benefits of their thinking. On the other hand, if any one student begins to do all the talking, gently correct this problem by bringing other students into the discussion.

You are there to steer, to keep the beast reasonably near the center of the path, by pulling a rein when needed, by loosening the reins when it keeps to the trail, by reining it in when it threatens to gallop away to greener subjects. If students are talking to each other about the reading material, things are going well; relax, listen, and contribute when you can.

The Goals of Discussion

Discussion should lead to two results. First, we want analysis and clarification of the material. What is the author saying? What is the author's intended meaning of key words in the text? What is fact and what is the author's opinion? With what evidence does the author support opinions? Second, we want response to, and criticism of, the author's work. What do you think of the author's opinion? Is the evidence or reasoning

convincing? What other opinions are possible? Compare your opinion with that of the author.

It is best to attack these two tasks, analysis and criticism, in the order described; after all, we must understand possible readings of the work before we can properly respond or criticize. As discussion leader, you will find that students want to express opinions before doing anything else. Keep pulling the class toward clarification of the readings. The more you accomplish here, the more meaningful and pertinent the criticisms and other responses will be.

Finally, we want you to enjoy the discussions. Keep this in mind whenever differences of opinion arise. It's okay to defend your beliefs, but it is also okay to be wrong, to concede a point, to change your mind. A mind that never changes is about as useful as a window stuck in one position. The main object of argument is not to win, but to know the pleasure of real thinking and learning.

Possible Discussion Topics

- 1. Agile programming: fact or fad.
- 2. Top 30 software engineering practices: are they really any good?
- 3. Outsourcing programming jobs: who are the winners and losers?
- 4. C++ is best. Or is it?
- 5. Microsoft buys stake in Facebook. What is the deal with Facebook and MySpace?
- 6. The digital divide: are we creating a new class system.
- 7. Wire tapping and eavesdropping: can be done legally and illegally, so what's the difference?
- 8. Intellectual Property Rights and Software Piracy.
- 9. Directed Advertising: who's getting rich?
- 10. Why are there hardly any women in Computer Science and Technology?
- 11. Sex and marriage with robots: the way of the future?
- 12. What it takes to build a good software company.
- 13. Gettin' Your Head Straight: How to Avoid Being Disturbed While Debugging
- 14. Security in electronic voting: does the winner get elected?
- 15. The increasing complexity of the new spyware landscape.