

Computing Educators Oral History Project

An Interview with *Richard (Dick) Austing*

Conducted Tuesday, June 13, 2006

In Silver Spring, Maryland, USA

Interview conducted by Alison Young

Copyright Statement

This manuscript is being made available for research purposes only. All literary rights in the manuscript, including the right to publish, are reserved to the Computing Educators Oral History Project. No part of the manuscript may be quoted for publication, except by the interviewee, without the written permission of the Director of the Computing Educators Oral History Project.

Request for permission to quote for publication should be addressed to Barbara Boucher Owens, either by email at ceohp@ceohp.org or via postal mail at Computing Educators Oral History Project, Southwestern University, P.O. Box 770, Georgetown, TX 78627-0770 USA. The request should identify the specific passages to be quoted, describe the anticipated use of the passages, and identify the requestor.

We recommend that this oral history be cited as follows:

Richard (Dick) Austing, an oral history conducted in 2006 by Alison Young, Computing Educators Oral History Project. Online: ceohp.org.

1 [0:00]

2 **Alison Young:** This is an interview with Richard Austing by Alison Young on Tuesday
3 the 13th of June 2006 in Silver Springs. Your name is Richard Austing, but you like to
4 be called Dick, is that right?

5

6 Dick Austing: That's correct.

7

8 **A:** OK. Dick, I want to start this interview by going way, way, way back. Can you talk to
9 us a little bit about your childhood? Have you got siblings? And your first education.

10

11 D: I have one brother who is older, seven years older. No other siblings. Early education was
12 grade school at the St. Thomas Aquinas Grade School in Cincinnati, Ohio. High school was
13 at Roger Bacon, which was also in Cincinnati. And bachelors degree from Xavier University,
14 also in Cincinnati. I then received a Master's degree — bachelors and Master's were in
15 mathematics — from St. Louis University, that was in 1955. And spent two years in the
16 army, came out. Went to graduate school for a doctorate. Eventually got that in 1963 at
17 Catholic University of America in Washington, D.C.

18

19 **A:** And did your parents have college degrees?

20

21 D: No, neither of them. I don't think that they got through high school even.

22

23 **A: What about your parents? You said neither of them had college degrees, yet they**
24 **encouraged you to go to college? [NOTE: Edited out the ringing of a telephone.]**

25

26 D: Yes. Both my brother and I went to college. He became a very successful business person.
27 Yeah, they were favorably disposed to as much education as possible.

28

29 **A: Were they, either your Mum or Dad, in a computer or mathematics related field?**

30

31 D: Not at all. Dad was a banker, which was as close as to mathematics. Mother was a stay-at-
32 home mother.

33

34 **A: In your early years as a little boy were you a good student at school?**

35

36 D: I believe so, yes. I can't tell you what the grades were, but they were usually pretty good,
37 nearer the top of the class.

38

39 **A: And your brother?**

40

41 D: Same.

42

43 **A: And this inspiration came from home?**

44

45 D: I don't know where it came from. I guess it must have, but it just seemed to be the thing to
46 do.

47

48 **A: Your brother and you were treated the same in terms of education and educational**
49 **aspirations?**

50

51 D: Yes, we both had the same opportunities and were provided the same opportunities and the
52 support for it. Yeah.

53

54 **A: Was there somebody in your early life who inspired you to pursue a career in**
55 **mathematics or science? A teacher or**

56

57 D: Certainly several of the teachers in college promoted that. I'm trying to think of anybody in
58 high school. No, I think it was college level really that ... I went into college thinking
59 mathematics, somehow. But the faculty there at Xavier were quite favorable toward ...
60 students had small classes. So we got a lot out of that.

61

62 **A: And your brother did his degree in mathematics too?**

63

64 D: No, his was in business. I forget what branch of it. And he went into ... he also served in the
65 army and so on. And then went into business after that.

66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109

A: Why did you choose Xavier as your college?

D: It was the hometown school. My brother went there. At the time it didn't seem to be the thing to go looking around all over the country for a university, so this was very convenient. I could — it was a long walk, but I could walk to it when necessary. It also had a good reputation.

[4:53]

A: When you did your Master's degree, did you by then know that you were definitely going to do all your degrees in mathematics?

D: Yes. I took some sort of an aptitude test at some point, I don't know if it was late high school. Seems like it was late high school. And the indications on that were — from the one teacher — to do mathematics. That's what seemed to suit my approach to life and everything else. So that seemed to be what I followed.

