

1 **Oral History Project**

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3 **Daniel McCracken**

4 **17 June 2006**

5 **Manhattan, New York**

6 **Interviewed by Alison Young**

7

8 **A: This is an interview with Daniel McCracken by Alison Young on the 17th of**
9 **June, 2006 at Daniel's home at Manhattan, New York. Daniel, will you just say**
10 **your name into the recorder so that we have it correctly, please?**

11

12 D: It's Daniel D McCracken, but anyone that calls me that is probably trying to get
13 money out of me, because I'm always called Dan.
14 (aside about his name left out of transcript)

15

16 **A: Dan, I want to start way back at the beginning, a long time ago, and talk**
17 **about your early education and when you went to school as a child. But starting**
18 **with your parents. Did your parents have college degrees?**

19

20 D: My mother finished her college degree in World War II when all the young men
21 were getting drafted. She had been an elementary school teacher at a time when two
22 years at college would get you a certificate. "Levels" wasn't the word, for sure, but I
23 don't know what I said. And all the guys went off to war; she had lived in a college town
24 from which I graduated, Central Washington College of Education at the time. And she
25 went back and got a degree and taught junior high science.

26

27my father got in three and a half years of an engineering degree of University of
28 Washington, didn't finish, I've never known why, just don't know why, its not the right
29 place to speculate on it. Anyway, he knew engineering and that stuff and used what he
30 learned, running agricultural equipment. That's what he was doing while I was growing
31 up.

32 **{end of part I}**

33 **A: Ok. So your Mum went back and got her College degree and your Dad**
34 **didn't finish. Did they encourage you in your education?**

35

36 D: Ah, yes and no. I had a laissez faire upbringing, given a great deal of
37 independence. They expected me to do well in school, so I was encouraged in that sense.
38 My father was more distant than my mother, shall we say, and he, I don't want to get into
39 all the family dynamics and all that kind of stuff, but I had a closer connection with my
40 mother than my father and she certainly encouraged in ways that I didn't recognize at the
41 time, she encouraged me in ways that led me into teaching actually. Not by telling me
42 that's what I should do, it's not what I did in the beginning; I didn't do until age 50
43 since, and she certainly encouraged in ways that I didn't recognize at the time, she
44 encouraged me in ways that led me into teaching actually. Not by telling me that's what I
45 should do, it's not what I did in the beginning; I didn't do until age 50. She showed a lot

46 of interest in my school work and encouragement and helped me out on all kinds of stuff.
47 They were both good people but I was closer to my mother.

48

49 **A: Did you have siblings?**

50

51 D: Oh indeed. I had four brothers, one of whom was adopted, and a sister, and they
52 have all pre-deceased me.

53

54 **A: And they all had College degrees?**

55

56 D: Ah, no, in fact only one did. Another one should have but the war kind of got in
57 the way. My sister was a registered nurse, that was a three year program, I don't know if
58 you'd call that a college education. It wasn't an academically oriented family in that
59 sense, no.

60

61 **A: Were you a good student at school?**

62

63 D: I was a very good student. I got extremely high grades. In New York State they
64 have something called Regents exams in high school. I spent my last year of high school
65 in Ithaca, where Cornell is, my next older brother was going to Cornell. I got a hundred
66 on one of the math exams, got 97.5 on another and I remember that because the teacher
67 had been rooting for me to get 100 on all of them. I got a Regents scholarship and I was
68 in the top 10% of the class where probably a third of my classmates were the children of
69 Cornell professors so I got a great year's education there. Ellensburg High School in
70 Washington wasn't bad either but I always did well in school. I got one C in College. A
71 nutrition course where I gave a smart-arsed answer to a question, I had a point but that
72 was wrong. I tried to argue it. So I had one C, a blot on my escutcheon. 3:26

73

74 **A: Did you take math and science at high school?**

75

76 D: I took everything I could, well, in the hard sciences, I never took biology in high
77 school, I took one biology course in college. It was a lecture course and the teacher was a
78 good lecturer but it's part of what helped form my conviction that lecturing is the wrong
79 way to teach. You've got to get in there and do some of it and look through a microscope
80 and dissect that frog. Today you wouldn't dissect the frog; you'd run a program that does
81 some DNA matching or something. But I'm an extremely strong believer in active
82 learning. I signed up for a botany course, second quarter of a two quarter course and the
83 catalogue assured me you didn't have to have the first semester, take them in any order.
84 And I got in there and everyone else was looking through microscopes. I looked through
85 the microscope and I couldn't tell what I was looking at, I had no idea, maybe I didn't
86 have it focused. Or a cognitive problem, that I didn't know what things should look like
87 through a microscope. And I dropped it after a couple of weeks, because I just wasn't
88 doing anything. And I'm sorry about that, I wish I knew more about the life sciences.

