

Computing Educators Oral History Project

An Interview with *Wendy Hall*

Conducted Tuesday, September 12, 2006

In Southampton, United Kingdom

Interview conducted by Alison Young

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1 [0:00]

2 **Alison Young: This is an interview with Dr. Wendy Hall from University of Southampton**
3 **in Southampton by Alison Young on Tuesday the 12th of September [2006]. Wendy,**
4 **could you just say your name into the recorder so that we can get a reading?**

5

6 Wendy Hall: Wendy Hall.

7

8 **A: Thank you!**

9

10 **Thank you very much, Wendy, for agreeing to this interview for our Computing**
11 **Educators Oral History Project. What I want to do is start way, way back at the**
12 **beginning and talk to you about your family. Where did you grow up and where did**
13 **you go to school?**

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15 W: London. London.

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17 **A: Oh! OK. [both laugh] And did you have any brothers and sisters?**

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19 W: I had a brother, a younger brother.

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A: And your parents, were they very keen on education or ...

W: Well, I was a ... I'm a baby boomer. My parents came from a quite working class background in the East End of London. Their formative years — it was the Second World War, my father was a prisoner of war for five years in Germany, and I was born in 1952. They got married in 1945, at the end of the War. So I was very much part of the baby boom post-War. And I was the first in my family to go to university. And I remember my grandmother being aghast that I was going to grammar school because what point was there in a girl going to grammar school because I should be going to technical college to learn good secretarial skills.

So my parents, yes, did encourage me all the way. They have always supported and encouraged me. But my father went to a grammar school, but he couldn't do anything with education because he spent the years from — when he was 19 until he was 24 — he was in a Prisoner-of-War camp. So it was a new experience for my family, me going to university. And then on top of that I was always good at maths, so, you know, that was

A: And your brother, was he encouraged in education as well?

W: Oh yeah, yeah. They were very supportive of both of us. Yeah.

A: But your Mum didn't go to ... obviously didn't go to university ...

W: No, no. My mother — very intelligent woman, my mother, in a common-sense sort of way. My father has got mathematical skills. After he came out of the RAF, he went into accountancy. He never became a chartered accountant because he didn't have that background of education. But he got quite a senior accountants job in a company, so he had the mathematical sort of brain. My mother is very sharp, very, very good at organising and I think I got a lot of her genes in that respect. And has a lot of common sense, a very, very sharp, intelligent lady. But no, she had no career. She was, you know, wife, mother — and did part-time work, actually, because they didn't have much money. We were very, very poor when we were kids.

A: You said that you were good at mathematics at grammar school. What led you into it? Was it something you enjoyed?

W: I was always good at maths. It was just ... it wasn't anything I thought about. I was always top of the class or close to the top of the class, throughout school. So I was good on a range of subjects. And I enjoyed — I loved history, in fact — and I enjoyed all the sciences, but I was just ... I found maths very easy. I remember in primary school, I would be the person who the teacher would get to help the weaker students do their sums. I can remember distinctly that from the age of seven, being asked by the teacher to help some of the others to do their sums. Because that went in my school report. So it's a memory that's strong, because my parents were very proud. And then I went to grammar school and it just carried on. The maths and science were something that came easy. And the key thing to me — I've always

66 been very gregarious and sociable and had a big group of friends — and the maths homework
67 took the shortest time to do.

68

69 **A: Oh, OK! And so your brother, was he a good student too?**

70

71 W: He was a bit always in my shadow. He was younger than me and so he wasn't as
72 academically ... he could have been, but he was probably lazier than I was at school, like
73 many boys are. And so he didn't shine quite as I did and he got very fed up with being in my
74 shadow. But he also was science and engineering. And he went on to do aeronautical
75 engineering at Loughborough [University]. Canegood. [both laugh]

76

77 **A: So when you went to university, did you know when you went into the university that**
78 **you wanted to do a degree in math?**

79 [4:56]

