

Transkription Interview 22

- 1 I: Just one second, now ... It's like, like this ... [showing recorder] that afterwards I can remember what
2 we said. #00:00:08-9#
- 3 TN: Yes, I ... #00:00:09-8#
- 4 I: Ok, it's ok. Ok, perfect (smiling). So, thank you so much for your time! #00:00:15-4#
- 5 TN: Wait a moment. I try to change the chair because I'm not in an easy technique position (smiling).
6 #00:00:21-3#
- 7 I: Ok, ok. Fine. #00:00:21-1#
- 8 TN: (changing chairs) ... So, now. One moment. #00:00:36-9#
- 9 I: Yes. (waiting) ... #00:00:51-0#
- 10 TN: Now, ok. #00:00:54-3#
- 11 I: Ok, so this is your first time you are using skype? #00:00:58-0#
- 12 TN: Yes! I I I installed the how do you say, the software and so on. And I know how it's working. And ...
13 how do you say ... ahm ... my wife, my daughter and so on they are ahm ... (explaining why he doesn't
14 use skype frequently) #00:01:21-7#
- 15 I: Yeah, yeah, no worries. I just use it ... yeah, once a month maybe. But sometimes I'm not using it as
16 all. So no worries. Ok. So you are a BCI gamer or you participated in the BCI gaming experiments?
17 #00:01:40-5#
- 18 TN: [unverständlich] I participated in BCI gaming experiments, yes. #00:01:48-7#
- 19 I: And how long is it ago? #00:01:50-7#
- 20 TN: Oh! It's now about ... wait ... ahm ... (break) I have to I have to count (smiling), wait a moment.
21 Ahm ... more than three years ago. #00:02:07-3#
- 22 I: Ok, ok. #00:02:08-2#
- 23 TN: It's ... I have to, if you want the specific date I have to look for it because ... that's so much
24 happening in three years. Ah ... #00:02:17-3#
- 25 I: Of course, yeah. Are you still remembering certain things about these experiments? #00:02:25-8#
- 26 TN: Yes, that it was quite hard to ... to to actually ahm make a a ... how do you say ahm ... to make a ...
27 yeah, ... I don't know the words. Ahm do you have a moment that I can take ah ah you do you say, an
28 an language program so I ... ? #00:02:45-7#
- 29 I: Yeah, of course. No worries. And maybe, you are from the Netherlands, right? #00:02:49-3#
- 30 TN: Yes, I am. #00:02:50-4#

31 I: Maybe ... we can figure out some german words or something like this because the language is quite
32 similar? #00:02:58-0#

33 TN: Ah yes, ahm maybe. #00:03:01-4#

34 I: Ok. #00:03:02-1#

35 TN: I can try. My German is not that bad I think. And ahm ... I have to switch in my head (smiling).
36 #00:03:11-5#

37 I: Yeah, no worries. We have time. Lot's of time. #00:03:15-6#

38 TN: Ahm how to say? ... (break) I have to hear german to speak german. Oh, terrible! Ahm ... #00:03:30-
39 1#

40 I: Just maybe the words you are searching for ... (talking about language problems) ... #00:03:54-5#
41 #00:04:05-9#

42 TN: (searching an online translator for english words) Yeah! It's simple, ah ok. Ahm I find it quite
43 [strong] to change in the program in the test program from ah ... for start that you are how do you
44 say? Ahm ... a certain way to do something in the game. And I gradually ... you will switch to the point
45 that you are actually do something [physically] but to have to ah do it with ah how do you say, with
46 your mind. Putting yourself to it. You you get a lot of ah ... electrodes on your head. (smiling) //I: yeah.//
47 Which how do you say ahm ... they they register //I: mhm.// all kinds of ah how do you say ah ...
48 vibrations in electric ah ... In electric ahm ... signals. //I: mhm.// And ... yeah and they have a program
49 for that. Ahm how to ... ahm how to to translate that and in in the point from actually physical ahm
50 typing. Ahm ... so to say, a mouse pointer in going to do [unverständlich] but still you get the same
51 result. And that jump I found very, very hard. //I: ok.// It also ahm ... for me, not everyone had that
52 problem, but for me it it I found it ahm ... painful in the head so to say (smiling). #00:06:28-4#