89

90 But I focused on physics and chemistry. Degree in chemistry, from a teachers college,
91 Bachelor of Arts, and a couple of years of physics and all the math I could get there, from

92 which I got a Bachelor of Arts in Mathematics. A good deal of my math was by
93 correspondence from the University of Washington and the University of Chicago and
94 that is not a good way to learn. I didn't realize how very little I had learned until I got to
95 graduate school and found out that I was utterly unprepared for it. I do have two degrees,
96 Bachelor of Arts degrees, from a school which at the time was called Central Washington
97 College of Education, and earlier had been called Ellensburg Normal School, which was
98 This doesn't read well, but I guess the meaning is clear enough what that term meant a
99 couple of decades earlier, was preparation for people to teach elementary school. I only
100 took one education course, two maybe, in my whole college career. One of them was
101 teaching math and science in high school. And that was good.

102

103 **A: Was there anybody in particular then that had a shaping influence on your**
104 **early life? You did talk about your mother.**

105

106 D: I had some extremely good teachers. Some of whom, well, all of whom, who
107 took personal interest in me as a student and encouraged me. A high school geometry
108 teacher, a college chemistry teacher whom I got to know some and he gave me strong
109 personal advice. You know what Toastmasters is? He urged me to join the Toastmasters
110 club and learn something about public speaking and I didn't take the advice, I wish I had,
111 it was extremely good advice and now I understand what he was saying, that I needed to
112 be able to present my ideas better. I had that kind of support. I had an extremely good
113 teacher in graduate school, the one course that I really "got," linear algebra, and that
114 teacher, he was one of the best teaches I've ever encountered. Lipman Bers. He died a
115 few years ago. An algebra man. He was teaching linear algebra, I mean algebra in a
116 different sense. Linear algebra is obviously matrices and all that stuff and I'd been doing
117 that with computers. I really dug that course. Got a high grade in that. The other
118 graduate courses I did terribly, I just had no idea what was going on. Hadn't had the
119 proper undergraduate education. Early influences, there were some people who stepped
120 in at crucial moments. One year I decided I wasn't going to go to school. Talk about
121 laissez faire, I was probably in 9 grade or 10th. I just laid out, just didn't go to school
122 and my parents didn't do anything about it. It sounds like I was either neglected or
123 abused and maybe I was but hey, it doesn't seem to have destroyed me totally. And the
124 YMCA director, I spent a lot of time there, he took me aside and said "do you really want
125 to do this? Maybe talk to the high school principal, there are some people who might
126 care too, your parents care too," but evidently not in the same way about this. There were
127 a lot of people who just stepped in for a cameo appearance that made a lot of difference
128 to me. I could think of many more, but I'd have to scratch my head a while. Yeah, I had
129 a guardian angel. A bunch of them.

130

131 **A: So you went to college knowing that you wanted to do math and science?**

132

133 D: I knew that I liked math and science and when I was in college I didn't take the
134 courses that would have led me directly to it. I imagined myself being a high school
135 physics teacher, sometime down the line, and as plans laid at age 17 or 18, I've come
136 pretty close actually. I took all the hard science in high school that I could get at the
137 time. And then I took chemistry and math degrees. In college, I graduated in 47 and in

138 46 I think, I read an article in Time magazine about whatever the latest machine at
139 Harvard was, Mark IV maybe, not sure about that, and it described what was being done
140 with it, differential equations and all that kind of stuff and I remember that moment and I
141 said “that’s what I want to do, that is interesting stuff.”

142

143 **A: And that was before you went to college?**

144

145 D: No I was in my third year at College. No I’m sorry I got the dates wrong. I
146 graduated from high school in ‘47, graduated from college in ‘51. This would have been
147 in, the epiphany, would have been in 1950 give or take a year. I said “yeah, that’s good
148 stuff, I want to do that” and went to work for General Electric. They hired me into what
149 they called a rotational training program. I think the company still does it, under some
150 name or other. And the plan was that I would spend three months each at four different
151 places related to my educational background. I’d find out about those fields, they’d find
152 out about me and then I’d get a permanent assignment.