80 W: Well, I've talked about this a lot. I actually wanted to be a doctor. I wanted to study
81 medicine. And I went to an all-girls grammar school — which was, I think, quite fortunate,
82 there were no problems with that. We had very good science teaching and there were no sort
83 of inhibitions about doing it. But I did want to do medicine and when I did my O-levels, I
84 told my headmistress this, so I wanted to do physics and chemistry and biology to do
85 medicine. And she said, "But you're so good at mathematics. Medicine is not a career for
86 women." This was in the 1960s, late 1960s. So she said, "I really think you should stick with
87 your mathematics and go to university and read mathematics." She really, really, discouraged
88 me from doing chemistry. I wanted to do four A-levels — I guess I wanted to do maths,
89 physics, chemistry, biology — and she denied the need to do that. So I was good, did what
90 she said, as you did in those days, and came to Southampton to read mathematics, having
91 refused to apply for Cambridge because I had a very rebellious phase in my sixth form [the
92 final two years of secondary schooling]. So I ended up coming to Southampton as my first
93 choice of university.

94

95 **A: And then you went straight on to your Master's degree here at Southampton?**

96

97 W: Oh no, I went straight on to a Ph.D., which you can do in the UK, without doing a Master's. I
98 thought I wanted to be a teacher, in fact. I still had — people often ask me about this — I
99 always knew I wanted to go to university — well, for a long time I had. And most of my time
100 at grammar school I knew I wanted to go to university because I wanted to do medicine.

101

102 And secondly, because it was just becoming the thing in those days that people like me, who
103 came from very sort of — not desperately, desperately poor but, very ordinary backgrounds
104 — could think about going to university. And of course in those days it was completely free,
105 state paid. And I just assumed I would meet a husband and get married and have children.
106 And I thought that, "Well, if I do maths, then the best career for that would be teaching." And
107 I just sort of assumed that I would become a teacher and have a family.

108

109 **A: OK. So when you finished your Ph.D., what did you do then?**

110

111 W: Well, I was going to go and do teacher training. And then I got a first in maths. And they
112 said, “Well, you know, you could do a Ph.D.” And I really hadn’t thought about it, but it was
113 another challenge; I love challenges. And they said to me at the time, “You know, a Ph.D. in
114 pure mathematics, you will find it very hard to get a job in universities. You have to accept
115 that when you do it there’s no guarantee of a job at the end of it.” And so when I finished, I
116 was quite sure at that point I still wanted to teach, but I wanted to teach in universities, I
117 wanted to be, quote, “an academic,” as we say now. So I started applying for jobs, and there
118 were hundreds of people applying in pure mathematics, very specialised. Anyway, there were
119 hundreds of people applying for every job that came up. It was a period of cutbacks in
120 universities a bit, it was one of those cutback times in the mid 1970s. Oh, late 1970s, actually
121 — I finished my Ph.D. in 1977.

122
123 So I started applying for ... jobs that were around were sort of service teaching, maths for
124 engineers and things like that. And so I applied for a job at ... maths for engineers jobs. And
125 I got turned down for one because I was a woman. They told me — that’s an apocryphal
126 story now — I was told I couldn’t have this job because as a young woman, I probably
127 wouldn’t be able to control a class full of male engineers. So that was my first example of
128 why being a woman is different. But then I got a job at Oxford Poly; I was at the Polytechnic
129 teaching maths for engineers.

130
131 **A: And then what led you into computing?**

132
133 W: Well I ended up ... from Oxford Poly, I got a job back in Southampton because by that time,
134 I had met the man that became my husband, when I was at Southampton. And he was still
135 living in Southampton because he was working down here. And so I was applying for jobs in
136 the South, permanent jobs. And there was a job in Southampton at what would then have
137 been called a teacher training college, teaching maths on a B.Ed. [Bachelor of Education]
138 course, to train teachers. And that’s where I got interested in education really.