53 I: So you where exhausted afterwards? Like feeling cognitively exhausted? #00:06:32-5#

54 TN: Yes! In the end, yes. I found it ah not not nice. It was for my daughter, so ... (smiling). You will do
55 such a research? #00:06:50-6#

56 I + TN: (talking about daughter who is a BCI-researcher as well) #00:09:29-0#

57 I: And yeah you have to try it and you actually did? #00:09:36-7#

58 TN: Yes. #00:09:37-1#

59 I: Like for one time or for several times? #00:09:37-9#

60 TN: It was ... as I remember it I was there about ... I think it was 3 or 4 times. But I don't know it
61 anymore. (smiling) #00:09:55-1#

62 I: Ok. And like for one hour each time? Or did it take longer? #00:10:00-0#

63 TN: It did take longer. #00:10:03-2#

64 I: Ah yes, ok. So approximately one hour and a half or ...? #00:10:08-7#

65 TN: ... Yeah, I think about that. Yes. #00:10:14-8#

66 I: So, four times and each time one hour and a half? #00:10:18-7#

67 TN: Yes! I thought it was like that, yes. #00:10:22-9#

68 I: Ok, ok. And four years ago or three years ago? #00:10:28-2#

69 TN: ... yeah, if you want ... [the exact time] I have to search for it because I don't know it now anymore.
70 #00:10:35-7#

71 I: Yeah, no worries. Maybe you can message me. Like via Email? #00:10:41-6#

72 TN: Yes! It's ... but I have to search and ... #00:10:46-0#

73 I: Ok, no worries. #00:10:47-5#

74 TN: (talking about other jobs) #00:10:53-9#

75 I: Ok, so it was like you ... they told you you have to ... to use a cursor, right? With your ahm ... like with
76 ahm thoughts? #00:11:09-8#

77 TN: Yes! That's right. In the end it was ahm ... the actual goal was to ahm ... to to ahm leave your actual
78 movement of your finger away and so to say in your head with ... ah and then, with with all the wires
79 on your head so to say. And that the program they used for it, that it could ahm ... understand what
80 you ... what you wanted. #00:11:47-9#

81 I: So, it was in your head? You imaged that you are moving your fingers for example? #00:11:58-0#

82 TN: Yes, exactly. #00:11:59-5#

83 I: Ok, ok. And it was not a virtual reality thing? No. It was just like using a cursor. Like that it ... the
84 cursor moves to the right or to the left for example. #00:12:53-8#

85 TN: It ... it ... the game we used was actually ... in your side so to say. #00:12:22-4#

86 I: Mhm, ok, ok. #00:12:25-1#

87 TN: And they ... in the game ... the animal was transforming to another thing I don't know it exactly
88 anymore. It it was the point that you could transform it. #00:12:41-8#

89 I: Aha, aha. And did it work sucessfully? #00:12:46-3#

90 TN: For me, it was ... partly. #00:12:53-3# #00:12:54-0#

91 I: Ok, ok. And like you had a training time before you started the game? #00:12:58-7#

92 TN: Yes. #00:13:00-5#

93 I: Aha, like a calibration? Ok. #00:13:03-1#

94 TN: Yes. #00:13:04-9#

95 I: And then you saw that you were getting better? Or like was it stable? #00:13:12-0#

96 TN: It it ... they [went] all to the program so so ... it ... and it ordered also itself in a way. And ... so the
97 end result could be better. #00:13:27-0#

98 I: Ok, mhm. And ahm ... did you have like ... yeah, your daughter is a researcher but did you have like
99 heard before what a BCI is? So did you have certain expectations or ...? #00:13:44-5#

100 TN: Yeah, all the kind of questions were also in every session. After that they ah ... wanted to establish
101 how you felt things, how you found to ah ... how the result was so to say ... #00:14:05-5#