153

154 The first assignment picked up on the chemistry part. I worked in plant that extracted
155 tritium from lithium slugs that had been put into a reactor, as a glorified, I don’t know
156 what, errand boy. It was extremely expensive stuff. Flip one switch wrong, as I did
157 once, for a few seconds, and you’ve blown off ten thousand dollars worth of tritium. The
158 stuff is expensive. So they wanted college educated people to do something that an
159 ordinary workman could have done. I did okay. I was studying this stuff, high vacuum
160 technology and I read a book by Sir James Jeans or some such person. He’d written a
161 book in the 30’s maybe, had something about following individual particles as they
162 bounce around in a vacuum and it’s the simplest slip in the whole world. He had a sine
163 where he wanted a cosine, I think he had forgotten where he was measuring from and I
164 went to my boss, my boss’s boss and asked if this wasn’t an error, and it was. And that
165 just impressed the hell out of them that I’d caught an error in a book by James Jeans.
166 And they went around talking to themselves about this kid. But it became very clear that
167 I was going to go nowhere in that business without a PhD and I was supposed to rotate
168 anyway, and I’d already stayed there longer than the normal three months, I stayed there
169 seven months because they needed people.

170

171 And I took the next rotation in the computing thing and that was the end of that. And
172 here I am. Nothing’s ever changed. Well, I thought I wanted to be a minister there for a
173 few minutes, but I got over that. Otherwise I’ve never left computing, from that moment
174 in January 1952.

175

176 **A: And from there you started writing your books. It must have been very**
177 **shortly after that, as a programmer with General Electric?**

178

179 D: I went to work for General Electric the day after I graduated from college in ‘51.
180 I stayed with them seven years, give or take a month, in four different locations. I had
181 essentially a rotational training program for the rest of my career there; at my instigation I
182 tried to get transfers. Because you know, it was an opportunity to do something or other,
183 if I wasn’t happy where I was or whatever. So I ended up in the jet engine division for a

184 while. This was first chance to work a real computer fulltime, IBM 701 or 704. Then I
185 worked for Herb Grosch, if you haven't met him, you've surely heard the name. Well, by
186 now he's 87 or something. There are people around who don't know the name. He went
187 to the computer department in Phoenix and I wanted to go with him, and I said so, and I
188 did. And I think I saw as early as anybody in existence that that wasn't going to work and
189 I wanted to go transfer to New York and I got some extremely valuable experience in
190 trying to automate a plant that made measuring equipment, on a semi job-shop basis.
191 And GE just wanted to find out if it was possible to use computers to automate that. The
192 answer was no, not then. But it's since been done and I got some very valuable
193 experience, then I decided I wanted to go to graduate school, and that was that.
194 Working for Herb Grosch, Cincinnati; working on 704. He'd asked me to teach a course
195 for new employees coming in, one of whom turned out to be a co-author and a life-long
196 friend. And I like to teach and I'd written anything I could. We were at a meeting in
197 Boston in '54 or '55, probably '55, and two editors from Wiley who were really on the
198 ball, they had kept up, they had said this is going to be big stuff, one of them in particular
199 was an engineer, and had gone to the University of Michigan summer program and
200 learned something about computers.

201
202 They were looking for somebody to write a programming book, about which, there
203 weren't any at the time, no text books. They went to Herb, who was extremely well
204 known at that point and said why don't you write a book on programming? He said, nah,
205 not me, but I've got this kid working for me ought to write a book. They said fine, when
206 can we meet him. He said well, he's right over there; would you like to meet him now?
207 And one thing led to another and that was my first book a couple of years later. And I
208 wrote that on GE time. I don't know if you noticed it was part of the GE series on
209 technology. But I got to keep the royalties. And GE I think, has the copyright on that
210 one, not that that ever mattered much. One thing led to another. The book was
211 successful, it didn't sell a ton of copies but it was successful. It led to the second book,
212 which wasn't very successful at all and then after that came the FORTRAN book. And I
213 was off and running. That first FORTRAN book sold about 300,000 copies, which was a
214 stunning number. I think still would be, certainly was at the time. Mind you it sold for
215 \$2.95. The royalties were great and a typical textbook at the time was probably around
216 \$10. So \$2.95 for my book; has a quaint sound now.