139
140 We’re now into the early 1980s and the Commodore PET computer came out. And at the
141 college they said, “Oh, you are a mathematician, you must be able to do programming.” And
142 I’d actually ... I’d taken a FORTRAN course while at university and absolutely loathed it.
143 Loathed it! And I gave it up as soon as I found out it was non-examinable. I gave it up. I just
144 hated the whole punch card, paper tape thing. It seemed an awful lot of effort for very little
145 return. And I was interested in the abstract stuff. But when the Commodore PET came along
146 and I took it home one summer and taught myself BASIC, I began to realize that these
147 machines, actually, because it was much more immediate, what the possible applications
148 were, particularly in education. And so, as Dijkstra would say, I did become mentally
149 mutilated for life, because having taught myself BASIC, I’ve never really been able to
150 program well since. But I did get very interested in how these machines could be used in
151 education.

152 [10:50]

153 And that ... I started then to develop some courses at the teacher training college, to teach
154 teachers BASIC and assembly language programming and all the things that we know would
155 be wrong in these days. Then I did a Master’s in computing to learn the subject properly as
156 part-time, because I didn’t want to be totally self-taught. So I did a part-time Master’s at City

157 University in computer science. And then a job, a computing lectureship, came up at
158 Southampton University, my alma mater. And my husband encouraged me to apply, and I
159 did. And they decided that although I had no research track record, because I had a
160 Southampton Ph.D., I was probably worth a bet. And so they took a risk in appointing me as
161 a computer science lecturer and I have never looked back really.
162

163 **A: Wonderful! Was there any person during that time that would have been like a mentor**
164 **to you or somebody that guided you through something?**

165
166 W: Well, my husband, yes. Because I was really going through a transition from maths to
167 computer science. And my mathematics professors, who obviously ... they actually ... maths
168 was then, at Southampton, was part of the computing — sorry, computing was part of the
169 maths department, maths faculty — so the people who interviewed me for the computing job
170 were people who had known me as a pure mathematician doctoral student. And they were
171 aghast that I was thinking of moving into this new subject, moving away from maths, and, of
172 course, I would at some point regain my senses and go back again.
173

174 I was in a transition phase, and so I wasn't sure I was making the right decision. I did angst
175 about giving up the maths, because I loved maths. But I realised that I was ... you know,
176 95% of my time I was doing things on computers anyway, thinking about them. And I knew,
177 I just instinctively knew, that there would be more opportunities for me in that world than in
178 the pure maths world.
179

180 There were people who I talked to, but there wasn't a particular person, apart from my
181 husband, who encouraged me to go that route.
182

183 **A: You mentioned that you didn't have a track record in research at that stage?**

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185 W: No, not in computing
186

187 **A: What got you interested in research?**

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189 W: Well, because I had a Ph.D., although I had taken jobs that were almost purely teaching jobs,
190 I still ... really, my ambition was to get back into research. So it took ... I mean, I finished
191 my Ph.D. in 1977, and I got the job back in Southampton in 1984, and then it took me two or
192 three years to really get back into doing research and writing research papers, so it was a ten-
193 year gap. So I was ten years older before I really started my research career and I was
194 surrounded by men who ... not many of them had a first degree in computing then, because
195 there weren't many degrees in computing around. But they were physicists or chemists who
196 had got into computing quite early and seemed a lot ahead of me.
197

198 The key thing is that I wanted to do research and that is why I came back to Southampton
199 University, because it is research-led institution and I just ... It's partly luck, but while I had
200 been at the teacher training college, I had been inspired by a colleague of mine who got into
201 these graphics on computers, which was something very new to me in those days, the old
202 BBCB, and looking at how you could create really high visual ... we did a lot of work on

203 simulations for use in schools, where you could show kids how powerstations worked, and
204 really exciting.

205 [14:44]

206 And when I moved to the university, it was a time when what we now call multimedia was
207 just beginning, and the old interactive video disks were around, and somebody put a leaflet
208 — I think it was the person who became my mentor here, David Barron, who was my head of
209 department. He taught me FORTRAN back in the 1970s, the thing I walked away from —
210 we often used to laugh about that. He was head of department when I came back to
211 Southampton. It might have been him that put this leaflet about an interactive video disk
212 workshop in Brighton. And I went to it and I could see — and I think that has always been
213 one of my advantages, I could actually ... although I knew the technology wasn't there, I
214 could see what these things were going to be able to do in the future, this type of technology,
215 what it was going to be able to deliver ... Which is, you know, video on the web today, it all
216 comes from those early days of integrating computers and film and video. And I just was sort
217 of in the right place at the right time. It inspired me to become really a pioneer in that area.