A: And your parents were very happy with this?

D: Seemed to be. I don't know that they understood it particularly. 'Cause it was different from business. [chuckles]

A: There is that two year gap from your Master's degree to your Ph.D. Could you just explain about that to us?

D: The what?

A: The two year gap between your Master's degree and when you went back to graduate school. It says here that you went to the army?

D: Yes. I had taken ROTC [Reserve Officers Training Corps] in college, so I had an Officer appointment. I got a deferment for a year-and-a-half to get my Master's. And after that I served my two years, which was part of the duties appropriate to the ROTC to meet that requirement. There was nothing spectacular about that service. Fortunately, it was between wars and I was very happy about that.

A: That was good timing for you! [both laughing]

D: Yes, I'm not military-oriented at all. But it served me well.

A: So you decided not to have a career in the military?

D: Oh, I never wanted a career in the military, no. I preferred being an Officer than an enlisted man. [laughing]

110 **A: And then you went back to graduate school to do your Ph.D. Did you enjoy that**
111 **research experience? Or was it just something you decided you had to do? Why pursue**
112 **the Ph.D.?**

113
114 D: Well I knew I needed that if I really wanted to get into teaching in a serious way. And I just
115 felt inclined toward continuing learning more mathematics. I don't think I ever was a
116 researcher in the usual sense of the word, even after I got the degree. Apparently I did
117 enough to satisfy my advisor and the university.

118
119 **A: And you enjoyed that experience?**

120
121 D: Yeah I did. There were some very good people there, both teachers and students, who just
122 were very nice. Almost all of the time I was at graduate school I had some kind of a teaching
123 assistantship, so I had the combination of the things that I enjoyed doing.

124
125 **A: You were a graduate assistant here at a couple of different universities while you were**
126 **at graduate school.**

127
128 D: Yes, that's right. That was to help pay my way and also gave me something to do that I
129 enjoyed doing.

130
131 **A: And when did you choose computer science? Because you've got these three degrees**
132 **now in mathematics.**

133
134 D: Almost by accident. Toward the ... near the last semester before getting the doctoral degree,
135 I was actually just walking down the hallway at the university. And one of the faculty
136 members there said something about, "You know they have openings over at the University
137 of Maryland computer science center," which had just begun about a year before that. Much
138 of my life there was a bunch of happenstances that were very timely, as far as I was
139 concerned, and this was one of them. He said, "Would you be interested in that?" And I said,
140 "Well, I don't know anything about computing particularly." I did have a course in numerical
141 analysis and my adviser was in numerical analysis, but I wasn't using a computer at the time.
142 So I said, "It sounds interesting." I did want to stay in the area, you know, geographical area,
143 Washington D.C. / Maryland area. So I said, "Well, would you like me to call over there?"
144 and he said, "Yeah." So I went over and had an interview and they needed somebody at the
145 time. They had ... the center there, they had a big grant and they were just getting faculty.
146 They didn't have an educational program at the center at the time, but that was part of their
147 charge, to develop one. So they needed people. And they hired me. So I seemed to suit their
148 needs. But the fact that I was in numerical analysis and my adviser happened to be pretty
149 well known, Morris Newman at the time. So the rest is history as they say.

150 [10:24]

151 **A: Was there somebody on that faculty that sort of mentored you into becoming a**
152 **computer instructor?**

153
154 D: I don't know about mentoring.

155

156 **A: Thrown in the deep end.**
157

158 D: Yeah, they directed me to the University of Maryland, but that certainly wasn't mentoring
159 exactly. And it was very helpful obviously. As I said, my advisor was a numerical analyst,
160 and although my thesis was in algebraic number theory, which I never taught, of course. So I
161 did teach numerical analysis when I went over there. But people, the faculty and so forth,
162 were just very helpful toward my moving on into computing.
163

164 **A: What was your course load like in those days? How much were you expected to teach
165 and were you developing curriculum as you went?**
166