217
218 **A: It does, doesn't it? And all this time you were still at General Electric.**

219
220 D: No, I left General Electric in 1958. At which point the first book had come out,
221 the second book had not and FORTRAN. I don't think at that moment had been released
222 at all. It was in development when I visited the office of the team that was putting it
223 together, almost all IBM people. I met John Backus there. It was in the, you know where
224 the IBM building is now, between 57 and 56th, they had a building there before that
225 didn't take up that whole block and John and Bob Bemer Hmmm. Not absolutely
226 certain he was on the team. Google didn't give me a quick answer, and the other people
227 in the team were in rented space facing onto 56th Street. I met them there and then
228 somewhere in there, I'd have to work on the dates, I wrote a manual on Fortran for
229 Honeywell; at least I don't think I have a copy of that at this point, I don't believe it had

230 my name on it. By then I was working at NYU, at the AEC Atomic Energy Commission
231 Computing Center. I was a grad student, I was getting a stipend, which I couldn't have
232 lived on by itself, but the book royalties were enough to make it possible. Honeywell
233 said, 'well why don't you write us a FORTRAN manual?' I was using FORTRAN on the
234 704 there, so I had some place to practice, so to speak and I wrote the book for
235 Honeywell. It must have come out in '59 or so and at some point or so I said wait a
236 second, there's a book in there, it could be big and I made a proposal to Wiley and the
237 editor who had gone to the Michigan thing saw it and he got it. He said yeah, this could
238 be big, and it was so big that I did something that I've never done since and I refused to
239 talk about it. People asked me what I was working on and I said, well, I don't think I
240 want to tell you yet. It's too good an idea, I'll tell you in six months but right now, I don't
241 want the idea stolen. Today that would be just meaningless, you couldn't write a book on
242 that basis, but that's how it seemed at the time. Wrote the book and of course it was a
243 total success. It had reviewers, so people knew about it but I kept it under wraps as long
244 as I could and by then I was self-employed. I didn't stay at NYU very long at all, couple
245 of years, and living of royalties and royalty advances. And there we are, I was off and
246 running.

247

248 **A: So for the next 20 years you were an author and a consultant?**

249

250 D: Self-employed.

251

252 **A: You consulted to the companies to actually create software or projects?**

253

254 Called myself a consultant because I didn't know the term, but what I did exclusively was
255 write expository materials, book length or pamphlet length, – Structured Programming in
256 COBOL for example.. And believe or not it sounds like a horrible oxymoron but it
257 wasn't. It certainly wasn't. At the time it seemed strange, but stuff like that, I did a little
258 series on Cobol, Structured Fortran and COBOL for IBM. Little itty bitty things, don't
259 happen any more. And that's consulting. I did that for IBM, Intel and this company that
260 later became a unit of Sybase and I taught one course for Shell Oil.

261

262 And my first consulting, I did call it consulting, was teaching and a little bit of writing for
263 the FAA, at their experimental facility outside of Atlantic City and there I taught
264 programming. They had a group of burned out controllers. People worked too long at
265 O'Hare approach control. They were simply burned out. They were mostly basket cases
266 - tough job, very tough job. We tried to make programmers out of them and didn't work.
267 I had very little experience teaching but if I were asked to do that now, I'd say let's not
268 do that; it's not going to work and it didn't. That was my first actual consulting.

269

270 I was free to do some consulting while I was at NYU, a day a week; I could do that today,
271 one day a week, plus my weekends and summers. I could be doing that kind of
272 consulting right now, and same deal at NYU. I did the consulting, the FAA stuff, on that
273 basis. At some point NYU people said, you have a leave of absence, you've been on
274 leave for three years now, do you have some plan to come back? I said, well, thank you
275 for asking, I said, no I don't.

276

277 And so I just sort of made a segue into full time consulting. Just making small decisions
278 that added up to a career, sometimes I just shake my head. How can I have been so lucky
279 that things worked so well? I was just taking the local optimization, a greedy algorithm,
280 do what's the best in the local sense and it'll turn out that that's globally optimal. Well
281 that you can prove, it's Dijkstra's algorithm. A career you can't prove that, obviously but
282 it sometimes seems to me, I've been incredibly lucky and that's how things have worked.
283 What was optimal at a particular time; turned out also to be career-wise optimal and
284 going to City College was very much in that category. I thought I was going there for a
285 year. I hadn't a plan in the world of staying there, eventually retiring from it and here I
286 am.