218
219 And I was discouraged by many people that this wasn't really computer science, because it
220 wasn't writing compilers, and it wasn't building operating systems, and it wasn't developing
221 programming languages. And I can remember lots of people telling me that I would never ...
222 there was no future, if I wanted to ever end up as a professor. I had to do some "real
223 computing." And it was David Barron who encouraged me to stick with it and stick with my
224 instinct and develop some applications in that area, which I did.

225

226 **A: OK. What about the students during that time? You were obviously still teaching.**

227

228 W: Yes, yes, yes, I was teaching a full load and loved it. There are two things to say about that.

229

230 One is that I always felt at a slight disadvantage because I don't enjoy the real technical side
231 of computing. I have always been someone who has been, with computing, on the
232 applications side of things and the user side of things and the social networks that build up
233 around the use of computers, and also a bit of a futurologist. I can see what will emerge when
234 the technology becomes mainstream, and I have never been particularly interested in what
235 widget does what, and what is the best program environment to do this and how many bits or
236 bytes.

237

238 And of course the students generally —two things to say about them. One, they are mostly
239 male. And secondly they knew so much about the detail of the subject, so much more about it
240 than I did. So in many areas I always felt at a disadvantage in teaching computing because
241 they could program much better than I could, and they knew such a lot about the detail of the
242 subject I didn't. But of course, I could win out in terms of my being able to paint the bigger
243 picture, so my strengths were much more in those types of courses. I also taught automata
244 theory because I was, clearly, with my mathematics background, the theory side appealed to
245 me, and that whole sort of ... the formal side did appeal to me, so I taught automata theory
246 and really enjoyed that for a long while.

247

248 **A: OK. Just change direction for a minute here. You have been very, very involved in**
249 **professional societies over the years. What led you to join the British Computer Society**
250 **or ACM?**

251
252 W: Very simple with the British Computer Society. I'm trying to think when it was, it was the
253 mid to late 1980s. In the UK, we have this concept of being chartered and there was a big
254 movement in the 1980s to think of computing as an engineering subject as well as, or instead
255 of, being a science subject. And my boss and mentor, David Barron, was very keen on this
256 idea, he saw us as engineers. The British Computer Society became part of the Engineering
257 Council in the 1980s and was able to, through the British Computer Society, become a
258 chartered engineer. And we were all encouraged to do that, David encouraged us here at
259 Southampton to do that. So I joined the British Computer Society in order to become a
260 Chartered Engineer. And I remember several with my brother, who was, as he would say, a
261 "real" engineer (automotive engineer), and my husband who was a physicist turned engineer,
262 and several colleagues of mine who were "real" engineers, were quite aghast at the fact that
263 ... So that was why I joined the BCS in the first place, to get this particular qualification.

264 [20:08]

265 **A: So that is your involvement with the Engineering Associations that is on your CV?**

266
267 W: Yeah that's ... I do feel like an engineer because it's all about the creative side of
268 engineering and building things, using software. And Southampton is very much a software
269 engineering degree, we don't call it that, but we have always taught from that perspective, led
270 by David. For a while, the BCS was just something I paid my membership for every year in
271 order to get the BCS and CEng titles. But then, I can't remember, somebody asked me at
272 some point to chair a committee. I was very into digital libraries and the new world of e-
273 publishing that was coming along, and they asked me to chair a committee. And I'm a great
274 organiser and I just got sucked in like lots of people do. What I get out of it is the
275 networking, the communities that you meet and interact with. And the ACM, I think a lot of
276 non-US people join the ACM in the first place to get the publications and be able to go to the
277 conferences at a discount.

278
279 **A: And you eventually became president of the BCS.**

280
281 W: Yes.

