CS-480—Senior Seminar
Study questions for *Teaching the Nintendo Generation*
Fall '03

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Primary Papers

Guzdial, Mark and Soloway, Elliot. "Teaching the Nintendo Generation to Program." *Communications of the ACM*, Vol. 45, No. 4, pp. 17–21, April 2002.

van Valkenburg, Mac E. "An Engineering Curriculum for the Future." *IEEE Communications Magazine*, Vol. ??, No. ??, pp. 12–15, December 1996.

Walker, Henry M. and Schneider, G. Michael. "A Revised Model Curriculum for a Liberal Arts Degree in Computer Science." *Communications of the ACM*, Vol. 39, No. 12, pp. 85-95, December 1996.

Additional Papers

Katz, Kaila. "Historical Content in Computer Science Texts: A Concern." *IEEE Annals of the History of Computing*, Vol. 19, No. 1, pp. 16–19, 1997.

Guzdial and Soloway

1. What is the overlying problem identified in the current Computer Science Curriculum? Does this seem like a plausible, realistic concern?

2. They claim that this discipline was tailored to appeal to students 20 years ago. Do you follow this logic, or does it seem that the curriculum resembles the "gatekeeper" model set forth by van Valkenburg?

3. Do you think that using popular media to teach CS is worthwhile? If so, how does this model address the issues they raise? How does this model support teaching CS?

van Valkenburg

1. What are the problems as assessed in this article about Engineering? Do you agree with the assessment? How do you feel these concerns relate to a curriculum in CS?
2. In his contrast between fine arts and engineering departments, there are some severe outstanding claims with some large implications. Do you agree with his comparison, to the degree that he demonstrates? Do you feel his comparison would hold true to a CS department?
3. How does van Valkenburg support the claims raised by Guzdial and Soloway?
4. Does his new curriculum seem teachable? How would one teach the same ideas and organization in a CS curriculum while covering core material?

Walker and Schneider

1. How student friendly does this (basically current) curriculum seem after exploring underlying issues in learning/retention?
2. This curriculum essentially states the opposite of van Valkenburg and Guzdial and Soloway, in the sense that students need a solid grasp on core subjects before they have the tools to work in more interesting areas. How do they justify these claims? How do the concerns of Katz assist this claim? Does the article by Katz support claims of any other authors?
3. Is this claim of necessary core material addressed by Guzdial and Soloway? By van Valkenburg? How do the other authors treat this idea and address it to support their own claims?
4. How do you feel about the breakdown in hours of concentration in table 1? Where would you put more emphasis? Where do you think our program puts more emphasis? Where would Guzdial and Soloman put more emphasis?
5. Of the different classifications of courses, "core", "elective", and so forth, what have you studied at Earlham? What other areas have been offered that are on these lists? What areas have you studied that are not included and why do think they aren't mentioned?