287

288 **A: So what led you to City College in '81?**

289

290 D: I was asked to teach as visiting professor for a year by the guy who had founded
291 the department and who knew of me because of my writings. My term as ACM president
292 had ended. I don't think he was active in ACM; he knew me through my books and he
293 asked me to come for year. And in the middle of the year, without telling me, he
294 switched me to a permanent line. Little bit of a strange bird in that regard. I didn't know
295 that had happened, my checks started coming every two weeks instead of once a month, I
296 said what in the hell's going on here? He said, oh, didn't I tell you, you're now on a
297 permanent line. I said, 'no you didn't tell me that.' It worked out very well. I stayed
298 another year, then another year, and we finally decided to get married and made it formal.
299 I got tenure and here I am. So that was that. I was busily writing. I did a series of video
300 assisted instructions stuff for a company that is now part of Deltac. I was working very
301 hard on that, flying to Chicago every week. Taping stuff, and here comes this call from
302 George Ross, saying would you like to spend a year at City College, so I looked around,
303 rode my bike down there to see, this is it right, sure why not, another one of these locally
304 optimal decisions. And that was it. I'm extremely grateful to George, and I've told so
305 many times.

306

307 **A: You did just mention that you were ACM President and that was going to be**
308 **my next question, about professional organizations. Did you join ACM fairly early?**

309

310 D: I joined ACM in 1954. I might have the oldest member-since date in the
311 organization. I don't know any way to check that. I'm embarrassed to ask but I'm not
312 sure there's anyone still alive who joined earlier than that and has stayed a member
313 continuously for the whole time. I've asked for a 50 year pin. So far I'm still asking.
314 Apparently, there's not much demand for them. Herb Grosch said if you join ACM it
315 will be easier for me to get you travel money. So I joined ACM.

316

317 **A: And how has ACM influenced your career?**

318

319 D: Oh, an enormous influence. Given me a professional venue for ACM national
320 lecturer, got a lot of travel exposure, chance to sell books and do research on what's
321 happening in the departments, of course the leadership opportunities, the exposure there,

322 name recognition out of that. Which is zero now. For everybody who knows I was ACM
323 President, there are 500 that know I wrote the FORTRAN book. I was not one of the
324 great ACM presidents. I held the thing together at a time when there were some
325 centripetal forces. Met a ton of good people, involved in SIGCSE from very early.
326 There have been 36 meetings. Now, I've probably been to 20 or 25 of them. I've been
327 on the program probably a third of all meetings, and that's just been incredibly important
328 to me as a way of keeping in touch with the field, meeting new people, staying in touch
329 with friends. It's been a major factor in my career.

330

331 **A: You were Vice President '76-'78 and President '78-'80, can you think of one**
332 **thing that you were really proud of or that ACM achieved while you were**
333 **President?**

334

335 D: Well, my term as ACM President doesn't lend itself very well to that kind of
336 question. I didn't do ground-breaking things that stand out quite that way. But I did lead
337 the charge on trying to prevent the social security number from becoming a universal
338 identifier. And a bunch of us who were involved in social issues. I was chairman on the
339 ACM committee on computers and public policy. Another example of what ACM has
340 done for me is the chance to do something in an area that I felt strongly about. Could
341 meet good people, get to testify before congressional committees and just have lots and
342 lots of fun professionally. And some of us in 74 thought that the idea that social security
343 number would be public information and be a UID [Universal Identifier], we thought that
344 was a terrible idea. And 99.99% of the rest of the population thought we were out of our
345 minds. Of all the things you could pick to worry about, that's got to be the least
346 important. And now I am trying to find records, as far as that got was a council
347 resolution and there must have been some sort of press release and I'd like to find that
348 press release. Made absolutely no impact at the time. But today, makes me feel pretty
349 good, we at least saw the problem before anyone else did. I was involved in human
350 rights issues, with a focus on this guy Val Turchin who was trying to get out of Russia,
351 Soviet Union at that time, which was very, very, very difficult to do for somebody who
352 had been a dissenter. I worked on that as ACM President and Vice President, quite
353 actively and quite publicly and between me and Jack Schwartz, at NYU and Lipman
354 Bers, at Columbia at the time, (my math professor who was Estonian or something
355 originally but spoke Russian), amongst our efforts, and Bob Kaiser at The Washington
356 Post, and a similar sort of guy at The New York Times, we made enough noise that
357 eventually he got out. And he eventually ended up coming to City College. I'm
358 extremely proud of that; that made something of a splash at the time.