167 D: At the University of Maryland?
168

169 **A: Yes.**
170

171 D: I only taught one course. It was officially a research appointment because the computer
172 center at the time didn't have a degree program, and at the University of Maryland, at least,
173 you couldn't have other than a research faculty. So I only taught the one course and I was
174 supposed to learn something about computing, etc. As things developed, they did develop a
175 program and I was involved in that, which was a very, again, fortunate event for me because
176 I really enjoyed doing curriculum development. And it kind of became my theme the rest of
177 my career. I was in, to me, a very fruitful place for development of curriculum, because the
178 center was not attached to any department. So although the director of the center was a
179 mathematician and numerical analyst, he had a broader view of life also. And we weren't in
180 engineering, we weren't in mathematics, we weren't in physics, we weren't in any other
181 things. So we could really develop something that was different. And it turned out the
182 director and the subsequent director (our first director was Werner Rheinboldt and the second
183 one was Bill Atchison), both of whom served on the Curriculum '68 committee, Atchison
184 was chairman of it. So I was in a place where things were happening as far as curriculum
185 development goes. We didn't have the first program in computing, but I feel we really had a
186 lot sources for the development of it. A lot of places did not have, so I felt very happy about
187 that.
188

189 **A: So that was part of your teaching. And you did mention Curriculum '68. When did you
190 first start helping or joining the professional association and becoming involved in
191 things beyond University of Maryland?**
192

193 D: Somewhere around that time. I was not involved per se in Curriculum '68 development, but
194 Earl Schweppe, who was also at [University of] Maryland at the time (I think he was
195 secretary for it, he never was a committee member per se), but I just kind of got mixed up in
196 that with Atchison, Rheinboldt, and Schweppe. Deeply involved. And I certainly am not
197 going to claim any contribution to it all, but I certainly benefited personally from it. And it
198 certainly spiked my interest in combining my interest in education with the field itself. I feel
199 kind of on the ground floor of a lot of that. And in some sense ... you asked earlier about
200 mentorship. I guess Atchinson really — Bill Atchison — was really a mentor in that regards.
201 He saw my interest in it and his interest corresponded to that and he kind of opened the doors

202 a bit, which was very helpful. And so I kind of got into the ACM through him and into the
203 education operation through him.

204 [15:18]

205 **A: And you've been involved in the ACM for how many years now?**

206

207 D: Well, I retired in 1998, so I left it officially at that point. And this was, I would say roughly,
208 1966/1967, I guess ... so whatever that is. 31 years, I think, 30-plus.

209

210 **A: Can you just tell us a bit more about those early years in the ACM and what you were**
211 **doing and the things that they were doing in computer science at that time?**

212

213 D: Well, I think it was a very broadening experience for me, also, because they were doing
214 things that were not just under the rubric "computer science": information systems, library
215 systems, all that kind of stuff. Work-related computing, application computing. So I got to
216 see a much broader spectrum of activity in computing and computer education. Sort of
217 throughout all of that I'd kept in touch with the development of curriculum. Sort of my bent,
218 I guess, was to get curriculum for a variety of people, different groups to the extent that I
219 could. And to that extent other ACM people were extremely both good to me and led me on.
220 Jerry Engel got a group together, which included me. And we eventually produced, I guess, it
221 was Curriculum '78, I think we called it, which was supposed to be an update to some extent
222 of Curriculum '68, but it was primarily directed toward small colleges — which also was
223 something I enjoyed doing, as I felt large colleges, large universities could kind of fend for
224 themselves, get their own faculty, etc.

225

226 Small colleges at the time were struggling like crazy to ... they knew, I think a lot them
227 realized the need, a lot of faculty, mathematics and engineering faculty, realized that a lot of
228 students wanted to get into computing and so they had to build up something in their places.
229 So, again, I felt that I was around at kind of the right time and could take some of that
230 background and information I had into their curriculum. So I did a little bit of consulting, I
231 guess at 30-some places I went to, mostly small institutions, to help them develop something.
232 But that, I think, was partly because I was at University of Maryland and that had a name,
233 and partly because of ACM, which helped greatly in that regard too. So I just kind of hung
234 around different curriculum development. And that really was my main thrust within ACM. I
235 guess you would say I participated in their conferences, and I was a committee member, and
236 I chaired one of their conferences. But I maintained professional interest and activity.

237

238 **A: And IEEE you mentioned as well.**

239

240 D: I was never in IEEE. But again, in the latter years of my experience with ACM, ACM and
241 IEEE started working together a little bit more. And that involved me in some joint
242 curriculum.