282
283 **A: Can you tell us about those two years you were president?**

284
285 W: You're only actually president for one year. I was ... you run up the steps vice-president to
286 president and immediate-past-president, so it's sort of a three-year cycle. But I was very
287 proud to do that. I worked a lot — I chaired the publications committee, I was on the
288 publications board, and then I was the vice-president that transitioned the publications board
289 to the acknowledged services board. And I thought, "Well, I've done my time." And they
290 sort of whisper, "Would you be ready to stand as president?" And I was very honoured to.
291 And I was the second woman president, the first being someone who is, I would say, a
292 mentor of mine now, Steve Shirley ... Dame Stephanie Shirley, who was the first woman
293 president of the BCS. In 40-odd, now 50 years, there have only been the two of us. In fact,

294 we do have a woman president next year, Rachel Burnett after Nigel, and then Rachel
295 Burnett. So it's beginning to become more normal. But when I did it, it had been 10 years ...
296 Steve was president in 1989-1990 and I was president in 2002-2003, so it was over 10 years.

297
298 I thoroughly enjoyed it. It was hard work, very hard work. Harder than I expected, not just
299 because of all the events you have to do, and places ... and people you have to go and visit
300 their branches and talk at their conferences — because actually, from the time that you are
301 president, you do have the responsibility of the society. And if there's a problem, you have to
302 deal with it. And I hadn't realized that I was ... I'd become head of department here at
303 Southampton, and we had a new vice-chancellor and he reorganized the university so the
304 departments were amalgamated, and we became a school, which is more like a faculty. That
305 happened the year I was president, and that was hard. I hadn't realized that was going to be
306 the case. It was very hard doing the two things at once.

307

308 **A: And now you have been elected vice-president of the ACM?**

309

310 W: Yes I have. And the exciting thing about that is that it was an election, not anything done
311 behind closed doors. People voted for me, around the world. I think that's really exciting,
312 that all those people bothered to fill out a form to vote me in.

313

314 **A: Why did you want to do that?**

315

316 W: Well, because I'm a sucker for punishment. No it's the organization, it's the organizing thing
317 in me, and I got a huge amount out of working with the ACM. Again I got into this sort of
318 world, in the ACM, through being on the publications board. And I served on that for many
319 years and began to realize how the ACM worked. There is this big tension with the ACM.
320 They are ... their publications are known internationally — for their publications and their
321 conferences — but actually they are a very US-centric organization in many ways. They run
322 in the US and think US — try not to. And so one of the tickets I stood on for the election was
323 — and again, I was on council before I was vice-president — but one of the tickets was that I
324 wanted to try to help the ACM work out what its place in the world was, and how it could
325 better represent people in other countries.

326 [25:31]

327 **A: Wonderful, so is that what you hope to do in the next two years?**

328

329 W: Yeah, yeah ... well the ACM is looking wider anyway, in particular, it's looking at China
330 and India to get new membership from those areas. And Europe is a bit odd, because every
331 country in Europe has its own society, like Australia does ... I don't know, does New
332 Zealand?

333

334 **A: Yes, absolutely.**

335

336 W: But China and India, they're a much more virgin market for the likes of the ACM and the
337 IEEE to go into. Europe is a set of fiefdoms, really, of all different levels of society. And it's
338 much harder for the ACM to just come in, it has to do things in partnership almost in Europe.
339 But I think there is a new, the learned society in Europe — or let's say there is a

340 confederation of things that — I don't know if I have got the right word. There is a new
341 organization being set up, which is sort of the European equivalent of the CRA, in a sense, to
342 try and end up with a sort of vigorous "United We Stand" and all that. And it's very
343 embryonic at the moment, but the ACM needs to work out how to interact with that and how
344 to interact with, well the BCS and the ACM. They shouldn't be competing, they should be
345 doing things because we're not ... they have to run as businesses, these organizations, they
346 have got to make a profit to exist or at least not make a loss. But on the other hand, we
347 should all be looking, really, to help the community and do more for the community, and for
348 the public understanding of computing and its applications, and so these different societies
349 really need to be working together, not against each other.