359

360 I supported the reorganization of the Publications Board. And that's not something
361 you're going to put on my gravestone, right, but still I was working very hard on that, an
362 infrastructure building kind of thing that nobody outside the organization would even
363 know what the hell you were talking about and I worked council to make sure that that
364 passed. And that's the sort of thing that you can't... "you're proud of that!?" But what's
365 to be proud of, you know. That's the way it is in working in voluntary organizations,
366 there's a lot of work like that, that doesn't have much public visibility at all, but which, if
367 it isn't done right it hurts.

368

369 **A: You obviously have an interest in the history of computing by being a**
370 **Trustee of the Babbage Institute and for the Centre of History of Information**
371 **Processing?**

372

373 D: Well, yeah, simply because I was there on some of this stuff, I was not a pioneer.
374 I didn't invent anything at all. I certainly didn't invent the subroutine concept or
375 anything of the sort. But there I was writing those books, and in the course of that I met a
376 lot of people. A lot of interesting people, including Bill Gates and Andy Grove, you
377 know, for a few minutes each in those cases. Grace Hopper, before COBOL existed and
378 all that kind of stuff. It was a lot fun. So I had that kind of involvement.

379

380 I've not been as involved as you might think because I don't have a good memory and if
381 you want to know exactly when something happened, or exactly who said what when, I
382 know I'm not a reliable witness, so I duck that kind of situation and don't come to me to
383 know, when did John Backus first get the idea of Fortran, was it before or after he went to
384 MIT, in 50 something or other and what was something, I don't know. I've heard John
385 tell the story, but if he were dead and somebody needed to know, don't come to me
386 because I just don't have that kind of memory. So it's been more in a supporting role.

387

388 I was Chairman of the history committee, history of computing in AFIPS.. My role in
389 Babbage was simply to try to do the kinds of things that a director can do in the way of
390 supporting what you think is a good idea. The kind of thing Jean Sammet's done, not me.
391 She ran a stupendously good conference on the history of programming languages, in 70
392 whatever it was, 80 something; here you go I can narrow that down to within a couple of
393 years, but I'd have to work at it. I remember the hotel, it was one of the best conferences
394 I've ever gone to. Only conference I've ever gone to where I went to all the papers. She
395 said a number of people told her that. Well, ok I've done that kind of thing and I
396 certainly don't have her memory, not remotely. So, there are all kinds of roles here. I've
397 been interested and I've participated, not a one thing I can point to.

398

399 **A: Start to talk about your students, for a minute. What role has supervising**
400 **your undergraduate and graduate students played on your own career?**

401

402 D: It's been absolutely central. I can get rhapsodic about this. The interplay, the
403 back and forth, the communal learning, the way I help them and they help me. They keep
404 me alert; in their own way they encourage me to keep up to date and teach the new stuff,
405 and they're the source of great deal of technical information. It's always the case that in
406 any course there will be a couple of people who know very much more about some aspect
407 of the course than I do. For whatever reason, maybe they're working in Web design, I've
408 had people in the course who are doing Web design, supervising Web design, certified in
409 Java and taking my Java course. It's the kind of thing what happened there is they
410 dropped out of school at the peak of the bubble, you didn't need a degree. Now,
411 everybody wants them to have a degree, or they've realized that down the road a degree
412 is going to help so they're coming back to get a degree. And in some cases taking my
413 course is just an easiest way of getting an A+ without doing much work. I say that's fine

414 by me if that's all you want to do, that's okay but I would be delighted to have you
415 contribute and give a lecture now and then or certainly let me fall back on you when I'm
416 stuck. And mostly they all say sure, sure, I'll help. Or just get an extremely bright
417 student who does extra work that supports the class project. I figure that my most
418 important job as the teacher is to pick assignments that let the student learn on their own.
419 This active learning business is a core value and for that to work best the assignment
420 needs to be something which they first look at and say I'll never be able to do this. And I
421 say, look I know how you feel; you're thinking I never can do this. But you know, look
422 at it again in the morning and I predict that within about ten days, that's a week from
423 Thursday, you will have completed this project and you will be amazed at how much
424 you've learned and you will be very proud of what you have done and for the bulk of the
425 class it works.