243

244 **A: Also in your vitae here, you did quite a bit of work with health. Computing and health?**
245 **Can you explain that to me.**

246

247 D: Yeah. Through ACM I met Karen Duncan. She was very active in the development of health
248 curriculum and health computing. She also got a group together, which I was fortunate to get
249 included in. And I was supposed to be the computer expert, one of them, in that group. That
250 was a very diverse group and, again, another one of the broadening experiences where you
251 found out that, “Oh yeah, this can really move out into the different areas!” So we did end up
252 developing a curriculum, but I never knew whether or not it was successfully implemented
253 anywhere. But it must have had some impact.

254 [20:11]

255 **A: And computing’s changing a lot in this time between ...**

256

257 D: Oh yeah. IBM 1401 and the “big machines filling rooms” type of thing. Where you could
258 look through windows to see what was going on. Until a few bombs went off here and there
259 and then they bricked the windows in. But it was still the big machines with the punch cards,
260 etc. FORTRAN was the main language where I was, although some others were being
261 developed, both elsewhere and where I worked. And obviously the change, eventually, into
262 microcomputer emphasis. So I got to see a lot. I didn’t get into the wiring. [both laugh] I was
263 a little late for that, but anyway ...

264

265 **A: And you’ve been talking about the curriculum development, but that was mostly at**
266 **undergraduate level. You did do some curriculum development at post-graduate level.**

267

268 D: Yeah. Again, because the activity’s in the committee level, people start moving up into that. I
269 got attached to that, I can’t remember exactly how, or through whom. But none of it did I
270 instigate. I was always a participant, a very happy and willful participant. I hope I
271 contributed.

272

273 So, yeah, we did the post-graduate degree in health computing and just a graduate program in
274 computing, computer science primarily. Although again, at various times, we wanted to
275 introduce little more more information systems in a kind of combination, but somehow that
276 never got some approvals somewhere along the line.

277

278 **A: You also ... so that was undergraduate curriculum, post-graduate curriculum, but also**
279 **in the mid-1980s you then started to look at secondary school level.**

280

281 D: Yeah. And I can’t remember exactly how that came about, but ... There were people doing
282 some work in it and it seemed kind of an interesting thing to bring down into the secondary
283 level. I’m sure it was implemented in some places by that time, some kind of computing, but
284 I didn’t think there was any particular real curriculum in it. And Jean Rogers was around at
285 the time and was involved then at that level. And she and I got together and then a few others
286 joined in. And then Karen Duncan, I think, was also involved in that.

287

288 We tried to develop at least a year program in information, which would include computing,
289 but also various other kinds of information that people gather. And problems with, really, the
290 information inundation of people through TV and through all kinds of inputs. And worked
291 through that psychology of stuff, with people from different fields coming to help. And

292 produced a year long thing that, again, I don't know if it was ever implemented or not and
293 published. I don't know what the impact was, unfortunately.

294

295 **A: Have you got any thoughts now on computing at high school? Secondary school level?**

296

297 D: I think it's a very valuable thing, I wish there were more in the way of courses that would
298 lead into either information systems or into computer science. I don't see a whole lot of that
299 yet — not that I have really been delving into it — but it seems that most of it is use of
300 computers for something, word processing, etc. And that's wonderful. I was reading the
301 paper this morning about a technical school in Washington and some of the people
302 developing games — not just for fun and games, but that were going to be used by some
303 places. So I think that kind of thing is a wonderful experience for students and a lot of
304 students can do very well with that at high school level. At elementary school they obviously
305 are doing very well with that too. But I guess I wish there were a little more serious
306 progression of courses as you will find in other sciences, but I don't see a whole lot of that
307 yet.

308 [25:16]

309 **A: Back to the University of Maryland and your students. You taught undergraduate and
310 post-graduate?**

311

312 D: Very little post-graduate. About the only post-graduate courses were those that could also
313 count for undergraduate, like the junior-, senior-level courses. Actually very few of those.
314 Most of the teaching was down at the lower level. It was also at [University of] Maryland
315 that I got into other things. I was advising a lot. And was assistant chairman for a while — it
316 was some kind of title that was not an official title per se, but a working title: Assistant Chair
317 for Education. So I was involved in assigning faculty and seeing that all the courses were
318 covered and we had the curriculum and the prerequisites and all that kind of stuff. So as a
319 result of all of that, the teaching load was a lot less than for other ... some faculty. It was
320 essentially the same teaching load as some of the research faculty. But I kept it at an
321 undergraduate level also, which seemed to suit more what I was doing, I was really advising
322 more undergraduate students.