350

351 **A: Getting off professional societies for a minute, there has been an international or, at**
352 **least in the Western world, a huge downturn in enrollments in computing. Do you want**
353 **to comment on that briefly, your perception of why?**

354

355 W: Well, from a UK perspective, we saw this wave rolling over from the States, all this
356 downturn rolling over from the States. And usually in the UK, I don't know if it's the same in
357 the rest of Europe, what happens in the States happens here two or three years later. It's the
358 same as our weather, we get US weather two or three weeks later. But I think there are two
359 major things.

360

361 One is that the numbers were hugely inflated in the dot com boom. People studied computing
362 not knowing why, probably for the wrong reasons, or for reasons other than they might have
363 done, because they could ... this idea that you could become a millionaire overnight, there
364 were tons of jobs, and the salaries were very high. Then we went into dot com winter, and
365 hot on the heels of that was all the outsourcing. So the press coverage was very down and
366 gloomy. And so anyone ... people weren't attracted into computing because of money or, in
367 fact the opposite, they were being put off because they were being told that there were no
368 jobs and the salaries were going down and people were being made redundant and everything
369 was being outsourced to India and China and there would be no IT jobs in the future.

370

371 And I think that what we're seeing now, we are at the levels ... Actually, I'm not sure if I
372 was a student today I would want to study computing as a degree. I think that the way it is at
373 the moment, it is still quite a niche thing, people ... It's sometimes difficult for us to explain
374 to people ... There is a phrase being used in the UK, "computational thinking," what do we
375 teach in a computing degree that isn't taught in other degrees. It isn't just programming and
376 how to build applications, it's actually about abstraction and parallelism and storage and all
377 these really quite abstract ideas, retrieval, and those skills are not taught anywhere else. But I
378 don't know ... I think the glory days are over, and I'm not convinced we need hundreds and
379 hundreds of people with the sorts of degrees we talk about at the moment, because the future
380 is very interdisciplinary.

381 [30:21]

382 I don't want computing just to become a service degree that is taught in biology, in
383 chemistry, in physics. But clearly the interface between other subjects and computing is
384 crucial and some of those degrees will teach the computing that they need. And I think that I
385 would fiercely defend the need for computing or computer science or whatever you want to

386 call it as a degree. But I'm not convinced that we need to train the numbers of people that we
387 were doing in the dot com boom. I think we're probably at about the right levels now. I think
388 there's a difference between computing and IT. Everywhere you look there is talk of an IT
389 skills shortage, but you don't necessarily have to have a computing degree to work in the IT
390 industry, and I wouldn't want people to think, "Oh she thinks everyone, you know, you have
391 to have a computer science degree to work in IT." We all know you don't. I think I would
392 fight to the death and say that there are jobs that need people that have that sort of thing that
393 we train people in computing degrees. What I'm passionate about is the fact that we don't
394 have any women in the subject, and this is a hugely big issue and I think that it won't change
395 significantly until we change the style of what we are teaching. Because I think what we are
396 teaching at the moment just doesn't appeal to women.

397

398 **A: OK. You have been ... sorry ... are chair of the Grand Challenges Committee. Can you**
399 **tell us about the grand challenges?**

400

401 W: Yeah, again this was something to do with trying to convince governments and career
402 teachers and students that computing isn't done and dusted. That people sort of think, "Well
403 we've got the internet and we've got laptops and these big things that the banks use, and it's
404 finished. All the big work's been done." And actually, there are huge unsolved problems in
405 computing, and it's hard to summarize them. You've got things like — the mathematicians
406 have their unsolved — we just had someone solve Poincaré's conjecture, or prove it. And the
407 example of a grand challenge is ... what's the man on the moon project for computer
408 science? Well of course the internet, actually, would be an example of that. And I think that
409 what we were trying to do was come up with some topics that were grand challenges, were
410 unsolved problems or things we didn't know how to do. So it's a bubble-up thing from the
411 community, and I helped start it about four years ago.