102 I: Mhm, and you had like in your brain: Oh my god! What is this? What is a Brain-Computer-Interface?
103 With this electrode? Or you were like ... open-minded? Or did you have ahm certain expectations?
104 #00:14:21-4#

105 TN: ... (smiling) #00:14:24-7#

106 I: Like science-fiction? Something like this maybe? #00:14:26-1#

107 TN: No, no, no. It's not that I use all the kinds of stuff which is possible with a computer. I'm ... much
108 aware of ... what is possible and I also have quite a lot of ... quite a lot of machinery in that ... in that
109 field to work with (smiling). #00:14:51-9#

110 I: Yeah. And you are like in your profession? Like your job? You're working with technology as well? Or
111 not at all? #00:14:59-5#

112 TN: Yes and no. #00:15:05-0#

113 I: Ok. #00:15:05-4#

114 TN: Yeah, I I try to explain. In ... the main goal of my profession is to work with my hands. So to say I
115 make a machinery. Small machinery but also very big. And ahm ... that part is also limited to no
116 computer. Ahm ... but for to start such a ... to make such machinery you need a [signal] inside and from
117 ahm ... my factory we use a program which if you not of ah ... possibilities to show actually machinery
118 in 3D. You can actually walk through ah ... how do you say, through the the machinery you are going
119 to make. Planned is a better word so to say. #00:16:20-9#

120 I: Ah ok. So you are in contact with technology quite a lot through your job? #00:16:27-3#

121 TN: Yes! #00:16:29-3#

122 I: Ok! Cool. So and concerning this BCI experiment? How was it for you? Like how was the feeling using
123 a BCI? ... Like to act through your thoughts? #00:16:50-2#

124 TN: Yes, as I said earlier, it gave me quite a headache. //I: Yeah, ok.// I felt that the concentration you
125 needed for ahm ... for such a way to work, was quite high. For me. //I: Mhm.// And ahm ... yeah, it I I
126 got a headache from it (smiling). So in the end I was glad it was over #00:17:24-8#

127 I: Ok. And in the case, because you said that sometimes it worked quite well? #00:17:31-1#

128 TN: Yes. #00:17:31-9#

129 I: The use of this joystick or cursor. //TN: yes.// And when it worked successfully, did you feel
130 responsible for this action? Like it was your action through your thoughts? #00:17:44-7#

131 TN: ... Yeah, in a way I felt quite how do you say ... distant from the result. What is more ... I think it
132 has more to do with ahm ... how do you say ... yeah, I'm actually a guy who wants to visualize things
133 to make. And ... #00:18:12-1#

134 I: With your hands? #00:18:14-2#

135 TN: Yes, yes, yes! Not only not only in your mind so to say. #00:18:19-1#

136 I: Ok. So it was not like a real action? Like with your hands, you are using like for example a cursor
137 something like this. Did you feel it with your thoughts as well? When you saw that the cursor was
138 moving and it was successful when you were thinking ah, it has to move to the right and it actually did?
139 #00:18:44-7#

140 TN: Yes .. yeah. Ahm ... as I said I that kind of connection is felt not fine for me (smiling). #00:18:57-1#

141 I: So you didn't feel responsible for these actions? Because it didn't work well? #00:19:02-9#

142 TN: In a way, yes. (no?) #00:19:07-7#

143 I: Ok, ok. And did you have the feeling that you were active? Or the computer was just active? Or like
144 a mixture of both? Like ... men and machine? #00:19:20-7#

145 TN: Yeah ... Ahm ... no! Not so! #00:19:27-3#

146 I: Ok, so more more you were active? Or the computer was active? #00:19:33-8#

147 TN: Ahm ... ahm ... for my idea, I spent a lot of energy in it. And the the actual ahm result yeah ... I don't
148 find that really fitting to each other. #00:19:57-0#

149 I: Ok, ok. mhm. Cool. And ahm yeah, about Brain-Computer-Interfaces, have you after this experiment,
150 have you seen ahm Brain-Computer-Interfaces afterwards as well? Like did you hear something about
151 the development of Brain-Computer-Interfaces? #00:20:20-2#