323

324 **A: Were you expected to research as well?**

325

326 D: To get promoted, yeah. Again I was fortunate to get promoted from assistant to associate
327 professor before the real crunch on research came. And I never became professor because the
328 crunch came. [laughter] And the kind of stuff I was doing, any papers in the area of
329 curriculum, and a book or something, or co- authoring a something, was not considered the
330 kind of research that was promotable. So I stayed an associate professor and found enough to
331 do.

332

333 **A: But you did write some books? Could you tell us a bit about those?**

334

335 D: Co-authored.

336

337 **A: Co-authored?**

338

339 D: Yeah. Someone I met in one of these, I guess the high school-oriented things, was interested
340 in AP — Advanced Placement computer science thing — so she and I, and she had got
341 somebody else, did a little bit of writing for Pascal for the Advanced Placement test. Which
342 is, of course, out-of-date now, has been for quite a while.

343

344 And then I got interested in the computer literacy aspect of things, again because of some
345 other stuff I was doing. And Boots Cassel and I wrote one. And by the time it got published it
346 was pretty much out of date. Then we did one on file processing, which we felt was a useful
347 course, but again it didn't really work itself into curriculum very well. So these were
348 interesting experiences, but they didn't get much in the way of making publishers happy. We
349 also did one in networking, which was primarily her idea, and an approach to teaching
350 networking from an application point of view. Again that didn't sit quite well with the
351 computer science curriculum. So anyway ...

352

353 **A: Have you supervised graduate students?**

354

355 D: Very little. In the very early days we only had a graduate program. So yeah, I did a little bit
356 then, but that did not really hit me as the thing to do.

357

358 **A: Has that affected your career in any way?**

359

360 D: I think it led me more to the undergraduate level. I guess I felt very strongly then that part of
361 my advice to the colleges I went to to do the consulting was to develop a good strong
362 undergraduate program, and the graduate program will take care of itself. I think they heard
363 the message, but I think financially they wanted a few graduate students. Also, the faculty
364 were more interested in the development of their own intellect, etc. than teaching graduate
365 students. But I kind of felt that should come after a solid undergraduate program. So, much
366 of what I did moved down to that undergraduate level, which included community colleges,
367 too, while we were talking about curriculum development. Joyce Little got me involved,
368 Joyce Currie Little, got me involved in that. And that became a very interesting experience,
369 too.

370 [30:34]

371 **A: What was interesting about that?**

372

373 D: Again, it was just different from a large research-oriented university. That's where the
374 practical stuff was getting done. And a lot of students couldn't get into the so-called large
375 university programs because we were overloaded. And so a number of them went into the
376 community colleges as the first two years to get themselves into the programs. So it was both
377 a channel in terms of ... I can't think of the word ... comparing courses, making sure that
378 their courses were similar enough to what we were doing that they would transfer —
379 transferably is a good enough word — so I got that aspect out of it. But I also got the other
380 aspect, which was very practical and other courses that were giving application computing
381 and so on, which would lead people to work experiences. And then later on, if they wanted to
382 come to colleges, they could do that. So I just thought it was another nice way of getting
383 computing out in the world and helping people somehow.

384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429

A: I'll just turn away from college for a minute and go back to the ACM. You were president of SIGCSE for a while. Can you tell us about that experience and the things that happened during your time as president?

D: Well, I was one of the early — they called it chairman at the time ...

A: Chairman.

D: ... rather than president. Yeah. But I enjoyed that. It led, of course, to a lot of conference activities. It led to a lot of opportunities that may not have been available otherwise. But one of the things I guess I remember most of that is we did have a conference that — I can't say "made a little money," because it's a not-for-profit organization — but had a surplus. And I drafted a few thousand of that to be used to get a community college group together, to start thinking about and start working toward a curriculum development thing. And Jerry Engel, again, was very active in all of this too, and was the — I guess "honcho"ed it a little bit. And Joyce Little got really started in it; she was doing some work at the time, but unfunded, it was a little harder to get somewhere. So this, I think, gave a big spark to what was going on. Led, I think, eventually to some important and useful curriculum, primarily for the community colleges. So I think that was my best contribution, shall we say.