412

413 And really, again, we say that the CRA have done a bit of this in the US. And we were
414 looking at what we could do in the UK, partly in attempt to make sure that we had a steady
415 stream of research funding, that the research funders didn't say, "Well, all the computing
416 money should go to biology or chemistry to do bio-informatics or e-science." And so we
417 asked people to put in proposals and we sort of classified them and came up with ... I think it
418 was seven initially, and now we've added another nine. We try to turn them on and turn them
419 off. And they're very bottom-up, and it really depends on how the communities build the
420 projects because there is no funding for them, it's all about ideas and looking to the future.

421

422 And actually, one of the ... we are dealing in computers with very large and complex
423 systems, and many of the grand challenges have an inter-disciplinary element to them as
424 well. They aren't like the mathematicians' grand challenges, or even maybe the physics ones,
425 where you say, "Well we have this great big machine, and we're going to try and find
426 another ... " They are not as easy to describe as that, or maybe the physicist would say that's
427 not ... they are a different type of beast really.

428 [34:43]

429 And now we've got the US saying, "Oh, how did you do your grand challenges?" I have to
430 say that I don't think I've been a very good chair of Grand Challenges yet. They asked me to
431 do it when I stepped down as president of the BCS, when I had finished my term, they said,

432 “Well, now you can be chair of Grand Challenges.” And I’m happy to do that, because
433 politically I could help. But because I’m still head of school and we have had a big fire last
434 year which just took so much of my time, I haven’t really yet taken off with that job. But I
435 intend to.

436
437 **A: OK! If there was one thing that you could change, one decision that you could change in**
438 **your career, do you know what would it be?**

439
440 W: [chuckles] Well, the difficult one is I still wish I had been a doctor, and I’ll never — I’m far
441 too old now to do that, in reality. I mean I could obviously do something that was alternative
442 medicine or something peripheral to mainstream medicine. But I’ll never know how that
443 would have worked out. So it is not so much a regret, because I’ve had a fantastic career as it
444 is, but it’s ... Would I have enjoyed being one? And I will never know the answer to that. I
445 still feel — though, computing, of course, has changed the world and impacts every part of
446 our lives, particularly the health. The thing about being a doctor was actually being able to
447 make a difference to people’s lives. And in computing I do that, but in a different way. So I
448 don’t know if that’s what you ... that’s a long way back. So let’s talk about ...

449
450 **A: That’s fine ...**

451
452 W: ... the computing career. So ask me the question again and I’ll think about it from ...

453
454 **A: OK, the question is if there’s one decision that you’ve made in your career, that you**
455 **could change, go back and change, what would it be?**

456
457 W: I don’t have any regrets.

458
459 **A: Maybe there’s no decisions you want to change.**

460
461 W: There is certainly ... Generally, apart from this thing about medicine, I am a no-regrets sort
462 of person. And I’m also one of life’s “the pot’s half full” type person. And I recognize when I
463 have a crossroads, when I have a decision to make, an either/or. You know, there was one
464 where I had to decide whether I wanted to be only computing and drop the maths, or whether
465 I wanted to try and stay in the maths, and that I recognized as a decision. And there have
466 been others along the way, and ... Oh, another one was very much — because I’m very
467 interested in entrepreneurship and trying to get companies going out of the research we do —
468 and I could have at one point in my career sort have gone full-time into that and dropped the
469 academic side of things. And I don’t regret not — I’m very, very happy I stayed an academic.
470 So I don’t actually have any regrets ...

471
472 **A: That’s fine.**

473
474 W: ... I don’t think, because I make the best of what happens. When I have made a decision,
475 that’s it, I have made the decision.

476
477 **A: Have you any advice for young women now to have a career in computing?**

478

479 W: Well, on the flippant side of things, you're always going to be surrounded by men. Well,
480 certainly at the moment; it may change over time. So there is plenty of scope for indulging in
481 — what can I say? — there's lots of opportunities to meet men. And some of them are quite
482 nice.