152 TN: You mean what they actually did out of that? #00:20:24-4#

153 I: Yeah, what is- #00:20:25-8#

154 TN: Or in general? #00:20:26-5#

155 I: Yeah, in general. Like what is possible with Brain-Computer-Interface? Not just gaming for example?
156 #00:20:34-5#

157 TN: Ah ... yes, but it's only in testform. For my joy, they they actually made ah ... how do you say, ahm
158 they they used a a kind of 3D-sensor ... just to measure out a plant who was made. I don't know if you
159 actually understand what I am saying. But I mentioned we make plants about ... this form was
160 something like twenty metres high ah ... about 10 metres by 20 in footprint and they had kind of of of
161 [device], 3 of them. And they actually put it in a plant and they it send out kind of ahm how do you say
162 ahm [beam] and the program connected to it. They could actually ah measure out the whole plant.
163 And also visualize it. It was ah quite a nice system to see (smiling) ... #00:21:51-9#

164 I: It's like a Brain-Computer-Interface, right? Similar? #00:21:55-9#

165 TN: In a way, yes. #00:21:59-6#

166 I: Ok, ok. And you are working in this company? Like an engineer? Or like a constructor? Something
167 like this? #00:22:07-3#

168 TN: More like a constructor. #00:22:11-6#

169 I: Ah ok, ok. #00:22:11-2#

170 TN: In our firm we call it construction technician. So to say. #00:22:19-7#

171 I: Ok. And ahm we are doing like in Munich, we are like a research group ahm and we are doing some
172 research about BCIs but technology in general as well. Like smartphones, you know. Because ahm
173 Brain-Computer-Interfaces are really special things of technology. But we are like doing some research
174 about smartphones, yeah more general. //TN: yes.// What's your opinion about the use of technology
175 like are you using your smartphone a lot? Or- #00:23:09-2#

176 TN: Ah ... I'm ... (break) ... how do I explain? In general I'm very fond of all kinds of ... technical ...
177 #00:23:29-1#

178 I: Stuff? #00:23:30-1#

179 TN: Yeah, technical stuff so to say. All kind. But for living ... I would rather have ... as less as possible.
180 #00:23:45-4#

181 I: Aha, so in your spare time, when you are at home, you prefer to have as less as possible you are
182 saying? #00:23:55-7#

183 TN: Yeah. In a way it's not just that how to say no one can do without a smartphone and actually a
184 computer for doing what I do. So I have one. I have both. But ... how to say ... I don't want to be
185 connected 100 percent of my time. And all that kind of stuff. So I'm aware of systems, I know most
186 of them, how they function and work. And ... or with a little effort so like this, with skype (smiling) ...
187 but in general if I don't have to I wouldn't use any of them. I would rather speak to people in person
188 so to say. #00:24:46-4#

189 I: Me too (smiling). I prefer that. //TN: yes (smiling).// But sometimes it's quite helpful I think. Because
190 we could not speak to each other when skype wouldn't exist. You always have to see like sides of a
191 coin I think. Like it's positive, it's negative. So you are ... differentiating between your job and you are
192 using quite a lot of technology in your job? But at home like yes a smartphone, but you would prefer
193 to restrict it? #00:25:25-1#

194 TN: Yes, that's right. #00:25:29-6#

195 I: And are you like a gaming guy as well in your spare time? Do you like to use games, computer games?
196 #00:25:38-7#

197 TN: My spare time is nowadays very limited. (explaining spare time activities) ... (he is not a gaming
198 guy). #00:26:24-0#

199 I: So you are using just like your smartphone and that's it more or less in your spare time? #00:26:30-
200 1#

201 TN: Yes, that's it. #00:26:32-0#

202 I: And it doesn't have to be like a very modern smartphone but it can be an old one as well? #00:26:42-
203 4#

204 TN: The smartphone ... I always had a smartphone, old smartphones ... ah but nowadays they are that
205 cheap ah ... I bought a real one so to say. #00:27:00-7#