I guess the other good thing that happened is that — somebody, now I can't think of his name — offered Della Bonnette as editor for the *SIGCSE Bulletin*. And so that saved endless headaches from my point of view. I had no idea who was going to be editor for the *Bulletin*.

A: When did the *Bulletin* start?

D: Well, before that. But I can't remember who was editing. It may have been Bob Aiken himself, he was the chair earlier. I suspect he had somebody, but I think if he did, that person wanted out at that time. The *Bulletin* started somewhere close to the late 1960s, I'm not exactly sure. But anyway, Della became a very good editor and really moved the *Bulletin* along. And eventually, of course, got involved in SIGCSE much more thoroughly, to the benefit of everybody involved.

[35:11]

A: And from there you went on to be chairman of ACM?

D: No, I don't think so.

A: Oh sorry!

D: Of an ACM conference.

A: Of an ACM conference, yes. What were the conferences like in those days?

D: The conferences covered the gamut of — it was supposed to cover the gamut of computing activity. There was a chess tournament involved as part of it. There were exhibits involved as

430 part of it. Generally speaking it was a pretty active thing. But eventually it was too general, I
431 think, and the specialty organizations, the SIGs and that kind of thing, started moving along
432 much more. And I think the population migrated to more specialty areas. And so eventually
433 the conference, I guess, was stopped, but I forget what year. Not too long after I think I was
434 chair — I hope that wasn't the reason!

435

436 **A: Were they big conferences in those days? This was in 1980.**

437

438 D: They got smaller and smaller. I think by the time I chaired, there was somewhere in the ... a
439 little less than 2000 people range. Which may be a big conference, but considering its range,
440 was very small. The chess tournament was a very popular activity and got a number of
441 people and teams involved in that, which added to the conference attendance. It was also a
442 conference that was given along with SIGCSE. That, again, was kind of a conflicting aspect,
443 because I think SIGCSE was a very important aspect of it. ACM hierarchy seemed to think
444 that SIGCSE was tagging along. And I think as the years have shown, SIGCSE was a pretty
445 prominent part of it. It became the lasting part of it, outlasted. But because of that, there was
446 a real — I can't think of the term I want, peculiar is not quite the word — a different mix of
447 people. Part of them went to be there for ACM and the SIGCSE conference would start the
448 day the ACM conference ended. So the SIGCSE group started up. And then, also because of
449 that, you got bigger hotels and bigger venues for the thing, which didn't help SIGCSE people
450 entirely. Because they were from places that couldn't afford some of this stuff. So it was kind
451 of a strange situation. There were about 12 or 13 different categories of registration, because
452 some other applications-oriented group — can't think of their name — joined in also. So we
453 really had three conferences going on at the same time. It got to be a little bit of a mess. It
454 was hard to figure out what the focus was at that point.

455

456 **A: And for all of this work that you did with SIGCSE you were awarded a Fellow of the**
457 **ACM?**

458

459 D: Yeah, that, and also I got a Distinguished Service Award or something because of activities,
460 ACM conference activities, and stuff. And again, being around at the right time. Part of that,
461 the first award of the Fellows, was to sort of give them to anybody who had received an
462 ACM award.

463

464 **A: Dick, you're too modest!**

465

466 D: No, I don't think so. I hope their standards have changed since then. I don't know, but ...
467 I've lost touch with that. But there was that, that was a definite aspect of the criteria at the
468 time. Wasn't any particular benefit to being a Fellow, either, after that.

469

470 **A: What challenges have you faced over those years?**

471

472 D: Hmm. That's a tough one. I guess what a lot of people would look at as challenge didn't
473 strike me quite that way. For example, my getting to the associate professorship, not to the
474 full. I'm sure to a number of people in the profession, at least, would have been a challenge. I
475 was very comfortable with where I was and what I was doing, so it didn't bother me at all.

476 [40:06]

477 The other things were the ... I guess the length of time it took to get some things done. But I
478 preferred working through committees. And committee work just does take longer than one
479 or two people working individually on something. But I think the results are much — for the
480 type of work we were doing, curriculum stuff — results were much more (I'm lost for that
481 word too) ... anyway, had more impact, just because of the names, the variety of names, on
482 that curriculum. If one person put out a curriculum, well that is his/her own ideas, which may
483 not be that wonderful. But if a group did it with a backing like ACM, it just meant more. But
484 it took more time, working with a committee, getting people to do things, etc. etc. Working it
485 out, getting approvals up the line for publication. In some sense those were challenges, but I
486 thought they were reasonable paths to work through the things. Maybe I'm just too
487 complacent to see them as challenges.