483

484 On the less flippant side, I think I talked about when I moved from pure maths to teaching
485 maths and then computing, and the opportunities I've had in the world of computing, the sort
486 of travelling that I do, for you it must be the same. I would never have done that as a pure
487 mathematician. And the opportunities for getting involved with industry, for setting up
488 companies, being involved in or becoming an engineer, just being involved with the Royal
489 Academy, just all those amazing things I do, being involved with the ACM — I suppose you
490 can do that as a mathematician, because there must be the American equivalent — but it's, I
491 don't know, it's a very, very, very exciting world. And I get to do such interesting things, and
492 it seems to be the opportunities are endless.

493 [39:50]

494 And I think the thing that a lot of people ... I said earlier I probably wouldn't have done a
495 computing degree, but actually, as far as a career in computing is concerned, people imagine
496 that you have to be ... the only thing you can do is sit and program all day, that it's you and
497 your computer. And actually, you and I know that it's all about people and networks at every
498 level, be they physical networks or people networks ... And women, actually ... oh, and
499 organizational skills, because you usually, whatever you are doing, you are organizing
500 something that is very complex. And women just have the skills that are needed for that and
501 we can excel in it, and because at the moment you are one of the few, you stand out.

502

503 **A: Wendy, if there's one thing you wanted to be remembered for, what would it be?**

504

505 W: One thing? [chuckles]

506

507 **A: All right, what things would you like to be remembered for?**

508

509 W: All right, well, I'm not sure I've done it yet. I mean, there are several things I have done that
510 I'm very proud of. I'm proud of some of the things I've done here, with being head of the
511 school. And I'm proud of ...

512

513 **A: Can you tell us a bit about them?**

514

515 W: Well, things like setting up a consultancy company within the school, and bringing the
516 bioelectronics and biocomputing people in, and the things that I've organized within the
517 school.

518

519 I'm proud of some of the things that I have done at the BCS. We set up the women's forum,
520 so I'm proud of that, and just generally my achievements.

521

522 I'm very proud of the awards I'm getting for my role as a role model and a senior woman in
523 computing. But I really, really want to be remembered for something that isn't just because

524 I'm a woman. I mean actually, I'm beginning to get ... I'm going through one of my phases
525 where I'm beginning to get a bit irritated because most of the invitations I get are being a
526 woman in computing or a woman in engineering, and actually I want people to remember me
527 for what I have done in computing and engineering. And the big thing on the horizon, we are
528 announcing it next week, is a new research project I'm setting up with Tim Berners-Lee. It's
529 called the Web Science Research Initiative. And we are really setting up a whole new
530 discipline of web science as opposed to computer science, and it's myself and one of my
531 colleagues here, Nigel Shadbolt, and Tim Berners-Lee, and Danny Weitzner at MIT, so it's a
532 joint Southampton and MIT initiative. That, if it's successful, could be something really new
533 and exciting, but I don't know if it is going to work yet so ... But I really, I'm not quite sure,
534 I want people to remember me for the research I've done and not just because I was a woman
535 who managed to get ahead in this world ...

536
537 **A: Coming to the end, Wendy. If there's one story you'd like to share with us, it can be**
538 **about computing, it can be about your career ...**

539
540 W: My lunch with the Queen ...

541
542 **A: Your lunch with the Queen?**

543
544 W: I don't know. I'm a great ... If you look at my website, it's full of pictures of me and famous
545 people. I sort of feel that I become more famous because I meet, I'm a great — oh, I think
546 that's probably a bad side of my personality. I do tend to, when I give speeches, I tend to tell
547 stories and they ... you know, like I'm giving this speech tonight for the girls, and one of the
548 things I'll say is, "Well, how many careers can you do where you get to have a private lunch
549 with the Queen?" And so I do tell lots of different stories and that's just ... What would be
550 the one that I would want you to finish with?

551
552 **A: It doesn't matter if you don't want to say it now, because you can always email it to me**
553 **...**

554
555 W: Well, it's easier to do it now though. I mean what came into my head was all my trips to
556 Buckingham Palace, because that's what ... I suppose it's the fact that I get to meet the great
557 and the good, I get to meet some really, really amazing people nowadays.

558 [44:32]