

Prospective Students' Reactions to the Presentation of the Computer Science Major

by

Daniel Scott Weaver

Submitted in partial fulfillment
of the requirements for the degree of
Doctor of Professional Studies
in Computing

at

Seidenberg School of Computer Science and Information Systems

Pace University

December 2010

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We hereby certify that this dissertation, submitted by Daniel Scott Weaver, satisfies the dissertation requirements for the degree of Doctor of Professional Studies in Computing has been approved.

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An Abstract

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The number of students enrolling in Computer Science in colleges and Universities has declined since its peak in the early 2000s. Some claim contributing factors that intimate that prospective students fear the lack of employment opportunities if they study computing in college. However, the lack of understanding of what Computer Science is and what it involves might be a more compelling reason for the decline. This dissertation investigates the attitudes and perceptions of prospective students toward studying Computer Science and the presentation of the Computer Science major on college and university websites.

The study employs four research stages that examine different aspects of this question that culminate in high school students providing their opinions of different representations of the Computer Science curriculum. The first stage evaluates college and university presentations of the Computer Science curriculum available on the web develops a Typical Curriculum. The second evaluates how businesses promote computer related job opportunities and develops an alternative presentation of the curriculum based on the findings. The third elicits perceptions, opinions, and ideas from prospective students and college students on how to develop a more exciting presentation of the curriculum. The final stage utilizes the curricula developed in the prior stages of this study in surveys designed to eliciting prospective students' reactions to the different curricula.

The results indicate that typical Computer Science curricula do not interest prospective students. The curriculum developed through the input of prospective and college students, however, was more favorably received and seemed to increase student interest in pursuing the study of Computer Science. Prospective students provided insight into their perceptions of the Computer Science curriculum. This

insight is valuable to colleges and universities that desire to present their curriculum in a manner that is exciting and motivating to prospective students.

This study informs colleges and universities of the characteristics of a curricular presentation that excite and motive prospective students to pursue studying Computer Science.

PREVIEW

Acknowledgements

I would like to thank my advisor, Dr. Fred Grossman, and my advisory committee, Dr. Ronald Frank and Dr. Charles Tappert, whose guidance and support has helped me to become a better researcher.

I would like to thank my colleagues, Dr. Marlin Eby, Dr. Bob Kilmer and Mr. Brian Nejme, for their support and help with my dissertation. Thank you, Dr. Eby, for your statistical help! Thank you Dr. Kilmer and Mr. Nejme for reading through my dissertation at various stages and providing helpful feedback.

I wish to thank Tyler Dean, Joy Gallucci, and Matthew Kline, for their help in gathering curricular data from the various college and university websites.

I would like to acknowledge and thank all the Advanced Placement Computer Science teachers that have involved their students in evaluating the different curricular presentations and to their students who provided valuable insight into their world.

Special thanks to Mr. Steve Kessler and Ms. Gail Hiestand, guidance counselors at Mechanicsburg Area High School, for the time and effort they gave me in working with the junior and senior classes at Mechanicsburg Area High School. Thank you for helping set up the focus groups and for your suggestions.

Special thanks to Mr. Dave Harris, principal at Mechanicsburg Area High School, and the Mechanicsburg Areas School District school board for their support and permission in conducting the technology survey and focus groups in the high school.

To my parents, Mr. Daniel Weaver and Mrs. Marilou Weaver, for their encouragement and support. To my favorite executive editor, Mrs. Marilou Weaver, for the time you spent proof reading my dissertation and your encouragement throughout this journey. Thanks Mom.

And finally, to my wife, Lorelei, and my daughters, Marisa and Leanne, thank you for putting up with me through this journey. Thank you for your understanding when I could not play, but had to write.

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