488
489 **A: But you must have been rather proud of that curriculum, as it is being used not only**
490 **nationally but internationally.**

491
492 D: Yeah. I am very happy to be associated with all of that and have my name on all of that. It's
493 what I really wanted to do. Actually, toward the end of my career, the last few years before
494 retirement, I went over to University College of Maryland and developed a curriculum there
495 that I'm very proud of. And I felt I had a lot to do with that one, not the detail so much as the
496 direction of it. I was in a position where I was the Assistant Dean for Computer and
497 Mathematical Sciences, so I really had all of the computing courses under me. This was,
498 adult education was one of the terms at the time, it's continuing education or whatever they
499 are calling it now. That, too, just opened up all kinds of windows to for me and just helped an
500 awful lot of people who were in the working force out there. I was instrumental in getting all
501 the courses we had, which were actually full-blown curriculum: computer science,
502 computing information science, information systems, applications even. But getting all of
503 those so that they could be offered at a distance, which was something a lot of my research
504 colleagues didn't think much of. They didn't think it was even appropriate or could be done.
505 But I feel we did it. Again, we had other people developing the specifics and teaching the
506 courses and doing the work in that sense. But I felt promoting ... I think it has been a very
507 valuable contribution to an awful lot of people out there who didn't have much other
508 opportunity for it. They literally could get a degree without going to a classroom. That was
509 good.

510
511 **A: Any compromises you have had to make in the course of your career?**

512
513 D: Well, committee work is full of it! [laughter] There must have been more than just that, but it
514 certainly strikes me as the biggest area of them. But usually they were peaceful.

515
516 **A: Dick, do you have any strong outside interests that would enable us to understand you**
517 **better? Are there any outside interests that have had a shaping effect on your career?**

518
519 D: I love to travel, a tourist at heart. I certainly enjoyed going to conferences. And I guess one
520 effect was that I was willing to be a committee member and did feel I did the work of a

521 committee member. But it got me to a lot of the conferences and helped support the travel
522 interest.

523 [45:19]

524 **A: And the meeting other people internationally?**

525

526 D: Yeah, there was, for example, some work I did for University of Maryland, University
527 College. Got me to Japan and to Europe because we have had groups over there teaching.
528 Originally teaching troops and that brought it out to some others. So I got to go to places like
529 that to deal with the curriculum there and help people along and understanding it a little
530 better or something. Introducing a little literacy over there, etc. to our staff, primarily.

531

532 There was just ... I feel like I came along at a time when there were just tremendous
533 opportunities for almost doing anything you wanted to do. In some respect, I feel that I found
534 a niche that I enjoyed doing and I profited from personally because I met so many wonderful
535 people who were so active and interesting. And it suited me. And I feel good about it. I can
536 only hope that I was helpful to a lot of other people. I think it was.

537

538 **A: Have you had any circumstance over this time where you have acted as a mentor to
539 somebody or some people? Can you explain that to us?**

540

541 D: At least one or maybe two people who claim that I have been. I never felt that that was my
542 specific role per se, but I think circumstances were such that it developed that way. One is
543 Boots Cassel and I do hope you interview her, maybe she can contradict what I say. But there
544 was an occasion, again, this goes back to the time when small institutions just did not have
545 the resources, etc. etc. She came to a SIGCSE Conference to a birds-of-a-feather session,
546 actually, and was interested in developing something. But the institution she was with just
547 had no idea what was going on and how and all that kind of stuff. At this birds-of-a-feather,
548 she either asked a question or admitted a cry for help: "What do we do?" type of thing. So
549 anyway we talked a bit afterwards. And she invited me to be a consultant for her at her place
550 and it went on for a couple of years. Just a collegial thing developed there that worked out
551 very well. And eventually we co-authored books, etc. etc. But I think her career blossomed
552 quite a bit after that. I don't think much after that I had much to do with it, because she was a
553 self-starter in many respects and really worked at it. She got along very well on her own path.
554 But at least at the beginning, I guess that was mentorship.

555

556 The other one was the story I was telling you earlier, about the money for the community
557 college thing. I certainly helped that along and Joyce Currie Little and I became friends
558 through that.