426
427 And for that to work you have to have the right assignments, you have to know what they
428 know, so that you're not giving them something that's impossible. You have to give
429 them something that is a challenge, where they're going to have to fight to do it and it
430 needs to fit into the collection of such things. So that when you put them all together
431 they've learned what you want them to learn out of that course. If you want to cover
432 event-driven programming, a deeper knowledge of Java, you want to do threads, you
433 want to do JDBC and you want to do three or four others. Ok, how am I going to cram
434 all that into six homework assignments and a project? Try to allocate them to make sure
435 all of that gets covered. And then since 90% of learning takes place when they are doing
436 those assignments, come up with good assignments and the supporting materials to make
437 them work. Don't have all of the students doing five hours of typing on something that
438 one student can do and then send it to everybody. That's how I see teaching and I love it.
439 There's nothing I'd rather be doing professionally. Nothing whatsoever. I was born to
440 do it. Where did we start on this?

441
442 **A: I was talking about your students and what an influence they have on you.**
443

444 D: Well, they keep my juices flowing. They keep me active. They keep me excited
445 about what I'm doing. They give me an audience to talk to when I learn something new
446 and want to share it. They give me a chance to do what I'm good at. Can feel socially
447 useful about. They give me the chance to meet very, very interesting people, sometimes
448 amazing stories of their own, follow their careers, help them get jobs. One of my
449 students got a job with IBM in San Jose at a time when very few students were getting
450 jobs doing anything in this country. I'm proud of that. He got two offers from the same
451 part of IBM. I follow their careers, a few stay in touch, then come back, or at least send
452 email. I'm not giving a really coherent answer. What I'm trying to say is they're a part
453 of my life in the sense that professionally that's what I do and I have a life otherwise. I
454 read a lot of books and I sing in a choir Or leave it? Contribute to the legend?. It's
455 not as though, I am a workaholic but not in a way that it destroys the rest of my life. And
456 they're just an integral part of it. I don't get to knowing very many of them personally. I
457 can have a student for two or three courses and only toward the end of the second course
458 find out that this woman has three children. If they come to me and say well, it turns out
459 I'm pregnant, I hadn't planned that, what do you recommend, blah, blah, blah. Well, hey,

460 I'm a father figure if you want me to be one. But there's not very much of that. I don't
461 do counseling and I don't get involved in their personal lives very much; occasionally,
462 but rarely.

463

464 **A: What about mentoring Dan? Do you do mentor on the faculty?**

465

466 D: I do. I've got a student right now and frankly it doesn't work very well. Because
467 somehow or another, things get busy, I'm supposed to be reading something right now.
468 I'm working with this guy, I figured I'd learn a lot trying to keep up with him. Well,
469 guess what, I don't have that much energy, because, you know, hip and I'm going to a
470 course next week, which isn't exactly what he's doing and the summer will end up and he
471 will have done some good work and I won't have contributed much to it. I'm trying to
472 learn to say no to those things because that's not where my strength is. My strength is in
473 the classroom. And I'm delighted to have students come to my office and talk about
474 anything; career choices and certainly current homework. I enjoy that very, very much; I
475 wish more students would come in and just talk. But mentoring the way it's usually
476 meant, I don't think; that's not what I'm best at. There's always something gets in the
477 way.

478

479 **A: What challenges have you faced in your work environment that you've had**
480 **to really work to overcome? Have you had any?**

481

482 D: Oh, absolutely. I'm trying to decide, how to say, how much. I'm the one that
483 pushes for curriculum revision and I'm constantly learning new stuff, just because I like
484 to and because I think it's in the best interests of the students. And sometimes that's put
485 me in conflict situations or frustration situations where I couldn't get support. Changes
486 never happen fast enough for the pusher who wants the change and I get pretty impatient
487 in that kind of situation and I'm sure I'm not the most diplomatic person in the world. So
488 that's led to some frustration.