206 I: So a good one, a modern one? #00:27:00-8#

207 TN: Yes! It's really modern. It has all kind of stuff in it. Even skype, I think (smiling). #00:27:11-3#

208 I: Ah, ok, cool. And technology in general? You are like positive, you say oh, it will bring us a lot of
209 advantages like it will improve the mankind. Or do you say, oh, we should be more careful? Because
210 of privacy, your data could be used in another way as you intended? #00:27:44-0#

211 TN: Yes. I ... value my privacy very much ... But yes so to say there are certain functions in ... systems
212 like computer, smartphone which make some things easier. Yes, as we are talking now it's quite easy
213 now. It's easier to do it. Otherwise you had to take a lot of ... you needed a lot of energy for getting
214 together (smiling). To have such a conversation. Yes ... #00:28:32-9#

215 I: Ok, so more yeah, it's quite helpful? #00:28:38-5#

216 TN: Yes, it is helpful. But there is also ... a lot of how do you say ah ... in my feeling there is a lot of ...
217 [breakforming] ... there are guys I know they are ... working almost 99 percent of the day with the
218 telephone on their heads. I don't want that. I don't find this useful ... But anyway, if you actually want
219 to talk to someone like this, you can. And that's nice. #00:29:16-3#

220 I: Ok. It like when I understood you right, it's more like an opportunity? You can use this kind of
221 functions but if you don't like it you don't have to use it? #00:29:29-9#

222 TN: Yes! #00:29:33-2#

223 I: Like emails as well? Because you are not ... nobody can be sure what they are doing with emails?
224 With these kind of information? You are not like concerned that your is used in a way that you don't
225 want? #00:29:50-9#

226 TN: Yeah ... I see no use in it that people can do that. But I'm not worried about it because for my idea
227 ... my data is that limited, it wouldn't really be noticed in such a big ... in such a big ... how do you say
228 ... ah ... #00:30:27-2#

229 I: Ahm, you think your data, it's not enough to analyze or it's not so important because you're not
230 giving- #00:30:41-3#

231 TN: I think it's not noticed in the big ... [world] of data. No ... I'm not concerned that ... my ideas of
232 which you possibly could get out of data will actually in the field, in my ... way of doing. #00:31:12-9#

233 I: Mhm, ok. And concerning ... the last question, concerning Brain-Computer-Interfaces? What do you
234 think? When one day it can work successfully? When you are thinking about something and you don't
235 need for example a mouse anymore to ... interact with a laptop for example? Do you think that's a

236 good development for people? Or would you say like your brain belongs to yourself and should not be
237 used in another way? #00:31:57-1#

238 TN: Ahm ... the answer to that for me, are two ways. One way is ... I ... technology interests me a lot.
239 Ahm as I see it for myself, as a person who I [don't] really need such a form, I think, NO. But I can also
240 think about other things in the field of people who have certain disadvantages which can be ah ...
241 overcome with such a system. Then I should say, yes, yes, it's very nice to have a real way to actually
242 do things then. //I: Mhm.// But for me, for myself, I would rather not. #00:32:51-7#

243 I: Ok, ok. So maybe more for handicapped people like paralyzed people who are not able anymore to
244 use for example their hands? #00:33:06-2#

245 TN: In a way, yes! There are a lot of possibilities then (smiling). #00:33:16-1#

246 I: Ok, cool ... Yeah, ok, great, great. So you helped me a lot, because we are searching for a different
247 kind of users of BCIs. For gaming people, we are talking with researchers, we are talking with other
248 kind of people. But always concerning the use of BCIs (talking about own research) ... #00:33:51-6#

249 TN: Yes, thank you! #00:33:53-9#

250 I: (talking about participant information and ethics committee document) ... Thank you so much and
251 all the best wishes to your daughter! #00:36:21-5#

252 TN: Yes, I will. #00:36:18-4#

253 I: Ok, thank you! Bye, bye, have a nice day. #00:36:27-9#

254 TN: Bye, bye. #00:36:28-3#