559

560 **A: One of questions I intended to ask you is what is the thing that you are most proud of in
561 your career?**

562

563 D: Probably my last experiences at University College, developing that curriculum at a distance
564 which ... There were other places doing courses at a distance — we had models — but I
565 think the way that University College did it and the type of course that was produced was
566 different and leading to the full-blown curriculum. Actually, before that I was working with

567 University College, almost as a consultant, but I don't think there was any official term that
568 was being used. To help them through some of their computing days, early days. But I think
569 that's just had a tremendous impact on people — we had students in Iceland, students around
570 the world, literally — in that sense. In a sense that probably had the biggest impact that I
571 know about and was probably my proudest achievement.

572 [50:24]

573 **A: That's wonderful. If you had any advice for young people starting out today in**
574 **computing, what would it be?**

575
576 D: Computing now, man. I think determine what your interests really are and pursue that,
577 whether it be computers and applications or something, whether it be as a science, in the
578 informatics, information systems area of it. Whichever direction you want to go. But make
579 sure it suits your bent. And if you're scientific-oriented, or if you're engineering-oriented, or
580 if you're business-oriented, in broad terms anyway. To the extent you can figure it out when
581 you're 18 [years old]. But I think the most important thing to do if you're going to college
582 with the idea of a degree, and possibly in computing, is to get a broad base at the beginning
583 so that when you change your mind, you can go into other things and you don't have to
584 repeat everything. It wastes a lot of years trying to pick up other pre-requisites. I think the
585 more liberal the education (of course that's my background), but the more liberal the
586 education, the better off you're going to be, both as a computer person and as a person. So I
587 would advocate moving in that direction.

588

589 **A: Have you got any predictions on where computing is going?**

590

591 D: Oh, man! When predictions come up, alls I can think of is the early days, when somebody, I
592 think it was in IBM, said, "Oh, we have 5 or 6 computers. That's going to be enough to
593 handle everything in the world!"

594

595 **A: Thomas Watson.**

596

597 D: Or I think of all the people in artificial intelligence who have made predictions over the
598 years. No, I wouldn't dare predict.

599

600 **A: OK. If there was one decision that you made along your career path that you could**
601 **change, what would it be?**

602

603 D: Never really thought about that, but I guess my initial reaction would be nothing. I just felt so
604 very fortunate in that. It seems like when I was looking for something, something would
605 come up that I could get involved in. And, of course, there was the matter of saying "yes" or
606 "no" to it. I had the choice of no, but if I chose yes, it was a very happy circumstance in
607 many respects. Hmm.

608

609 **A: If you were starting out ...**

610

611 D: I don't think anything particularly. It seems strange, there should be something, but ...

612

613 **A: Doesn't have to be.**

614

615 D: I know, but ...

616

617 **A: If you were starting out again today, would you follow the same career path?**

618

619 D: Probably not. I don't know that I would go into what was then called the so-called "pure
620 mathematics." I'm not sure what I would go into.

621

622 I certainly would try to get better grounded in coursework, etc. in computing. I never had a
623 course in computing, so ... I don't know what that is. But I'm sure there are just a lot of gaps
624 because of that: pick up this, pick up that, and try to put them together, but then what's the
625 foundation for all that — may not be there as well as it should be. So I think I would pursue
626 that a little more. I would certainly pursue the liberal arts even more intensely, with more
627 interest. Of course, I guess some of the wisdom you get with age is that if I really had courses
628 to do and forget, I would do them more seriously. [laughter]

629

630 I don't know, pure mathematics interested me and I was fascinated by it and I guess I did
631 well in it. But it just ... I always felt a lack of being able to apply it. And computing,
632 somehow, you can apply. So I guess I would probably pursue computing more intensely.

633

634 **A: OK. And if there is one story you would like to tell us so that it would always be
635 remembered, what would it be?**

636

637 D: All of the above! No, I don't have one story, I don't think, no. I think I told one or two short
638 ones along the way in the interview and I'll leave it at that.

639

640 **A: OK. Dick, thank you very much for this interview. Is there anything else you want to
641 add or something that I've left out that you think that we should have added?**

642

643 D: I don't think so. I'm privileged to be interviewed, it's a new experience. I hope your program
644 of all the interviewings really comes to something because I think it is an important thing
645 you're doing.

646

647 **A: Thank you very much.**

648 [55:52]