489

490 **A: Do you have any strong outside interests that would enable us understand**
491 **you better, that you wish to share?**

492

493 D: I wasn't expecting that kind of question. Well, I'll give you an honest answer. In
494 my own way, which isn't exactly the same way as anybody else's, I'm quite interested in
495 religion and its place both in individual life and in life of the community. My thesis at
496 Union led to one of the things I call a book. It was in the area of social ethics. People
497 talking about ethics they're thinking about sex and what are we obligated to do when the
498 waitress undercharges you. Well, ok, that's ethics, but a question of city planning is also
499 ethics. It gets to be hard to distinguish between social ethics and public policy and
500 what's different about Christian social ethics and Jewish social ethics. Well, I don't think
501 there's much difference at all. I used to tease my ethics professor by asking that question.
502 What do you think is particularly Christian about Christian ethics? He'd squirm and find
503 some kind of answer. He felt the same way. So it's not a totally inward thing. But
504 there's also the inward thing, trying to find my place in the world and in some form of
505 organized religion. To be specific I am in the process of converting to Judaism. But you

506 should understand I've been in the process for about 12 years now. Some people think
507 I'm going to finish this summer. Maybe I am, maybe I'm not. Like that stuff I'm going
508 to study next week, it's so interesting. But that's something I spend a fair amount of
509 thinking time on and a fair amount of reading time on. I don't talk about it much. Most
510 people don't want to talk about religion. If you want to get into an argument talk about
511 religion, so if you don't want arguments, it's not something to talk about very much
512 except with other people who feel the same way. And I do have a circle of friends who
513 are also Jewish who do care about such things.

514

515 **A: This has had a shaping effect on your career?**

516

517 D: No, not particularly. No, not at all. Some people have asked me that. Eric
518 Roberts asked me that, something sort of along that line, whether my side excursion into
519 seminary had impacted my career or vice versa. The answer is no, not at all. I simply,
520 for reasons that would take too long to explain, I thought I wanted to become a minister
521 and I got over that pretty quickly. I wasn't cut out for any such thing. By then I was
522 tired of getting into graduate programs and dropping out of them and I was having a lot
523 of fun, exploring my roots and learning a little bit of Hebrew, so I finished it up.

524

525 I'm very interested in art and graphic design. I spent a fair amount of time in museums
526 and done some work on the creative side, taken quite a few courses: Graphic Design 1,
527 Color 1, Typography and at the time I took them it was purely a hobby interest and that
528 had turned out, that was just very useful, came around in time to write an HCI flavored
529 Web design book. So there's a direct connection there. And I do love photography. I
530 can't draw, but in some things you don't have to draw. Don't have to be able to draw to
531 use a camera and if I had more energy, if God forbid, I were to retire, I'd probably do a
532 lot of photography.

533

534 **A: Ok. My final two-pronged question. Is there something that you are most**
535 **proud of in your career? Is there something that you can say "this is what I am**
536 **most proud of" and then can you just end with telling us is there one story you want**
537 **to tell, so it will be remembered?**

538

539 D: I'm inclined to wish I'd had warning on this, but maybe it's better I didn't.

540

541 **A: Maybe you want to think on that and email me.**

542

543 D: Maybe I'd like to do that. Well, I would like to email you but let me just give you
544 one little incident. Its never one that encapsulates Dan McCracken and I'm proud of but
545 it's of that flavor. A student came up to me, came back to visit the campus about a year
546 after she graduated. She took two courses with me. She took Software Development
547 thing where we do job and Web Development programming and all that, that I've
548 described, and she took my Web Design course, she came back and we chatted a little bit
549 after class, in the Web Design classroom. She wanted to say thank you. I appreciated
550 that. What she said thank you for, she said you taught us how to teach ourselves. And
551 I'm very proud of that. I mean you can see slogans in front of half the colleges in the

552 United States that say “we teach people how to learn” and indeed that’s what we all hope
553 we’re doing but here was a student in the flesh comes back and saying you taught us how
554 to teach ourselves. Of course I had harangued them about that. You’re going to be
555 learning new stuff like this all your career and the best favor I can do for you is show you
556 how to learn it without my help, but here we are, lets see how much we can accomplished
557 but that student had gotten it.

558

559 **A: That’s a wonderful story. Dan, thank you very, very much for this time. I**
560 **really, really appreciate it and I’m very honored to have done this interview.**

561

562 **D: It’s been more fun than I imagined it could be.**

563

564 **A: Thank you.**